

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. LXVIII. OLD SERIES.—VOL. XIX. NEW SERIES.

JANUARY TO JUNE, 1879.

H. S. DRAYTON, A.M., AND N. SIZER, EDITORS.

NEW YORK:
S. R. WELLS & CO., PUBLISHERS, 737 BROADWAY.
1879.



"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 perfectionnera 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."—*Encyclopædia Britannica*, 8th Edition.



CONTENTS---JANUARY TO JUNE, 1879.

A.		Fruit Raising 258		O.	
"Around the World".....	73	Fresh Food and Inebriety.....	261	Omnibus, Living in an.....	136
Agriculture.....	39, 93	Fowler, Lydia Folger, Death of.....	268	Organs, Increase of.....	154
Ants as Epicures.....	93	Freedmen's Hegira.....	317	Our Girls.....	254
Action of the Faculties.....	172	G.		Old Phrenology and the New.....	278
Apothecary Man—Poetry.....	198	Greeting.....	43	Overcoming his Enemies, Em-	
Apples Diphtheritic.....	263	Great Cities of the Czar.....	129	peror.....	300
B.		Gas as Fuel.....	148	P.	
Brain and Mind..... 11, 61, 113, 171,	235	Goyder, David G.....	207	Philanthropy.....	45
Butter.....	31	Grévy, Jules, President of France.....	217	Plants, Strange.....	69
Book Notices, 52, 106, 160, 214,	270, 323	Girls.....	254	Position for Sleep.....	91
Bridge, East River, Another.....	93	Good Turning.....	264	Pure Literature for Children.....	96
Bell, Great, of Moscow.....	130	Gongora Macrantha.....	283	Phrenological Truth, Progress of.....	102
Baths among Greeks and Ro-		H.		Phrenology and Conversion.....	119
mans.....	137	How to Examine Heads.....	15	Physiognomy, "Trifles" in.....	123
Brain Development.....	190	Hot Springs of Arkansas.....	37	Pyramids of Egypt.....	170
Baths, Cold and Warm.....	198	Heredity.....	46	Poe and Rachel.....	170
Brain, Sovereignty of.....	211	Hair and Morality.....	102	Poetry, Scientific.....	202
Barritt, Elihu, Biography of.....	232	Hair, Growth of after Death.....	103	Phrenology, Development of.....	236
Beauty in Poetry.....	219	Human Science, Study of.....	212	Phrenology in Literature.....	262
Bioplasm.....	259	Howitt, Wm., Death of.....	213	Prescott, Benj. F., Gov. of N. H.....	273
Best Dowry for Women.....	287	Homes on the Pacific Slope.....	263	Phrenology, The Old and The	
Brain Stimulus.....	317	House Alteration.....	298	New.....	278
C.		Harpist and Princess.....	303	Physically Unfortunate.....	305
Color-Blindness.....	29	Heredity.....	314	Piety versus Health.....	311
Correspondents..... 46, 101, 154, 209,	266, 317	Hegira, Freedman's.....	317	Phrenologist, The Conscien-	
Cultivating Faculties.....	46	Hygiene at Home.....	319	tious.....	315
Chase on Phrenology.....	48	I.		Phrenological Experience.....	319
Cranium, Sex of.....	97	Inhuman Ignorance.....	50	Q.	
Caleb Cushing.....	109	Industries, Queer.....	133	Quackery, Medical.....	309
Cheese.....	143	I'll Wait.....	234	R.	
Chinese at Home.....	167	Instruction in Phrenology.....	235	Reform in New York.....	153
Columbia's Prophecy.....	178	Ideal, Search After the.....	301	Rending One's Conscience.....	177
Civilization and Brain Develop-		Indefiniteness.....	315	Real Teachers and Real Teach-	
ment.....	190	J.		ing.....	187
Clownish Journalism.....	208	Jones, John P.....	55	"Respirativeness,".....	221
Cooking.....	249	L.		S.	
Culture.....	225	Lorne, Lord, and Wife.....	72	Success, True.....	21
Class.....	165	Life, What art Thou?.....	112	Seven Ages, One of the.....	27
Confession.....	269	Luminous Clock Dials.....	204	Shoes and Feet.....	35
D.		Life and Character in the South.....	244	Skulls and Brains.....	40
Dufferin, Earl of.....	21	Language, Location of.....	313	Self-Knowledge the Social Need.....	44
Dietetic Delusions.....	84	M.		Single-Blessedness.....	75
Detective Agencies.....	156	Mirth..... 51, 105, 160, 213, 270,	322	Snow Veil.....	78
Development of Brain and Civ-		Magnetism, Experiments in.....	89	Scientific Expedition around the	
ilization.....	190	Murphy, Francis, Temperance		World.....	78
Diet of Man.....	193	Worker.....	121	Sleep, Position for.....	91
Dress, Mishap in Car.....	240	Moral Sentiment and Intellect.....	151	Sonnet.....	92
Delightful Home.....	201	Moods.....	196	Sex of Cranium.....	97
E.		Motion, New Law of.....	201	Self-Esteem.....	177
Entomology.....	17	Magnetic Alimentation.....	203	Soul and Matter.....	10
Earth-Spirit.....	234	Mill-tones of Glass.....	205	Sin, Nature of.....	10
F.		Moral Responsibility.....	209	Stacy, Mrs. Systematic.....	12
Fowler, L. N., Phrenologist.....	5	Mind Dependent on Body.....	237	Skull, Changes in Form of.....	150
Fortune on a Brick.....	24	Mother's Fool.....	260	Shrine, At the.....	182
Figure, A Good.....	25	N.		Science, What will Woman Do	
Fowler, Lydia F., Death of.....	129	Notes on Science and Agriculture,		with It?.....	191
Fair, Rev. Campbell, D. D.....	163	39, 93, 148, 201, 257, 313		Seven Wonders of the World.....	29
Food, What is.....	199	Noble, William, Temperance Ad-		Sovereignty of Brain.....	211
Foe to Every Good.....	225	vocate.....	188	Shaw, Knowles.....	241
Friction, Phenomena of.....	257	New Law of Motion.....	231	Sonnet.....	246
				Stimulants.....	249
				Sweeps.....	292

CONTENTS.

T.	U.	W.
Taylor, Bayard..... 81	Unfolding of Mind..... 67	Watch Night—Poetry.....
Tobacco Smoke..... 100	Useless Burdens upon Society... 128	Wisdom..... 51, 103, 159, 213, 269,
Tasting, Physiology of..... 142	Unwritten California..... 135	Wheat Production, Regions of...
Temperance..... 156	Unwilling Maternity..... 157	Women's Hotel. A Difference...
Thompson, Mrs. Elizabeth..... 181	Uncle Jimmie, the Cripple... 183,	Wells, Henry.....
Teachers and Teaching, Real... 187	226, 293	What will She Do with It?.....
Things New and Old..... 221	Unappreciated..... 300	What is Food?.....
Tone of Beauty in Poetry..... 239		Warfare of Science.....
Theory about Cooking, Stimu- lants, etc..... 249	V.	Wells for School-Houses.....
Tobacco, Tendencies of..... 253	Ventilation..... 47, 147	What's in a Theory?.....
Tobacco, Giving up..... 267	Venus and Mercury, Light of... 238	Women, World's Work for.....
Tallest Trees..... 277	Vegetable Milk..... 260	What Comes of It.....
Tetanus, Traumatic..... 306		Wisdom-Teeth.....
Trinity, Thoughts on..... 320		

ILLUSTRATIONS.

Agreeableness, Large..... 12	Fowler, L. N..... 5	Murphy, Francis..... 1
Alcott, Dr..... 64	Fly, Hessian..... 18	Nexley, Gen..... 1
Arrowhead Springs..... 135	Fly, Dragon..... 19	Noble, William..... 1
Adansonia Digitata..... 283	Feet, Natural & Distorted... 35, 36	Prescott, Benj. F..... 2
Butterfly, Cabbage..... 18	Foot Dress, Old Forms of..... 36	Reflective Organs.....
Bee, Beneficial..... 18	Fair, Rev. Campbell, D. D..... 163	Rafflesia, Arnoldi.....
Brazil Nut..... 71	Fowler, Lydia Folger..... 2-9	Sublimity, Large.....
Bell, Great, of Moscow..... 130	Gen'l G..... 63	Shoes.....
Burrill, Elisha..... 233	Grövy, Jules..... 217	Sex of Cranium..... 93
Conjugality, Large..... 14	Gongora Macrantha..... 282	Scientist, Head of..... 1
Chinch Bug..... 19	Human Nature, Large..... 11	St. Petersburg, Street in..... 131, 1
Creeper, Virginia..... 39	House Alteration, Before and After..... 293, 297	Skull, Savage and Civilized... 1
Clay, Henry..... 63	How it Looks..... 312	Shaw, Knowles..... 2
Coronal Region Large..... 65	Ivy, Poison..... 55	Temperament, Motive, Fine and Coarse.....
Cranium, Sex of..... 98, 99	Jones, John P..... 129	Taylor, Bayard.....
Cushing, Caleb..... 109	Kremlin, The..... 129	Thompson, Elizabeth..... 1
Cathedral of St. Basil..... 131	Locust, Western..... 19	Tobacco Sol..... 2
Dufferin, Earl of..... 22	Lorne, Lord..... 72	Wasp.....
De La Roche..... 117	Louise, Princess..... 73	Weiwilschia Mirabilis..... 1
Dying Mother..... 229	Moral Development..... 115	Wells, Henry..... 1
Executive Organs..... 65		
Earth Orbit of..... 313		

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 68. 1879.

NUMBER 1.]

January, 1879.

[WHOLE No. 482.]



LORENZO N. FOWLER,

PHRENOLOGICAL LECTURER AND AUTHOR.

ORIGINALLY the temperament of this gentleman was predominantly Sanguine—to use the old term—and expressive of a predominance of the thoracic or chest

region of the body. When he was twenty-one years of age he had broad shoulders, a deep chest, was small at the waist, and gradually tapering to the feet. As years have increased upon him he has developed more in the abdominal region, which gives him what we now denominate a well-balanced Vital temperament. He has increased in weight with years, and has sometimes gone as high as one hundred and seventy pounds. His weight at the time of the taking of the likeness from which we engrave was about one hundred and fifty, which may be called a good working weight or a harmonious balance for his full-sized brain.

The next temperamental element after the Vital is the Mental; the last and least is the Motive. He has plumpness, but not great hardness of muscle. His hand is soft, his skin comparatively fine, and his whole nature is sympathetical and magnetical. While some men have commanding talents, and that overbearing force of character which enables them to smite through difficulty and trample down opposition by sheer force, courage, and dash—we may say, indeed, *audacity*—our subject takes a different course. Though he is straightforward and outspoken, he is endowed with a great deal of judicious prudence. He prefers to lead rather than drive people; to persuade rather than to convict; to enlighten rather than to overbear. He moves in society with a quiet amiability; wins friends from every sphere; and when he left the United States for England, we believe it may be truly said of him that he left ten thousand friends behind and not a solitary foe. Perhaps it would be safe to say that no man living has a greater number of friends and fewer enemies. Those who know him best will not believe that he has an enemy on the earth. Yet he has force of character, a fair share

of Combateness, and rather large Destructiveness; but they are so related to his Cautiousness and Conscientiousness, to his Benevolence and Friendship, that he has remarkable control over his feelings under occasions of provocation.

He has enough of Self-esteem to give him a quiet consciousness of his own power, but he never manifests it in an overbearing spirit. No boy who was ever connected with the establishment will remember a single instance in which L. N. Fowler spoke to him with severity or injustice.

He is agreeable, considerate, and conciliatory, especially to those who are younger and weaker—those who are subordinate and subject to his dictation. Thus he has much real strength, with uncommon perseverance and self-reliance. He never gives up a point, but pursues it with quiet persistency.

The writer having observed for years the patience and gentleness and generosity, forbearance and sympathetic kindliness of Mr. Fowler, abruptly asked him once if he were as gentle, forgiving, patient, and forbearing inside as he seemed to be outwardly, and as everybody supposed him to be inwardly. He answered promptly: "No, sir; not by a great sight." We grasped him by the hand and congratulated ourselves that he was tempted in all points like other people, yet was able to show the Christian spirit when not one in a thousand of mankind having his force of character would be able to do it.

Speaking more especially of his phrenological developments, we may say that his social organs are decidedly large. He resembles his mother, and has an affectionate tenderness toward women; is very fond of children, and is always a favorite with them. His strong friendship leads him to form attachments, to win people without any par-

ticular effort, and to hold that friendship unfadingly for a life-time. He has a full share of Cautiousness, which acts promptly with his judgment. He will rarely be considered timid, yet neither says nor does anything rash.

His love of home is uncommonly strong. No man is more patriotic than he. His power of continuity enables him to hold his mind and feelings persistently to one line of thought and action, and for the time being to know nothing else save that which is before him or under his hands to be done.

He is fond of praise, but never acts as if he expected it; and when he receives it, it never seems to unbalance him. His Self-esteem and Firmness being rather large, tend to give him steadiness and stability, and when we add to this rather large Secretiveness, he is able to rise above the circumstances and hold himself aloof from being affected by them. Thus he usually moves with an even tenor under circumstances of embarrassment and excitement.

He has naturally a strong religious tendency, his Veneration and Benevolence being decidedly strong; while his Conscientiousness, Hope, and Spirituality—perhaps ranking a little less in development—give him that sense of justice, that anticipation of the good which the future is to reveal, and the opening of the vista of the spiritual and the immortal which elevates the thought and inspires patience under difficulty. He is inclined to work for the future; not solely for the present. Would think much more of guiding people into the way of progress and improvement, so that his labors shall make his name fragrant a hundred years hence, than to fill his pockets to-day and enjoy the luxuries of life.

He has Acquisitiveness rather strong, and enjoys acquiring; but he is not gifted with

a tendency to lay up property. He shows his Acquisitiveness in other ways. He is a great collector of pictures, of relics and mementoes; and in his travels in the Holy Land and in Egypt, Italy, and many other parts of Europe, as well as in the United States, he finds something to carry home from the places of interest visited. A stone, a walking-stick, a shell, a mineral, pressed leaves or flowers—these he treasures with uncommon fondness. He is just the man to collect a phrenological museum; to get the skulls of men and animals; take casts and busts of peculiar people regardless of the money expenditure. The only question with him is, whether he has the money in hand to pay the bills necessary to acquire that which he wishes to obtain.

He has a historical intellect; gathers facts and retains them with uncommon clearness. If he can get a portrait of a man or woman and learn their history, he will carry that history and recite it for years—not in the form of dry statistics, but clothed with the freshness of reality. He has an uncommonly good memory of objects, faces, magnitudes, places, and events. As a lecturer he rarely makes any attempt at what is denominated oratorical flourish, but he will put more facts, more matter into an hour's lecture on the subject of Phrenology, physiology, and character-reading than any other man living. In lecturing he speaks rapidly; goes right onward to his point; never waits for applause, nor looks for it; never says anything as if he intended it to, or expected it would, produce applause. He never hesitates for a word, and pours a steady stream of interesting and earnest matter upon the ears of his listeners; giving them no time to attend to anything but himself and his subject during the lecture hour. As an examiner he has no superior. He reads character with re-

markable ease ; will say a great many sharp things of people who deserve it, but in such a good-natured way as not to chafe and harass them. As a phrenologist—both before an audience as a lecturer and as an examiner—he works with the utmost ease and smoothness, and the amount of work which he will do and not seem weary is most remarkable. He never says anything—either in an examination or a lecture—which seems stilted or strained, or as if he intended to produce thereby a startling effect ; and while he is not a bore in any sense as a speaker, we can think of nothing that more resembles his right straight onward steadiness and clearness of statement than a sharp auger revolved by machinery boring through ten feet of solid timber, cutting steadily, and not stopping until it finds daylight at the other side. His method certainly resembles this more than it does blows with a hammer. He never wearies his audience, because he keeps their eyes and ears on the alert to gather his thought. He never repeats anything ; says it once for all and leaves it. Consequently he says something fresh at every sentence, and that keeps the interest awake.

He appreciates human nature—not only as a phrenologist, but by intuition and instinct—and seems to take people by the smooth side and wins their strongest and best qualities without exciting their unfavorable traits ; and we have always thought, as he moved among strangers in his lecture tours or received company in the office, that he met people in the most satisfactory way possible to enjoy life himself and to induce enjoyment in others. We never heard him flatter a person in a courteous way, or say anything that seemed intended to inflate one's vanity.

He is ingenious as a mechanic ; practical in his judgment ; critical in respect to the

dispositions and traits of other people ; strongly inclined to associate with them in such a way as to make every man feel comfortable. But he has one weak side—that is, he is too liberal. People who need money or assistance will find him more mellow and yielding in this respect than almost any man that can be found. We have seen him lend money to people because they needed it, and the moment they were gone he would say, "I shall never see a dollar of that again ; but he needs it more than I do, and nobody else will let him have it."

He has a good constitution ; and though we would not call him a hard, tough man, he has great powers of endurance in the field of uniform effort and labor, and having been temperate so far as regards every form of dissipation all his life, he has not taxed his constitution in any respect so as to impair it. Therefore, it may be expected that he will live to be old. We expect he will lecture until he is about eighty-four. No man has been more thoroughly devoted to Phrenology than he. He is less inclined to what is denominated literary labor—that is to say, the writing of books and expressing himself in print ; but he has that colloquial skill which enables him to deliver admirable lectures, full of marrow and nutriment, and to make examinations that are interesting to the listeners, and particularly adapted and appropriate to the individual under his hands. For more than forty years he has done nothing else but lecture upon, and practice, Phrenology.

Had he not been a phrenologist, he would have been a preacher of the Gospel ; and in his line of preaching, he has done probably a wider extent of good than he could have done in the pulpit. There are thousands of men who have expressed their thanks to him for turning them from the

path of dissipation and wrong into that of truth, purity, and righteousness.

Our intimate acquaintance with Mr. Fowler and our great confidence in and respect for him, would lead us to talk much more strongly than the reader might approve; but those who know him best will speak most strongly in his favor, or will most implicitly believe whatever others may say.

N. S.

LORENZO NILES FOWLER was born in Cohocton, Steuben County, in the central part of the State of New York. His father was a farmer—a man of strong moral principles and an energetic worker. Lorenzo attended the school of the district, and assisted on the farm until he had reached the age of sixteen or seventeen, when he repaired to Dansville, Livingston County, where he sought the advantages of the academy, living meanwhile in the family of Deacon Shannon, and receiving the sympathetic advice of Mr. Hubbard, a most estimable minister of the town. From Dansville he traveled to Hadley, Massachusetts, to obtain better educational advantages and to further his preparation for a course in college. Like his brother, O. S. Fowler, he had chosen the ministry as his life's vocation, little thinking that the near future had a new and remarkable sphere of action for them both. Having gone to Amherst to complete his preparatory studies, he roomed with his brother, who was then a student in the college and a classmate with Henry Ward Beecher. This was in 1832.

The science of Phrenology—introduced to the American public first in a methodical way by Dr. Caldwell, of Transylvania University—had already excited attention, but the visit of Dr. Spurzheim aroused a much higher degree of interest, particularly among the learned, and at the New England seats of education discussions were rife between the advocates and opponents of Phrenology.

In Amherst College the subject created considerable excitement, and there were formal discussions in the literary associa-

tions of the students upon its merits. Mr. Beecher was among the students who took part in these discussions, and having on one occasion been selected to contend in opposition to the claims of Phrenology, he sent to Boston for books treating of it, that he might be enabled to perform his part in the debate with a knowledge of the new science from the point of view of the phrenological teachers themselves. The result of his study of the books, however, was other than the young and ardent collegian expected; for he found himself overwhelmed by the weight of evidence in favor of the new system and gave his testimony in its behalf.

So strong became the interest of the brothers Fowler, that both determined then and there to become public teachers of the new science; believing that in the phrenological lecture field they would find desirable experience which would be of service to them in their after career as ministers or evangelists. They had not long entered upon the prosecution of the new sphere ere they found in it a career so wide and useful that they became satisfied they could not do better than to persist in it.

Leaving Amherst in 1834 the brothers began to lecture in public, and from that time to this—a period of over forty-four years—they have been identified with the history of Phrenology in the United States. In 1835 an office or headquarters was opened in the center of what was then the business quarter of New York city. In the course of time branch offices were opened in other cities, as circumstances appeared to warrant such undertakings, but New York remained the chief center for the publication of phrenological literature and the stronghold of the science.

Lorenzo divided his time between office-work and lecturing. In prosecuting the latter he visited all parts of the United States, besides Canada, Nova Scotia, New Brunswick, and New Foundland. An extensive tour made in 1858, '59, and '60 in company with his partner, Mr. S. R. Wells, was followed by a trip to Great Britain, where the phrenologists were cordially received in the different sections of the kingdom. The impression made by this visit upon Mr. Fowler's

mind determined him to remain in England at least for a time; he has, however, lived there ever since. During the greater part of his residence he has traveled in England, Scotland, and Ireland, lecturing on topics related to Phrenology and temperance, moral and physical reforms, and indeed reforms of every kind he weaves into his public addresses and private examinations.

When a boy of sixteen he was an earnest temperance advocate. In one of his popular lectures he thus alluded to that early experience as a moral reformer:

"In 1827 I resolved to throw my influence into the scale of temperance, and solicited a number of my associates to meet together and sign a pledge to abstain from drinking alcohol. Thus, in my boyhood, I helped to form the first teetotal temperance society that was formed in America; little dreaming what an avalanche of influence would be thrown in the same direction in coming years by the Beechers, the Dows, the Marshes, the Goughs, the Hewitts, the Lees, the Trevelyan, the Liveseys, the Whittakers, the Morleys, the Noels, the Tweedies, the Forsyths, and many others."

His headquarters have been for several years in Fleet Street, London, and his time is fully occupied; demands being constantly made upon him for lectures and addresses here and there in different parts of the kingdom. As a lecturer on reformatory themes, especially physiology, character, and temperance, he is one of the popular *habités* of the English platform.

He has written much for the press in various ways. The little manual called "The Self-Instructor," which has enlightened thousands with reference to the principles of Phrenology, was contributed to by him. In association with his brother he started the AMERICAN PHRENOLOGICAL JOURNAL in 1838. He originated the Almanac of Phrenology, which after many years developed into the present well-known Annual. A volume entitled "Marriage, its History and Ceremonies," was published by him in 1846 and had a large sale. Many of his lectures have been given to the public in pamphlet and volume form. A late

issue of this sort is his "Twelve Lectures on Phrenology." Still another is "Lectures on Man." As a specimen of his manner of address when before an audience, we offer the reader an extract from his lecture on "What to Know, What to Do and How to Do it":

"Wealth, rank, and power are good in their place, but these are not so desirable as to possess the qualities of truth, love, and wisdom. The greatest good is done by the man who is truest to himself, his neighbor, and to his Creator. Most persons are not afraid to live, but to die; while the fact is that the destiny of man is shaped more from his living than from his dying. It is much more a responsible act to live than to die. It may be a blessed thing to society that some persons die as soon as they do, but it is really a blessed thing to live if we live aright in accordance with Nature's laws. Do you wish to love some one? Select one whose love and society will be a source of improvement and a healthy stimulant to awaken your higher faculties. Do you wish a guide? Get the best, not the cheapest. It is not always the cheapest article that pleases in the end. Do you seek earthly treasure? Get one you can use and turn to account. It will only be of service to you while you live. Treasures of knowledge and good deeds are very valuable; but treasures that will not fade or rust, that can not be lost or stolen, but that can be transported to a spirit land, are best. Do you wish to be always among your friends and in good company? Then learn to make such friends and go with such company that will join you in your immortal journey; for the finale of all things is mind, spirit, immortality, God.

"Seek to mingle in that society which is characterized by merit. It is a far greater misfortune to be placed too high than too low in the social scale; for in the one case we can rise, while in the other we may fall from our high estate, as all things seek their level. To attract attention some need to dress; but if a person have talent and good sense, he can have a passport that will admit him to almost any position in society without reference to the externals of life.

When a person is conscious of inferiority, he begins to feel as if he required something artificial to shield himself from close scrutiny; hence he resorts to outside show and display.

"The value of all love and friendship centers in one 'who sticketh closer than a brother.' In short—life, mind, time, and eternity are valuable to man only because there is a greater, a higher, a wiser, and purer Being than himself, whose attributes stimulate him to attain as great excellence as possible. In proportion as life is true, pure, and elevated, can the ends of life be accomplished. The highest place man can reach or attain is to sit at the footstool of his Creator.

"The most praiseworthy act man can do is to obey the highest tribunal. The most

important deed man ever performed is to repent when repentance leads to reform and a new life. The two most important lessons man needs to learn are, how to live and how to love; the next two are, how to forgive and how to be humble. Everything has its value according to its greatest and remotest good. The value of property centers in what we need to eat, drink, and wear. The value of all knowledge centers in saving knowledge. The value of all heroic deeds and struggles centers in those that conquer and control themselves. Honors and commendations are valuable in proportion as they are bestowed on us by one higher than man. The value of actions, knowledge, and time, centers in that act, knowledge, and moment of time that decide our eternal destiny."

BRAIN AND MIND.

CHAPTER X.—*Continued.*

PROBABLE ORGANS.

BESIDES these organs which we have enumerated, there are four others marked upon the diagram which have not obtained the general acceptance of phrenologists, although the weight of testimony is in their favor. Most American observers, especially those who make Phrenology their profession, have accepted Human Nature, Agreeableness, Sublimity, and Conjugality as we place and define them; but European observers appear to hold them in doubt. It is due to say that American phrenologists have had the most to do in determining their localities and functions, and the authors of this volume deem them fairly demonstrated.

HUMAN NATURE.

The designated location of this organ is in the upper anterior part of the forehead, on the central line between Comparison and Benevolence (Fig. 17—

C). Its function is defined as that of impressing the mind with a knowledge of human character, supplying ability to



Fig. 89.—HUMAN NATURE LARGE.

read at a glance, in the countenance and manners of a person, his peculiar characteristics.

It must be conceded that the function which is ascribed to this organ appears to fall within the sphere of the combined activity of several other faculties, viz.: Causality, Comparison, Individuality, etc., for the reason that its impressions may accord with the inferences of perception or the deductions of reflection. The mind, however, is subject to impressions and convictions practical enough in their application, but distinct, so far as can be ascertained, from the processes of the intellect. A faculty is therefore claimed which grasps truth in an instinctive or intuitive manner. In support of this view, it is reasonably urged that the relations of man necessitate a faculty which shall furnish him with a judgment or impres-

who have but a moderate development of intellect. When questioned upon the motives governing their general conduct, they say that they follow the bent of their impressions; that they feel a certain security in obeying those impressions, but are unable to give a logical reason for their conduct. In the heads of these people the region between Benevolence and Comparison is usually prominent, while in people who depend upon their intellects for guidance in affairs, it is comparatively moderate in development. In woman this region is generally more conspicuous than in man, and it is well known that the former are quicker in forming judgments than the latter.

AGREEABLENESS.

This organ has a large array of evidence for its location in the space marked D, Fig. 17, immediately above Causality. It is said to give blandness and suavity to the manners; the disposition to make one's self agreeable and acceptable to others; the ability to ingratiate one's self readily into the favor and good-will of others, by adopting a persuasive and conciliatory mode of address and pleasant manners.

The disposition to which this organ is thought to give rise, is supposed by some observers to result from a combination of Approbativeness, Secretiveness, Benevolence, and Veneration, but persons are often found who possess these organs well developed in association with a good intellect, yet are lacking in courtesy and the capacity to render themselves agreeable to others; they do not feel at ease in a mixed company, notwithstanding their good-will, deference, and desire to please. A little observation will satisfy one that the gallants and Beau Brummels of society are not generally those who are largely endowed with Benevolence, or



Fig. 90.—AGREEABLENESS LARGE.

sion independent of, or unbiased by, any emotion or sentiment which he may entertain toward the object of such judgment. Some people are remarkable for the accuracy of their judgment and the success of their operations in the business and social world,

Veneration, or Cautiousness, and may be weak intellectually, yet having Imitation large and the organ of Agreeableness, adapt themselves to the manners of their associates or to their surroundings with ease and grace. Modesty, amiability, deference, respect, kindness, may characterize the conduct of one; but without the faculty of Agreeableness, he will lack urbanity and grace. Many persons whose intellectual culture and noble-heartedness command our respect, cause us much amusement by their awkwardness when in company. We notice great differences in the manner and bearing of children who have been nurtured amid similar associations. Some are naturally courteous, graceful, easy in movement and address, others are awkward, crude, maladroit. The basis of such differences, we think, exists in the degree of their development in the organ and faculty of Agreeableness.

SUBLIMITY.

Like Human Nature and Agreeableness, the faculty or sentiment of Sublimity has been assigned to a separate organ by some of the later phrenologists. It is thought that the organ of Ideality, as defined by Spurzheim, Combe, and others of the last generation, comprehended too much space in the brain, and mental qualities of a too widely different application; that while a faculty was properly deemed to exist having relation to the beautiful, picturesque, and delightful in nature, it was quite contrary to the bearing or sphere of such a faculty to ascribe to it the cognition of those conditions of nature which possess characteristics denoted by grandeur, majesty, sublimity, awfulness, and which in themselves are productive of essentially different emotions from those produced by what is called beautiful and æsthetic. In the

one case we experience a thrill of pleasant attraction toward the object of our contemplation; in the other we feel a sense of dread, weakness, inferiority.

It is the province of Ideality to give taste, a love of the beautiful and the exquisite. Cautiousness inspires with 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,



Fig. 91.—SUBLIMITY LARGE.

which gives an appreciation of the grand, the awful, and the sublime. The beehling clift, the deep gorge, and the lofty peak of the mountain, and the cataract thundering over a rocky precipice, excite in some minds peculiar emotions which can scarcely be referred to a combination of faculties which are already known. Therefore, the posterior region of the space once assigned to Ideality has been appropriated to an organ of Sublimity with the function which has been indicated. (See Fig. 17-B). Artists like Albert Bierstadt, Doré, and Bradford, who are given to depicting the grandeur of nature in the deep, and

terrible phases of human passion, have a strong development of this organ, and writers of the Bulwer school exhibit it in predominant activity.

CONJUGALITY.

This organ is located in the lower occipital region, directly above Amativeness, and on each side of Parental Love. (See Fig. 17-A). It has for its function the manifestation of the pairing instinct, or the disposition to choose a sexual mate, and to remain attached to that mate for life.

A strong argument in favor of the existence of this faculty in man is derived from the fact, that it appears to constitute a distinct faculty in some of the lower animals, and as all the other mental faculties displayed by the lower animals form parts of the mental constitution of man, the presumption arises that he is endowed also with the mating instinct. The fact that any class of animals manifests a trait which another class does not evince, is a proof of the existence of that trait of character as a distinct and original power in the mind. The squirrel, for instance, stores up its winter's supply of provision in the fall, when it is abundant, and in this evinces the hoarding instinct, or Acquisitiveness. The horse, the cow, and the



Fig. 92.—SKULL WITH LARGE CONJUGALITY.

sheep, on the other hand, make no provision whatever for the future, but would trample underfoot to-day the surplus of food which would be necessary

to them to-morrow. Again, the beaver shows the constructive instinct in a remarkable degree, while our domestic animals never make the slightest attempt at construction; consequently,



Fig. 93.—CONJUGALITY LARGE.

we infer that the disposition to build is a distinct and original power of mind. Now some animals choose a sexual mate, and remain firmly attached to that mate for life—as the lion, the eagle, and the dove. Our domestic animals, on the other hand, do not choose mates, but associate promiscuously. Those animals which mate, moreover, are as constant in their attachment throughout the year as they are during the procreative season, thus showing that their bond of union does not arise from Amativeness. It is thus logically inferred that Conjugality, or the disposition to choose a sexual mate, is a distinct mental faculty. And as man is endowed with all the other faculties which are displayed by the lower animals, it is not unreasonable to suppose that Conjugality may constitute a distinct element in his mental constitution.

It is indeed asserted that the attachment between husband and wife may be referred to the combined activity of

the organs of Amativeness and Adhesiveness; yet these faculties are possessed by the lower animals which mate and by those which do not, and if they are sufficient to produce the mating instinct in one class of animals, why are they not also in another?

In those persons who are distinguished for the singleness of their attachment to husband or wife, or for what is commonly termed uxoriousness, the organ is large. In the present Queen of England a fine illustration of Conjugal love is observable, both in the persistence of her grief for the departed husband, and in the development of the head at the region assigned to the organ, as usually shown by the current portraits which display her head in profile.

CHAPTER XI.

HOW TO EXAMINE HEADS.

IN the analysis of the mental faculties which we have just concluded, we have indicated the location, anatomically and otherwise, of the several organs. For the assistance of the student in his examination of the living head, we deem it fitting now to indicate a few points of departure by which the location of the organs may be ascertained.

The opening of the ear is taken as the general starting-point, and a line traced from that upward to the great fontanelle (or the place of common junction in the top-head of the two parietal bones with the frontal bone), which is usually indicated by some bony roughness or irregularity proceeding from the sutures, and at which, as we have seen, the organ of Veneration is located, will pass over in succession Destructiveness, the back part of Acquisitiveness, Sublimity, and Hope. Following the median line from the fontanelle forward, Benevolence and Hu-

man Nature are passed over; and then, in order as we proceed down the center of the forehead, Comparison and Eventuality—which occupy the middle of the forehead—and next Individuality, situated directly at the root of the nose. Taking now the superciliary ridge as our guide, the situation of the perceptive faculties respectively may be easily determined. Again, starting from Veneration, and following the middle line of the top-head backward, we pass over Firmness, Self-esteem, Inhabitativeness, and reach the occipital spine, at which Philoprogenitiveness is situated. Below this last organ we find Amativeness. Causality and Cautiousness are two organs whose location may be easily distinguished, the former being situated at the frontal eminences in the upper part of the forehead, on each side of Comparison, and the latter in the posterior side-head, at the centers of parietal ossification, or upward and a little backward from the ears. If a line be traced horizontally from one to the other of these organs, it will pass over in succession Sublimity, Ideality, and Mirthfulness. The space upon the top-head, between the organs on this line and those on the mesial line of the head, is occupied by another range of organs, viz.: Approbativeness, between Cautiousness and Self-esteem; Conscientiousness, between Firmness and the forward part of Cautiousness; and Hope, Marvelousness, Imitation, and Agreeableness, between Veneration and Benevolence on the one side, and Sublimity, Ideality, and Mirthfulness on the other. Another line traced from the center of Eventuality to a point in Philoprogenitiveness, just above the occipital spine, will pass over in succession Locality, Time, Tune, Constructiveness, Acquisitiveness, the upper part of Destructiveness, Combat-

iveness, and the lower margin of Friendship. Secretiveness lies between Cautiousness and Destructiveness, and back of Acquisitiveness. The locations of Vitativeness, Destructiveness, Alimentiveness, and some of the organs just named, may be easily determined from their relation to the ear. The diagram, Fig. 17, may be referred to as a guide in tracing their relative situation, it being remembered that in attempting to represent upon a plane surface the position of organs occupying places in a spheroidal or convex mass, much apparent irregularity must result. The student should fix in mind the locations on the cranium of the anterior and posterior fontanelles, the mastoid processes, occipital spine, parietal eminences, frontal eminences, superciliary ridges, and zygomatic arches, and observe the relation which certain organs bear to them respectively; he will thus be greatly assisted in determining the location of the others and their degree of development.

A good phrenological bust, having the organs marked on one side, and the different regions of the brain on the other, will be found an almost indispensable adjuvant, since the organs differ in form and extent, and these qualities can be best indicated on a bust.

An Illustration.—Given a subject, the first matter to be considered in estimating character from external forms is the general size of the head. The fundamental principle that size, other things being equal, is the measure of power, demands attention; for while it is of the greatest importance to consider well the conditions which modify the effect of size, we may rest assured that a large brain is an indispensable requisite to great mental power. On the other hand, although keenness and even

brilliancy of mind may result from the great activity of a brain of moderate volume, yet it will fail to manifest that power and force which give to the large brain its commanding influence in society. Men of large brain readily impress us with their power. The comprehensiveness of their minds, and the ease with which they can sustain large responsibilities, inspire us with confidence, and we almost instinctively accord to them positions of influence and authority. Dr. Delaunay, an eminent French physiologist, says in a recent paper: "Bismarck and Moltke measure more around the crown than the Emperor William. Inferior races have smaller heads than Europeans." In our intercourse with men of small brain, on the other hand, the want of commanding force of character will be felt. They may possess talent in some respect which will excite our admiration, and we may defer to their judgment in matters which lie within the range of their special talent, but they rarely impress us with confidence in their capability as leaders and directors of affairs of importance.

The size of the body, also, should be taken into the account in estimating the general power of the mind. Into this the matter of Temperament necessarily enters, as has been shown in the chapter "On the Temperaments," and the proportion of the mental, motive, and vital elements in the organism should be carefully estimated. The body is the source whence the brain is nourished, and if it be feeble or exhausted, it must fail to sustain properly the brain in its activity, and the mental manifestations are fitful and weak in consequence. The premature decay of many men of brilliant intellect lies just in this want of balance between the physical and the mental powers. Their proneness to mental activity causes the brain to con-

sume the vitality of the body faster than the organs of nutrition can supply it, and the result is premature exhaustion and decay of the system. Here the phrenologist has a most useful office to perform, in giving advice on the

subject of physical culture, that men may correct abuses or improprieties in their every-day life, and acquire that bodily soundness which is essential to mental integrity.

(To be continued.)

THE STUDY OF ENTOMOLOGY.

WHAT is entomology? The lexicons tell us that it is "that part of zoology which treats of insects," and that the term is derived from two Greek words, meaning "an insect" (from its being notched or cut into), and a "discourse," hence, a discourse on insects. And what are insects? Three-fourths of mankind would probably answer, "Why, bugs, of course." Yes, that is very true, bugs *are* insects, but all insects are not bugs, by any means. A typical insect is an animal having the body cut into, or ensected, so as to form three distinct sections, as head, thorax (or chest), and abdomen; furthermore, it is provided with three pairs of legs, two pairs of wings, and a pair of antennæ, or feelers, which protrude from the head, and they breathe by means of spiracles, leading to little tubes arranged along the sides of the body.

The accompanying illustration (Fig. 1) gives the form of a typical insect, and the three portions named are readily discernible. "Then a potato-bug is not an insect."



Fig. 1.—POTTER WASP.

Yes, a potato-beetle is an insect, though the three portions fit nicely together, giving the oval appearance which characterizes this most familiar pest; and as to the wings, if the hard, shelly coverings of the back—corresponding with the anterior wings in our wasp figure—are gently raised, the secondary pair of wings will be found folded beneath them. "That is easily understood,

but how about flies—they have but one pair of wings?" Catch a fly and examine it closely, and you will find not only *one* pair of wings, but right where the others should be, a rudimentary pair, also, called "halteres," or "poisers."

Entomologists recognize seven* sub-orders, which are as follows: The Bees, wasps, ichneumons, and ants, or *Hymenoptera* (membraned-winged insects), Fig. 1; the butterflies and moths, *Lepidoptera* (scale-winged), Fig. 2; flies, gnats, etc., *Diptera* (two-winged), Fig. 3; the beetles, or *Coleoptera* (sheath-winged), Fig. 4; the plant-bugs, harvest-flies, plant-lice, and scale insects, or *Hemiptera* (half-winged), Fig. 5; the grasshoppers, crickets, cockroaches, etc., or *Orthoptera* (straight-winged), Fig. 6; and the dragon flies, May flies, ant-lion, etc., or *Neuroptera* (nerve-winged insects), Fig. 7. You will notice that the "bugs" form but a portion of one of these sub-orders, and that it is a fearful misnomer to speak of all insects by that familiar and much-abused term. How often have I received insects said to be very destructive, by "eating holes in the leaves," etc., when a glance at the creatures revealed the fact that they belonged to a sub-order of insects, unprovided with biting jaws, and therefore incapable of doing the injury. Had the afflicted correspondents known that all the insects belonging to the groups represented by Figs. 4, 6, and 7 have biting jaws, and that those represented by Figs. 2, 3, and 5 are provided with sucking tubes, or piercers, they would have saved themselves much trouble. The bees and wasps are provided with both jaws and a sucking tube, and are the highest types of insects.

* Some authorities make eight by dividing the *Hemiptera* into *Homoptera* and *Heteroptera*.

I have thus given a mere outline of the different kinds of insects to show what are included in the order, and to enable the reader to guard against the popular error of calling everything that creeps or crawls

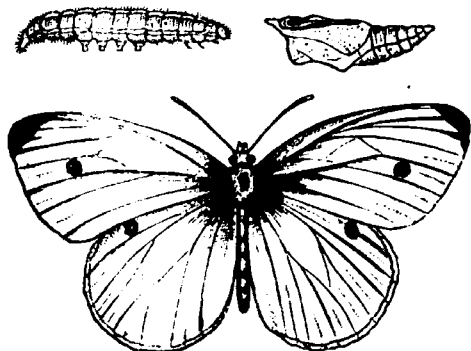


Fig. 2.—CABBAGE BUTTERFLY.

a "bug." As all insects are supposed to pass through three stages of existence after leaving the egg, doubtless the next question will be, "How shall we determine to which of the sub-orders the various worms, grubs, slugs, etc., belong, or know what kind of insects they will produce?" Here again there is a ready means of determination. In three of the groups above named the transformation from larva to perfect insect is only a partial one, as the larvæ never assume the worm state—a grasshopper egg developing a minute, wingless grasshopper, having little else than head, thorax, and legs. As the insect grows, it repeatedly casts its skin, upon each successive change appearing

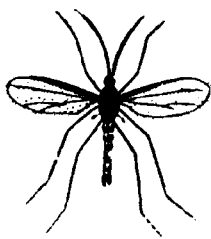


Fig. 3.—THE HESSIAN-FLY.

more and more like its parent, until finally it assumes wings and is a perfect insect. The plant bugs (Hemiptera) and the dragon flies (Neuroptera) go through the same metamorphoses, the larvæ are fully as active as

their parents, and do not assume a helpless chrysalis state before changing to perfect insects. On the other hand, the butterflies, bees and wasps, beetles and two-winged flies, all go through a complete metamorphosis, their larvæ changing at maturity to pupæ, or chrysalids, which lie quiescent for a number of days before assuming the perfect form. Butterflies and moths (candle-moths or nightflyers) are produced from caterpillars, which always have six true legs and from four to ten fleshy pro-legs, which serve to support the hinder parts of the body. Beetles are produced from grubs, or fleshy larvæ, generally having six true legs and a terminal pro-leg. Flies, of course, are produced from maggots, and the larvæ of hymenopterous insects are sometimes

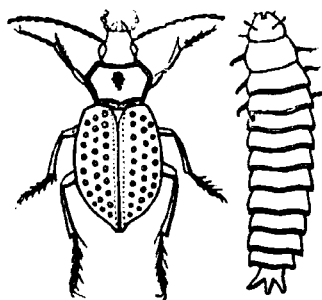


Fig. 4.—A BENEFICIAL BEETLE.

maggot-like, and sometimes resemble caterpillars.

There are some degraded forms of insects which never acquire wings, as, for example, the flea, belonging to the Daptera. The characteristics of form and structure, however, are so marked, there is little difficulty in placing them in their appropriate sub-orders. Spiders, having eight legs, and breathing by means of lungs, are not classed with insects at all.

Knowing what an insect is, we now come to consider their place in nature. "What good purpose were they ever created for?" asks farmer Jones, as he sees them at work on his thrifty crops everywhere. That is just why they were made, farmer Jones, to eat up your crops. Let us explain. When Nature planned the universe, the "mighty dollar" was left entirely out of consideration, and even man himself was a late

comer. That everything should run on smoothly and harmoniously, and that no one kingdom should monopolize the earth, balances were established, or natural checks placed to undue production. Vegetation had a prominent part to perform in the economy of nature, but as one of the first laws was to increase and multiply, a limit must be set to over-fruitfulness; then the insects were created to eat and destroy this surplus production and restore the balance, and as the insects might become too numerous, the birds were appointed to keep them within proper limits.

Now, what are our farmers doing? Simply striving to overthrow this "balance" by large production of a particular kind of vegetation for their own gain—remember, we are viewing the case from nature's standpoint—and to accumulate the "mighty dollar," which had no part in the creation.

Obedying their natural instincts, the army of insects appears promptly, and seeing work ahead, and finding plenty of food suit-

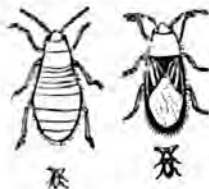


Fig. 5.—CHINCH-BUG.

ed to their requirements, increase and multiply to an alarming extent (so farmer Jones thinks), and strive hard to restore the balance. Man, in his selfishness, takes up so much room that the majority of the birds are crowded out, even if he does not drive them out by force of arms, and, consequently, the insects have it pretty much their own way.

There are other ways in which insects are of use in the economy of nature. Many of them act as scavengers, removing decayed and putrid matter, and returning it to the soil to be taken up again by the plants. Old stumps and dead wood are sooner turned to mold by insects than by rot. Flies render the earth much more habitable by their good services than it otherwise would be; and if flies are rather more plenty at times

around our premises than we wish, there is a reason for it. Then a portion of the insects themselves are appointed to keep a check upon the vegetable-feeding species, when they become too abundant, as the



Fig. 6.—WESTERN LOCUST.

birds would in many cases be unable to reach them.

As man has cut down the forests, driven out the birds, upset this "balance" and "devastated" generally, he must take the consequences and carry on the insect warfare himself. And how shall he do this? By a study of the insects themselves, which is, of course, a study of "Entomology." There are two or three ways in which we may study insects, but only one way which the practical man can understand, and that in their relation to the farm—how easiest to prevent their ravages. Studying them for the sake of acquiring knowledge, comparing them with each other and tracing their affinities, in order to define their position in



Fig. 7.—DRAGON-FLY.

the scale of creation, may be a most fascinating employment, but *cui bono?* Well, if you don't like the study of insects for the pleasure derived from it, then you must confine yourself to the habits of the creatures

and their relations to each other—in the corn-field.

Before the first step can be taken, however, these gentlemen who have been studying “in the interest of science, merely,” must be consulted, as they have grouped them into families, tribes, genera, etc., in a perfect and beautiful classification, given them names derived from the Greek and Latin, that all nations may know them, and arranged them so that knowing the form of a particular group, a species may be referred to its proper position, even if it has never been seen before. After learning its position in classification, or “in the books,” we have taken a long step toward learning its habits, for there are many other insects having habits somewhat similar, and if we do not know just where the egg is deposited, or what kind of a grub or caterpillar it develops into, reasoning from what is known of other analogous species, we have a starting-point in the general habits of the group, and are not working in the dark.

As we are endeavoring to find means for preventing insect ravages, one of the first things to learn is where the insect can be easiest attacked, whether in the egg state, as larva, chrysalis, or as perfect insect. Knowing the kind of foe with which we are to deal, we are enabled to select our weapons, and having a knowledge of its general habits, we can strike at just the right time and make the most of our forces. An ignorant farmer dusts his squash vines with Paris green, we will suppose, thinking that inasmuch as it destroys potato-beetles, it will kill squash-bugs also. A very little knowledge of “entomology” would have shown him that the potato-beetle has jaws and eats the foliage, poison and all, while the squash-bug belongs to another group of insects, and is provided with a sucking tube, or beak, with which it can suck the sap from the interior of the leaf without danger from the “green.”

It is a little knowledge of “entomology” that prevents a fruit-grower from making himself ridiculous by sending to the “bug-man” a box of ants and spotted lady-birds, with the complaint that they are eating up the terminal shoots of his peach-trees. If

he had known that with one exception the lady-birds were beneficial insects, and that ants do not live upon succulent leaves, he would, perhaps, have looked closer and found the *minute plant lice* that were sucking the life out of the foliage in myriads. He would then have seen that the ants were merely looking after the honey-dew given off by the *aphids*, while the lady-birds (and their larvæ) were after the lice themselves.

To eat and be eaten seems the grand end and aim of insect existence, and the only desirable results from a practical study of entomology are, therefore, how intelligently to devise artificial means to prevent the former, and how to foster and direct the natural forces that will encourage the latter. This is the “science” of entomology as it relates to rural economy, and this alone.

Insects abound everywhere, and in tropical countries where vegetation is rank and luxuriant, we find them the most numerous and fully developed. The size of an insect, however, has little to do with its destructiveness, as three of our most injurious species, the chinch bug, the Hessian fly, and the plum curculio are among our smallest insects. The Western grasshopper is small compared with some of its tropical allies, but its enormous reproduction makes it a formidable foe. The question is often asked why noxious insects increase upon us. As has already been explained, they increase just in the proportion that we increase their food plants and concentrate vegetation. The Colorado potato-beetle only left its home to travel eastward when the cultivation of the potato had extended to the base of the Rocky Mountains, and the nearer it approached civilization and the more thickly-populated portions of the country, the faster it traveled. Some of our worst insects have been imported, as the cabbage worm and the Hessian fly, and if we could import the parasites that serve to keep them in check abroad, we should have far less to fear from them here.

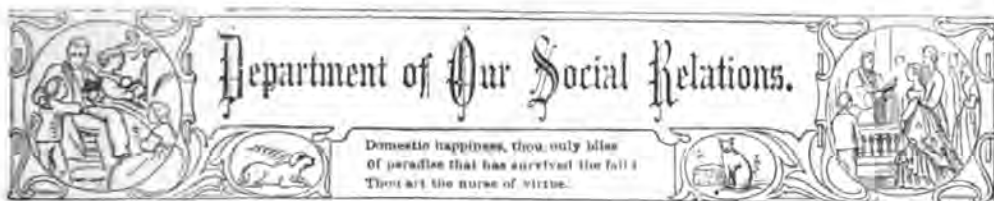
But the science of entomology in its practical aspects does not interest the farmer alone, for if one class of insects is the source of great loss to mankind, there is another class that is correspondingly a source

of great wealth. Without insects, where would we find silk for the most delicate and beautiful of our textile fabrics, or wax, lac, cochineal, galls, etc., for use in the arts, or honey as food?

Outnumbering, as they do, all other animal creations put together, insects form a tremendous power for good or evil in the

grand scheme of the universe, and who will say that learning how to control them or turn them to our use is time wasted? If we are taught to "consider the lilies how they grow," the insects claim our study and attention, and the knowledge obtained will be found not only a source of profit, but of pleasure.

CHAS. R. DODGE.



TRUE SUCCESS.

MEN see no kingly paths, save in the flow
Of golden sands over a sunlit stream—
Or silvered hem of trimmed robes with gleam
Of gilded cornice; or, when wine-cups glow
In banquet halls, and wealth and honor go
In fond embrace. Ah! not in these I deem
Is hid the Martyr's lost, exultant dream
Ah! not in this the aim that Patriots know,

Or gallant soldier 'mid the thunder-roll
Of battle cry. These have no selfish thought,
Nor sordid aim. Thus Milton triumphs long—
Despised—defeated—old and blind—his soul
Still unsubdued; and thus the Christ has
wrought
Eternal crowns from obloquy and wrong.

THE EARL OF DUFFERIN,

LATE GOVERNOR-GENERAL OF CANADA.

CANADIAN affairs are always interesting to us of the United States, and it is probable that the fact of the close relation of our northern neighbor to one of the Old World empires contributes more to our interest than the mere fact that Canada lies next door to us. As republicans we view with much curiosity the movements of a people still under the control of a *régime* which embraces the orders of nobility and the privilege and circumstance of monarchy, and we feel that although contiguous, there is so much difference between the constitution of the Colonial Government and that of our own, that the intercourse between Canada and the United States, however friendly in the seeming, needs to be discreetly conducted, and much allowance must be made on both sides for its promotion. How easy it is for a disturbance or an occasion for

ill-feeling to arise is seen in the recent fishery complications, to settle which our Government must needs repair to the court of Victoria and entertain a protracted discussion of treaty rights.

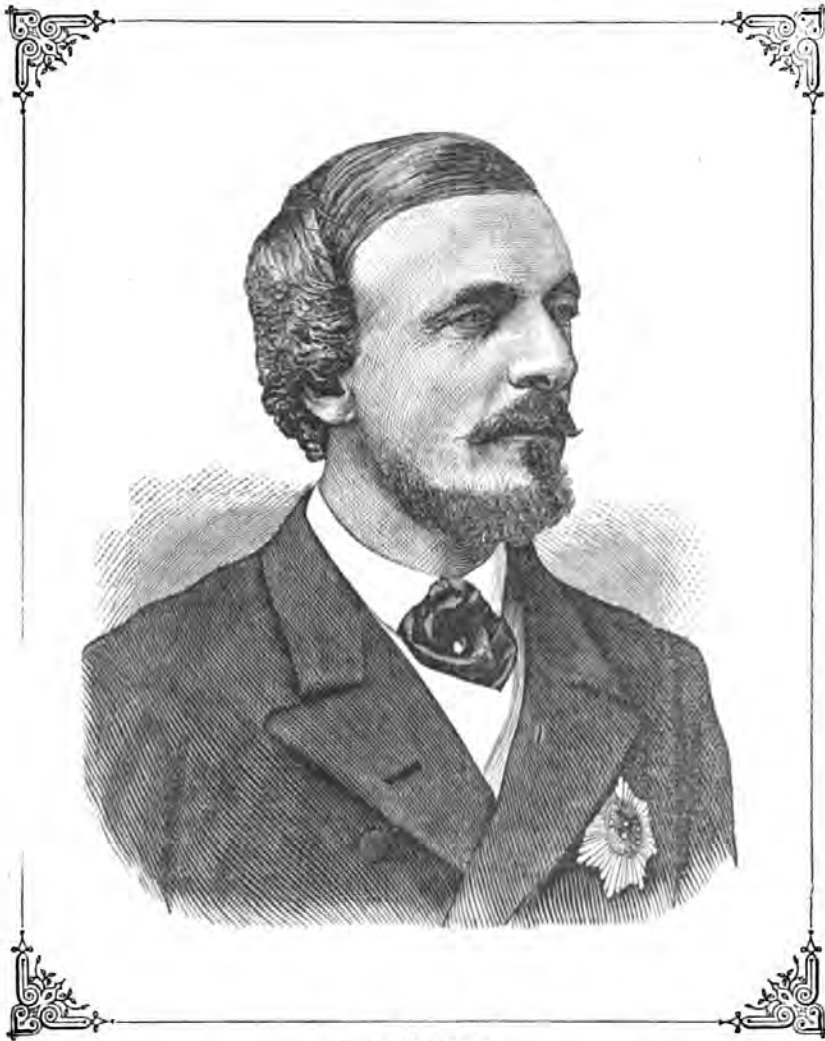
It need scarcely be said that the social amenities existing between the Canadians and Americans depend much upon the character and attitude of the man who exercises the chief executive function in the Canadian Government; and when such a magistrate or viceroy as Lord Dufferin has shown himself to be, bears rule, the two nationalities approach each other cordially and there is a setting aside of petty mistrust and jealousy, because the official head in the broad sweep of his intelligence and liberality disdains the mean and trifling in national relations, and perceives that by forbearance and co-ordination in matters

of mutual importance real advantage is to be obtained.

It was in the summer of 1876 that a stranger called at the office of the PHRENOLOGICAL JOURNAL and desired to be shown some books and other materials in the sales department. He was tall, well-formed, lithe and active, with an easy, pol-

had attended him, departed. The card bore the name of Lord Dufferin.

As appears in the portrait, this gentleman is endowed with a constitution of a high order. He has evidently inherited an organic quality that has been under the process of refining for generations. He has the wiry toughness which is characteristic



LORD DUFFERIN.

ished, winning address—the very kind of man to interest us further than the mere accomplishment of a business transaction which would put some money into the cashier's drawer. He made a few purchases, lingered awhile to scan some of the effigies in plaster and bone upon our shelves, and then handing his card to the person who

of the thoroughbred, and his spirit finds gratification in a life of great activity. The prominent features, his square shoulders and deep chest, denote a predominance of the muscular organism; while the blue eye, color and fineness of hair and skin, indicate enthusiasm, sentiment, and emotion. He inherits his mental activity and emotional

nature chiefly from his mother; while the power of endurance and constitutional vigor come from the father, who was probably of a Scotch ancestry.

He has a large brain and a very active one, his sanguine-mental temperament enabling all his faculties to operate with much ease and efficiency. He is appreciative of practical relations as a thinker; is keen in analysis and criticism, and has a broad reach of both perception and intuition. His large Ideality renders him poetical and artistic. He lives much in the realm of the beautiful of art and nature, and would probably have made an artist of no ordinary merit had he chosen some branch of art as a pursuit. As it is, he exhibits in his manner and language much of the artist. As a thinker and observer, he takes more comprehensive views of subjects and looks deeper into things than most men. He has unusual power of language and should be a fluent and elegant speaker and writer; with his breadth of head, he should exhibit energy and executive ability; and with his liberal endowment of moral sentiment, he should be an earnest working element on the side of truth and virtue. He is ambitious, fond of leadership; possesses a good degree of tact and circumspection, but is not wanting in independence.

FREDERICK TEMPLE BLACKWOOD, Earl of Dufferin, was born in June, 1826, of high-class Irish parentage, and educated at Eaton and Christ Church College, Oxford. He was but a boy of fifteen when his father died. At twenty-four he was created an English baron. Having won attention through his scholarship and abilities at the time of the famine in Ireland, 1846-47, he made a personal investigation into the state of things among the Irish peasantry, and returning to England, prepared an account of his observations, which was published and made no small stir in University circles.

Under Lord John Russell's first administration as Premier of England, he was a Lord in Waiting on Her Majesty; and again from 1854 to 1858 he wore the same honor. In 1854 he was attached to the Commission

undertaken by Russell to Vienna for the purpose of averting the threatened war with Russia. That mission, as the reader knows, failed. In 1860 he was sent by Lord Palmerston as British Minister to Syria to set on foot certain inquiries with respect to the massacre of Christians in the East. For his services in that mission he was nominated a Baron and made K. C. B. of the Civil Division. He acted as Under-secretary of State for India from 1864 to 1866, and as Under-secretary of War for some months in 1866. He was sworn as a Privy Councillor in 1868, and on the advent of Mr. Gladstone to high place in the Government, which occurred in December, 1868, he was appointed Chancellor of the Duchy of Lancaster. It may be added that he was appointed to the Lord-lieutenancy of the County of Down, Ireland, in 1864, and that he has held that distinction ever since. He acquired the title of Earl of Dufferin in 1871.

A year later, in 1872, he was sent to Canada as Governor-General and Viceroy of that important British possession. During the six years which he administered the Government of our next-door neighbor, he not only exhibited marked ability and intelligence, but his character, especially as regards kindness and cordiality, won general popularity. It may be said that no Governor-General of Canada had ever obtained so high a place in the esteem of the Canadian people at large as Lord Dufferin, and his departure from the Dominion last October was universally regretted.

Besides his small literary venture with regard to the Irish famine, he has published "Letters from High Latitudes," an account of a yachting voyage to Iceland, which was made in 1859, and some volumes of light literature; one, a satire on high life, is entitled "The Honorable Impulsia Gushington."

Although Lord Dufferin retires from the Canadian Government to make way for a Viceroy closely related to the royal family of England, he does not by any means withdraw from political functions, as he will very soon enter upon the responsible post of Chief Commissioner in the Island

of Cyprus. In allusion to his abilities as an executive officer, an English paper says: "The duties of a colonial Governor have been defined as taking no side with urbanity and saying nothing with grace. This is, perhaps, not a part very congenial to a man of conscious ability and with the genius of leadership. But it is not a fair description. The obvious duty of such a magistrate is to serve as the medium of maintaining the ascendancy of the national feeling and of reconciling the colonial and maternal relations. It is indispensable to this that he should not be a violent partisan in the colony, but by tact and skill succeed in not antagonizing divergent local sentiment. Lord Dufferin seems to have done this with singular facility and felicity. His gifts and

his temperament have been equally fortunate for his position. His Irish warmth, quickness, intelligence, and gayety, his happy and graceful oratory, and a certain charming tact, have carried him softly through all troubles; and the mother country is evidently surprised and pleased to find that she has one more available and adroit public man than she supposed. It is the wish of all sides that such an Admirable Crichton shall be sent to take practical charge of the extremely uncertain Asian responsibility which England has assumed."

His successor in the Canadian Government, as the reader already knows, is the Marquis of Lorne, who, with his wife, Princess Louise, is now fairly settled in his new and responsible station.

A FORTUNE ON A BRICK.

A CORRESPONDENT of the New York *Evening Post* gives the following account of an experiment in human nature which illustrates well the qualities of earnestness and resolution, and how an incident, essentially grotesque, may be the foundation of a useful and prosperous career:

One bright morning of November, some years ago, I was preparing to go down-town, when the servant informed me that a man was waiting at the front door to see me. "Tell him I'll be down in a moment," I said, and on going to the door, a man of tall stature and robust appearance called me by name, requested assistance, saying that he had a large family, a wife in delicate health, and no means to procure food for them. "You appear to be strong and healthy; why don't you work?" asked I. "Simply, sir, for the reason that I can not procure work."

Not having any work to give him, I thought I would test the sincerity of his intentions. "If I give you work, what pay do you want?" "Anything, sir, you choose to give me, so long as I can obtain means for my suffering family." "Very well," said I, "I will give you twenty-five cents an hour if you will carry a brick on

your arm around the block for five hours without stopping." "Thank you, sir; I will do it." After hunting a while I found a brick, placed it on the man's arm, started him on his walk, and then went down-town to my business.

Not having the least faith in the man's promise, I thought but little more of it; yet as I knew I should be back within the five hours, I determined to see if he performed his work. My business kept me away rather later than I expected, so I had to forego my usual walk home, and took a Fourth Avenue car to be back within the five hours.

As I approached the corner of the street where I reside I found a great crowd of persons gathered—two fire-engines, a hose-cart, and a hook-and-ladder truck. Upon inquiring where the fire was, I was informed that it was a false alarm, and that what brought the people together and occasioned the agitation was the spectacle of a tall man carrying a brick on his arm around the block for nearly five hours. The neighbors were looking at him from the windows and doors as he passed along; some thought he was crazy, but when spoken to, his answer was: "Don't stop me; it's all right." As he interfered with no one, he was allowed to

walk on undisturbed. "Where is the man now?" I asked. "There, you can see him at the other end of the block, walking with his head down," was the answer.

He was just about turning the corner, and I waited till he had performed the circuit, then taking him quietly by the arm, I marched him to my house, followed by a lot of boys. In the meantime the firemen, engine, and hose-cart rattled off. The man was thoroughly tired out when I took him into my hall and seated him on a chair, while my servant went to procure something for him to eat. I paid him forthwith a dollar and a half. He informed me that while making his rounds a lady came out of a house and inquired why he was carrying it, and on his giving her the reason, he received a dollar. The object soon became known, for as he passed the houses small sums were given to him by different persons, and he was well satisfied with his day's work. "But," said he, "what shall I do tomorrow?" "Why," I replied, "go early in the morning to the houses from which you received the money and ask for work, and no doubt you will find some one who will put you in the way of getting it; then

report to me." The following afternoon he informed me that he had been sent to a German who kept a pork establishment on Third Avenue, and who wanted a clerk to keep his books. He was to get five dollars a week if his work proved satisfactory, and his duties began on the following day. Before leaving he asked for the brick which had brought him such good luck, and I gave it to him. Within the year I ascertained that the man had been transferred to a larger establishment of the same kind, with a salary of one thousand dollars.

Three or four years after this I was riding in a street car, when a well-dressed man accosted me with a smile and asked me if I knew him. Seeing me hesitate, he said, "Don't you recollect the man who carried the brick?"

He then informed me that he was doing a prosperous business on his own account, had laid up money, and expected soon to build himself a house up-town.

"What became of the brick?" I inquired.

"That brick, sir, has always occupied a place on our mantel-piece, and we value it as the most precious of our little possessions. It has made our fortune."

WATCH NIGHT.

To-night, the deep-toned bell of Time
Tolls to the tomb another year.
Within my heart an answering chime
Of human heart-throbs, low and clear.

The sobbing wind a requiem sings
Upon the chill and wintry air.
The leafless branches moan and swing
Their naked arms in mute despair.

The past before me like a scroll
Unfolds its pages to my view;
And as I gaze, the mournful toll
Rings out the old, rings in the new.

O year! full freighted hast thou been
With joy and grief, with love and pain,
And struggles with the giant Sin,
That I could never wish again.

To-night, the end of life seems near,
And ere the ceaseless seasons run
Another cycle, joy and fear
Within us forever may be done.

I can not pierce the dark Beyond.
The gathering mists hang dark and drear
About Death's river, where no fond
And loving welcome greets my ear.

But far beyond its waters cold,
Faith points and bids us look and live.
O World! with all thy fame and gold,
Where is the rest that thou canst give?

Farewell, old year! Had I the power
To hold thee, I should use it not;
But thoughts that fill thy dying hour
Will live when thou hast been forgot.

ALICE BROWN.

A GOOD FIGURE.

WE were lounging on the sofa together—my wife and I—as it has been our custom to do for a little half hour on almost every evening of our long and happy wedded life. That delightful space of time between the bright sunshine of day and the black shadows of night—when it is too dark to work and too light for lamps—is sacred to small confidences, twilight talks, the dissection of the day's anxieties and perplexities, and the ever-blessed, never-wearying interchange of thought and sentiment and feeling. In winter we occupy a spring sofa before the fire; in summer-time a cane one on the veranda, which overlooks the most quiet and modest of grass-grown streets in a rural town. It was in August at the time I write, and Maidie, whose hand had been lying in mine under a wind-blown fold of her dress, suddenly withdrew it and exclaimed:

"There! she's coming, Pierce! that girl I told you about, from the city, you know. Hasn't she a splendid figure?"

I don't like the adjective "splendid." It sounds to my ears commonish and gushing, and is very rarely heard from the lips of my wife; but this time, instead of expressing surprise or disapproval, I only answered, "Perfect!" and my longing eyes followed the walking goddess down the street.

Figures are my specialty; I have made a study of them from my youth up without discovering any that so nearly approached perfection as this. I have observed the "human form divine"—ah, how sadly sardonic the quotation often is—in all its infinite variety. The thick and thin, the dowdy and distinguished, the undersized and overgrown, the crooked and bent and distorted, ample and meager, broad and contracted, these and a hundred more have been the objects of my interest for years. And the interest has been almost as melancholy as it has been long-continued. In all my journeyings abroad, and walks about home, I had not till that evening beheld my ideal figure. Not being a hardened novel-writer, I will not pass over my heroine with a few grandiloquent adjectives, but will describe her noble contour in minutest detail.

Firstly, then, she was perfectly straight, and here I am ready to pause and give a definition of that abused word. She was not flat, as the phrase "straight up and down" is used to signify; but can you fancy (you will have to draw upon your imagination, as it is so seldom to be seen) a figure splendidly erect, straight as an arrow let loose from the bow, supple as a willow and vigorous as a young forest tree, the waist free and untrammelled to

"Sink or swell as heaven pleases,"

the head balanced fairly on the backward-thrown shoulders, the—but how shall I continue, how can I describe what so nearly passes description.

One more point, however, I can not pass over. There was not an angle in the whole of her beautifully-formed body. That long flowing curve from well-turned waist to rounded hip was as fine as it was rare. Every line was one of beauty, from rounded cheek, reddened with the fresh free walk, to firm, elastic feet.

Now, by way of contrast, take the average young girl that walks the streets of an average town and this is what you see: A form either stout or scrawny—generally the latter—but in any case prominent shoulder-blades—really a hunchback, to some degree—and the whole weight of head, arms, and square, angular shoulders, dragging in a stupid, slovenly manner on the chest, thereby assisting the inevitable corset in keeping the vitalizing, life-giving air from the heavy, sluggish blood. That sharp line, from pushed-out shoulders to pinched-in waist, is the very reverse of beautiful, and that coarse, dug-out look between waist and hips is even more ugly. Yet this figure well padded, and ditto dressed, is esteemed fine, or at least stylish.

I believe it to be a literal fact that very, very few people are born into the world well-shaped, and we are grown so accustomed to the natural deformities of contracted chests, stooping shoulders, and crooked spines that they have ceased to be repulsive. That man is the only creature that stands erect, is a bitter sarcasm. Straight, erect,

upright—how manly the words sound, but where is the man to whom they will apply? Do you think there is room for a noble, straightforward soul in a cringing, bowed-down, old-young body? Do mothers ever think of such things at all, I wonder? "My daughter doesn't lace at all," said the mother of a lank, narrow-chested girl to me lately. "She has *naturally* a fine waist." That daughter may not lace, but she wears corsets, and for a girl that is *naturally* badly-formed, with small lungs and narrow body, this is simply suicide. There is no

lack of room and air in the world to be had for the taking—room for lungs to expand in fullest exuberance, and hard, abrupt angles to soften into the loveliest lines of beauty, and air enough to invigorate and renew the pallid, poisoned blood that comes so feebly through pinched and starving veins. There is no knowledge like that which relates to one's own well-being. There is no beauty like health; there is no virtue like uprightness, physical as well as moral.

PIERCE THORNTON.

ONE OF THE SEVEN AGES.

"MY gwacious!" I listened a moment to hear if anything more would be said, but the above expletive was the beginning and the end. My son, not quite six years old, called by some "the buccaneer," and by others, "boseen," but whose given name was Joseph, had been sent to the adjoining apartment to meditate on his sins. In the act of putting a patch on a pair of little breeches, which had been rent from leg to waistband in climbing a spiked, and on that account *not* forbidden, fence, I was naturally too much occupied to rise and discover the cause of the prisoner's excitement. There had been no noise, consequently there could be no mischief. Oh, fallacy of fallacies! What could be more ridiculous than such a conclusion from such a premise?

The buccaneer had five pairs of trousers, all in the same or a like condition, and these were his Sunday ones. They had been worn once to Sabbath-school, once to the Park, and once on a visit to a spiked fence. They were Sunday pants no longer. That morning I had bundled off all his ragged clothes to be mended, and nothing remained between the best ones and Joseph at home in his night-gown all day. The last was a contingency too dreadful for a moment's consideration—hence the patching.

"Remember, my son, that these are your Sunday trousers," I had said with all the *impressment* I could command, "and don't climb anywhere, and don't sit down in the dirt. Do you hear me?"

"Yes, ma'am."

"You can play for an hour in the lot, if you will promise to be a good boy, and remember what I have told you."

"Yes, ma'am."

"And remember, if you get into any trouble or pick a quarrel with any of the children or strike one of them, I shall punish you severely."

Oh! the angel face that was lifted to mine as I finished the last sentence. Raphael never painted a cherub that could approach it in innocence of expression.

"Josie never fight no more," said he. "Miss Price"—Miss Price was the angel's Sabbath-school teacher—"say that it's orful wicked to fight, and great big bears, so high"—pointing to the ceiling with his chubby forefinger—"come down from the great big high mountains and eat boys what fight all up."

The Bible stories were badly mixed, but there seemed a certain safety in the mistake, and I let it go for this time at least.

"Oh, my gwacious!" came again from the sitting-room, this time a little louder, and with a touch of sorrow in the tone. "What are you doing, Joseph?" I asked with some severity.

"Paying horse, mamma."

"What are you playing horse with?"

No reply. I repeated the question.

"With fings, mamma; don't be faid!" came at last in the wheedling manner I had grown accustomed to when there was mischief on foot.

"Do you hear me? What kind of things are you playing horse with?"

"Only spenders, mamma!"

A horrible thought flashed into my mind, and at the same time a strong odor of kerosene invaded my nostrils. Patches and scissors, breeches and spools rolled out of my lap as I flew across the room. What I saw was this: How it had all been managed without the slightest noise is only another conundrum which I as a mother give up without the slightest attempt at a solution. Joseph had screwed his father's desk-chair to the top notch, and there he sat with a piece of twine in each hand. These strings were attached to his father's wedding suspenders, which my own hands had embroidered. How little I dreamed when setting those variegated stitches that such a fate would overtake them. At that moment—if 'twas wicked, I am sorry, but—I couldn't help wondering why girls ever get married.

But to resume. The suspenders were skillfully and destructively fastened to the student-lamp, which the buccaneer had set on the floor, minus the shade. *Why* minus the shade, is given up with the rest of the juvenile conundrums. An extra pull had upset the lamp, flooded the carpet, completely saturated one suspender and spotted and besmeared the other. Ten minutes after, Joseph was sobbing in his crib, and I had gone back to my patch.

My heart misgave me when I had again taken up my needle. Had I not been unnecessarily harsh with the dear little fellow? Strange how pathetic the little breeches had all at once become! I thought of the half-worn shoes and stockings and tiny pants like these tucked away in drawers where none but grieving mothers ever go, and—well, the patch was finished, and I would take a look at the darling whose sobbing had almost ceased. Should I ever forgive myself if—if—if what? Oh! thought too dreadful to be endured a moment, and yet children die, yes, children die, and mothers who love, even as I love, live on without them.

Josie's hands were very grimy, and his face was not much better. What with the borrowed dirt from his hands, and the tears

that had diluted without purifying it, the effect was somewhat ludicrous. There wasn't a spot from chin to forehead clean enough to kiss, so I pressed my cheek to the darling's sunny curls, and left him to have his nap out.

"There's one of them rowdy boys at the door, who wants to see you a minnit," said the cook, a half hour afterward, as I was beating eggs in the kitchen.

"Say, Miss Smith!" began the boy, as I stepped to the door, "your Joe is down below here fighting like everything, and he aint got no clothes on neither, he aint."

My cherub down the street fighting? My sleeping angel outdoors in his night-gown? It did seem, under the circumstances, a little hard to believe, but having lived with my son five years and three-quarters, I ought to have been, and generally was, prepared for anything. I followed the messenger the length of the block, and there, in the middle of the street, the center of an admiring and enthusiastic group of five hundred or less boys, of all grades and nationalities, sat the cherub in his *robe de nuit*, on the breast of a young pugilist almost twice his size. One grimy fist clung to the enemy's top-knot, and the other was poised just in front of his nose, ready to descend at the slightest provocation.

"Aint you ashamed to be licked by such a little feller as that?" cried the spectators; and then I made my way through the crowd and took the astonished buccaneer by the hand. It is possible that Joseph might have walked a little faster than was good for him, considered on strictly hygienic principles.

"You bad, naughty, wicked boy," I began, as soon as I had pulled him into the house, "what do you mean by such behavior?"

"I comed down a minnit to the hall door," replied the small offender, "and that boy what I licked called me names, and then I runned for him, and I ketched him too, this way, mamma," and the buccaneer ran the length of the hall to illustrate the manner of capture.

"Where do you think the bears are that Miss Price told you about, Joseph?"

"I aint faid no bears," he replied, striking

an attitude which would have done credit to a "Benicia Boy." "I'd lick the bears too, mamma, if they comed round here calling me names, and I wouldn't care if I didn't have no clothes on neither."

What did I do with him? Well, his father entered at this critical juncture, and when I say that Joe's father is like all the rest of the fathers, mothers will realize how difficult it would have been for me to do anything.

"Whip him!" I'd like to see anybody do that with Mr. Smith around!

ELEANOR KIRK.

ATTENTION TO TRIFLES.—It is attention to trifles which constitutes the real difference between good and bad house-keeping. It is not the amount of money spent, nor the beauty of the furniture, nor

the table, on which comfort depends. A very plain style of living may be very delightful if the home element predominates. The lady of the house who gives as much attention every day to her table as would insure its being neat and attractive will do much toward making her family contented. A soiled table-cloth, cracked plates, and old cups and saucers will take the good taste away from the best viands, unless people are very hungry. Children behave better if they are always brought to the table looking nicely. They should never be permitted to seat themselves at a meal unless their faces and hands are clean, their hair brushed, and the disorder from play removed from their appearance. Let mothers remember that these little things are stepping-stones to the formation of habits, and habits build character.—*Housekeeper*.

"COLOR-BLINDNESS."

MUCH attention is now being given to the subject of "color-blindness" by scientific investigators; their interest having been awakened in great part by accidents which have occurred on railways and at sea in consequence of mistakes made by engineers and officers in not appreciating the color of signals. Medical men not phrenologists attribute these mistakes to some defect in the optical apparatus of the men who were so unfortunate as to make them. The *Medical Record* for June says: "There appears to be little difference of opinion among scientists in regard to the manner in which color-blindness develops itself. A large proportion can not distinguish red color; next comes those who are green-blind, and, lastly, a few who are violet-blind. The difficulty appears to be that whereas the normal eye reduces its color-sensations to three, and analyzes white light into three elements, the color-blind eye reduces its color sensation to two, and analyzes white light into two elements. Thus, if a person is red-blind, he can not distinguish that color from green; or if blue-violet blind, that color from yellow; or if green-blind, that color from red."

"Dr. B. Joy Jeffries (Harvard) concludes that *one* person *in fifty* is color-blind in some degree, and suggests that *one* in *twenty* may be nearer the mark. An examination of other authorities rather confirms us in the opinion that the latter figures of Dr. Jeffries are the most correct. Dr. Wilson examined 1,154 persons at Edinburgh and found one in 55 confounded red with green; one in 60 confounded brown with green; one in 46 confounded blue with green; hence *one* in nearly every eighteen had this imperfection."

We will not affirm that the trouble in regard to distinguishing colors has no relation to the seeing apparatus, but as phrenologists we have some ideas on the subject which we think are reasonable, viz.: that it is not the organ of vision which is at fault in color-blindness, but that the seat of the trouble lies in that part of the brain which appreciates colors. There are persons who have good vision who are not able to see beauty in a picture or a statue; yet their eyesight takes it in as an object. They have no *artistic sense*, and though they may be said to see the statue or the picture, they do not see its beauty. The idea of

beauty is formed not by the eye, but by a nerve center, or organ in the brain adapted to that function. It can not be doubted that the dog or the eagle have as good eyesight as human beings, yet it is not to be supposed they perceive beauty as man perceives it. They lack Ideality, or the artistic sense. There are thousands of men who have good eyes, considered as a piece of mechanism, and though they may see all the parts of an object, it has in it principles and ideas which they do not comprehend. They see it, but do not see *into* it, or appreciate it.

The phrenological idea of the color question is that there is an organ in the brain which is related to the faculty of Color, or judgment of colors. Color being an inherent quality of matter, we need a special faculty for its appreciation. Color, we think, bears the same relation to sight that music does to the sense of hearing. To hear does not presuppose talent to judge of the qualities of sounds musically considered. Many persons have sharp hearing power, but music is not musical to them. They hear music as noise, and only noise; but to the man who appreciates music, it is also noise, but noise with certain elements of harmony and rhythm which charm him. In like manner light and shade are recognized by vision, but the quality of color is something besides mere light and shade, as music is something besides mere noise. We often detect in the form of the head just above the middle of the arch of the eyebrow a serious depression, or want of development in that region, and ninety-nine times in a hundred the subject confesses to a deficiency in the judgment of color. We remember one man who had such a want of development, and we told him that he appeared to be deficient in the judgment of colors. There was a carpet on the floor of the room where we sat, with peculiarly bright colors—scarlet, crimson, and green; and pointing to a patch of scarlet, we asked him what color it was, and he said he thought it was “a brownish, reddish, greenish color,” showing plainly he knew little or nothing of colors.

The truth is, a man who is deficient in the faculty of Color may have excellent eyesight,

and different colors may look differently to him; but it will be like this: crimson appears of a dark hue, a considerable remove from white, and brown is still darker, then his sense of color resolves hues into mere light and shade. A crayon picture to him is the same as a picture with all the natural colors. A photographic instrument takes a picture according to the light and shade; the color red takes nearly black. Cherry-red hair, in a photograph, will show black; while blue, such as we have in silk ribbons, inclines to take white, because it reflects a great deal of light, while red absorbs considerable light. As a photograph, then, may be said to recognize the light and shade of pictures, so the eye alone, as a mere visual organ, recognizes simply light and shade, and colors are only a greater or less degree of light and shade; the perception of color depending not on the eye alone, but on an organic condition of the brain. Between phrenologists and those who are inclined to criticise their teachings, there has been a controversy on this subject, and we confidently believe that if the scientific men will continue their investigations, they will find in the brain a nerve center for the appreciation of the faculty of Color. At any rate we do not fear for Phrenology in the event of the discussion. Men are blind in other faculties as well as that of Color. Some men can not remember forms. Why not call them form-blind on the same principle, since it is through the eye that we appreciate forms in the distance? Why not say a man is mechanism-blind because when looking at machinery he doesn't see its mechanical fitness or adaptation? Why not say a man is music-deaf? He has as good hearing as anybody, but music to him is noise and jargon. Another man may be very hard of hearing, yet he drinks in music with delight and appreciates its harmonies. A man is sometimes art-blind, and now and then a man is reason-blind, just as some are courage-blind or property-blind. Such persons see, hear, taste, smell, feel, but things are not valuable to them in a financial sense or an artistic sense, or a mechanical sense, or in the sense of form or color. If an organ in the brain be accepted for each

mental faculty, the subject is cleared up. If we have a brain organ for each function, such as color, music, mechanism, form, magnitude, and the eye is the means by which we get knowledge of distant and external things, it is no more logical to talk about color-blindness than it is to talk of blindness in respect to any other faculty which gains its knowledge by observation through vision.

The question has been asked, why can a man detect one color and not all colors? If a phrenological faculty appreciates colors, and it can appreciate red or green, why can it not appreciate all colors? If the organ be weak or deficient, it may be stimulated by some colors, so that it will appreciate them to a certain extent; but those who are deficient in respect to any color or shade of color, may be presumed not to see red and green as other people do, or as it ought to be seen. It is different to them, doubt-

less, from what it is to a man whose faculty of Color is perfect. The same principle applies in the case of a man who is dyspeptical; he can digest *some* things, but not *all* things. He may digest lean beef or eggs, but not be able to digest sugar or starch or turnips. But he has a stomach just as much as the man who can digest everything. In music there are those who will appreciate plain marches, but give them complicated harmonies and they experience a painful sensation. Everybody knows that the musical sense may be cultivated. Persons commencing music are delighted with simple airs, and as the musical faculty becomes cultivated they advance to more intricate and complicated harmonies. This is a fact of universal knowledge and observation. Just so artistic culture will give one a sense of colors far superior to what he had at the start.

N. S.



B U T T E R.

Early History—Its Present Use—What is Butter?—Wholesomeness of Butter—Troublesome Butter—Barbarously Expensive.

WHO first made butter? Perhaps some one reading this question will smile and be tempted to class said inventor with the hypothetical individual upon whom Sancho Panza pours his blessings as the inventor of sleep. The memory will incontinently revert to that oldest of all books, the history of Job, and recall his expression of washing his feet with butter, as a settler of the ancient pedigree of said oleaginous substance.

But a little investigation will show that the translation of this and other similar passages of sacred writ is imperfect. Cream was a substance much used for anointing the feet by the ancients, and it is believed that this may be translated cream even more correctly than butter. Even in the apparently plain passage in Proverbs, "The churning of milk bringeth forth butter," might with equal and perhaps better propriety be "the pressing of milk bringeth forth cheese." It is supposed that most of the Biblical words translated butter really mean cream.

This view is partly sustained by the fact that the oldest Greek writers speak of milk and cheese, but say nothing of butter, while, if it had been of origin so ancient as popularly supposed, they must have known of it. Neither Aristotle nor Hippocrates make any mention of it dietetically. The Greeks first obtained their knowledge of it from the Scythians, or the Thracians, while the Romans obtained theirs from the Germans, calling it "oil of milk," and it was used medicinally. "In the time of Christ it was chiefly used as an ointment in the baths and as a medicine." A little later Dioscorides calls attention to the fact that fresh butter made of ewes', or goats', milk was served at table instead of oil, and that it took the place of fat in making pastry, thus indicating the introduction of a novelty. In most warm countries, especially in the southern part of Europe, it is now very little used, dietetically, olive oil supplying its place. Herodotus gives some interesting details of the manner in which it was made by the Scythians. The milk was contained in large pails and beaten a long time, this labor being performed by captives taken in war. Pliny, speaking of butter-making among the Romans, says: "It is produced by agitating the milk in long vessels with a narrow opening."

ITS PRESENT USE.

In all countries which now boast of modern civilization, unless it be a few of those in Southern Europe, its manufacture and use are enormous. In 1871 the United States produced five hundred and fourteen millions of pounds, of which not quite four millions were exported, leaving five hundred and ten millions to be consumed here. In most families it is considered rather as a necessity than a luxury, and the idea of doing without it is never entertained. Fashion has to some extent dispensed with its presence on the dinner-table, but that is not from any motive of saving it, for usually the quantity is more than made up in the gravies and sauces which take its place as appetizers. The mode of its use is always that of a condiment, being never eaten by itself. In this respect it fails to answer the requisite of a food by the test

which we proposed some time since in an article on "Condiments." We have never heard of any creature living on it exclusively, excepting a dog fed upon it as an experiment, and he continued to eat of it irregularly for sixty days. He "grew very fat, but died of inanition," which was rather unfortunate for the reputation of fat as an aliment. "During the whole of the experiment he exhaled a strong odor of butyric acid, his hair felt greasy, and his skin was unctuous and covered with a fatty layer." This looks very much as if the butter was trying to escape by every possible avenue, and that, too, without digestion. "At the autopsy all the tissues and organs were infiltrated with fat." "The liver was in the state called in pathological anatomy *fatty*." It is very evident that "fat" and "butter" here are used interchangeably, and this naturally provokes the inquiry,

WHAT IS BUTTER?

An excellent authority says that "butter is the oily or fatty constituent of all good milk, mechanically united or held in suspension by the solution of caseine or cheesy matter in the water. It is already formed in the udder of the cow, and the operations required after it leaves the udder to produce it effect merely the separation, more or less complete, of the butter from the cheese and the whey." Analysis of a medium quality gives the following results:

Pure fat or oil.....	82.70
Caseine or curd	2.45
Water and salt....	14.85
	<hr/>
	100.00

This, of course, refers to butter as it ordinarily comes upon the table ready to eat. The fat is composed of margarine and oleine, about forty of the former and sixty of the latter in summer butter, while in winter the proportions are nearly reversed. The larger proportions of oleine in summer butter make an article of greater richness. These substances are so nearly like the constituents of other fats that they are said to be interchangeable, and on that fact rests the basis of the manufacture of oleo-margarine from the tallow of beef. In other words, it is claimed that the fat of the animal before

it has passed into the milk is so nearly like that which is formed in the milk that a little chemical manipulation will convert the fat into butter without its going through the milk. A good deal of curiosity has been excited on this subject, and what is more, a large quantity of the imitation butter has been put upon the market, much of which can be detected by the tallowy flavor and appearance. If there is any of it so thoroughly changed that it can not be distinguished from butter, we can only know that fact from the assurances of the manufacturers. The annoying part is, that the flavor sometimes disappears on long exposure to the air, and that which you supposed to be well-flavored butter becomes unendurable.*

WHOLESOMENESS OF BUTTER.

There has been no small amount of indignation expressed at this adulteration, but the point of the complaint lies in the taste more than in any other quality. The supposed superiority of butter for dietetic purposes does not consist in its easier digestion, for that is a myth. Almost any sort of fat is more easily digested than butter of the same temperature. Butter is more frequently eaten cold, but melted butter more readily disorders the stomach than most other fats. Pereira attributes this fact to the larger number of volatile acids which it contains.

We fancy this fact will be new to many a reader who has not hitherto examined the subject. If we speak of the unwholesome effects of grease and of shortening, we are very apt to be met by the calm assurance that the speaker does not eat fat, and is careful to use for shortening only the best of butter. Now, if butter is fat in all its essential elements, and is even worse in its indigestibility, then these people have been deceiving themselves. Our advice to them would be never to cook butter into anything; never to use melted butter; and as soon as possible to make their food palatable without any butter at all. As one of our medical writers seriously says: "Bread

and butter is very good for breakfast and supper, but let the quantity of butter be as small as possible." After getting as far as that, we might wish something else for breakfast; we might even put the two meals together, and instead of the butterless bread we would have a glorious feast. *Nota bene*, the man who gave the above advice about bread and butter for breakfast and supper, was *not* a hygienist.

TROUBLESOME BUTTER.

This article is an excellent illustration of the trouble we take to secure some articles which after all are of very little use to us. Some one has well said that the making of "gilt-edged butter" is one of the fine arts. So it is, and if the Philadelphia article does not bring more than one dollar per pound, it is only because this sort of work is done on a large scale and the demand is practically unlimited. The entire cost can hardly be taken into account. In the first place the cattle must be of good breed; they must be well sheltered, bedded, and cared for; they must not be fed anything that will taint the milk (and there are many such things), nor should they be able to get such things in their pasture. Their udders must be washed and wiped dry before milking, and the hands must be clean. The utensils also, the pails, pans, and strainers, must be so carefully washed as to remove every particle of the previous taint of milk and be scalded and dried, nor must any odor of any kind be allowed in the apartment to which the milk is carried, and in which it is kept. Even the butter, and of course the cheese, must be kept in a separate apartment. The churning utensils and the butter-workers must receive equally scrupulous attention; indeed, the details are almost literally endless, even to the temperature at which it is kept, the currents of air which pass over it, the time which the cream is kept, the temperature at which it is churned, and the rapidity of that operation; the water with which the butter is washed, or the care with which water, as well as all contact with the hands, is kept from it; the character of the seasoning, the amount of working, the kind and cleanliness of the vessels which finally receive it for market, the company it keeps

* According to an item in the *New York Times*, a specimen of oleo-margarine was somehow mixed in with the display of "dairy" products lately made in New York by the American Institute, and the critics and judges were challenged to point it out!—Ed. P. J.

on its way thither, as well as the state of the weather at that time.

It will be readily perceived that the risks run before the butter reaches the purchaser are so numerous as to make the purchase of any quantity a delicate matter. How shall any one keep himself primed as a butter-taster? How shall he know how it will taste in the various purposes for which it is to be used? If he can not afford the very best, how shall he know that he is not getting cheated? Or perhaps we should say "she," as in families it is in many places the housekeeper who makes such purchases. If any one thinks it an easy matter, let him eat at about twenty different tables, and if he is at all nice in his tastes, he will change his mind.

But the trouble is not ended yet. After the butter is purchased, it must be kept where it will get no taint; where it will be cool at all seasons; for once melted, it can never be quite restored. Here comes in the item for ice, which would not otherwise be wanted. But why spin out the long list? If any one will but stop to think, he will find butter one of the most troublesome as well as expensive items in the domestic economy. But this is not all. It is

BARBAROUSLY EXPENSIVE

in its production. It requires about one acre of pasturage to keep a cow during the grazing season. It requires probably more than the average product of an acre of meadow or cultivated ground to keep her during the remainder of the year. The pasturage is comparatively inexpensive. Indeed, for barbarous people, who do not cultivate land, it is tolerable economy to have cattle that can graze on unappropriated land and bring in the product in the shape of milk and meat. But whether even then it would be economical to turn the milk into butter and cheese, would depend partly upon whether those substances were nutritious or not. We have already discussed the subject of the nutrition in fat, and as butter is fat, we will say no more on that point than to suppose a man trying to live on the product of that acre of pasturage and that acre of cultivated land as brought

in by the cow. It is true he may exchange it for something more nutritious and live on that, but will the butter furnish anything more nutritious to the purchaser than it did to the producer? Or has the purchaser merely sacrificed so much to gratify his taste for a condiment? Do people acquire wealth in the butter-dairying business because the product is of intrinsic value, or because people are willing to part with certain things that are of intrinsic value in order to tickle the palate? To put it in another form, how many people could be fed on the grain, roots, or fruits that might be raised on these two acres which now produce an article which as milk partially feeds only a few, and as butter feeds no one? We should say, at a moderate estimate, six persons. If this is correct, then whatever may be the glamour of the profits of a few who are making an article which the many are willing to pay a high price for, is the country as a whole profiting by butter-dairying as it would by grain-farming or fruit-raising?

Of course, we are speaking now of the amount raised for home consumption, the quantities which we sell to each other. And these after all are the great items. Reference to the figures of production and exportation which are quoted in the first part of this article, will show that we export only about one one-hundred-and-twenty-seventh part of the butter produced, and that the income from this source amounted in 1870-1 to much less than one million of dollars.

In this enumeration of particulars we see that we have omitted an item of no small cost, the fencing of fields and inclosures, to which the country is subject because of the great number of cattle kept for dairying, and this of itself is an immense outlay. The entire practice of cattle-raising and dairy-farming might well be called a relic of the barbaric ages; and we wish the majority of people might see it so and devote their labor and their skill to those things which produce a better hygienic and economical result.

JULIA COLMAN.

A CHEERFUL temper, joined with innocence, will make beauty attractive, knowledge delightful, and wit good-natured.

A SORE SUBJECT—SHOES.

NOT long since our attention was drawn to a query addressed by some one to the editor of a scientific publication in this wise: "Is there in the civilized world a shoemaker who can and will make a proper covering for a human foot?" At once memory recurred to the displays of elegant leather-work in the windows of the numerous shoe-stores of New York, at some of which we have occasionally lingered to gaze on the ingenious devices of shape and embroidery, and to ponder upon the strange anatomical fancies of the men who devised them.

Our first figure is from the advertisement of a prominent manufacturer of ladies' shoes, and is a representation of a pattern much in vogue, called, we believe, the "Maude."

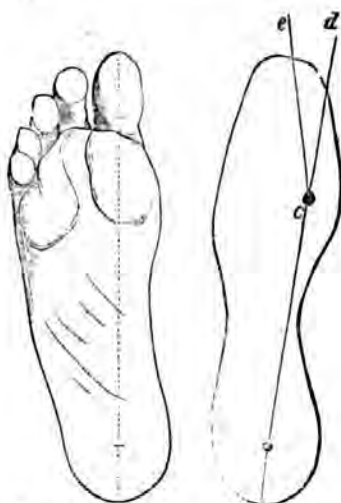


A FASHIONABLE SHOE.

There is no attempt at exaggeration, for the engraver has copied the pattern exactly for trade purposes. Our lady readers will at once recognize the fidelity of the shape, especially as regards the position and height of the heel. Need it be said that the wearing of such a shoe or "boot" tends to distort and injure the foot? A modicum of intelligence at once declares the "thing" inconsistent with nature and absurd in reason.

If we examine the sole of shoes ordinarily worn by people, we shall find that it is narrowed much at the part where the toes cover it; the narrowing begins at the region corresponding with the ball of the foot, and the corners are more or less rounded. In the illustration of a natural foot, or one which has not undergone the squeezing,

cramping process, which in the course of years produces the very common deformity shown in the next engraving, we are shown the line of tread which passes nearly under the center of the great-toe joint, and backward under the center of the heel. The lines drawn upon the outline of the sole show how completely out of harmony with nature is such a shape. The line of tread, instead of being straight, is broken at the ball of the great toe, and turns in the direction which that important member is forced to take by the obliquity of the sole and the unyielding upper leather.



LINE OF TREAD.

COMMON SOLE.

One would think that it was bad enough for the feet and limbs to wear high and misplaced heels, but when to their distorting influence is added the cramping and twisting of the narrow-toed sole, it is a wonder indeed that any intelligent person will submit to the torture arising from corns and enlarged joints, notwithstanding it is dictated by fashion. Not only is the foot deformed, in some instances becoming as misshapen as represented, but the legs and body suffer in various ways from the unnatural attitudes into which they are forced, even serious forms of nervous and muscular disease being occasioned by the general derangement of the mechanical function.

An American writer who has given much

attention to the subject of foot-dressing, suggests for the sole the shape "Eureka," as an approximation to what will perfectly meet the requirements of a natural foot. This reminds us of the ancient sandal and of



A RESULT OF NARROW SOLES.

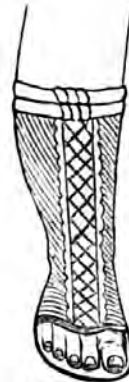
the old foot-coverings, when men and women were accustomed to exercise a great deal, and had the feet kept there, which enabled them to walk according to their pleasure. Modern civilization, in spite of its wonderful scientific and mechanical progress, has shown no improvement upon the shoe of the past, but rather retrogression; for the



THE EUREKA.

sandal, with all its primitive simplicity, possessed healthful features which the modern leather shoe can not claim. For instance, the sandal gave free play to the muscles and bones, admitted the air to the skin, and was easily put on or taken off.

The shoe, we know, on the contrary, is more or less restrictive to the muscular action, close, unventilated, and in some forms, especially those with a long row of buttons



ANCIENT SANDAL.

which are affected by fashionable people, it gives no little trouble and inconvenience to adjust it.

We have no desire to return to the use of the sandal; we think it unnecessary, for there is wisdom and talent enough in Europe and America to invent a foot-dressing which will combine the advantages of the sandal with the neatness of the modern shoe. There is elegance enough shown in the shoe trade, can we not secure comfort also? If the skillful mechanic at his bench



OLD FORMS OF FOOT-DRESS.

will only recognize nature, as he shapes the last and cuts out the upper, and will aim to secure a result which shall unite comfort, protection, neatness, and simplicity, he will make the world his debtor. D.

HOT SPRINGS OF ARKANSAS.

[A good deal has been written about this interesting region in late years, but it has been mainly in the interest of business. The following article comes to us from an occasional contributor, who has visited the place and frankly narrates her experience.—ED.]

AMONG all the water-cures or resorts where water is used to alleviate disease, by either baths or drinking, none attract more interest or possess greater health-restoring powers than these springs. A visit to the Hot Springs the past winter by the writer was attended with much pleasure and also benefit. In writing of resorts of this kind, there are two styles usually adopted—one, of the people or individual who receives benefit from the patronage of visitors and health-seekers, and the other the cases of those who have received benefit and are anxious to reveal it to others, or are solicited to do so by the first class. As most of the information obtainable concerning the springs is in either one or the other of these forms, the observations of the writer during a short visit may be of interest to some, but they are not prompted by either of the above reasons.

Leaving the North a few days after New Year's, about the season of the commencement of the first "spell" of the intense cold weather of this year, I journeyed to the Hot Springs by way of St. Louis. Leaving that city by the Iron Mountain Railroad in the morning at nine, you pass through the center of the State of Arkansas, reaching Malvern at five the following morning. Malvern is nearly fifty miles south of Little Rock. From there you take the stage to the springs, twenty-one miles distant. To an invalid the stage ride is certainly the most trying part of the journey, and it is safe to remark that the most healthy person is not particularly delighted. There may be rougher roads than the one from Malvern to Hot Springs, but it has not been in the experience of the writer to find any. However, you at length arrive at one of the hotels, where comforts and attendance that greet you are a positive surprise to one who is occupied with reflections on the ride

through the barren "piney woods" country, and who possesses the knowledge that all supplies and necessities of life at the springs have to be hauled over that road. The hotels are numerous, and of grades to suit all classes in taste and price.

To a traveler or one who has visited many resorts, the first impression of Hot Springs is not very favorable. The situation is a narrow valley or notch through which runs a small stream, and at its side a single street; for nearly two miles the valley does not exceed two hundred feet in width, and in many places it is much narrower, the mountains rising abruptly on both sides. At either end, however, this mere channel widens and opens out into the rolling, mountainous country.

The springs are on the slope and at the foot of the mountain on the east side of the valley, and are all within a space of fifty acres. They are some fifty in number, and vary in flow and temperature; the combined discharge being estimated at about four hundred gallons every minute, and the temperature from 95 to 150 degrees Fahrenheit. The hottest of the springs, it is said, will cook an egg in a few minutes. The abundance of the supply and the varying temperatures make it easy to regulate the water for the baths.

If, as I said, the first impression of a visitor is unfavorable toward Hot Springs, a little time will work a change in his views. In a few days one has looked into the first point of interest, the springs, examined them all, drank of the different waters, made some study of, and tried to solve, the phenomenon of their existence. Then the beauties of the mountain scenery are considered, and one feels the invigorating influences of the mountain air. The attention is drawn to the grand opportunities for beautifying the mountain sides, the facilities at hand for making the surroundings of the springs a park unequaled by those of any watering-place in the country. With these probable developments of the place, the imagination is soon picturing a brilliant future for "Hot Springs." It sees in a near future good

railway communication with all prominent points, a number of fine and large hotels, elegant bath-houses, and great crowds of visitors.

As an intermediate resort for visitors from the far northern and the far southern points, it seems to us that there is none better. The time of my visit, the months of January and February, is considered the most unpleasant as regards weather, but there was little of that for me to complain of; indeed, the weather was more desirable and comfortable than was reported as prevailing at more southern points. The pleasantest seasons are the three months following October 1st and April 1st, and I will venture the opinion here, that as much benefit to health can be obtained by a visit to the springs and a judicious use of the waters at either of these seasons as can be obtained at any other place.

Nearly every person visiting Hot Springs consults a physician as to the use of the waters. This is enjoined on all, and while it is a custom originated for the benefit of the doctors, still it is the best thing to do, even if one is not requiring other medical treatment or advice. The directions obtained from a physician relate to the temperature of the bath suitable for the patient, the time to remain in, the quantity of water to drink, and from which spring.

The bathing is done at the bath-houses connected with the hotels, or at separate establishments for bathing. The plain tub bath is given with the water from 92° to 98°, and the time from six to ten minutes. The hot water is brought to the bather in a tin can of the shape of a tea-pot, from which one can drink if he wishes. To this bath can be added the vapor and pack. The vapor is taken in tight closets, under which the hot water is carried, the vapor ascending through openings in the floor. Temperature in the vapor is from 100° to 115°. After from three to five minutes in the vapor, the bather is taken out and packed in blankets for about ten minutes, which produces a profuse perspiration.

On coming out of the bath a thorough rubbing is given by negro attendants, many of whom have become by long practice very

expert as rubbers, and it is a feature of the baths which adds materially to the benefits. In this connection the visitor is informed that one of the curiosities of the springs is the negro bather, "Professor Robinson," at the Rector bath-house. The professor is well versed in all the different kinds of treatment, and although uneducated, says he can "read a towel" and "moderate the system" better than any educated nigger at the springs. When the professor squares himself and starts his favorite hymn, "The Lord sent me to rub and I did rub, and to hear what the sinners say," the person who is under his towel will believe that he is going to do as he says: "I'll done bust yer skin clar off, Massa, this time shuah."

To receive benefit, one should stay at least a month at the springs. The usual number of baths for a course is twenty-one, and few persons are able to take this number in successive days without interruption, and it is considered desirable not to bathe for a few days before leaving the springs. The number of twenty-one baths is chosen as about the number to get the system well under the influence of the baths. Persons suffering from serious diseases had better expect to remain at the springs for several months. As a remedial agent it seems to be admitted that the hot waters are very efficient as an aid to other treatments, and I believe that much of the good that is attributed to the water comes from the systematic course pursued, the waters simply acting as a cleanser and invigorator to the system.

A POWERFUL GLUE.—The Turks glue diamonds and other jewels to metal settings with a mixture made thus: Dissolve five or six bits of gum mastic, each the size of a large pea, in as much spirits of wine as will render it liquid. In another vessel dissolve in brandy as much isinglass, previously softened in water, as will make a two-ounce phial of strong glue, adding two small bits of gum ammoniac, which must be rubbed until dissolved. Then mix the whole with heat. Keep in a phial closely stoppered. When it is to be used, set the phial in boiling water. This cement resists moisture, and it is said to be able to unite effectively surfaces of polished steel.

NOTES IN SCIENCE AND AGRICULTURE.

Poison-Ivy and Virginia Creeper.—The editor of the PHRENOLOGICAL JOURNAL has been solicited by several correspondents to give them some advice with regard to the appearance and habit of poison-ivy so that they can avoid its poisonous influences. Brief answer has been made, and some suggestions relating to the treatment of those who have been poisoned. The *Scientific American* lately published a description of the poison-ivy and the Virginia creeper, and as both plants are much alike to the superficial observer, we avail ourselves of the opportunity to publish in this place representations of the two plants.

The poison-ivy, or in scientific language, *Rhus toxicodendron*, is also called poison-oak



POISON-IVY.

and mercury-vine. In the Middle States it is pretty generally known among people of the farming class as mercury. There are two varieties of the poison-ivy which are so marked, that they have been considered distinct species. One of these is a small erect or recumbent shrub, rather weak in appearance, which has leaves of three leaflets, ovate, and variously notched or lobed. This is the variety figured in the engraving. The other is distinguished by its climbing habit; woody stem; is covered with a grayish, scaly bark from one to four inches in thickness; throws out throughout its whole length myriads of thread-like, densely-aggregated rootlets, which help to bind it to its support. It is extremely common and familiar enough to the ruralist, being often seen infolding large

trees and extending to some distance above the ground. Like the other variety its leaves consist of three leaflets, which are smooth and having entire margins. Both varieties, when wounded, exude a milky juice, which becomes black on exposure to the air, and on fabric forms an indelible stain.

The Virginia creeper (*Ampelopsis quinquefolia*), called by some the five-finger, is a very graceful woody vine, an extensive climber, but unlike the *Rhus*, climbs by means of tendrils, the ends of which terminate in sucker-like disks. This alone when understood constitutes a striking difference in the appearance of the trunks of the two trees, but the structure of the leaves forms one equally noticeable. In the Virginia creeper they are



VIRGINIA CREEPER.

divided into five oblong toothed leaflets of a dark, shining green, and with very prominent veins and ribs. In the autumn they assume the richest shades of scarlet, crimson, and purple, and as the plants are seen climbing and entwining among the foliage of some evergreen, or trailing over fences and walls, they form one of the brightest ornaments of the season. The leaves of the poison-ivy are also colored in autumn, but the tints are not as brilliant as those of the creeper, and are usually of various shades of yellow and dull red. As regards the Virginia creeper, it has no noxious effect. In fact, no native American vine having five-parted leaves is poisonous.

**A New Application of Schlie-
man's Discoveries.**—A scientific writer in the London *Athenaeum* advances the theory that the remains found at Mycenæ, instead of

being the actual form and feature of Homeric heroes, once belonged to some of the barbaric Gothic chiefs who overran Greece in the Christian era, and he brings a long array of reasons: 1. The style of ornamentation of many of the golden objects belongs to the north. 2. The layers of pebbles under and over the bodies are another northern feature. 3. The sword-hilt lying across the loins according to barbaric custom, and not on the right shoulder as a Greek would have worn it; the absence of greaves, and the enormous lengths of the swords, and the fact that one of them had a wooden sheath, are northern peculiarities. 4. The resemblance of the ornamented tombstones to the sculptured stones of Scotland. 5. The shape of the chariot-wheels, identical with those sculptured in tombstones from Kivik in Sweden. 6. Obsidian arrow-heads of marked Scandinavian type. 7. Iron keys. 8. The similarity in shape of the gold crowns to the bronze diadems of North Germany. 9. The presence of crystal, not used for ornamentation until late Roman times. 10. Gold signet-rings of a degraded rather than a primitive art.

The author's theory is, that some Gothic chiefs slain in the invasions were buried here with their plundered treasures, as Alaric was buried in the Busento. Some objects would thus be Gothic, and others the plunder of conquered cities. This view accounts for the absence of coins and inscriptions. The undoubted early pottery would be the rubbish disturbed in digging the grave. The theory also accounts quite satisfactorily for other anomalous facts.

Guinea Hens, it is said, in addition to laying more and better eggs than common fowl, will, each of them, keep an acre of potatoes clear of beetles, and answer the purpose of a barometer in predicting changes of the weather.

Skulls and Brains.—At the recent meeting of the Anthropological Congress in Paris, Dr. Lebon gave the results of his experimental researches upon the relation of the volume of the cranium to the intelligence. We find abstracts of the paper in foreign journals, and select a few points which may interest our readers. The doctor has studied many skulls of many races, and is satisfied that the degree of intelligence is proportionate to the capacity of the cranium. The best endowed races have the greatest average cranial volume, and in any race the biggest heads have "the most brains," in a figurative as well as a literal sense. No doubt there are individual exceptions, but the general law is none the less true.

Among his measurements of heads Dr. Lebon has made more than twelve hundred from living subjects in Paris, and by a series of curves he shows their relative development. He arranges them in five classes, which stand as follows according to size, the biggest being put at the head: (1) literary and scientific men; (2) the Parisian *bourgeoisie*,

or middle class; (3) the old nobility; (4) domestic servants; (5) peasants.

As a rule, women were found to have less weight of brain than men. Some have thought that the difference in stature and weight of body accounts sufficiently for this; but, according to Dr. Lebon, the law still holds after making allowance for this difference. It is, moreover, a curious fact that among the superior races the female cranium is proportionally smaller than among the inferior races. He believes this to be due to the comparatively unimportant part that woman plays in the work of modern civilization.

A STORY OF SCIENCE.

A philosopher sat in his easy-chair,
Looking as grave as Milton;
He wore a solemn, mysterious air,
As he Canada Balsam spilt on
A strip of glass, as a slide, to prepare
For a mite taken out of his Stilton.

He took his microscope out of its case,
And settled the focus rightly:
The light, thrown back from the mirror's face
Came glimmering upward brightly;
He put the slide with the mite in place,
And fixed on the cover tightly.

He turned the instrument up and down,
Till, getting a proper sight, he
Exclaimed—as he gazed with a puzzled frown—
"Good gracious!" and "Highly-tighty!
The sight is enough to alarm the town—
A mite is a monster mighty!"

From t'other end of the tube, the mite
Regarded our scientific;
To his naked eye, as you'll guess, the sight
Of a man was most terrific;
But reversing the microscope made him quite
The opposite of magnific.

"One sees the truth through this tube so tall,"
Said the mite, as he squinted through it;
"Man is not so wondrously big after all,
If the mite-world only knew it!"

MORAL.

Mem.—Whether a thing is large or small
Depends on the way you view it!
—*London Fun.*

Socrates on Farming.—According to this one of the wisest of the ancient philosophers, "Agriculture is an employment the most worthy the application of man—the most ancient and the most suitable to his nature. It is the common nurse of persons in every age and condition of life. It is the source of health, strength, plenty, and riches, and of a thousand sober delights and honest pleasures. It is the mistress and school of sobriety, temperance, justice, religion, and, in short, of all virtues—civil and military."

Let those who are disposed to repine in

the midst of their fields and to sigh for other employments, take notice.

Keep the Orchards Up.—People who are fortunate enough to own fruit trees are too much disposed as a class to neglect them on account of age. Perhaps it is not commonly known that much can be done to improve an old and wretched orchard, simply by encouraging the growing shoots and removing the old ones gradually. Not only the new top, but also the bole and other roots will feel the effect. An orchard needs care and thought, and if they be given, it will amply repay the owner. Keep the fruit trees free from all limbs that are of no use. Do not let the limbs get too old. Renew your orchard several times in its life and its growth will thus be preserved. Thousands of farms to-day contain orchards which have gone to ruin for want of the little attention above indicated, and their owners feel entirely innocent of any neglect. Cold weather is the time for trimming up the trees and bushes.

Time in Photography.—Photographic operations seem to indicate the necessity of some means of measuring exceedingly minute proportions of time as well as those of greater duration, and to indicate an indefinite extension on either side of the second. In taking photographs of rapidly-moving objects, we have been obliged to judge of the exposure requisite to bring out the half-tints by estimating differences of time varying between the one-fiftieth and the one one-hundred-and-twentieth of a second. Expressions of time like these are enormous, however, when compared with the time required for other photographic experiments. Thus, in solar photography, according to the experiments of Mr. Waterhouse, an image was produced in a space of time not exceeding the one-nine-thousandth of a second, even when a slow photographic process was used; and when a wet collodion was used, one-third of the above time only, or one twenty-seven-thousandth part of a second was required. This duration, however, inconceivably short as it may appear, will seem to be a tolerable length of time when we try to bring the mind to appreciate the rapidity with which Mr. Talbot performed his crucial experiment not long ago at the Royal Institution, England, when he photographed a revolving wheel with a hundred teeth on its periphery and making a hundred revolutions in a second, and illuminated with a single discharge of an electric battery.

To the casual observer or reader of this experiment the wonderful part appears to be that the whole wheel, including each separate tooth, appeared perfectly well-defined and stationary in the photograph, though in reality it was moving with as great a velocity as multiplying wheels could communicate to it. A little further consideration will, however, show that the time occupied by each revolution was a planetary cycle compared with the duration of the illuminating spark,

which, according to the trustworthy experiments of Wheatstone, occupies only the millionth part of a second.

Artesian Wells.—In Iroquois County, Illinois, eighty-five miles south of Chicago, 53,500,000 gallons of flowing water from artesian wells are daily supplied for irrigating land. No well is over seventy-five feet deep. There are two hundred wells within a radius of twenty miles, all of small bore. The prairie is ninety feet above Lake Michigan, and there is no high land for two hundred miles which can furnish a fountain-head to these wells. Paris derives a flowing current of 6,000,000 gallons from two such wells. Three more wells are now being sunk, which, with the old ones, will give a subterranean supply ample for 3,000,000 of inhabitants. A correspondent of the *Baltimore Sun* says that engineers are confident the artesian river flowing under San Francisco, leading direct from the exhaustless lakes of the Sierra Nevada, is quite adequate to supply several cities of its size.—*American Manufacturer.*

Popular Statistics of New York.—There are at this moment no less than 12,659 families in this State who live in log cabins. Of the more modern dwelling houses, 598,013 are of wood, 98,298 of brick, and 19,718 of stone. Over one-half of all these buildings are reported as worth less than \$2,000 each, over one-third as worth less than \$1,000, and 7,134 as worth less than \$50 apiece. Of the 67,126 dwellings in New York County, 56,010 are valued at \$5,000 and upward.

Here are some additional facts in the statistical line that are not without an interest for serious-minded people. Of 1,537,726 productively industrious New-Yorkers, 351,628 are farmers or farm-hands. One-half of the working-women of the State are house servants, and there are no fewer than 137,416 of them. Over 150,000 men earn their bread as day-laborers. The machinists number 14,666; the coopers, 8,971; the iron foundry operatives, 8,920; the blacksmiths, 19,803; the cabinet-makers, 7,963; the tanners, 4,268; the mill and factory operatives, 16,613; the printers, 12,328; the cigar-makers, 12,345; the painters and glaziers, 22,615; the carpenters and joiners, 52,192; the boot and shoe makers, 23,144. There are 50,903 clerks, 40,407 tailors and seamstresses, and 33,476 milliners and dress-makers.

Passing to another classification we learn that 1,776,018 New-Yorkers are married, 2,672,813 unmarried, 1,349 divorced; while of widows and widowers we have among us 248,778. In the last census-year only one family in forty-five had a wedding.

Salt as a Wheat-Fertilizer.—In an interesting series of experiments recently made on the farm of the Royal Agricultural Society of England, the manurial value of salt was unmistakably indicated. An acre of wheat dressed with three hundred pounds of common salt yielded thirty-nine bushels

of grain, with a proportionate amount of straw; while an adjoining acre, left unmanured, produced only twenty-nine bushels per acre, with the straw imperfectly developed. The entire cost of the crop is not stated, but this experiment shows that the additional ten bushels resulting from the salt were produced at a cost of thirty cents each. In another case a piece of ground intended for wheat was plowed the preceding fall, and again in May, when it was sowed with salt and afterward plowed before seeding. On the 1st and 2d of September wheat was sown at the rate of two bushels to the acre. The crop when harvested, yielded, according to the estimate of the owner, Mr. John Parke, not less than forty bushels of grain to the acre, with a luxuriant growth of straw. From these and many similar cases the inference seems to be that salt is a specific for the wheat-crop, imparting solidity to the grain and firmness to the straw. But it must not be concluded that equally good results will always follow the application of salt.—*Montreal Gazette*.

A New Test for the Purity of Water.—Convinced that potassic permanganate is the base of a very sensitive or delicate test, a Mr. W. C. Staples tells us in the *Pharmaceutical Journal* that he began experiments with a view of finding a reagent that should act upon the nitrogenous matter and bring it under the influence of the permanganate. For this purpose he found that potassic hydrate (caustic potash) could not be excelled; and that four parts of potassic hydrate, with one part of potassic permanganate, and one hundred and sixty parts of distilled water, made the best solution. With such a solution he has made many tests. One drop of the solution placed in a test-tube of distilled water remains of a beautiful pink hue for many hours, but the minutest trace of egg-albumen in the same quantity of water discharges the color at once. He states that he has used this test for some time with the most constant results; and that if on the addition of a drop of this solution to a half fluid ounce of water, it in a few hours shows a brownish precipitate with loss of color, he has invariably found such water to contain an abnormal amount of organic matter. From our own experiments we are led to believe that in case the water examined is known to contain no iron or salts of that metal, this is an exceedingly delicate and reliable test. The presence of iron in the water had best first be determined by the use of potassium sulpho-cyanide. If it give a brownish color on the addition of the sulpho-cyanide, the test for organic matter can not be used successfully.

Total Abstinence and Life Insurance.—The United Kingdom Temperance Provident Institution, London, has two sections: one for insuring the lives of total

abstainers; the other, the lives of moderate drinkers. The experience of the office, as shown in their report for the past year, has been as follows: The number of deaths expected during the year in the total abstinence section was 179; the actual deaths were 132. The number expected in the moderation section was 291; the actual number was 280. Thus, whilst the total abstainers saved 47 lives out of 179, the moderate drinkers saved only 11 lives out of 291.

Ammonia versus Malaria.—The *Augusta (Ga.) Chronicle* says: "The Georgia Chemical Works, which are of a very extensive character, and manufacture annually large quantities of commercial fertilizers, are situated in the southern suburbs of the city, on South Boundary Street. This portion of the city is low and damp, and the people living there had always been subject to chills and fever and other malarial diseases. We say *had* been subject, for yesterday morning Mr. Lowe, of the chemical works, informed us that the works had exterminated malaria in their neighborhood. He contended that since the company commenced operations it had routed chills, etc.; and that persons living near there who once suffered a great deal, suffer now on South Boundary no more. The effect of the works on the health of the country adjacent had been as marked as it had been beneficial. There could be no doubt as to the cause of the change. A practical test had been applied in the buildings of the company. Men had been employed there who were ague-shaken and fever-fired, but who, in a comparatively short time, were entirely relieved of the companionship of their malarial friend. The theory is that the ammonia does the business."

Fowls In Orchards.—In regard to keeping fowls in orchards, the *Poultry World* says: "Last fall we visited an orchard in which fowls were kept; the owner of which told us that before the fowls were confined in it, the trees made little or no growth, and only a corresponding amount of fruit was obtained. But what a change was evident now. The grass was kept down, the weeds killed, and the trees presented an appearance of thrift, which the most enthusiastic horticulturist could not but admire and envy. The growth of the trees was most vigorous, and the foliage remarkably luxuriant; the fruit was abundant, of large size and free from worms and other imperfections. This excellence was accounted for by the proprietor, who remarked that 'the hens ate all the worms and curculio in their reach, even the canker-worm.' He found less trouble with their roosting in trees than he expected, and that a picket fence six feet high kept them within bounds. His orchard was divided into three sections, and the fowls were changed from one to another, as the condition of the fowls or the orchard sections seemed to require."



MRS. C. FOWLER WELLS, *Proprietor*.
H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK,
JANUARY, 1879.

A GREETING.

HAPPY New-Year to you, dear reader !
Were it possible, the publishers and editors of the PHRENOLOGICAL would give a warm hand-clasp to each subscriber and reader on this opening of 1879. Take the will for the deed, kind friends, and believe that we shall do our best to further your health and happiness in what we write and print.

We believe in the New-Year festival, in the maintenance of the old exchange of family greeting and visitation ; in the custom so long ago recognized in Europe, and especially by our British ancestors. Gracchus alludes to the first day of the year as one that

" . . . elates the poor man's heart,
And makes him feel that life has still its joys,"

and when

" The aged and the young—man, woman, child—
Unite in social glee."

Charles Lamb and other eminent writers have feelingly alluded to its festivities as conducive to the public welfare, because of their influence upon the warm and generous sentiments of men. In America there is a growing tendency to observe less and less the social practices of our forefathers in connection with New-Year, and were it not

for the strong foreign elements in our population, especially the German, which is most appreciative of holiday enjoyment and recreation, we fear that ere long New-Year's day would scarcely more than mark the beginning of a fresh twelvemonth. The practice of New-Year's calls may have its improper side, or rather some people may pervert it by vicious indulgences ; that, however, does not depreciate the good there is in it for society. How many friendships, once highly prized and still essentially valuable, would die out were it not for the annual reunion ? On that day we feel compelled by the prevailing spirit of the festival to exhibit our social feeling, to whip into activity our dull Adhesiveness, and ere the day has passed we find ourselves enjoying a new sensation ; our meeting with old acquaintances, some of whose faces had not crossed our line of vision for years, has quickened the inner current of our being, and we feel refreshed, renewed. Many a man who has gone from his home in spiritless protest against the "tyranny of fashion," has returned in joyful thanksgiving for having had the privilege of clasping the hand of an old friend, and thus renewing an old tie which he had well-nigh forgotten.

Let us perpetuate a custom which promotes the sweet and priceless bond of friendship, but let us not mar that custom by any unclean, impure, unnecessary accessories.

There was little encouragement for us prospectively when 1878 opened. The "hard times" had seriously affected our business, and, like many of our contemporary publishers, we could not predict our status a month in advance. But with a firm grasp upon the helm, and a resolute confidence in the support of an appreciative constituency, we set out, and here we are again starting afresh. Our circumstances are no worse

than they were a year ago. Ah, with our late years' experiences so fresh in mind, we should feel a stronger confidence in ourselves, nay, in our friends, the readers of the PHRENOLOGICAL JOURNAL.

SELF-KNOWLEDGE THE SOCIAL NEED.

IT is an old, old story that the community is full of misfits; that of the many who occupy the callings of industry, science, education, and religion, scarcely more than a tithe are conscious of adaptation to their pursuits. With a condition of this sort confronting us—a condition which has subsisted for ages, and whose aggregate resultants of mental and pecuniary loss to society can not be calculated—is it not a matter for wonder that philanthropists and economists have not set on foot some well-formulated method for the public relief? Surely the sympathetic mind must long ago have been pained by the complaints of the suffering, yearning thousands who tediously labor amid disadvantages and difficulties arising from personal organization! The Macedonian cry has been heard from all sides, and still fills the ear—"Help us." In its true sense we perceive it to be much more than the cry of misplaced, disappointed souls; in its sad tone there vibrates the feeling of reproach, the reflection of an instinctive consciousness that they have been wronged; that their rightful estate has been lost through faults not all their own.

Society has been slow in arriving at the conviction that men are differently organized, and not yet has that conviction taken the practical form of prescribing different methods of education in correspondence with the difference of organization. While school-houses have multiplied and books without number have been printed, popular education has been wanting in a grand, fun-

damental element—self-knowledge. Children are well instructed in matters of science and history; in the mechanics of every-day business; their heads are crammed with formulas, names, and dates, but no definite, enlightening thoughts are impressed upon their minds concerning the nature and organization of their characters; no searching test of capacity is applied ere they enter the arena of life.

As the great majority of young men are pushed from the school into the whirl of business activity with but a faint idea, if any, of the demands which will be made at once upon their intelligence, is it a wonder that so many fail, aside from the fact that their introduction to the sphere of self-maintenance has been made at a venture in so far as personal fitness for a vocation is concerned?

It is high time that the vaunted intelligence of the nineteenth century was illustrated in this most important matter. It is high time that parents belonging to the leading class in the community had ceased to think that the school and college afford complete preparation for the work of life. The misplaced multitude should arouse them to the performance of their duty, which is not merely the inculcation of habits of industry and economy—which are aids to success in almost every undertaking—but chiefly to study the mental, moral, and intellectual character of their children interiorly and exteriorly, and to estimate deliberately and cautiously their capability.

The eminent Archbishop Whately comprehended the relation of education to the mind, as appears from this statement: "It must not be forgotten that education resembles the grafting of a tree—that there must be some affinity between the stock and the graft." To be sure, it is not always easy to determine the tendency of a child; yet the

intelligent, earnest parent has an advantage over the ordinary teacher or observer, which, with the practical and scientific aids at his command, will eventually arrive at a determination. That advantage is his kinship, and the resultant similarity in many respects between himself and his child.

It does not require extraordinary talent or scholastic culture to make a man skillful as a horse-trainer or stock-raiser. Now and then we find a horse-jockey whose power over the brute is as wonderful as his illiteracy. This power he has obtained by close observation of a horse's habits, and by adapting his training to them. What is true in the training of a horse, is true also in human training, so far as philosophy is concerned. If parents, as a rule, bestowed as much care and discretion upon the training of their children as the skillful stock-raiser does upon his cattle, the result would be most happy in its effects upon society; the sorrowful cry of the misplaced and unsuccessful would lose its volume. Now it is as the "voice of many waters;" then it would become but an occasional mourner.

PHILANTHROPY.

THIS is the age of movement and agitation for the improvement of society in moral tone. Every town large enough to maintain a police organization has its society, called by one name or another, the ostensible purpose of which is the suppression of vice. There is the great Temperance movement with its orders and divisions in every part of the country, and with its agents and lecturers constantly at work among the degraded. There are the many societies for the protection of animals, for the prevention of crime, for the protection of children, for the reform of unfortunate women, for the rescue of orphaned or desti-

tute children, etc. Besides these, every well-sustained religious body has its missionary enterprise for the dissemination of Christian truth and the bestowal of Christian alms among the vicious and poor. Thousands of men and women devote themselves to the prosecution of these humane enterprises, and millions of dollars are expended annually in their promotion. Earnest, cheerful, self-sacrificing effort is more generally characteristic of these reformatory workers than of those who labor in other fields of human activity. We have known men and women to spend days and nights in the haunts of poverty and vice, ministering to the sick, pleading with the obstinate, and this at no small risk of personal harm, and through all experienced a high sense of enjoyment. Such services as they rendered with even eagerness were scarcely to be obtained for money, yet the idea of pecuniary remuneration never occurred to them. The conviction that they were doing good; that they were giving help and comfort where help and comfort were much needed, fed their generous souls with joy, and they deemed themselves well rewarded.

It is the gratification experienced by the moral organs when men are active in philanthropic work that keeps alive so many benevolent enterprises. It can not be the results accomplished, because they are, in most cases which are deemed successful, far from adequate to the expenditure of time, thought, and labor in their behalf. In fact, did the philanthropist expect a return commensurate with his labor, benevolent efforts would ere long be quite suspended; and then, as matters are, nothing short of a miracle would prevent an era of vice and moral degradation.

Yet the very constitution of man indicates that his moral powers should dominate in his mental economy, and the growth of

philanthropic enterprise, under Christian auspices, during the past fifty years especially, is to us significant of the approach of a time when, despite the virulent opposition of men bound hard and fast in the chains of habit, and avarice, and custom, the normal relation of the faculties will be established, and truth, purity, justice, kindness, fraternity, and godliness will exercise their rightful dominance in human life.

THE NEW WAR.—England is evidently one of the powers that “delight in war,” for now she has commenced hostilities with Afghanistan, and at this writing a strong force is in the Ameer’s country. It is not

likely that the half-savage Afghans will be able to stand against the well-appointed English troops, although in their mountain fastnesses the former may show a good resistance, and victory may perch upon the British bayonets only after many lives have been sacrificed.

There is no little wrangling in British political circles over this new move of the Beaconsfield administration, for the reason mainly that war was begun without the sanction of Parliament, that body not being then in session; and it is evident from what is published in the newspapers, that a strong party exists in England which is adverse to war with any nation.



“He that questioneth much shall learn much.”—*Bacon.*

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.

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. Anonymous letters will not be considered.

HEREDITARY TRANSMISSION.—E. C. C., Ontario.—A great deal has been written and said on this subject during the past three or four years, and a good deal of life was infused into its discussion by the Rev. Joseph Cook’s lectures in Boston last winter. You can not deny the effects of inheritance, because they are exhibited on all sides. As a “tree is known by its fruits,” so character and conduct exhibit organization. Organization is certainly derived through parentage. Animals differ, and the dif-

ferences are recognizable even unto the tenth generation. The subject is treated in a very interesting manner by two or three books published at this office; one known as “Hereditary Descent,” another as “Transmission”; the latter is a small pamphlet, costing but twenty-five cents. Reformers and economists discern the improvement and salvation of the race in improvement of the human stock, and think that unless care is taken in the start, at the planting of the seed, as it were, much can not be expected in the way of an improved race. It is a fact which statistics abundantly demonstrate, that the vicious qualities of people in whom the propensities dominate are transmitted to, and appear in, their progeny. A distinguished English writer in a book entitled “The Jukes” shows how, from a single pair of degraded persons, hundreds of descendants proceeded whose crimes and vices made them notorious subjects of judicial discipline.

CULTIVATING THE FACULTIES.—A. L. T.—It should be the aim of a person to cultivate and strengthen the weaker of his faculties, especially those whose influence in the character is desirable. If one have weak Conscientiousness, for instance, he need not fear to over-develop it if the organs at the base of his brain be large and active. If one have large Acquisitive-

ness, or any of the other organs commonly denominated selfish, he should seek to regulate their action, which can best be done by strengthening the moral powers and enlightening the intellect with regard to the ways of life.

VENTILATION.—B. B. F.—As houses are generally made, it is better to draw down the upper sash of a window, for the reason that the warmest air, particularly during the winter, collects near the ceiling, and injurious matters are carried up into it by the current from the floor. Drawing down the sash will afford a double means of ventilation: permitting the warm and noxious air at the top to escape, and the outer air to enter at the bottom of the sash through the space between it and the lower one. When the weather is cold, it is not necessary that the upper sash be lowered much; an inch or two would be sufficient for a room of average size—that is, fourteen to fifteen feet square. A room which is used for the general assembling of the family, what is called a living-room, should not be less than that in dimension.

ANIMAL MINDS.—C. S. W.—The animals lower than man have reason to some extent. This is undeniable. Any one who will watch the conduct of a horse or a dog or a cat for a short time must be convinced that these animals are appreciative of their surroundings in such a way as to adapt themselves to them. Instinct—the quality which we usually impute to an animal as originally belonging to it—appears to have almost an automatic mode of action. A bee gathers honey without any instruction from its fellows. A squirrel collects its store of winter food, although it may have lived entirely by itself from babyhood. The ant exhibits the same frugal disposition. Reason has its different grades; its low and its high phases. In the animal it is exhibited mainly with reference to self-protection or appetite, but is often wonderful in its action.

ADULTERATED WHEATMEAL.—That kind of meal or flour which contains a portion of the bran is known as Graham flour. When properly made, it is nearly as costly as the superfine or bolted sort. Unfortunately for those who must depend upon storekeepers, Graham flour (as you think from your experience) is very largely adulterated in our cities. The dealer will take a barrel of superfine flour which has cost him, say five dollars; then add to it fifty or sixty pounds of common bran—perhaps some middlings, but generally not—and mix up the bran with the flour. This is sold as "Graham." It is a swindle, of course, and indicates the increased demand for a good article of wheat flour by the public, which is becoming more and more educated every day on the subject of nutritious food.

A GOOD CEMENT FOR LAMPS.—In reply to a correspondent of some time ago, we would suggest the following as adapted to the purpose of re-attaching a brass collar to the glass neck of a lamp: Take three parts of resin, boil in one part of caustic soda and five of water. Mix this composition with half its weight of plaster of Paris. This sets firmly in from a half to three-quarters of an hour; is said to be strongly adhesive, and not permeable to kerosene oil.

MEMORY—SELF-IMPROVEMENT.—E. F.—Read books of a good class with close attention, and think after you have read them of the subjects considered. Read the poetry of such writers as Lowell, Tennyson, Whittier, Longfellow, Scott, and the prose of such authors as Addison, Lamb, Mathew Arnold, Hawthorne, Farrar, Curtis, Hamerton, and others of standard celebrity. Also read the little book entitled "Transmission," which you will find on our list of publications, and if you need further suggestions, the new book, "How to Read," will be of service.

MORAL PHILOSOPHY.—L. P. C.—Through the courtesy of the editor of *The Churchman* your inquiries have been communicated to us. Their pertinency is appreciated. In our review of the books sent to us by publishers we are necessarily brief, but aim in every case, especially where the volume appears to be worthy of consideration, to present its general scope or bearing. You have mistaken a mode of treatment, which was intended as literary criticism merely, for an indorsement of the author's religious views. We are not ready to accept Evolution, because we deem that theory still much removed from a *res adjudicata*; and we have certain well-settled religious views, which have been entertained since childhood, which would require a goodly number of "demonstrated conclusions of impartial thought," called scientific or otherwise, to disprove. A careful reading of our "Letter to a Clergyman" on "Conversion" in the December number should give one a clear impression, we think, of the attitude of the editor in this respect.

ALKALINE DRINKS.—C. A. H.—We advise you to avoid alkaline drinks, as likely to disturb the functions of the system. If you wish to reduce your flesh, refrain from using oily food, sugar, and fine flour. Graham bread and oatmeal, with tart fruit and a little lean meat, will bring your weight down to the proper standard, more especially if you eat lightly. Three-quarters of the human race, in this country at least, eat twice as much as they need, and those who can digest it are apt to get fat.



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

SARJEANT COX ON PSYCHOLOGY.—At a late meeting (the Fifth Annual) of the Psychological Society of Great Britain, a report of which was published in the London *Daily Chronicle*, Mr. Sarjeant Cox, President, occupied the chair and delivered the sessional address on the claims of Psychology in the place of the several sciences. In the course of this address the speaker took occasion to say that "Psychology was essentially distinct from Biology, with which it was often confused by the Materialist, but no stretch of definition could by any means be made to include the two. The biologist had taught them what a living thing was, physiologists the structure of the living thing and the function of its organs, and the anthropologists directed his attention to man, but there yet remained a great region to be explored.

"Unless man were merely a machine, an automaton, there must be something within him and without him that intelligently directed the motions of his mechanisms to definite and intelligent objects. The motions manifested obey a power within the man which is called his will. Some ask—having got to the mechanism of man and mastered it—why should they not stop there. They said, Be satisfied with our happy conclusion that mind is a secretion from the brain, and soul a myth—a fancy, the invention of priest-craft and the paradise of fools. But Psychology asserted emphatically that mind was something more than a brain-secretion, and evidence could be brought forward of the existence of soul as a definite, distinct entity. That was a theory undoubtedly, and psychologists want more facts before they could dare to dogmatize, and it was their special business to make search for those facts.

"At the foundation of their science was life, and next came mind; then followed the great question, duality of the mind. They had two brains, but had they two minds? To analyze any one character of Shakespeare was a psychological study, and no better exercise than that could be given to the student. The psychologist must investigate the phenomena of sleep and dreams, of insanity, of somnambulism in its natural or induced condition; the mystery of mental sympathy and communion, and that curious consequence of a double brain and double mental organism, the action of one without the other, or the action of both in divergent directions, but unconsciously to the individual whose

attention was engrossed in receiving the impression of the brain most active at the moment. Was mind inherited? Was mind always what it is now? Was the Darwinian theory true that he was the lineal descendant of the mollusk and grown to be what he was by a slow process of evolution continued for thousands of years under the action of a universal law of the survival of the fittest, being thus adapted to the other changed condition of the world that he had inhabited?

"What man was, what he is, suggested at once the question of what he would be. These and a hundred other questions it was the province of the psychologist to answer—not theoretically, but by observation and the collection of facts. The psychologist recognized with awe and veneration, in all the ceaseless round of dissolution and reformation, the presence of an animating and directing and intelligent power, very like that he was conscious of in himself. Recognizing soul as an intelligent force that was within, he also recognized the presence and the action of the lighter force without, and Psychology was not a sham, but a real science. Every inquiry must be counted so as to try what truth there was in it. It was not a sufficient cause, as Mr. Gladstone had denied, of turning away from so much as might be true, because charlatans had traded upon credulity, and imposture had thronged around it."

AN OLD FRIEND OF PHRENOLOGY IN AMERICA.—From the correspondence of Mr. D. W. Chase, a gentleman and teacher long well known in New England, the following statement is derived:

"In the year 1832, being a student of the Wesleyan University in this city (Middletown, Conn.) under the tuition of that noblest of men, President Willbur Fisk, D.D., I gave my best attention to mental science as developed by the works of Thomas Upham.

"Finding these works—though reinforced by the able instructions of Dr. Fisk—gave me no practical knowledge of human nature (a knowledge of which I longed to attain), I devoted my vacations to the study of Locke, Stuart, Brown, Reid, and other writers on mental science, but without securing the coveted knowledge. At last, throwing aside all metaphysics, I prepared a note-book and pencil for jotting down the results of my own tedious and laborious study of human nature from actual life. By this process I learned a few of what seemed fundamental faculties. While thus engaged I came across an article in a British review, from the pen of Mr. Chenevix, on Phrenology—a defense of it. This gave me my first knowledge of the labors and works of Gall and Spurzheim, whose books I soon secured. So far as I can now remember,

all the faculties I had laboriously worked out agreed with the phrenological ones, and the many more defined by Phrenology seemed in accordance with my own consciousness and observation.

"At once I gave myself to examinations and manipulation of heads, in order to test Phrenology thoroughly, and in time became convinced that all the larger organs are correctly named and located. Practice enabled me to read the character of strangers with some accuracy, especially when the character was a marked one. In those early days, to be a phrenologist was sure to bring one any quantity of ridicule and opposition; for almost all scholars were educated in metaphysics, holding the immaterial soul to be the only source of thought, feeling, passion, and will. On one occasion a gentleman of New York disputed with me vigorously, but finally promised to yield faith in Phrenology if I would correctly declare the character of his young daughter (whom I had never seen or heard of) from an examination of her head. I agreed to the examination if he would first write out her character fully and lay it aside for comparison with the one I would write out. On calling, immediately after my arrival in New York, I found he had kept his promise and the character was already written out by him. I also wrote it, and then came the comparison, which showed a perfect agreement in every point save one, and on this we also agreed as soon as he had explained his meaning in it.

"So far as known to me, I was the first man in this region to embrace and defend Phrenology. In 1836 or '7 this fact probably brought Mr. L. N. Fowler to my house and school, and laid the foundation of the very pleasant and profitable acquaintance since subsisting. I well remember the accuracy with which he told the traits of my pupils."

THE SPELLING-REFORM MOVEMENT.

—We are requested to publish the following as a specimen of revised spelling, and to inform our readers concerning what is being done in some departments of American scholarship:

"The Spelling Reform Assosiation assembled for its second annual meeting, according to announcement, at Fabyanz, White Mountainz. A gaudy number of fonetishanz and educatorz wer present. In the morning an able paper by Prof. March woz red. In the afternoon, after the usual offshal biznes had bin transacted, the folowing rezolushonz wer past:

"*Resolved*, That this Assosiation recognizes the use of three diverse, but not necessarily conflicting, modes of carrying on this reform. 1. A purely fonetic method on the basis of a singl leter for a singl sound. 2. The method pro-

pozed by the comitee on the new spelingsz at Baltimore and recommended by the Assosiation for jeneral adopshon. 3. A method without new leterz, in which the best use iz made of the tipes alredy found in the printer's case (the Anglo-American).

"*WHEREAS*, Within the memory of the present jenerashon serten superfluous leterz hav bin dropt, *e. g.*, *k* from such wurdz az *music*, *public*, *ets*.

"1. *Resolved*, That authorz and the pres jeneraly ar hereby earnestly solisited tu further aid the cauz of spelling reform by riting and printing the wurdz *hav*, *giv*, and *liv* without the silent *e*.

"2. *Resolved*, That teecherz ar invited tu giv thair help tu the spelling reform by omitting tu mark agenst thair pupils az erorz the riting of the wurdz *hav*, *giv*, and *liv* without the silent *e*.

"3. *Resolved*, That this Assosiation recomendz all teecherz tu giv thuro training in spelling by sound, az an aid tu acurate pronunsiashon and az an introdueshon to an amended orthograpy.

"4. *Resolved*, That the American Institute of Instrucahon and uther edqcashonal assosiationz be requested tu adopt the foregoing rezolushonz.

"*WHEREAS*, The Comitee on New Spelingsz hav reported serten new leterz az final and serten rules of spelling for jeneral adopshon.

"1. *Resolved*, That the funds of this Assosiation shal no longer be uzed tu print hoelly in the old spelling.

"2. *Resolved*, That nothing shal be printed in the name of this Assosiation in the old spelling.

"The ofiserz of the Assosiation wer re-elected without change. President, Francis A. March, LL.D., Lafayette College, Easton, Penn.; Vice-Presidents, S. S. Haldeman, LL.D., University of Pennsylvania, Chickies, Penn.; W. D. Whitney, LL.D., Yale College, New Haven, Conn.; Hon. W. T. Harris, LL.D.; St. Louis, Missouri; C. K. Nelson, D.D., Annapolis, Md.; E. Jones, R. A., Liverpool, England; Eliza Boardman Burnz, 33 Park Row, New York; Secretary, Melvil Dewey, P. O. Box 260, Boston, Masu.; Treasurer and Corresponding Secretary, Prof. E. H. Barlow, Easton, Penn."

SATISFIED YEARNINGS.—I have often been in that frame of mind depicted in the article entitled "Yearnings" in the November number, and can fully sympathize with the writer, if, as in my own case, "Yearnings" is the fruit of an active brain and unoccupied hands. But who ever dreamed of such an amount of dissatisfaction ever troubling one whose hands were busy? What though we may fail to realize fully our heart's best and highest wishes, we may enjoy enough to keep us from "fainting into the lowest weakness of despairing." When we "rise to unutterable heights of thought," why not cull some mementoes from the lofty vision as evi-

dence to carry with us, if our "yearnings" compelled us to make the transit to the "ghoul-haunted regions" of mental despair?

Without longings for perfection, progression must die. If "yearning" mortals, who "stretch their hands pleading up to God," would oftener stretch them out to raise a fainting, dying brother, they would better realize that degree of satisfaction that comes from the approving conscience, and inwardly hear, "Well done, good and faithful servant."

There is more "rest" in "clasping the sunshine while we may," than in sitting down to wait for the "beautiful golden sometime." "Haste not," that we may not leave unfinished any work our hands may find to do; and "rest not," that when we pause on the brink of time, there shall be left no unsatisfied "yearnings" but those immortality shall fill.

ALIDA J. S. BROOKS.

INHUMAN IGNORANCE.—"A harsh expression," the reader will say; but to our mind, the ignorance of some human beings takes the form of inhumanity. What other epithet than "basely, inhumanly ignorant" can we apply to that mind which delights only in acts of cruelty? It is astonishing what evil results flow from man's ignorance of the human mind. Grand, noble lives go out in darkness. Minds that should lead in the higher walks of life are banished in oblivion, and the purest affections of mind and heart are trampled in the dust from this cause alone.

We have parted from dearest friends; we have watched the flickering spark of infant life go out; we have stood at the bedside of a dying father; but never have we seen so sad a sight as that caused by man's inhuman ignorance of mind.

Circumstances placed a pure, brilliant, refined, and sensitive mind in the power, socially, of the brutally ignorant. There was no escape from their inhuman ignorance. That beautiful mind was seared and blackened; that joyous young life was turned to a life of unutterable misery, and its high and holy aspirations blotted out forever. At last the proud spirit sank beneath its weight of untold agony; reason forsook its throne; and the once spirited and intellectual woman became a wandering maniac. In after years her reason was restored, and she obtained a comparatively comfortable home; but she can look back upon her past life only as upon a dreary and blackened waste, and her only hope is for a better life beyond the grave.

But the consequences of this inhuman ignorance does not end here. To her children and her children's children is bequeathed—by the law of hereditary descent—a legacy of sorrow and pain. Her morbid mental and physical condi-

tions have been transmitted to her offspring, and they, too, must suffer for the guilty.

Oh, well for those who caused this union that they know not what they have done. How can they go about the streets with smiles upon their features knowing that they have blasted forever a human life? And yet we should pity them, as much, perhaps, as their victims. To what a narrow, cramped sphere are their lives confined! How little true happiness is compassed within it; and how low they will be in the scale of progression when they enter upon the life that is to come! Yes, we *should* pity their ignorance and brutality; we *should* strive to lead them to a higher life. Instill into their minds the sublime truths of Phrenology and we gain a double victory—we make them better men and women and save those whom they would injure, beside adding to our own happiness. Whereas, were we to injure them in return, it would make ourselves as bad as they.

Then let us labor on, that men may learn more and more of the human mind. What though the ignorant sneer at the science that would abolish so many of the causes of human misery! In the end it shall enlighten even them.

All hail the day when, throughout the length and breadth of our fair land, Phrenology shall be known and felt! Then such mental wrecks as we have attempted to describe will be unknown, and those who come after us will have no need to head an article, with "Inhuman Ignorance."

JAMES FERRIGO.

PERSONAL.

MR. GEORGE BANCROFT is so rigid a temperance man, that he refused, in his great pain and exhaustion after his late accident, to taste the wine prescribed by his doctors.

MISS ANNA DICKINSON has given up the dramatic field. During the coming season she intends appearing again on the platform. Her dramatic ambition cost her, we are told, about \$30,000.

ADMIRAL PAULDING, of the United States Navy, the son of John Paulding, one of the captors of the ill-fated Major André, died at Huntington, Long Island, on the 20th of October. He was born in Westchester County, New York, December 11, 1797, entered the navy in 1811, and at his death was the last surviving officer under Commodore McDonough, of the battle of Lake Champlain, and the senior flag-officer on the retired list of the navy.

MISS GRACE C. BIBB has been appointed a member of the Faculty of the State University at Columbia, Mo., at a salary of \$2,000.

GENERAL GRANT is still in Europe. He lately "dined" at Lisbon with King Louis of Portugal, who took the occasion to offer the General the highest decoration of knighthood known to the kingdom. The General declined the honor, but expressed his thanks, and accepted a copy of the King's translation of "Hamlet" into Portuguese.

MADAME ARNAUD DE L'ARIEGE, who is soon to be married to Gambetta, is ten years his senior. Her fortune is said to be 40,000,000 francs, one-third of which, by consent of her two children, she has agreed to settle on Gambetta. She believes that her vast fortune will be well spent in consolidating the republic and enabling Gambetta to devote himself to public business.

WISDOM.

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

It is a great art to be able at all times to tell less than you know.

THE wealth of a soul is measured by how much it can feel; its poverty by how little.

It was a common saying among the Puritans, "Brown bread and the Gospel is good fare."

IN matters of conscience, first thoughts are best. In matters of prudence, last thoughts are best.

As riches and favor forsake a man we may discover him to be a fool, but nobody could find it out in his prosperity.

THERE are few wild beasts more to be dreaded than a communicative man with nothing to communicate.—M. DE BOLAND.

THERE is many a man strong enough to hold a bull by the horns, and yet not strong enough to hold his own tongue.

JOHN WESLEY says: "Get all you can without hurting your soul, body, or neighbor; save all you can and give all you can—being glad to give and ready to distribute."

COULD we rightly and duly reflect on the misfortunes of other men, we should be much more thankful than we are for the many undeserved blessings which we daily enjoy.

THE love of glory and fear of shame, the design of making a fortune, the desire of making life easy and agreeable, and the humor of pulling down other people, are often the causes of that valor so celebrated among men.

MIRTH.

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

ALL men are not homeless, but some are homeless less than others.

WHY are some people like eggs?—Because they are too full of themselves to hold anything else.

A Miss TANNER, who recently married a widower named Hyde, with eleven children, says she has given up tanning and is now dressing Hydes.

DOCTOR.—"Um! most insolent!" (*To his wife*). "Listen to this, my dear." (*Reads letter aloud*). "'Sir—I inclose a post-office order for two dollars and fifty cents, hoping it will do you as little good as your two very small bottles of 'phycic' did me.'"

A YOUNG man in the country wrote to a Boston bookseller as follows: "Dere sur—if yew hev gut a book called Daniel Webster on a bridge pleas to send me a copy by Pyser's Express C. O. D. I want ter git it ter morrer if i kin, caus my spelln teescher sez i oughter hev it."

A LIQUOR-DEALER applied to a customer for a letter of recommendation of a certain brand of whisky he had already sold him. The customer wrote: "I have tried all sorts of insect-polson, and find none equal to your Old Cabinet Whisky."

SAID a mother to her little son—"There! Your toes are out of your stockings again. Seems to me they wear out in a hurry." Giving a comical leer, he said: "Do you know why stockings wear out first at the toes?" "No." "Because toes wriggle, and heels don't."

A YANKEE auctioneer lately indulged in the following bit of the pathetic: "Gentlemen, if my father and mother stood where you do and didn't buy these boots—these elegant boots—when they were going for one dollar, I should feel it my duty as a son to tell both of 'em that they were false to themselves and false to their country."

A LITTLE five-year-old fellow came up to his mother the other morning, and with great earnestness said: "Mother, I saw something run across the kitchen floor this morning, and it hadn't any legs either; what do you suppose it was?" The mother's curiosity was excited, but not knowing what else to say, she supposed it was a worm, or something of that sort. Having for some time enjoyed his mother's inability to solve the problem, he said: "It was some water."



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 TEMPERAMENTS; or, The Varieties of Physical Constitution in Man, considered in their Relations to Mental Character and the Practical Affairs of Life, etc. By D. H. Jacques, M.D. With an Introduction by H. S. Drayton, A.M. 12mo, pp. 239, cloth. Price \$1.50. S. R. Wells & Co., Publishers, 737 Broadway, New York.

We remember hearing a lecturer on physiology say, in reply to a student's question, that the subject of Temperament had not been fairly considered by any medical author, and that one must study it in life to obtain a knowledge of its importance. This statement led us to look a little into the literature of the subject, and we were surprised to find that but a half dozen authors had deemed it worth while to devote a volume to the discussion of temperaments, and they have become so little known or inaccessible that very few persons, even in the medical profession, can give their names. To be sure, general treatises on physiology contain a few pages on the characteristics of the three or four temperaments, but aside from a mere glimpse in the way of definitions, the student obtains nothing of special use.

The present volume bears the marks of careful personal observation on the part of its author. He had been a student of human nature for many years, and his reading had been in related lines; and appreciative of the want of information on the Temperaments in both lay and professional circles, he sought to supply it, or at least to furnish data whose immediate service and value would be at once apprehended. He has been most successful, for the work is attractive in the opening; its style and matter and numerous illustrations awaken attention and retain it to the end. The work has a permanent value to all who would improve themselves in body and mind, for it abounds in advice—physiological and hygienic and social—which if followed by the reader, must have a good effect, and enable him to live with less need of the physician and the druggist than has been the case. We are astonished by the important part temperament plays in our lives from the cradle—nay, from before birth. Dr. Jacques has not attempted to do more than to give us the plain facts in a clear,

unexaggerated manner. Indeed, deeming health and the means of attaining and preserving health as much the property of one man as of another, he has prepared his book for all to read, and if everybody would accept our advice, everybody would procure a copy of "The Temperaments" at once and study it page by page.

MOTHER TRUTH'S MELODIES: Common Sense for Children. A Kindergarten. By Mrs. E. P. Miller. 12mo, cloth, gilt, pp. 316. Price \$1.00. New York: G. W. Carleton & Co.

Here is the sort of rhymes and jingles for children which we can not help approving. Mrs. Miller has certainly caught the spirit of "Mother Goose," so far as writing a very amusing series of verses for nursery uses is concerned, and she has done much more, in that her verses contain a considerable amount of instruction. The mamma or nurse who may teach her little one to prattle many of the little rhymes will furnish his memory with some of the facts and philosophy of practical, every-day science. For instance, under such titles as, Toss the Baby; Dive me Sudar; Hey my Kitten, my Kitten; Humpty-Dumpty; C-a-t spells Cat; The Wind; The Rain; Old Sol in a Jingle; The Rattle of the Bones; The Children's Railroad; The Breath of Life, Mrs. Miller weaves in a deal of information on food, conduct, treatment of animals, human anatomy, the constitution of the atmosphere, of water, the nature of the sun and planets and their relations, etc.

Of course, a child's book would be nothing without pictures, and this has upward of three hundred which contribute their mixed elements of the funny and sensible to enhance the value of the volume.

LOUISE AND I: a Sea-side Story. By Charles Richards Dodge (editor of "Field and Forest"). 12mo, pp. 285, cloth. New York: G. W. Carleton & Co.

A breezy, pleasant book, in the style which its title would imply. Now that summer days are gone and chilly winter makes one seek the fire-side—or rather the warmth of register or stove—the mind will recur to the outdoor freedom of "vacation days" and to those never-to-be-forgotten ecstasies on sea-beach or mountain-top—if one had leisure and rhino enough for such luxurious ease and diversion in the season of heat. Well, they who look back fondly to the joys of sea-side sojourn will find "Louise and I" a book much to their mind. In dialogue and otherwise we are given many pictures of character, as it is presented in the easy and somewhat disjointed life of the hotel and watering-place; and now and then a good bit of moral reflection comes in as suggested by the situation. We a little regret that just a bit of sermonizing was not put in with reference to tobacco; but that might scarcely be, as the "I" of the author seems as much given to the cigar, always "fragrant," as any of his male

companions of the hour. Louise or Millie should have "preached" a little to the smokers. Taken as a whole, the book is a very faithful series of portraits of the bright, piquant, versatile life of young people in summer quarters.

THE HOUSE BY THE WORKS. By Edward Garrett, author of "Crooked Places," "Occupations of a Retired Life," etc. 12mo, pp. 334, cloth. Price \$1.50. New York: Dodd, Mead & Company.

The first figure to whom we are introduced in this story is a young woman driven by an unexpected sorrow to desperate resolves. Her purposes, however, find somewhat of a foil in two little children met accidentally on a sea-beach, whither she had gone to tell her "mad thoughts" to the murmuring waves. Linked with this first figure is a series of descriptive incidents which show with a clear light sundry phases of life as it is in most industrial towns. Aside from these, which are usually wrought out with much force and earnestness, a goodly number of moral reflections are interwoven as the story proceeds, and now and then a hearty outburst of indignant criticism on the unjust ways of wealth and class privilege in their relations to the poor and weak. Mr. Garrett gives his story an English location, and his characters a pretty thorough English flavoring, but the principles of socialism, industry, and morality which he illustrates, exist as well in America and bear conspicuous fruit; so that the reader here, as well as "over the sea," can scarcely fail to be deeply interested in the book. We like the manner in which the author presents one important matter which the world generally, or rather practically, esteems a concern entirely of woman, whereas it just as much relates to men, and true justice would condemn one sex as much as the other.

HYGIENE OF THE BRAIN AND NERVES, and the Cure of Nervousness, with Twenty-eight Original Letters from Leading Thinkers and Writers concerning their Physical and Intellectual Habits. By M. L. Holbrook, M.D. Holbrook & Co., New York. 1878.

Intelligent people know less relatively of their brains than any other part of the system, and until within a few years the brain has been measurably a *terra incognita* even to physicians. True, they had cut it in slices, examined its form and given names to different parts of it, but the names had little meaning, because the functions of the different parts were not understood. The medical profession is beginning to study the brain, and we are glad to see that Dr. Holbrook has brought his knowledge of the subject within the reach of the common reader and thinker. The perusal of his book can not fail to be of lasting benefit to all who peruse it thoughtfully, and especially if they are not well versed in the subject of physiology in general and of the brain in particular. The chapter on "Nervous Exhaustion,

with its Causes," and that on "How to Cure Nervousness," are specially valuable. The chapter on "Food in Nervous Disorders" will also repay careful study. Almost every page of the work is worth the price of the book. The letters from eminent men and women, which constitute about half the book, will be read with interest, and the experiences and habits which are described by them will command attention. We hope "Hygiene of the Brain" will have a wide circulation, as this country and this age are particularly afflicted with overworked and half-crazed brains.

LIFE AT HOME; or, The Family and its Members. By William Alkman, D.D. A new and revised edition. 12mo, cloth, pp. 249. Price \$1.50. New York: S. R. Wells & Co.

This admirable book was prepared for the newly married; at least the author had such persons chiefly in mind, yet it is not for them alone, but rather to do something toward making stronger and more beautiful the union between husband and wife, to create happy and influential homes. Believing that true marriage is the fullness of virtue, Dr. Alkman points out many of the features in which it consists. Were his counsels followed, we are sure that the welfare of society would be greatly promoted. We are sure that by so doing they who are in the bonds would experience new-found happiness. It is just the book which people contemplating marrying should read carefully and faithfully; just the book which solicitous fathers, mothers, ministers, and friends should place in the hands of the marriageable.

CHRISTIAN AND DEIST and the Prophets: being a Business Man's Views upon Religious and Social Matters. By D. V. A. 12mo, pp. 206, cloth. Price \$1. New York: Charles P. Somerby.

As the author tersely declares the purpose of his book in its Preface, we can not do better than use his language: "This little book is written to supply, in a measure, a demand from those seeking after truth as to the *authority* of the Christian and Jewish Scriptures." He then goes on to say that he has critically examined these Scriptures; that his investigations have extended over many years, and have resulted in his personal conviction, that as a divine revelation, they are without authority, and "irreconcilable with the cause of truth."

His reasoning is of the rapid, sweeping order. His quotations from authorities appear to us in several instances to be the selections of an *ex parte* advocate. He disposes of the gravest points in Christian theology in about one hundred small pages of large type. But while he disbelieves Bible Christianity, he believes in Deism, it seems, and thinks Jesus of Nazareth taught correct principles of morality and human

fellowship, which, if followed simply, divested of the many dogmas with which they have been weighted, would effect a great transformation in the affairs of men. "Let them," he says, "root out from the heart a large share of that old chronic selfishness, and cultivate in its stead true altruism, or, in other words, learn to love their neighbor about or quite as well as themselves." How easy it is to talk about this matter of social reformation, D. V. A. Look at people's heads; you can not change their characters without bringing about a corresponding modification in the shape of their heads. In what these are you behold the outcome of generations, and your best-laid plans would need generations to produce your fanciful ameliorative effects.

PUBLICATIONS RECEIVED.

THE MANUFACTURER AND BUILDER. A well-sustained New York monthly, relating to the industries comprehended under its title. Its reviews of features which indicate progress in science and art are valuable, and show that the editor is thoroughly alive. Price \$2 a year.

THE MEDICAL TRIBUNE: a monthly journal devoted to Medicine, Surgery, and the Collateral Sciences. This is a new candidate for the suffrages of medical men. It seems in the start to be actuated by a progressive, liberal spirit. The salutatory of the editor contains this appreciative sentiment: "The physician is properly nature's servant, minister, and priest. His knowledge can not be legitimately circumscribed to an acquaintance with maladies and their specific treatment. His proper study embraces humanity as a whole. It is indispensable for him to know the mental, the moral, and the physiological laws, as well as to understand physical and pathological phenomena. We can esteem no information lightly, no matter how it may have been contributed, which will enable him to be more useful in any way in his calling. General erudition and good sense are the indispensable endowments of the accomplished practitioner. He should make choice of his vocation because he has love and enthusiasm for it, and a generous regard for his fellow-men. Mere learning derived from books or teachers can not otherwise transform him into a physician. But however natively endowed, he can rest content with nothing short of thorough proficiency. We plead for more, that every student of medicine shall become scholarly in other departments of knowledge." And in another place he says: "We submit to no aspiring leader; we denounce all proscription for opinion's sake; we subscribe to no Hippocratic oath; we forswear all regularity in the medical profession except that which exists by virtue of actual liberal knowledge; we refuse allegiance to any Code of Ethics aside from the Golden Rule; we acknowledge no authority but the Right."

If the *Medical Tribune* is carried forward ably and earnestly with such principles, it will probably obtain a large constituency of readers and subscribers. At any rate it will deserve them.

SCHIDNER'S MONTHLY for December is rich in matter and illustrations. An excellent article of an ethnological character is "The Cliff Dwellers," whose remains in our Western world have awakened so much interest among explorers and archaeologists. There appears to be an increase of useful and instructive matter in the later numbers of this magazine.

BOSTON JOURNAL OF CHEMISTRY, devoted to the Science of Home Life, the Arts, Agriculture, and Medicine. We frequently find matter of service to us in this publication. There is so much of science directly applicable to domestic life in it that it is well fitted for household reading.

JUST TO PLEASE THE BOYS. A new seriocomic song. Words by Jerry Cohen; music by William A. Huntley. Price 35 cents. F. W. Helmick, Cincinnati, Ohio.

FREE-TRADE IN MONEY; the Great and Practical Cause of Every-day Poverty and Ruin; Stringent Usury Laws the best Defense of the People against Hard Times; an Answer to Jeremy Bentham. By Hon. John Whipple, LL.D., of Rhode Island. To which are appended Letters on the same subject from Nahum Capen to Hon. R. H. Gillette and the Hon. Edmund Burke; also other articles on the Power of Weights and Measures, and the Usury Laws of the different States; to which is prefixed an Introduction, by Nahum Capen, LL.D., author of "Republic of the United States," "The History of Democracy," etc. New York: American News Company. The old essay of Mr. Whipple is as applicable to-day to the methods of finance recognized in most States as it was when written, over forty years ago. The fundamental idea in the discussion is that money should be free; its circulation unobstructed; and that legislation which hampers or obstructs its circulation, which shows discrimination in behalf of any one interest or class in the community, is injurious and grievous. Mr. Capen, with true humanitarian zeal, would have the masses of the people, they who sustain production, protected against exaction and injustice, and he demands stringent usury laws. An array of data, no small argument in supporting his position, is offered for the reflection of the reader.

VICK'S ILLUSTRATED MONTHLY MAGAZINE continues to be as attractive and as practical and as popular as tact and intelligence and taste can make it. The December number contains a very beautifully-colored frontispiece of a new variety of amaranth.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 68. 1879.

NUMBER 2.]

February, 1879.

[WHOLE No. 483.]



JOHN P. JONES,

UNITED STATES SENATOR FOR NEVADA.

THIS gentleman has a large development of the vital system, which gives him ample health and sustaining power. He has a large brain, but there is body enough

to give it abundant support. He inherits many of his qualities from the mother's side of the family, as indicated by the comparative smallness of the features, fineness of the skin, and a certain delicate type of face and expression of eye. The anterior half of the brain is also like that of the mother, hence he has an intuitive appreciation of the facts of surrounding life. He is less inclined to dry, hard, logical thinking than he is to those impulsive, intuitive impressions which seem to lead a man in this way or that without any apparent reason, and his first impressions are generally his best. If he has any doubt as to what he should do, he should not act, but wait until he feels certain. If he were a lawyer in practice at the bar, he would have occur to him while speaking, the clearest and wisest thoughts which he ever would present concerning the case. He is not one who can lazily sit down and think out long speeches, but is more inclined to make up his speech, so far as words are concerned, as he goes along, and would be guided by his impulses and surroundings as to his method of expression. As a business man, the clearest and best impressions he ever has come to him like flashes of light, intuitively, and sometimes he is obliged to study to think out the logic of the proposed course to see whether it comports with what he knows before he consents to act upon it. He therefore has a quick judgment in business matters; is prompt in deciding important questions; usually decides first, and hunts for reasons afterward; and his success in life depends more upon this impulsive sense than upon hard, systematic thinking. He is ingenious, and would have succeeded well in mechanism. He has force of character when aroused to effort; is strong in thought and in execution. He has a good share of Acquisitiveness and

the appreciation of property, but he has sympathy, sociability, and that kind of cordial feeling which makes it pretty easy for him to spend money among his friends. In social life he should be known as a boon companion, witty, full of interesting conversation and impressive incident. He is very fond of society, full of friendly and affectionate feeling; makes himself acceptable to childhood and womanhood; and inheriting, as he does from his mother, so much of womanly tenderness in his whole composition, he listens graciously to those who need his counsels or his assistance; and though he may not always conform to the requests made to him, he will at least be genial and kindly. In social and domestic circles he exercises a leading as well as a cementing influence. It is difficult for him to say *no* even when he ought to; and people who know him, when they need an important service, seek him. He is polite and respectful toward those he esteems, and he is quite easily influenced by those who have a right to claim his sympathy and his assistance or his co-operation. If people meet him fairly, honorably, justly, he will not be otherwise than frank, open, generous, hearty, and co-operative. He is not one of the cold, distant, dignified kind of people who are hard to approach, and dry and unsympathetic in manner. Among the professions, medicine would have been one of the best fields for him. He would succeed also in the law, and should be an excellent speaker if trained in that direction.

The whole organization of head, face, body, and neck indicates massiveness, strength, breadth of feeling and character, and power to back up the purposes; and though his mind acts rapidly, he has method and system in whatever he thinks and does. His judgment of strangers is good, rarely mis-

taking their general scope of character and capability. When, however, he becomes intimate with people, there is a disposition to lose his critical impressions; for by allowing himself to become friendly and sympathetic, his power to say no, and to keep them at a distance, is weakened; thus he may almost forget that he had entertained a prejudice against a person. While we give him credit for having an immense fund of geniality and good-nature, we judge him to be high-tempered and strong in his anger when it is thoroughly aroused. He is not likely to forget a favor, nor does he forget an injury easily.

His memory is excellent with regard to matters and things in general, and especially good respecting his own experience and business operations; as a scholar, he would have shown remarkable memory of languages.

JOHN P. JONES was born in England, on the Wye River, January 27, 1829. He was the fifth child of a family of thirteen; and his fine intellectual and physical developments show that rare endowments of genius are not reserved for small families. As the question of ancestral descent is not one of importance to the American people, we will not trace it in this instance further than to say that the Senator is principally of Welsh extraction, but combines the Celtic with the Saxon race in sufficient proportion to unite the quick and intuitive perceptions of the one, with the courage, bravery, and moral hardihood of the others.

The family came to America in the year 1830, our distinguished statesman crossing the Atlantic for the first and only time at the age of eighteen months.

On being asked if he intended to visit the late Exposition at Paris, he replied: "I do not; between the Atlantic and Pacific Slopes, America furnishes ample scope for my ambition." In this particular he differs materially from many a native-born American.

In the fall of 1831 his father settled with his family in Cleveland, Ohio, where his children were raised and educated.

The subject of this sketch was a boy of peculiar brilliance, and his preceptor, the Hon. Andrew Freese, of Cleveland, made frequent calls upon the father, urging upon him the importance of affording the ambitious boy a collegiate education.

Young Jones' ambition, however, did not lead him to desire the life of a college student, neither did his father's pecuniary resources favor the scheme. He preferred instead the university of nature, with its mountain gorges and passes, its subterranean vaults and snow-capped mountains, its mirrored lakes and eternal hills, with people, things, and passing events for a faculty.

In 1849, in company with a brother next younger than himself, he took passage in the staunch sailing craft *Eureka*, a weather-worn lake barge, small enough to pass the locks of the Welland Canal before they were enlarged, and sailed through this narrow outlet into the St. Lawrence, out to the sea, thence around Cape Horn to the Golden Gate.

He went into the mines, and with his own pick and hoe dug out a fortune. After following this wild and romantic life for ten years or more, he came to the surface not only a millionaire, and therefore well qualified, according to American fashions, to be a political potentate, but a polished shaft fitted to adorn a choice niche in the social temple.

On being asked how he came to retain so much of the culture of other days through all this long experience of rude life in a miners' camp, he replied: "Manners are simply the outgrowth of heart impulses. If the heart be kind, the outward actions will never be rude or selfish. If I have any merit in this respect, it arises from an unselfish desire to better the condition of others. Besides, I was spared by nature an undue amount of egotism, which, I think, helps me more than anything else. The reason so many appear to disadvantage is on account of their unbearable conceit—their supreme love of self."

Concerning his school life, Mr. Freese, of Cleveland, once his preceptor, writes:

"John P. Jones was for some time a pupil of mine. He came into my department—the High-School—when about fifteen or sixteen years of age. I had noticed him frequently in the schools below. I could not help noticing him, for he was a rare specimen of a boy, finely developed physically, and not one in a thousand had a face so intelligent.

"In the High-School he acquired everything with great ease. He delighted in studies that taxed the reasoning powers. Geometry, I remember, was his favorite branch of mathematics.

"He was always poring over some volume of history; in other words, searching for proof against the day when the 'question' was to be discussed by the debating class. I distinctly remember that no boy in school was a match for him in these polemical contests. I think he knew 'Plutarch's Lives' by heart. He would commit and declaim passages from English and American writers with the ease and eloquence of a practical orator. His appreciation of these passages—their historical bearing—was always entirely beyond the conception of them reached by ordinary High-School students. His thought was simply prodigious. He was a great and noble-hearted boy. . . . He was remarkable in this feature of his character. He was as kind and tender in his feelings as a girl. I can not emphasize too strongly his kindness of heart, his quick perceptions, and hatred of wrong. He despised—*terribly despised*—a mean act. He was too proud to do a mean thing himself. I will further say that teachers never helped him. He got along, and would have succeeded had there been no teachers or schools."

His father brought with him considerable means when he came to this country, but lost most of it in the common crash of '37. He had a large family, but he would not allow one of the number to leave the paternal roof until qualified by age and education to go out into the world and battle with the vicissitudes of fortune successfully. To maintain and educate such a

family was no light task. At an early age the hero of this sketch felt that it was his place not only to lighten the burden by taking care of himself, but also to assist in the general expense. Accordingly he started out on the beaten track so universally tried by ambitious young men, viz., to look for a situation!

He walked the streets of Cleveland till his feet were sore, and then abandoning the undertaking, he remarked to his father with characteristic force, "*I will make the situation.*"

When a young man arrives at such a conclusion, his friends may rest assured that something will be done. One day soon after this event he called on his preceptor, to whom he was strongly attached, and said, "I leave for California to-morrow."

Of this visit Mr. Freese writes as follows: "I shall never forget this interview or the manly resolution of the boy as he said, 'I shall not return to Cleveland until I have inscribed my name high on the roll of honor, or acquired a fortune equal to that possessed by any man who has ever refused me a place in his store or counting-room.'

"I did not see him for a quarter of a century, when he again visited at my house. He was then a man of wealth, and a member of the United States Senate. He spoke as unobtrusively of himself as when a boy with limited means, but manly purpose, he bade me adieu, and left for the unfrequented Pacific Coast, to do and dare in the world's great enterprises. In naught did he seem changed, except that the precocious boy had matured into the superb man who now adorns our national courts."

"Honor," not fame, has been his ambition through life. While many a man similarly situated uses his office as an advertising scheme for a first-class Attorneyship, Senator Jones has ever regarded such measures as venal and dishonorable in the extreme. In all matters of legislation his course is frank, open, and above-board. He scorns the wily, tricky, wire-pulling scheme of the politician, and is no favorite with the lobbyist. When he once decides that a measure is right, he advocates it boldly, and seldom capitulates to the opposition. He never

espouses a cause till he has the support of truth and conviction on his side; then he has no need of resorting to deception.

The trait of character that showed itself in early manhood when he said, "I will make the situation," has followed him through life. In politics, as in everything he undertakes, he is a leader. In enthusiasm he is equal to the artist or poet. When an idea once presents itself as practical and important—emphatically the thing for the time,—it possesses him completely. It is the last thing thought of on retiring, and the first that fills his mind upon awaking; and should the goddess of sleep forsake him in the night-time, the picture assumes exaggerated proportions and heightened color. For its accomplishment he spares neither labor, research, nor money.

It matters little what the controlling subject may be, whether the acquiring of a fortune, the invention of a piece of machinery, the development of a mine, or the triumph of some beneficent act of legislation. At one time he thought he had found a rich gold vein, and he spent \$700,000 in proving the fact. This money, so far as the working of the mine is concerned, is now all idle capital, and will remain so until the condition of the country is different. Probably no man in Congress has so much reason to desire to place the metals at premium, especially gold, and keep them there. But he says he does not love money quite well enough to sacrifice the interests of such a nation as this for a little petty gain; that there are forty millions of human beings who just as greatly desire and are as much entitled to prosperity; and that when all the people are prosperous, the chances are best for a man to make money; if not by selling gold at a premium, in a thousand other ways far more legitimate and equally remunerative.

At another time he conceived the project of manufacturing artificial ice, and on the invention and construction of a machine spent an enormous amount of thought, as well as several hundred thousand dollars of money. But it is now a practical success, and likely some day to reimburse its inventor and patron.

The first great problem with which he busied himself was the acquisition of a fortune; yet he is by no means a sordid lover of money, for the natural impulses of his nature are stronger in the direction of giving than acquiring. But he said: "A competency I must have as a basis of action. Now, I am not going to devote my life to the narrow, scheming speculations of simply making money and finally leave it for some one to spend when I am dead. Money is a means, not an end; and I intend to acquire enough of it to answer my purposes in the briefest possible time consistent with honesty and fair dealing among my fellows."

In matters of legislation he usually busies himself with generic problems. There are always plenty of men good at following out the details of some petty scheme which other minds have reduced to practice; but there are so very few who are willing to venture upon new and untried fields that he makes this work his special duty; and it often requires as much courage and bravery to be the pioneer advocate of a new idea as the pioneer settler of a new territory.

On arriving in California, he spent thirty days in the Custom-house. This did not suit him. He was subject to dictation, and desired freedom from restraint. He believed himself more capable of marking out his own course of conduct than a set of Government officials were of doing it for him. He went into the mountains, and there, without any assistance from the Government, or any gambling in stocks, from their golden sands exhumed a fortune.

He was at one time a partner of Alvinso Hayward, one of the great money kings of California. Through his skill and ability in developing the mines of Crown Point and Yellow Jacket, an immense gain was realized by the firm. This partnership soon became unsatisfactory to the junior partner and was summarily dissolved.

He was also for a time Director of the Bank of California. In 1863 he was elected a member of the State Senate, which position he filled two consecutive terms. In 1867 he made the canvass of California for Lieutenant-Governor on the Republican ticket, the whole of which ticket was defeated.

In the same year he went to Nevada to superintend the work of the Panamint Mine, which proved another rich vein. He was the following year sent to the Legislature of that new, but rapidly-growing State, in which capacity he continued to serve until 1873, when he was elected to the Senate of the United States.

At that time his fortune was estimated at several millions of dollars. He soon found his property subject to the common shrinkage in value, and his business enterprises suffering from the general depression. His philosophic mind at once took up the subject, and he determined to go to the foundation for a cause. In 1874 he had got so far with his subject as to understand that it was, in some way, the result of our false monetary system, and he jumped at the conclusion that it came from the use of an irredeemable paper currency.

His sterling integrity and practical faith in just weights and measures led him to adopt, without question, the gold standard, and he brought all his mental strength to bear on the question, and prepared and delivered in the United States Senate what is considered the ablest speech ever made before that honorable body in favor of "hard money."

In January, 1875, the Resumption Act was passed, and for a time this disciple of the Sierras confidently looked for a speedy return to prosperity. As this era did not dawn upon the people, but the distress became daily more and more excruciating, he reviewed his old reasonings, and concluded that we had not yet arrived at either the correct theory or practice. He then entertained the belief that the demonetization of one of the precious metals, and thereby destroying half of the coin basis, was the cause of the situation. Accordingly he recommended the appointment of a Silver Commission to investigate this question, which Commission was appointed by Congress in August, 1876, and of which he was a member. In his further deliberations upon the great question of the currency, he found occasion to modify his former views, and came to the conclusion that in neither of the precious metals had the Creator vested the proper measure of a nation's

wealth; and before the work of this Commission was ended he announced unqualifiedly his faith in a just and uniform paper currency, based upon all the wealth of the nation, and not upon any one or two limited productions.

In the recent memorable conflict between the two metals in their struggle for supremacy, Senator Jones planted himself firmly on the side of the deposed metal, and probably to his vigorous effort, as much as to any one man, is due the success of the silver agitation.

Senator Jones enjoys the questionable honor of having made two of the ablest speeches ever delivered in the Senate Chamber, both for and against specie resumption. In this matter, however, he is not charged, even by his enemies, with having changed as a policy-seeker or time-server. All who know him award him the credit of having followed his convictions, and that his radically different views at the different times specified are the result of reflection and growth rather than turning with a popular tide. In fact, he had no tide to turn with. He came to his present standpoint against wind and tide, yet he brought a large following with him.

Next to the financial movement, the great work that obtains his consideration is the question of Chinese emigration. This, he believes, augurs great danger to the Republic, and should be fully and forever checked, as, in his opinion, the broadcast settlement of the Chinese in America would be entirely incompatible with the spirit and progress of American civilization.

Senator Jones has recently been elected to a second term in the United States Senate, which he will enter March 4, 1879, having received not only the entire vote of his own party, but a majority of the votes of all other parties.

Besides his good fortune politically, on the very eve of his late election, by an unexpected rise in mining stock, he retrieved nearly half his lost fortune, realizing a round million by a single throw of the speculative dice.

There is a rosy tint at dawn that flies the brighter day;
A sound of innocence and joy when children shout at play;
A laughing breeze at dewy morn that faints with sultry noon;
A silver veil that softest hangs around the maiden moon.

BRAIN AND MIND.

CHAPTER XI.—*Continued.*

QUALITY, ITS NATURE AND INFLUENCE.

HAVING observed the general size of the head, the next point to be considered is the Quality of the organization, the chief influence which modifies the effect of mere size.

Some phrenologists of eminence regard this as mainly a matter of temperament, and treat it as the resultant or *ensemble* of the Vital, Motive, and Mental temperaments. Even Mr. Combe confounds it with the temperaments at times. We can not, however, thus consider Quality; for in our experience it assumes a relation much closer to the personal life—to the individual entity—than that occupied by the mere physiology. It is certainly exhibited by and through the material organization, but is something behind or fundamental to organization. It declares the inner nature, the inherited constitutional texture or calibre of the man

or woman, and according to its degree of refinement contributes to his capability of culture, his facultative readiness and adaptation. Habit and training may modify temperament to the extent of even changing entirely the original combination. A studious, reflective life may render the Mental element, once subordinate in its physical expression to the Motive or Vital, superior to both, and an out-of-door mechanical life may

develop into predominance the Motive element, which before was less strongly expressed than the Mental or Vital. An organization like that represented by Fig. 94, in which the balance of temperament is nearly perfect, would, under conditions like those just indicated, show in time a predominance of the temperament whose development had been specially promoted. But the



Fig. 94.—GEN. NEGLEY.

Quality is not readily susceptible to training or habit; it rather gives tone and direction to a person's mental life—to his habit and pursuit, and indicates itself in the manner, the thought, the language. In substantial agreement with this view we find Mr. O. S. Fowler thus emphatically declaring himself:

"*Hereditary organic Quality* is the first, basilar and all-potent condition of all power or function, all happiness, all

everything. This is congenital—is imparted by the parentage along with life itself, of which it is the paramount condition and instrumentality. It depends mainly on the original nature of the parents, yet partly also on their



Fig. 95.—MOTIVE TEMPERAMENT, FINE QUALITY.

existing states of body, mind, and health, their mutual love or want of it, and on other like *primal*, life conditions and causes. It lies behind and below, and is infinitely more potential than education, and all associations and surrounding circumstances. . . .

"This condition can not well be described, hardly engraved, but it is easily perceived by a practiced eye. It is quite analogous to temperament, on which little has yet been written, but lies behind and below all temperaments; is, indeed, their determining cause."*

A much later utterance is that of Mr. Nicholas Morgan, in a late work, viz.: "Quality of brain is likewise a measure of power. This fact has forced itself on the attention of medico-psychologists; and few, if any, would attempt to gainsay it. Persons having heads of like size and form do not possess equal mental power if the Quality

of their brains be dissimilar. In fact, small-headed individuals, in consequence of having brains of finer texture, are often observed to far outstrip others in power of mind whose heads are much larger."†

It will not serve to refer high Quality to the Mental temperament, as some are inclined to do, since we find great differences among individuals alike characterized by a predominance of the Mental temperament, differences in texture, activity, apprehension, in everything, in fact, which relates to mentality. Again, if the Mental temperament lay at the basis of Quality, how is it that we sometimes find persons in whom the Motive temperament predominates, who, nevertheless, impress us by their fineness of organic fiber, by their Quality, and who evince superiority in almost every way to others in whom the Mental temperament is evidently strongest? In Figs. 95 and 96 we have two phases of the Motive temperament,



Fig. 96.—MOTIVE TEMPERAMENT, LOW QUALITY.

both indicating it as predominant in the physiology, but observe the marked difference in its expression; in Fig. 96 it appears rudely and coarsely defined, evincing a low order of mentality, a mean, boorish origin. In Fig. 95 it is associated with refinement and deli-

* "Self-Instructor in Phrenology and Physiology," p. 11.

† "The Skull and Brain," p. 131.

cacy, at once impressing the observer with the thought: This man comes of good stock, and is highly bred.

We know that a balance of the temperaments is contributory to the best results in human endeavor, and wher-

pervading fineness of fiber, with elasticity, both mental and physical, ease of cerebral action, directness and facility in adapting one's powers to the work in hand. It also exhibits itself in the spirit or animation which characterize one's conduct in quick response to impressions. Given two persons with a similar physical structure, he who possesses the higher grade of Quality will show a smoother, softer outline, a more subtle, elastic movement, a superior refinement of the features. The difference may not be appreciable by line and square; but the eye, especially if trained, will take note of it at once, and the judgment instinctively ascribe to him a higher grade of mental capacity. In the portraits of the Adamses, from John to Charles Francis, we discern the markings of a fine Quality upon a temperament eminently Motive.



Fig. 97.—HENRY CLAY.

ever such a balance occurs, if Quality proceeds from temperamental combination, we should look for the highest order of Quality, but we do not find such an association to be the rule by any means. Cases of temperamental balance are rare, yet, when found, exhibit wide variations in degree of mental capacity and constitutional refinement. See Figs. 97 and 98, for examples of well-balanced temperament, with differences in Quality.

In the endeavor to form a comparative estimate of Quality we consider the texture of the skin, the clearness of the eyes, the character of the hair, the symmetry and harmony of the different parts of the body, the tone and bearing. A high endowment of this native family element is denoted by a



Fig. 98.—GEN. G.—

Of the Temperaments we have spoken at some length in a former chapter, and to that we refer the student for the

consideration of their modifying influence upon the mental organs. A knowledge of the characteristic expression of each is essential to the observer of Mind if he would form accurate con-



Fig. 99.—LARGE PERCEPTIVE ORGANS.

clusions with respect to any special case. He should ascertain whether the Mental, or the Motive, or the Vital element predominates in the organization before proceeding to consider the cerebral organs, and should bear in mind from first to last the nature of their combination and interrelations.

Two heads may be molded exactly alike, yet the strength of the mental manifestations, owing to the Quality and temperamental influence, may differ as greatly as the oak differs from the palmetto.

REGIONAL DEVELOPMENT.

In the observation of the organs, it will be of advantage to the student to confine his attention at first to estimating the relative size of the different regions of the brain. Keeping in mind the fact that the size of the organs is in general measured by the distance from the *medulla oblongata*, and that a line drawn through the openings of the ears will nearly intersect this point, we are able to estimate with sufficient accuracy the size of an organ or any region of the brain by the distance from

the opening of the ear to the surface of the skull.

The extent of the Intellectual organs in general is measured by the projection of the forehead from a line drawn



Fig. 100.—LARGE REFLECTIVES.

vertically upward from a point on the zygoma just in front of the ear. Men of great intellects invariably have foreheads which project well over the orbits of the eyes, besides showing breadth and fullness in other directions. Napoleon's forehead was remarkable for its projection and size, and Dr. Gall, from merely seeing his bust placed alongside those of the Austrian Gener-



Fig. 101.—LARGE MORAL DEVELOPMENT.

als, predicted the marvelous successes over them which he afterward achieved.

In the forehead, as we have seen, are located two classes of organs—the *Per-*

ceptives and the *Reflectives*—which frequently differ much in size. If the lower portion projects well over the eyes, and the forehead slopes rapidly backward from the eyebrows, the *Perceptives* will be large and the *Reflect-*



Fig. 102.—LARGE CORONAL ORGANS.

ives small. Such a cast of forehead as that shown in Fig. 99 indicates an observing, practical order of mind, one which readily perceives the qualities and simpler relations of objects. If the upper portion of the forehead be prominent, and the parts over the eyes be comparatively flat and narrow (Fig. 100), the organs of Reflection will be large, and those of Observation small. The individual possessed of such a form of head will be a thinker rather than an observer. He will be disposed to theorize, and to reflect upon the causes and more remote relations of things, rather than to deal with the things themselves. He will be good at conceiving plans, but will be wanting in practical ability to carry them into execution. Where these two regions are harmoniously developed, the forehead falls back but a little* from the perpendicular. Planning and theorizing talent will then be united with observing and practical talent, and the intellect will be well balanced, the *Perceptive* faculties ministering actively to the *Reflective*, and the latter effectively organizing the material of observation into forms of

practical usefulness for one's self and others.

The Moral organs being situated at the top of the head, their development will be indicated in general by the height of the head above the ears. Elevation and breadth in this region of the brain are indicative of morality and rectitude of character, and a disposition to worship a Supreme Being, to manifest faith in the unseen and spiritual, and to practice the precepts of truth and duty. (Fig. 101).

A head high in the crown, upward and backward from the ears, indicates a large development of the organs relating to personal aspiration, and a character marked by stability, pride self-reliance, independence, and love of distinction. (Fig. 102).

The Social region of the brain is measured by the fullness of the head behind the ears. One well developed in this part indicates a fraternal, friendly, sociable disposition, and a character marked by love of country, home, friends, and family.



Fig. 103.—LARGE EXECUTIVE ORGANS.

If the head be broad above and around the ears, the group of the selfish propensities will be largely developed, and the individual will be characterized by great energy and force of character, and by courage, prudence, policy, economy, and executive ability. (Fig. 103).

In estimating the influence which any one of these regions has upon the character, it should be borne in mind that it is its size as compared with the other regions, rather than its absolute size, by which its influence is to be measured. Two heads, for instance, may measure exactly the same in circumference, breadth, length, anterior projection, and occipital extension, yet if one be three-quarters of an inch higher than the other in the region of the moral sentiments, the characters will be very dissimilar. The high head will manifest a disposition in which the virtues will have a most important influence in keeping the selfish and animal propensities under due control. In the low head the selfish propensities, although in reality no more powerful in degree than the same faculties in the higher head, yet lacking the restraining influence which it is the function of the moral sentiments to exert, will lead the individual into excessive gratification of his lower nature. As the largest organs have the strongest tendency to activity, the character of an individual will take its direction from the class of organs which predominates in his brain. If the anterior portion of the brain is in the ascendancy, it may be inferred that the tendency of the individual's mind will be toward pursuits of an intellectual character. If the head be very high in proportion to its size in other parts, the natural bent of the mind will be toward the expression of high morality and religious sentiment. If the head be very broad at the base and lack proportionate height, coronal fullness, and anterior length, the individual will be prone to low pursuits in which his animal propensities may find their gratification.

DETERMINATION OF SPECIAL ORGANIC INFLUENCE.—After the begin-

ner has acquired some facility in estimating the proportions of the different regions of the brain, he may then begin to make observations on the individual organs. As the predominating region of the brain imparts to the mind its peculiar bent, so the largest organ in any region will be the controlling organ of its group. If, for instance, among the moral sentiments Veneration is prominently marked, while the other moral organs are inferior, the character will be marked by a disposition to seek the society of the devout, and to unite with some religious body. The man will be attentive to the external forms and ceremonies of religion, but will be likely to fail in the practice of the precepts which enjoin justice, charity, and good-will in our relations with men. If Conscientiousness be the predominant organ, he will be more upright than devotional, more just and conscientious than kind, charitable, and benevolent.

If, among the regions of the brain, the Propensities are the most developed, and Combativeness hold the predominant sway among them, the individual will be naturally prone to quarrel, contention, and brawls, and to seek opportunities for gratifying this propensity both by personal encounters and by witnessing combats between brutes and between men. If Alimentiveness be developed in excess of other strong propensities, a tendency to gluttony will be the predominant trait. If Acquisitiveness be in the ascendancy, the native bent of the mind will be toward money-getting, saving, and hoarding.

The same law holds good of the organs in the anterior region of the brain. If Language be prominent, while the general intellect is not large, the individual will be characterized by garrulity. He will be constantly talking,

yet his conversation will be about trifles; according to his education he will abound in words, yet be wanting in ideas. If Constructiveness be in excess, the mind will run toward mechanism, and whatever intellectual power he may possess will be employed chiefly in the line of mechanics. The style of an author in whose head Comparison is predominant, will abound in simile

and metaphor. If Eventuality be the most prominent, he will excel in describing action and events. If Individuality be in excess of the other intellects, he will treat his subjects chiefly by describing their qualities and features; while predominant Causality will render his style abstruse and theoretical.

H. S. D. & J. M'N.

(*To be continued*).

THE UNFOLDING OF MIND THROUGH CONFLICT AND SIN.

CONFLICT is a great law of nature. Everything almost wars against something. From man down to the animalculæ, all, save a few vegetarian animals, use some other living beings for food. Air, water, and fire war continually against the solid matter of earth. In the midst of this conflict man is placed. Master of the animals, he sheds their blood and eats their flesh. He kills in battle and in single combat his fellow-man. He sins. Is not this sin necessary for the full development of mind and soul? Could man appreciate the goodness of the good or the wickedness of the bad if he knew only goodness alone or wickedness alone? We appreciate light because we have experienced darkness. We admire the luxuriance of tropical vegetation much more if, to reach it, we have crossed the desert. We understand the great beauty of clear streams and transparent waters after we have seen the muddy, turbid rivers of the West and South. Fertile fields are delightful after rocky, barren heights.

So in the moral world. Vice makes virtue glow with tenfold brightness. Some knowledge of lies makes truth more true, more lovely. Treachery of a supposed friend makes sincerity more desirable. Purity is more beautiful beside impurity. A miser makes Peter Cooper's love of his fellow-men glorious. A horse-beating brute makes Bergh apostolic. Are not these evil traits, which are principally good transformed by circumstances into evil, really necessary to the growth of the soul?

Lies often originate in a desire of the liar

to appear better, more learned, wealthier, or more experienced in life than others. The ambition of the liar would have been noble had it taken the direction of being instead of seeming. The acquisition of property is laudable when kept within due bounds and confined to legitimate callings. Those impulses which, carried to excess, end in lust and licentiousness, are in their natural, normal state necessary for the preservation and perpetuation of the race. The worst vices and sins spring from tendencies and qualities that originally were of use and value to the human being. It is the wrong direction of primarily good, necessary traits and characteristics of the human mind and soul that constitutes the essence of sin. Destructiveness, when directed toward the uprooting of abuses, evils, and wrongs, is a valuable part of our mental and moral furnishing; when directed to the overthrow of good things in Government or life, it becomes a fearful monster. Acquisitiveness—directed toward proper, godly gains in labor or business—is a blessing to an individual and to a community; when it becomes, through excessive development, avarice and miserly hoarding, it is changed to evil and sin. Agreeableness, or desire to please, in its normal action is a charming trait, making its possessor amiable, gentle, and winning—scattering pleasure and delight everywhere around; when perverted, it makes the sycophant—fawning after the rich and powerful and intriguing to gain their notice. Combativeness is a necessary ingredient in a sturdy, working Christian character; it

helps him fight his own sins and the sins of the world. The same trait, wrongly directed and unduly developed, will make a pugilist or a man of blood a murderer.

Sin comes, then, too often from the transformation of good to evil through ill direction of mental and moral traits during childhood and youth—this not because God wills it, but because man wills it. The whole earth, air, water, animals, and the first living pair of human beings were wondrously good. By one act of disobedience, one act of greed—showing want of faith in the Creator by a reaching after the forbidden when every real need was already freely supplied—the first sin in earth's great catalogue of wrong-doing was committed. Eve, the last, most perfect of God's creation, reached out after the unknown good of knowledge; a something to which she had not yet attained amid the Eden glory; and seeking to know all things, she grasped the fruit of knowledge of good and evil, and from that fatal hour mankind has been striving to attain the one, while always fatally attracted with a mysterious, hidden power toward the other.

Under this symbol of fruit-eating, we know not what this first sin really was. It was doubtless the first transgression of the laws of nature; the fixed, immutable laws against which man may break *himself* in pieces, become physically and morally wrecked, but which he can never break; for they remain the same—yesterday, to-day, and forever.

Men say such an one has "broken the law." Now no man really breaks a law; that is, he does no injury to the law—that *remains*, whatever his crime. He has acted contrary to it, evaded it, incurred its penalty, and suffers. The law stands more firmly than before; and this holds true with man's laws and God's, except that no man *evades* God's law and escapes the penalty, save through repentance. And even then he does not entirely escape, for sin leaves some mark, scar, or sore that can never be entirely healed. No man or woman is just the same that he or she was before, after committing a known and gross sin. They have eaten anew the apple of Paradise and

see their nakedness before God. They know shame in a way of which they were not before conscious.

Progress is the great law of mental and moral growth. We are either reaching and growing upward into clearer light toward higher truth, or we are falling backward into deeper error, blacker mental darkness. The way of righteousness and the way of sin are distinct paths—no one can walk in both. We sometimes see a person pretending to walk in the right way before men, who is really practicing known sin, really blackening his soul with guilt-stains far deeper than those of his companions who are openly sinners; for, to their sin he adds hypocrisy. Sin in itself—sin cherished and loved by the soul—blackens and debases the entire nature; it dims the intellectual power, warps the judgment, and dulls the reasoning faculties. It is sin seen, acknowledged, and repented that makes the mental vision clear, extends the sympathies, and adds to our faith that most beautiful of virtues—charity. Christ said, He loveth most to whom most is forgiven, and the repentant sinner ought to be the truest and tenderest toward other sinners. When one feels the hatefulness of sin and tries to shake himself free through the Spirit's aid from its thralldom, he is rising in the moral scale. Thus making "stepping-stones of our dead selves," ever advancing, becoming free from the fetters of our lower natures, we may continually progress in goodness and intellectual culture; for the very thought necessary to disentangle the soul from the nets of sin and keep it in "ways of pleasantness and paths of peace," will assist in mental improvement.

Education to many people means simply the acquisition of a certain amount of knowledge gained by poring over books under the direction of a teacher; of moral and spiritual education, of the intellectual growth that comes through the education of the heart—the affections—they have no idea or conception. The intellect and the physical nature are all of man that they conceive or acknowledge.

The habit of self-examination, of study of one's own motives or reasons for ac-

tions and courses of life, will beget a self-knowledge that is invaluable in mental training as well as conducive to moral growth. Because we do not know ourselves thoroughly—or, rather, because we know ourselves scarcely at all—we are continually choosing wrongly when we are trying to do that which will, we fancy, be for our best and highest good.

The summer glory and winter gloom of the heart are each equally necessary to the perfect unfolding of the better part of us. There must be waste, desolate places in our souls, mountain ruggedness, barren sands, as well as blooming valleys; there must be

great rocks as well as spring blossoms. In order that we may reach the height and depth, length and breadth of our moral and mental being, we must go down with the sinner as well as up with the saint. We must learn to understand sin, and, understanding, hate it with an intensity of abhorrence; so that we may flee it ourselves and teach others how sore, black, and decay-smitten is every soul that renounces it not; trying with superhuman might born of Christ to escape from its devil-fish fangs, and arm itself against itself with the whole armor of righteousness.

AMELIE V. PETIT.

STRANGE PLANTS.

BEAUTIFUL, exceedingly, as is the Flora of temperate regions, it is usually within the tropics, or upon their borders, that we find the most striking and singular specimens of the vegetable creation. It is

the colors are laid on at once. In temperate climates the flowers come one by one, and take on their richer tints as the season advances; but in the tropics the spring, if such a season may be said to exist there, in



RAFFLESIA ARNOLDI.

here that nature seems to delight in producing the extremes of color, and the most erratic forms; and the vegetation of the two regions resemble in their distinctive qualities the schools of painting in water-color and oil. The effects in one are produced by subtle and delicate touches, soft gradations of tint, and arrived at by slow degrees; the other is bold, brilliant, gorgeous, and

the return of the annual rains, is one burst of glorious splendor, and leaf and tree and flower seem to spring at once into being, and the botanist, no matter how learned, finds himself puzzled by the variety of wonders which he is unable to name or to classify.

In 1818, in the island of Sumatra, was discovered by Dr. Arnold, a young and en-

thusiastic naturalist, a flower which is believed to be the largest in the world, as will be readily believed when it is asserted that a single blossom weighs fifteen pounds. It is a parasite, like many of the eccentric species of plants, and wholly without leaves. The bud springs from one of the cable-like vines of the tropics. It pushes its way through the bark and grows to the size of a very large cabbage and resembles it in form as well as size before the petals expand. In about three months the flower opens and displays five enormous petals, averaging about three-quarters of an inch in thickness, of a brick-red color, but having the surface

petals rapidly decay and leave the central disk, which swells into a large fruit with a rough exterior and filled with small seeds.

We have spoken of the *Rafflesia* as one of the most curious of flowers, but there exists in Southern Africa a plant which is so singular in its whole history and appearance as to puzzle the observer at the first glance as to whether it should be called a shrub or a tree, but it is really a dwarf tree possessing only two leaves and those the first seed-leaves (cotyledons). Rising above the ground but a few inches, it yet assumes the size and character of the bole of a tree, enlarging by concentric layers and forming a



WELWITSCHIA MIRABILIS.

covered with small, irregular protuberances, which are cream-white.

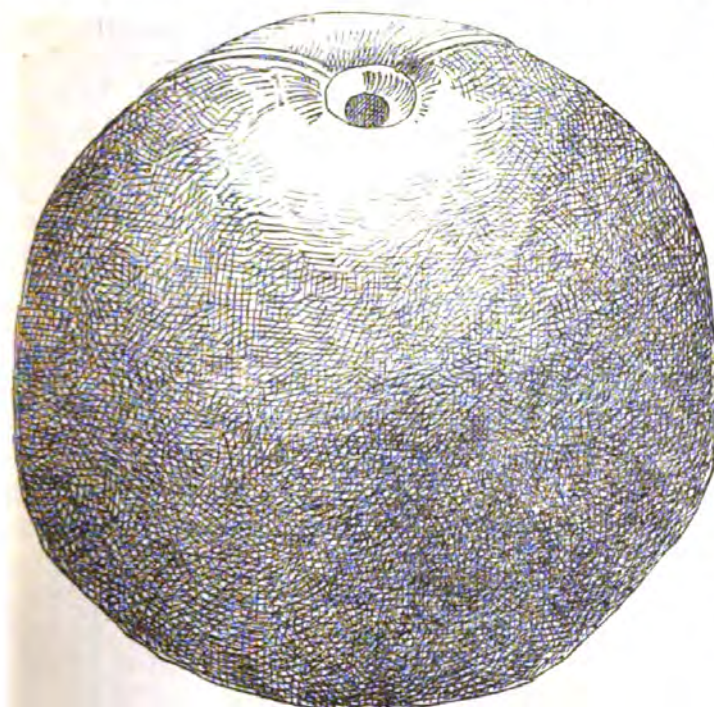
These petals are slightly concave, and about twelve inches in length, set about a cup large enough to contain about six quarts of water. This cup is not empty, but filled about half way up by a thick, fleshy disk, the upper surface of which is covered with projections curved and pointed, resembling in shape the horns of cattle. The flower would undoubtedly have become a favorite with the florist, but for the unfortunate fact that the odor is that of carrion, and so close is this resemblance that it is supposed by some to deceive insects, as it is often found surrounded by swarms of flies. The flower remains but a short time in perfection; the

complete and perfect trunk from which no branches are put forth, and the fruit of which grows on small upright stalks arranged in concentric rings. This fruit is conical in shape, somewhat resembling the fruit of the fir, but it is of a brilliant scarlet color, and while it lasts, which is but a brief time, relieves the gloomy landscape, a mere barren waste of sand, by its gleams of color.

When the fruit falls, the stalks fall also and leave the upper surface of this strange plant marked by rough ridges formed by the rows of circular pits in which the stalks grew. The trunk measures from fourteen to eighteen feet in circumference. It has a large tap-root, which grows to the depth of several feet. The cotyledons do not fall off

after they have performed their important office, as is the case in most plants, but re-

One of the most singular productions of South America is the fruit of the *Berthol-*

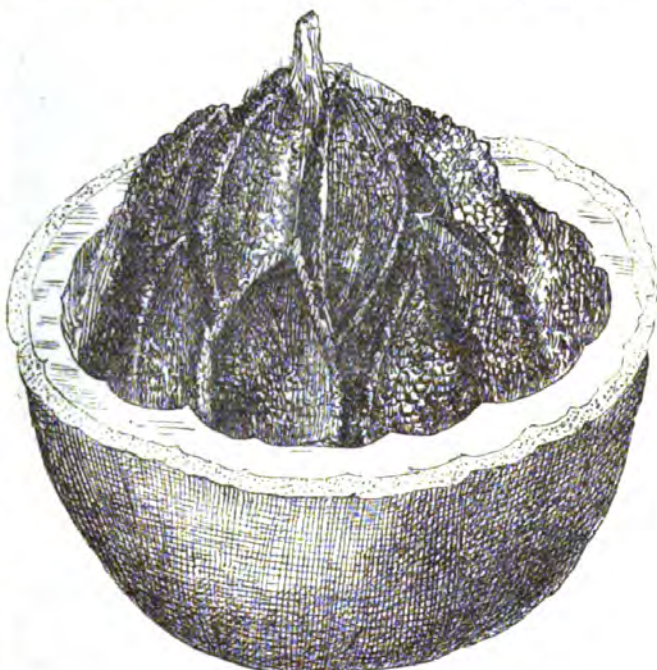


BRAZIL-NUT—ENTIRE.

letia Excelsa, a tree which is found in greatest abundance upon the banks of the Orinoco. It grows to large size, and yields abundantly its strange, but valuable fruit, the seed of which is familiar to us all as the "Brazil-nut," one of the luxuries of the dinner-table. The engraving gives a clear idea of the manner in which the nuts, covered by a very hard, thick bark, are arranged in a cluster about a central division or core, the whole being inclosed in a thick rind, as in a hollow ball. This ball is separated into four compartments, into which the prism-shaped

main attached to the trunk throughout its life, and contrive to increase in size with the growth of the trunk, and frequently attain the length of six feet, and even more. They have no beauty; they are long, flat, and leathery in texture, as indeed they must be, to survive through the length of the life of the parent tree, which often attains great age, sometimes even one hundred years. The leaves split along the line of their divisions into long string- or rather strap-like appendages which extend on either side of the trunk, resting upon the earth. The complete plant in this advanced stage resembles some strange and monstrous creature of a low order of animal life, with long tentacles and formless body, and gives to the strange scene the look of a region enchanted by some evil spirit.

nuts are packed in the closest and most compact manner. Why the kernel,



BRAZIL-NUT—OPEN.

which is so completely protected, as it would seem to be, by its hard and indurated husk,

so hard that it requires a stout blow to break it, should need to be enveloped in another and outer case, is an enigma, for its rough case would puzzle even the stout bills of scansorial birds, and would certainly be impervious to insects. But the value of this delicious meat would seem fully to justify nature's fostering care. Its flavor is more delicate than that of any other nut known to commerce, and its value as an article of

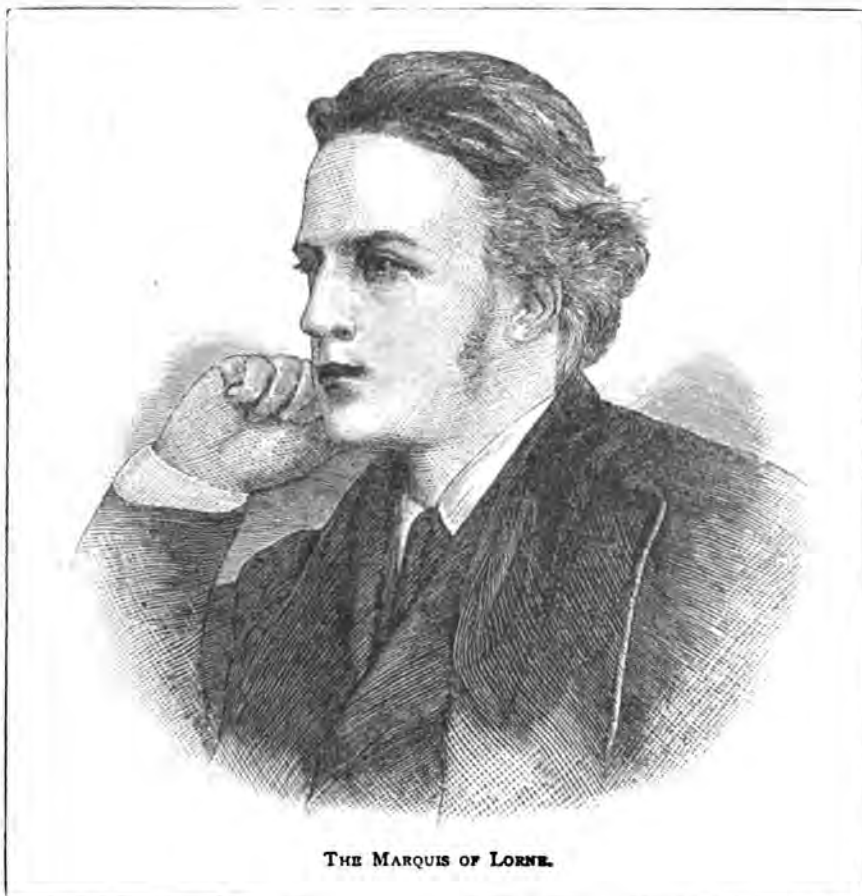
trade is proportionately great. It is largely exported to England, Europe, and the United States, but the quantity of oil contained in the kernel is so great that it becomes quickly rancid, and if not eaten fresh, the flavor is found to be destroyed. In South America and other countries, where it is indigenous, the oil is pressed from it and used for lamps and some other purposes.

MRS. C. S. NOURSE.

THE MARQUIS OF LORNE AND THE PRINCESS LOUISE.

WHEN the Earl of Dufferin retired from the post of Governor-General of Canada, which he had occupied for five years and more, much regret was expressed

welcomed the arrival of the new Governor-General and his wife, the Princess Louise, and accompanied every stage of their progress from Halifax to Ottawa, intimate that



THE MARQUIS OF LORNE.

by the people in all parts of the Dominion, and the display at his embarkation was in itself an impressive witness to their high esteem. But the late demonstrations which

our northern neighbors have at least accepted the change of ruler with a hearty good-will and that they were desirous to show to the mother country how substantial

is their loyalty. Certainly the opportunity was an exceptional one, in that the new incumbent not only represented the authority of Great Britain, but also royalty. As the son-in-law of Queen Victoria, and coming with his wife, who among all the princesses resident in England had won the highest respect of the people on account of her plain, common-sense manners and cordial interest in the every-day matters of social

ganization is of a high type, with a backing of positive strength which is traceable to the old Campbell stock of the Marquis. There is much refinement in the contour of the face. We can not but perceive at once the softening, rounding, finishing influences of education and æsthetic association. One sees as readily, too, the old racial toughness of fiber and strength of frame in the square jaw and firmly-set mouth. The hair, also,



THE PRINCESS LOUISE.

and domestic life outside of court circles, the Marquis of Lorne opens a new *régime* in the political history of Canada; and the excitement attending his coming, view it as we may, was not unreasonable.

Some of our readers will remember the portrait of the Duke of Argyll, which was published in the *PHRENOLOGICAL* a few years ago, and will discern the close resemblance of the son to the father. The or-

shows the influence of the Motive temperament in its fibrous individuality. Intellectually, the Marquis should be known for good, practical judgment. He has excellent ability in analysis, can express himself with clearness and precision, and also with much elegance. He is naturally quick in forming opinions and in coming to conclusions, and firm in entertaining them. Ordinarily pacific in disposition, he can show

a good degree of spirit and opposition when aroused by criticism or insult.

Of his past career a few remarks must suffice. The eldest son and heir of the present Duke of Argyll, he was born at Stafford House, London, August 6, 1845, and after the custom of European nobility, was heavily freighted with Christian names—being in full, John George Edward Henry Douglas Sutherland Campbell. He was sent to Eton and afterward to Trinity College at Oxford. Subsequent to his college life he had traveled extensively; in 1867 visiting this country, the West Indies, and Canada. He has shown a disposition toward literature, having published a small volume of poems, an edition of the Psalms of David in English meters, and an account of his tour in America. This last-mentioned book indicates clearness and liberality of view, and not a little intelligence with regard to the history and politics of foreign nations.

The Princess Louise—if our portrait be a fair representation—also shows her lineage in form and feature. There are marked indications of a strong constitution, naturally robust health, and the prospect of long life. The entirety of the physiognomy suggests decision and practical talent. The lady evidently is inclined to view life more on its fact side than on its imaginary, ideal, or speculative side. She is frank, clear, square, and earnest in expressing herself, and has little sympathy for tergiversation, indefiniteness, and gush. Her mouth and chin and cheek come from her mother's side of her family, and indicate warm, feminine elements of character, earnest affection, love of home and domestic relations. Those broad cheekbones show a liking for the employments and enjoyments of physical life. She is not one of the passive, inert sort, but delights in action, and would chafe and fret were she compelled to spend as much time indoors as most women are content to do. Taken altogether, she is a spirited, active, thorough-going lady, with much sympathy, generosity, and affection.

The Princess Louise, Marchioness of Lorne, was born on the 18th of March, 1848, at Buckingham Palace, then, as now,

the Queen's town residence. Her early life, like that of all the Queen's children, was spent simply with the mingling of study and recreation—the training and religious instruction which belong to the better class of English households. The royal children were surrounded with very few useless luxuries. There were large nurseries and a cheerful school-room; every possible advantage in moral and mental training was theirs as a matter of course. The Queen indicated their instruction and gave them ample authority, but she visited the school-room daily, inspected their studies, and desired that all misconduct or good behavior should be reported to her. School-room discipline in the royal family is said to have been very severe, yet we have been given pleasant pictures of the harmony and simplicity of the Princess' young days. There was always a cheerful sitting-room in the apartments belonging to the children, and there might be seen various indications of the intellectual tastes of the young people. A prominent object was always Princess Louise's portfolio and the writing-table of the Princess Royal. The young princesses were always talkative and good-humored with those who visited them. At one time she contemplated entering a Protestant convent, but gave up the idea, and not long afterward her betrothal to the Marquis of Lorne was announced.

Queen Victoria had long known the Argylls, having become intimately acquainted in the early days of her married life when she was accustomed to make summer jaunts into the Highlands, and it would appear that when she became aware of a tender interest on the part of the Princess for young Campbell, like a true woman and considerate mother, she disregarded the conventional usages of European courts with respect to the marriage of princes and princesses, and cordially promoted their union.

The residence of the new Governor-General will be Rideau Hall, about two miles from Ottawa, the capital of the New Dominion. This building has been the residence of the Viceroy for many years. Lord Dufferin made some alterations during his occupancy, which relieve in a de-

gree the general plainness of the old structure, and other modifications are now in progress to render it more becoming to the dignity of the Canadian nation and of the rank of its occupants.

This old building, as a writer in *Harper's Weekly* says, "has been the scene of many a brilliant gathering in the past, but probably none that can in any manner compare with the entertainments that will be given when the old mansion boasts a royal hostess. Already arrangements are being made for a series of such events, and a code of laws compiled for the regulation of all matters pertaining to etiquette. There are to be, for instance, great representative receptions taking place at the opening and prorogation of the Dominion Parliament and at other times. Some of the rules that must be observed on these and other occasions we transcribe for the benefit of our lady readers. It is decreed that when ladies or gentlemen appear at a representative reception, the right hand shall be ungloved before the Marquis and the Princess.

The former then presents the Queen, before whom both hands are ungloved. There will, however, be no hand-shaking; those received simply bowing and passing on. At private receptions the procedure will be different. The Princess then outranks her husband; and while a gloved hand may be offered to him, the right ungloved must be extended to her. What is known as the "court courtesy" will not be observed at either representative or private receptions. That honor is paid to the Queen alone, or to the Princess of Wales when receiving specially for her Majesty. At representative receptions the Marquis will stand at the right of the Princess, and at private receptions on her left."

As the Marquis has a very comfortable income from his estate at home and from his official position, and the Princess receives something like \$30,000 a year from the British Exchequer, they ought to keep house with a pretty respectable display of style; in fact, give the Dominionites a substantial taste of royalty.

SINGLE-BLESSEDNESS.

"NO, she isn't! My Aunt Lucy isn't an old maid. You are telling me a wrong story, for old maids wear spectacles, and color their hair so that it smells just like lucifer matches when Bridget lights the fire with them, and they wear false teeth that don't grow in their mouths at all, but are put in by dentists like Dr. Molar, old maids do, did you know that?"

A half reluctant assent was given to this triumphant assertion, but in the interrogative form to her little companion by my brave champion, niece Lizzie, aged seven years and six months "inclusively," as statisticians would have it—both of whom were sitting on the steps of the piazza beneath the window that pleasant Saturday afternoon, deeply engaged in the important business of costuming two Miss Dollies. "Aha!" said I, "so Aunt Lucy is before the juvenile court to-day, but so far the special pleading appears to tell favorably upon the case in hand;" and I listened

with an amused air to the chattering voices below, as I plied my needle in finishing the new apron for my pet.

"Now you see," continued Lizzie, after the twain had talked up the matter, and decided satisfactorily upon the adjustment of Dollie's new sash and basque, "*my* Aunt Lucy is the best aunty in the 'whole world.'" This announcement was made in one of little Madam's most decided tones, which evidently carried its weight in eliciting the desired confirmatory "Yes." "Well, now, let me tell you"—in an argumentative voice—and I knew just how the white neck was thrown forward, and the earnest blue eyes fastened upon her auditor—"my Aunt Lucy don't wear false teeth and put them in a tumbler at nights, like Miss Prim does—for Nettie Howe told me so; *my* Aunt Lucy's hair isn't colored; it is only just gray a little, and curls so pretty; and she don't tie it up in papers either. She told me once when I asked her about

it, that *God* curled her hair when she was born, just as He did mine. Don't you think it was real good of Him? Besides, *my* Aunt Lucy don't scold as Miss Grimalkin does. *She's* an old maid (you know), and won't let Minnie Brown have any company at all, but makes her stay at home every Saturday and sew on patchwork to send away off, ever so far, to the missions; and would you believe it?"—here my little gossip's voice lowered mysteriously, as if to give additional force to the dreadful truth—"Tommy Benton told her that Aunt Grimmy was an '*old muff*;' and that the folks where she was going to send the bed-quilt lived in such a hot country that they couldn't wear any clothes to speak of, and he didn't know what they would want of bed-covers. He said 'she had better send such things to Father Loveman to give the poor little children here in the city to keep them warm in winter.' He said, too, that 'only an "old maid" would do such a foolish thing!' Now, *my* aunty don't do like that. Oh, no; she always speaks soft and pleasant, and she likes me to have visitors; she plays and sings, and dances with me sometimes, and learns me lots of pretty games, and gives me money for poor little children that haven't got any manimas or aunts to care for them. Oh, I love her best of anybody in the world, except my papa. Wouldn't you if you were me? How I do wish that you had just such an Aunt Lucy as I have!" This last remark was added in such a tone of hearty commiseration as to touch me with a sense of the ludicrous, and turn the current of feeling with which I had listened to the appreciative arguments in my favor by pet Lizzie, and the affectionate burst at its close, which was beginning to moisten my eyes with tears, as I thought that I, whose earlier life had been so lonely and barren, was now reaping a harvest of love richer than the gratification of my selfish wishes in years gone by could ever have yielded.

When Edmund Warrington said to me, ten years before, "I must give you up, if you are not willing to leave your father, and go forth into a new country, and begin a

new life with me," all that was true in my nature rose up in rebellion against a selfishness so revolting! How deeply humiliating to my sensitive pride, the thought that for four years my heart's purest love had been given to one so utterly unworthy!

True, as the world read it, it *was* a thankless task to wear out some of the best days of my life with the care of an invalid parent, whose mind, owing to a disease of the brain, was in a state of imbecility, rendering his life of no comfort to himself or to his friends. But who in all the world should have been faithful to him if not his only daughter? Already had my sole brother formed family ties, and with the care of business devolving upon him after our father's incapacity, together with the supervision of our financial affairs, was fully occupied.

A mother's love I had never known; and to my father and best friend I knew that I owed my first duty. That Edmund was not willing to give up his plans for my sake, and share with me the burden of my home, was a cruel blow. He was unworthy of the priceless gift of a true woman's love! Those were dark days that followed, but thanks to the loving Father they bore me good fruit. That final "no," whatever were the inward struggles that it cost, strengthened me for duty, and made the following days of filial service to my imbecile parent—whose life dragged on seven weary years—one of helpful self-sacrifice to my soul.

Afterward, when my dear brother was experiencing a crushing sorrow in the death of his estimable wife, under the blessing of God I was permitted to be a minister of good to him through that sore trial, and still remained mistress of his home and guardian of his child.

"I shall never marry again, Lucy," he said, "and as long as we live let it be together. I know that other men lose their companions and marry again, but this will not be the case with me; once mated and forever. No one can take the place of my glorified Laura, either in my heart or home."

And thus it was settled for me to take charge of the bereaved household, and

make it as cheerful and comfortable as I could. "All that I have is yours," said he; "do as you think best in making arrangements for the family, only let us try to give Lizzie a happy childhood and fresh, healthful influences."

For three years I had been at the head of the home, sharing the respect and affection of my good brother, becoming more and more attached to our sweet Lizzie, whose frank, generous nature, with its impulsive affections, needed a careful guiding hand and answering sympathy. That I had won her love so entirely, enabled me to manage her sometimes wayward disposition without much trouble, while her thousand attractive ways and winning graces rendered my duties comparatively a pleasure.

As I sat listening to her animated colloquy with her little visitor this afternoon, my heart was tenderly affected as I realized how large a place in her young affections I possessed. Her visitor gone, an hour later a pair of little feet were bounding up-stairs, and straight to my room comes pet Lizzie, a fine glow on her cheeks and a lively sparkle in her eyes. Throwing herself down upon a stool by my side, two tiny soft hands are laid upon my knee, and forth from the tangled mass of yellow curls a happy face looks up into mine with an expression of triumphant assertion rather than inquiry, saying:

"Now, aunty, you aren't an—"

"Yes, my little defender, I am a dreadful 'old maid!' Now see how cross I can look."

Pet goes off into convulsions of laughter, tumbling on the floor in her merry excitement over the ludicrous face I contrive to make for her especial edification. When she gets breath, she innocently asks, "How could you know what I was going to say?"

"Old aunt has long ears and hears what little girls talk about on the piazza."

"Oh, wasn't it funny though!"

But whether puss means the made-up face or the listening that was "so funny," does not seem quite clear. Then we have a little frolic, in which she gets snuggled and kissed, and when the sober business of trying on the new apron is finished, she

finally decides that it isn't very bad to be an "old maid" after all.

"But are you, sure enough, so very old, aunty?"

"Yes, pet, about a thousand years."

"Oh! now I know you are funning."

So I tell the young inquirer after knowledge the actual state of the case, and she thinks it rather nice than otherwise to be forty years old, and begins to count on her fingers how long it will be before she can reach that desirable period of maturity, making certain philosophical remarks upon the subject, as she proceeds to discuss the respective merits and advantages of becoming another Aunt Lucy, and of "knowing how to do everything as she does."

At evening, when seated behind the urn at the tea-table, the following sage remarks were sandwiched in between the biscuit and jelly by our curly-haired pet:

"Papa, I am so glad that our Aunt Lucy is an old maid, aren't you?"

Henry looks up with an air of amused inquiry. "What makes you ask such a question?"

"Because, you see," explains the young oracle, "if she wasn't one, what could you and I do without her? Who could take care of us, and who could we have to love? You know she makes us so happy; don't she, papa?"

"Yes, dear," responded my usually reticent brother, "she makes us very happy; our home would be desolate without her."

Once I had thought my life a failure—that no one had been made happier or better by my existence; but years of experience and discipline were teaching me the value of this existence, even in the humblest sphere, if its nearest duties were faithfully and cheerfully performed.

That night, after looking to the kitchen affairs, giving Bridget her directions for the next morning's work, writing a letter to a friend, reading for an hour to brother, and kissing my darling as she lay on her pillow rosily sleeping, I retired to rest with a heart overflowing with gratitude to the Great Disposer of human destinies, feeling that though the tender and holy relations of

wife and mother were denied me, yet, under His wise guidance, I was permitted to share so much of joy in thus rendering

myself necessary to the happiness of a few dear hearts in living a life of single-blessedness.

MARY C. GRANNIS.

THE SNOW VEIL.

WHERE the daisies used to nestle,
There is spread a fleecy snow.
Where the rocks were rough and jagged,
Winter's crystal blossoms blow.

All the gnarled, uncouth, unseemly
Objects that obscured the way,
Have grown beautiful and perfect
In their softly pure array.

Wonderful the transformation :
Everything is white—so white.

Darkness finds no place to settle.
Crippled are the wings of night.

Sweet must be dear Nature's slumber
Underneath the veil of God.
Can it be she dreams of waking,
And of Spring-time's pulsing sod ?

Hush we all our words to whispers,
Lest she, stirring, ope her eyes,
And the veil that God has loaned her
Be caught up again by skies.

MRS. S. L. OBERHOLTZER.

"AROUND THE WORLD."—A NEW SCIENTIFIC EXPEDITION.

"Beyond the night, across the day,
In that old world which is the new."

THE narrow horizon of daily living broadens into limitless outline; the weary rests of petty care and social conventionalism stretch away into "deeps of purple distance," while our swift thought chases the wild sea-bird over oceans of unknown delight, to lose its way amid the myriad wings of the radiant tropics. We drop the feints and formalisms of city drawing-rooms into the old trunk with our dresses *en train*; loosen the chains of custom with the necklace of gold; unclasp the fetters of habit with our bracelet of pearl; and turning with a smile and tear from the old train of glad association and saddened memory, we don our new traveling suit in a dream of Orient tunics and Eastern phylacteries—our only limitations the confines of a shawl-strap and "the ends of the earth." Around the world! away from the old self, the old griefs and morbid fancies, the dull routine of petty personalities, into the full fresh life of trackless seas, the mystic calms of ancient rivers, to the Lethe of forgetfulness. The mists of prejudice rise and fade into that heaven of charity overhanging a universe; larger views and more liberal culture and all possibilities of generous growth await us in this varied contact with "man and nature," and we sail from our quiet

haven in New York lapsed away in a trance of blissful anticipation on our long tour "around the world."

According to the new circular just issued by Mr. Woodruff, the expedition which has suggested this article will leave New York May 8, 1879. A few days' sail and the delicate green of May in the beautiful harbor of home will be changed for full summer splendor in the Bay of Horta, at Fayal—Fayal, lying under the shadow of the cone of Peco, which lifts its crater among the clouds 7,500 feet above the sea, glowing with a glory of orange gardens, picturesque with novel varieties of life, set in a landscape of great natural grandeur and beauty; from Fayal to Queenstown, Ireland, the land of generous impulse and free hospitality, the improvident, careless Ireland of sunny memory, where we stop for a season of rest, varied by inland tours among the environs of Dublin; and then on to England, the old home whose language and literature are ours, where every foot of earth is classic ground, full of interest to Americans. About six weeks will be given to England and Scotland, when delightful journeys may be made to Cornwall, St. Michael's Mount, through all the exquisite scenery of Devon and Dorset, joining the ship again at South-

ampton. A charming excursion will also be made from Edinburgh to Glasgow, from Glasgow to Ayr, through the famous land of Burns, down the Clyde to Greenock, visiting the great ship-yards, and from Greenock by steamboat through the "picturesque locks and firths that spread like a silver network over the county of Argyle." From the mouth of the Clyde it is but a short journey to the Giant's Causeway, and Fingal's Cave, where we find entrance to the treasures of Aladdin, through the "Open Sesame" of a prosaic passport. Here is the fulfillment of childish dreams over the pictured lesson in the old Geography, when we pondered this strange freak of a fantastic nature, and peopled its mysterious depths with the fairy creatures of our childish fancy; the "airy shapes of long ago" find "local habitation and a name," the forms of the old faith rise into living lines of wonder and beauty, and we turn with delight to the renowned Mediterranean; from the myths of the child to the mystic traditions of ancient lore, the immortal mythology of classic history. The Pillars of Hercules frown upon us from the impregnable fortress of Gibraltar; the glories of Greece and Rome, sung by poets and eulogized by travelers of every tongue, dazzle the bewildered senses with a radiance of reality, and we linger on the Mediterranean shores, lost in grand ruins or half-buried in recent excavations, gaining new life and strength in the tombs of a storied past, and rising in the might of that knowledge which is power, pass on to older lands, the pyramids of Egypt, the palaces of Palestine, haunted with the splendor of Solomon; on to the "ancient glory of India, from which all this civilization came," ever moving eastward, ever following the stream of humanity, ever tracing the river of knowledge and wisdom to its dim, mysterious source in the far-away Eastern lands. Along what a glorious sea-way do we move to the magical regions of the sunrise with cities for our mile-stones; through what a gallery of glowing pictures do we pass—fruit-crowned Malaga, Cartagena, Barcelona, haunted by the memories of Columbus, when he returned in triumph, laden with the treasures of a new-found world; Marseilles

and Genoa, pranked in silk and velvet; Messina, with her arms full of oranges and grapes; and Venice, "bride of the sea," with her crowns of architecture, her silent streets of water and wealth of poetic legend. After six months of delightful travel in the far East, our idle sails fanned by perfumed breaths from the spice-bearing islands of the Indian Ocean, or urged onward by the more bracing breezes of Cathay, we anchor at last in the harbor of Yokohama, for a sojourn on the borders of the Inland Sea—the beautiful wonder of Japan, the paradise of the world. Here we are all Aladdins, and for us the Genii of the Lamp are working. The farthest Indian shores have yielded their treasures, and the Eastern Isles have crowned us with gems; gold, frankincense and myrrh, diamonds and pearls, rubies, chrysoprase, and carbuncles; shawls whose threads are precious, and whose colors feast the eye with woven sunsets; carpets in which the foot sinks as in moss; perfumes that load the air with perpetual summer; vases in whose lucid clay the furnace-heat seems to have developed the seeds of unearthly flowers; and dainties which make our democratic tables groan with the profusion of Lucullus and the splendor of Al Raschid. For us there is nothing more of beauty or glory, for we have touched the "ends of the earth" and turn away to the bosom of the broad Pacific, "bearing our sheaves with us"—homeward bound.

The coral shores of the Sandwich Islands, those marvelous gems of the ocean, lie in our pathway to the Golden Gate! The radiant reefs allure us from afar, and the wondrous mirage of our dream takes permanent form beneath our feet as we anchor in the Bay of Hilo, in the island of Hawaii. Through groves of towering palm, crowned with cocoanut, the mighty peaks of Mauna-Kea and Mauna-Loa frowning upon us from the farther sky, we come to the dangerous ascent of the crater of Kilanea, so graphically described by Mrs. Brassy, in her "Voyage of the Sunbeam." Dashing against the cliff, waves of blood-red, fiery liquid lava hurled their billows upon an iron-bound headland, and then rushed up

the face of the precipice to toss their gory spray high in the air. The restless, heaving lake boiled and bubbled, never remaining the same for two minutes together. Its normal color seemed to be a dull, dark red, covered with a thin, gray scum, which every moment and in every part swelled and cracked, and emitted fountains, cascades, and whirlpools of red and yellow fire, while sometimes one big golden river, sometimes four or five, flowed across it. There was an island on one side of the lake, which the fierce waves seemed to attack unceasingly with relentless fury, as if bent on hurling it from its base. On the other side was a large cavern, into which the burning mass rushed with a loud roar, breaking down in its impetuous, headlong career the gigantic stalactites that overhung the mouth of the cave, and flinging up the liquid material for the formation of fresh ones, every instant a fresh explosion adding terror to the stupendous scene.

From the sublimity of Kilanea to the glory of the Golden Gate, the haven of homes! the curve of jeweled "coast is held out like a hand of welcome from the land," and we leave our good ship in the harbor of San Francisco for three thousand miles of delightful railroad travel. A train will be chartered for our express convenience; the panorama of the Yo-Semite, the vast stairway of the Sierras and Rocky Mountains, be climbed and descended; the Colorado cañons, with their treasure of silver and gold, be unfolded before our eyes; the picture of the States, one after one, flash upon us until New York, the point of our departure, be reached.

The enthusiasm aroused by the first announcement of the Woodruff Expedition is re-awakened by the purchase of a suitable steamship, the *General Werder*, of the North German Lloyd Line—a staunch and commodious vessel, nearly new, with accommodations for three hundred and fifty persons, approved by the Secretary of the Navy. The *General Werder* will lie at her moorings at Hoboken dock during the winter, open to the inspection and approval of the public. She is iron-clad and brig-rigged, with every appliance for the emergency of

accident, and all modern improvements for ventilation and cleanliness. As the purpose of the enterprise is mainly educational, the principal *salon* will be converted into a lecture-room for the students and a general rendezvous for tourists. The number of pupils is limited to two hundred and fifty, that ample space may be afforded the private traveler who may wish to take advantage of these favorable auspices in a tour around the world. The system of instruction will include a series of lectures on all the specialties taught in our American colleges, supplemented by numerous inland excursions (at the expense of the management) in pursuit of knowledge from the fountain-head—the great book of Nature. Text-books and the mere memorizing of facts will be ignored for the record of the rock, and the leaves of many a ponderous volume be left uncut, while we read the petals of the flower, and "learn the secret of the weed's plain heart."

Professor W. S. Clark, LL.D., of Amherst College, has been appointed President of the Faculty; a gentleman fitted by liberal culture and extensive travel to adorn the presidential chair, and assure the prosperity of an enterprise which has excited so much interest among all Americans, and which now, since the purchase of the *General Werder*, is on the high-tide of success.

The whole expense of this tour is set at \$2,500, to be paid in stated installments of \$500. The time for departure is May 8, 1879; returning in Sept. of the following year. The Expedition will sail under the patronage of the National Government, with letters from the Secretary of State to Consular Representatives and Foreign Ministers, and invitations have already been received from the Emperors of Japan and Brazil, tendering the hospitalities of their respective ports, thus assuring an *éclat* to the Expedition, and a prestige to the private tourist scarcely obtainable under other auspices.

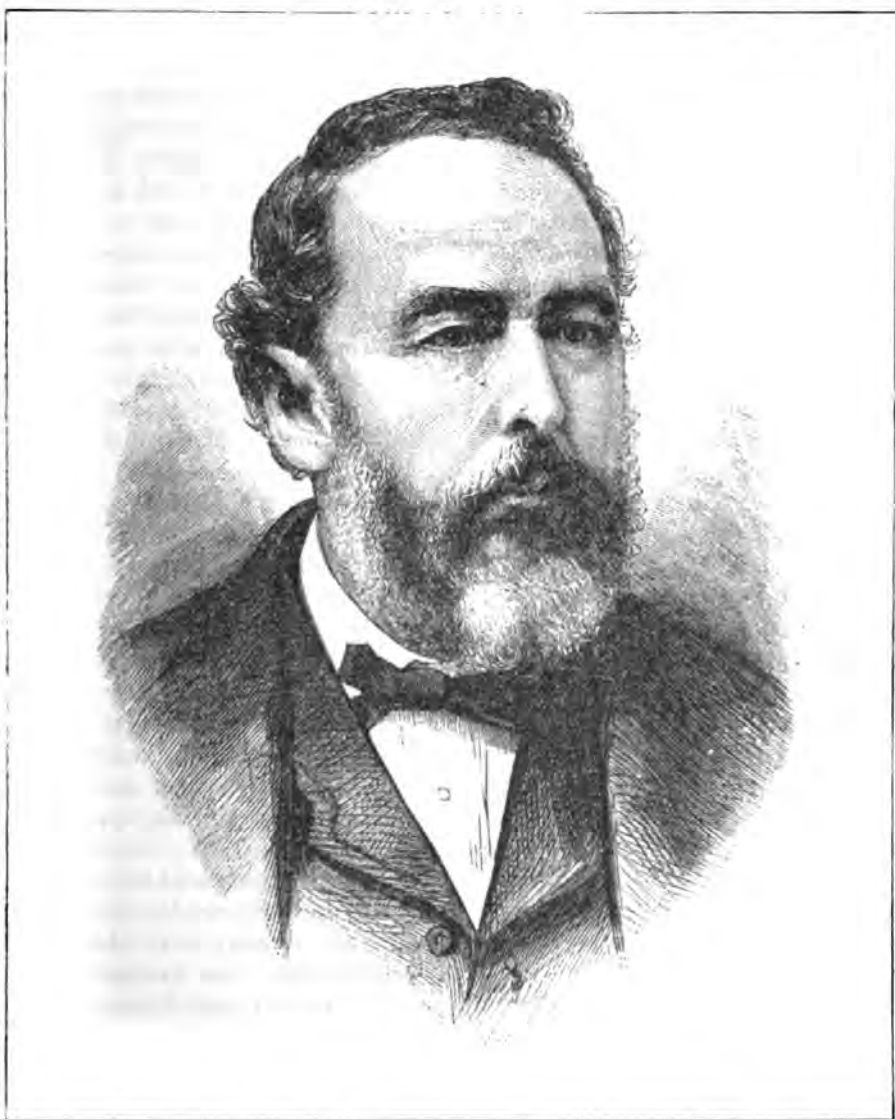
JULIA M. HOLMES.

REFINEMENT.—Refinement is not fastidiousness. It is always allied to simplicity and a judicious and tasteful employment of the means for good and happiness which it has at command. It seeks to divest itself of superfluities, and aspires continually to the utmost possible purity.

BAYARD TAYLOR.

PERHAPS no American is more widely known than Bayard Taylor. Everybody who has read his volumes knows his power in the description of scenery and travels, and his graceful verse. That he had uncommon talent for close observation and a rare appreciation of everything in de-

the air of entire sincerity and truthfulness. He never seemed to strain for effect; never dealt in hyperbole. He strode onward from fact to fact with no exclamations of wonder, no startling disclosures, but a thorough revelation of what he saw and learned. Of no writer can it be said more truly than of



tail which he saw, and remarkable felicity of description, no man who has ever read one of his articles will for a moment doubt.

The peculiarities of his descriptions were, first, fullness of detail; secondly, an easy, familiar style of expression; and thirdly,

him, that he made an honest, thorough photograph of his observations and experiences.

The moral influence of Mr. Taylor as a writer was good; not that he discussed morals or seemed to be teaching morals,

but there was such an atmosphere of sincere truthfulness, such a freedom from exaggeration, that his reader felt that he was in the company of truth itself. We never heard a statement of his questioned for a moment.

Mr. Taylor seemed to leave himself out of sight as much as the man who turns the crank of the panorama, revealing richness and beauty, while he himself remains behind the scenes.

Let us inquire as to his organic conditions—his Physiology and Phrenology. The reader will notice in the portrait the smoothness and harmony of development. The strength of his nose and the wideness of his head indicate power and force, but all other features of face and head indicate smoothness, a certain adaptability, and that harmony which appreciates truth and is not swerved from or out of its proper representation by any erratic quality of his own character. That fullness across the brow indicates close observation and attention to detail; that fullness across the middle of the forehead shows a tenacious memory; while the fullness in the middle of the upper forehead evinces analysis, criticism, and the ability to make nice distinctions.

Through the region of the temples there is width and roundness. The organs of mechanism and combination are located in the upper side-head. The upper part of the temple is also wide and full in the region of Ideality, which is the basis of poetry and imagination; but he had so strong a development of the faculties which deal with practical truth, that his poetry never outruns the laws of consistency, propriety, truth, and experience. He never rants or coruscates.

With such a forehead as his, shaped much like that of the poet Pope, there must be in his prose writings, as in his poetry, much of correct observation and description, keeping his works within the realm of truthfulness and common appreciation. If he were poorly developed across the brows and the middle of the forehead, his imagination and constructive talent would have led him to works of fiction and to that weird, dreamy, wild poetry

which startles, amazes, and is usually beyond the reach of the sympathy of all well-balanced minds. "The Cotter's Saturday Night," perhaps the finest effort of its author, was regarded by the common people of Scotland as no great thing, because they said they "had seen the like at home every week of their lives." Burns considered that expression as the best and truest and richest criticism his immortal work ever received.

The top-head is amply developed, showing Firmness, Veneration, Hope, and Benevolence, and he was true to the moral instincts. There was a loving sympathy in all he wrote, and a hopeful enthusiasm, a persevering earnestness, and a perfect reverence for all that was great and good.

His social organs were large, and it was natural for people to be attracted to him. He had that magnetism which made people feel easy and at home in his presence.

His hunger for knowledge, his love of nature, his desire for travel—all are evinced in his organization and manifested in his journeyings around the world; starting as he did at the age of twenty, and making a tour of Europe on foot and taking an impression of all he saw, as the printing press does of the type, and then revealing, as does the printed sheet, all that he had experienced. This journey, as set forth by his pen, made him known very widely, and his subsequent descriptions of travel extended his reputation in nearly all lands, and have been an educator, not only of the people of his own country, but across the sea.

His large Language, as indicated by the fullness of the eye, joined to his large percepts and memory, gave him skill as a linguist—enabling him to express himself like a native, not only in German, but in other European languages.

His death, at the early age of fifty-three, originated from local difficulty—a disturbed action of the kidneys as we should have judged to be the most likely thing from a study of his temperament.

Without a university education, he rose from a printer's apprentice to be the welcome minister to one of the most important foreign Governments, at the same time shed-

ding honor upon his native land. This shows what faithfulness and persistency in a pathway of duty and sincerity, backed up by harmonious moral qualities, can do for a man, enabling him to win honor, not only in his own land, but also the esteem and confidence of crowned heads and a titled aristocracy.

Bayard Taylor was born in Kennet Square, a pleasant village in Chester County, Pennsylvania, the 11th of January, 1825. His parents were Quakers, and he seems to have never lost his sympathy for that class of people. Many of his best poems and sketches in prose are based upon early recollections of the quaint, steady life of the Friends. His first entrance upon active life was as an apprentice to a printer. He was then about seventeen years of age. His education had not been liberal, but in the printing-office he found opportunity to supply many of its defects. A wish to visit famous places, countries of the Old World, etc., led him to determine upon making a tour in Europe on foot. For this purpose he was aided by the counsel of men like N. P. Willis, Horace Greeley, and others. He commenced this adventurous journey in 1844, spending two years, with knapsack and staff, in visiting almost every celebrated place on the Continent. An account of this tour appears in "Views Afoot," a volume pretty well known to the reading public. After his return to America he entered the sphere of journalism, taking a place on the staff of the New York *Tribune*. Travel appears to have been one of his most striking *penchants*. He visited California and other States on the Pacific Coast while prosecuting his journalistic relations. In 1851 he crossed the Atlantic again and traveled extensively in the East, exploring parts of Egypt, Central Africa, Asia Minor, Syria, and Europe; subsequently starting from England to make the journey over the continent of Asia to Calcutta in India, thence he proceeded to China, where he joined Commodore Perry's Expedition to Japan. The incidents and experiences of these travels form the staple of several very interesting volumes. In 1862 he was Secretary of the American Legation at St. Petersburg, acting sometimes as

Charge d'Affairs. He visited Egypt in 1874, and many places in Europe which had become familiar to him. The same year he attended the Millennial Celebration of Iceland. In April, 1878, he was appointed Minister to Germany.

When a young man, Mr. Taylor did not show high promise in authorship, but as his mind became matured by study and travel, and he grew older, there was indicated a marked improvement in literary capability, and this improvement was continuous. His best work, "Prince Deukalion," was done last. Among his other noteworthy publications are a translation of Goethe's "Faust;" "Cyclopedia of Modern Travel;" "Illustrated Library of Travel, Exploration, and Adventure;" "Poems of the Orient," and "Lars."

We could not more fittingly conclude this sketch than with a short extract from "Prince Deukalion," in which there appears some echoes of the poet's own inner experiences, so earnest and deep, and mystical is the strain oftentimes.

"My limbs are weary, now the hoping heart
No more can lift their burden and its own.
The long, long strife is over; and the world,
Half driven and half persuaded to accept,
Seems languidly content. As from the gloom
Of sepulchres its gentler faith arose,
Austere of mien, the suffering features worn,
With lips that loved denial closed on pain,
And eyes accustomed to the lift of prayer.
The suns of centuries have not wholly warmed
Those chilly pulses; scarce those funeral
 robes
Permit some colored broiery of joy;
And half the broken implements that fell
From conquered hands of Knowledge and of
 Art
Are still unwielded. From its first proud
 height
Humanity must bend; and so, neglecting
 these—
Defenseless through its ignorance renewed—
One pair of hands has grasped the common
 right,
And one intelligence the thought of all!

"Are he and she, who now approach this shrine,
Other than when the conquering demigods,
Fair forms triumphant on high pedestals,
Sat where yon saint, head downward on the
 cross,
Blends torture with distortion? What! Shall
 pain
Uplift and save, split blood and dreadful death
The fair, disrowned serenities of gods
Make impotent? But I will hear once more
The subject faith, the helplessness, the fear."



DIETETIC DELUSIONS.

THE History of the Human Mind demonstrates the curious fact that the mental activity of ages and nations, as well as of individual men, may become so *specialized*, that rapid progress in a peculiar direction has often coincided with the total neglect of other, and perhaps more important, pursuits.

The Christian nations of the Middle Ages can certainly not be accused of materialistic tendencies, by any one who compares their devotion to lofty ideals with the cynic skepticism of Pagan Rome or with the mammon-worship of our own century; but many of their theological and legislative tenets were so atrocious and at the same time so extravagantly absurd, that we can now hardly conceive how human and humane beings could ever acquiesce in such things, much less how they could believe in them and die in their defense. Their reason had abdicated in favor of faith; they cultivated the virtue of self-denial and the imaginary virtue of dogmatic subordination at the expense of their intellectual faculties.

Our own age has devoted itself chiefly to industry and the speculative sciences, and the zealous cultivation of the talents acquired by these pursuits contrasts so strangely with our neglect of physical culture and the science of health, that future historians may find it difficult to credit the physiological aberrations of the self-styled age of reason. They will hardly be able to understand how the same generation that

invented steam planing-machines and spectroscopic analysis could destroy their health by sedentary habits and systematic abuse of their digestive organs, or hope to recover that health by mineral waters and patent medicines.

"To define the chief contrast between ancient and modern civilization," says Gott-hold Lessing, "I should say that the ancients attached perhaps too much, and we certainly too little, importance to physical education. *The attempt to benefit the soul at the expense of the body*, sums up the fatal mistake of the last nineteen centuries."

Lessing was thinking of the gymnastic exercises of the Greeks and republican Romans, for he adds: "The proud self-assertion of the ancients, and their worship of strength, would be less distasteful to us if we could boast of that strength;" but our physical sins of omission are now far outweighed by our sins of commission against the welfare of our bodies. For one fanatic who still fears that physical development might displease the God who created our bodies as well as our souls, there are thousands who still believe in the literal sense of the word that things which enter a man's mouth can not defile him. Dietetic abuses are a darker stain of modern civilization than its effeminacy; for, at least among the Celtic and Germanic nations, that effeminacy has produced a popular reaction which drives the devotees of enervating pleasures to the base-ball grounds and *turner-halls*, while

the well-meant, but rather unpopular, attempt to cure the great evil is a great deal too one-sided and too superficial to prove a radical remedy.

Our temperance reformers strike at the most prominent head of a polycephalous hydra, and hope to destroy an Upas-tree by lopping its upper branches; and with the same hand that strikes at the top, they often water the root of the poison-tree or pat one of the less conspicuous heads of the reptile, unable, as it seems, to comprehend the intimate connection and generic identity of those parts.

The hydropathist Jordant of Antwerp, whom I invited to hear an English temperance preacher a few years ago, took his hat and left the hall when the lecturer recommended a "cup of good strong coffee," as an anti-alcoholic beverage. "The man might as well preach against highway robbery and recommend pocket-picking," he told me the next morning; "the difference is merely one of degree. What we need is an anti-stimulant, not an anti-alcohol association."

Millions of our fellow-men, including some zealous supporters of the temperance movement, are, indeed, deluded by a common and fundamental dietetic error: They mistake stimulants for aliments. In a thousand forms, though with essentially the same consequences, this error repeats itself; for poisons and stimulants are convertible terms. The mines of the earth do not produce a poisonous mineral, nor its swamps a poisonous herb, whose persistent obtrusion upon the human stomach has ever failed to make it the object of a factitious appetite, of the same morbid hankering which torments the victims of opium or alcohol till they repeat the baneful doses.

Intoxication, which means literally empoisonment, the diffusion of a poison through the human system, results in a languid reaction that may be temporarily alleviated by a repetition of the stimulation-process, which in its turn goads the exhausted system into a digestive revolt, a feverish activity whose ultimate purpose is the removal of the obnoxious substance from the nutritive apparatus.

Innumerable patients mistake the excitement of this poison-fever for the invigorating effect of a wholesome digestive process, and will tell you with an air of honest conviction that a cup of strong tea or coffee has "done them as much good as a square meal;" that a bottle of absinthe has "put the invalid on his legs again," or that a worn-out laborer "felt so much better after a glass of lager-beer;" while in reality they might as well say that the physical condition of a wounded and worn-out stag was bettered by the second shot, that made him dash ahead with renewed vigor, for a few hundred yards.

This delusion seems to be symptomatic of the poison habit, just as a confident hope of recovery is a regular symptom of pulmonary consumption; for even people who are perfectly wide-awake to the baneful consequences of other stimulants, somehow persuade themselves that their peculiar tippie makes an exception. The most infatuated alcohol toper pities or ridicules the delusion of the Turkish opium-smoker, who in his turn marvels at the folly of the wretched Giaours who defile themselves with their disgusting drinks. The Savoy mountaineers detest tobacco, rum, and all fermented drinks, but nothing can shake their conviction that a few grains of arsenic per week are a *sine qua non* of perfect health, just as the Kalmuck Tartars decline to work, fight, or ride without a prelusive dram of toad-stool juice. The Abyssinians fuddle with *hashish* or fermented hempseed, the Peruvians with the poisonous Coca, the Malays with Betelnut leaves, the Russian boors with *quass* or fermented sauerkraut juice. The Dalmatian wreckers masticate rotten fish, with all the energy of a Kentucky tobacco-chewer, while their neighbors, the Italian peasants, prefer a piece of fetid cheese to the sweetest tree-fruits of their garden home.

Few people are aware that cheese, sour milk, and sauerkraut ought to be classed with the fermented stimulants. The decomposition of any animal or vegetable substance—solid or fluid—evolves a putrid acid whose introduction into the human stomach in sufficiently large quantities pro-

duces all the characteristic symptoms of alcoholic intoxication, and in smaller quantities the so-called exhilarating effect of mild cider or small-beer. Every old *restaurateur* can speak of customers who prefer "mellow" meat (*haut-gout*, French epicures call it), to the fresh article—who, in other words, have acquired a taste for slightly putrid flesh. Cheese is nothing else but more or less decayed curd; sauerkraut is fermented cabbage. People may tell you that they eat such things for the sake of their inherent nutriment, which assertion can be put to a simple test: Offer them *fresh* curds or chopped white cabbage *before* fermentation has given it an acid taste; you might as well persuade them to eat paper-pulp or macerated grass.

They fuddle with putrescent caseine and decaying cabbage-leaves as the lager-beer drinker does with his fermented barley-juice, and in either case the habit is progressive, tending toward a constant increase of the dose either in quantity or in stimulating quality.

The champions of the vegetarian school proved by almost unanswerable arguments that *fresh meat* ought to be thrown into the same category, since flesh, used as human food, is certainly an unnatural aliment, and as such can not fail to carry with it into the system an abnormally exciting quality. The form of our hands, our teeth, and our digestive organs, and all our native instincts and appetites in childhood, conspire to prove that man is not a carnivorous, but a frugivorous animal. The cradle of the human race was not a butcher-shop, but an orchard; and even without employing the Darwinian argument, it seems evident enough that man in his pristine state, without the aid of artificial weapons, could not, even if he would, have eaten his fellow-creatures.

Our prehensile hands with their blunt finger-nails are far better adapted to tree-climbing and fruit-plucking than to sanguinary purposes; the conformation of our teeth repeats itself, not in cats and wolves, but in fruit-eating animals; and anatomists tell us that there is a marked difference between our intestinal apparatus and that of

any known species of carnivora. Young kittens are as sanguinary, and delight in the infliction of pain, as much as the hoariest tom cat; while young children, with exceptions of phenomenal rarity, revolt even at the description of cruel acts, and are only enabled by the practice of years to pass through a meat-market without a *horror naturalis*.

Feed a boy on a mixed diet of vegetable and animal food, keep him indoors till he reaches his seventh year, and then let him enter an orchard exhibiting fruits that he never saw in their uncooked state before; let him alone for an hour or two, and, be sure, he has found out that apples can be eaten raw before you come back. Next day take the same boy into a poultry-yard or to a pasture, speckled with sheep or helpless young kids, and let him alone as before. He will either ignore the existence of the animated meat-stores or join in their sports as a young fellow-vegetarian. If he were the offspring of a carnivorous race, instinct would teach him to fall upon the kids, etc., like a young tiger-cat.

The lovers of field-sports contend that we have to kill animals because they would otherwise overrun the earth (which, as Dr. Windham said, is a poor excuse for killing fish); but that the killing should be followed by deglutition, is quite another question. Famine may excuse the act, but when vegetable victuals are accessible, the arguments in their favor almost justify the Brahminical and old Pythagorean law against flesh food. *Frugality*, in the ancient Latin sense of the word, meant literally subsisting on fruits, as distinguished from a penchant for flesh-pots, which the contemporaries and countrymen of Cincinnatus classed with drunkenness and libertinism.

It is a very suspicious circumstance, that in order to make animal food palatable, its natural taste has to be disguised by cooking, frying, or spicing, and that nothing short of imminent death by starvation could induce a carnivorous man to devour his prey on the spot, *more luporum*. It might be answered, that vegetables, fruits, and cereals too, are often improved by cooking; but the great difference is, that they *can* be

eaten raw, without doing violence to our instincts and tastes. In an idle moment, an epicure, as well as a rustic, may pluck an ear of wheat or corn, and proceed to eat the kernels, taste a raw tomato or turnip, or chew up a handful of cranberries; but even a butcher would stare if he were to see one of his customers take up a shred of flesh or a bit of raw liver and swallow it for a sample. Human life may be sustained upon a diet of flesh-meat and water (though travelers and prisoners who can speak from experience, would prefer water and bread), so that Pythagoras himself could not deny that flesh food does possess nutritive properties, but I suspect that as a component part of a luxurious "mixed diet," flesh is relished on account of its exciting and stimulating qualities more than for its modicum of nutriment, and this suspicion is confirmed by a number of pathological symptoms besides the following six dietetic tests which I have found useful in distinguishing stimulants from esculents and wholesome drinks:

I. All stimulants are repulsive to beginners, by their taste as well as by their first effect upon the digestive organs.

II. Their persistent use changes this aversion into a morbid craving which is never produced by healthy articles of food.

III. This appetency is progressive; demands a larger dose after each successive indulgence.

IV. Stimulants invariably tempt the habitué to partake in excess, to transgress the boundary between repletion and surfeit.

V. A mixture of spicy condiments with indigestible substances in a "made dish," may tempt children or gluttons to overload their stomachs with such a compound, but a surfeit of that sort will produce a long, if not permanent, aversion to the indigestible dish, while stimulants proper never pall, though retching and paroxysmal headaches may deaden the morbid appetite for a few hours.

VI. The attempt to discontinue the use of a stimulant or to substitute a new for an accustomed mode of stimulation, produces a state of gastric distress which never results from the want of any special article

of natural diet, and the difficulty of breaking a confirmed stimulant habit will be greater or smaller in exact proportion to the difficulty of acquiring that habit. A reforming opium-eater has to pass through weeks and months of incessant agony, but he should not forget that his stomach protested for weeks and months before it would accommodate itself to the monstrous drug.

The refinements of the culinary art have created a dietetic delusion which recruits its victims chiefly among the Latin races, though the upper classes of Northwestern Europe and Eastern North America furnish a handsome contingent. Millions of Spaniards and Italians and thousands of Anglo-Saxon gourmands mistake an inflammatory affection of the stomach for the prompting of a healthy appetite. In a warm climate, where an indolent man may satisfy his stomach with a minimum of solid food, sluggish gluttons, reluctant to promote digestion by physical exercise, invented the art of whetting their appetites by an easier method. They found that such spices as pepper, ginger, or sharp vinegar enabled them not only to absorb, but to relish, a quantity of food which would otherwise have produced surfeit and nausea. Thus they could prolong the pleasure of deglutition with apparent impunity, and crammed their bowels day after day with a dose of aliments which only a hard-working Norwegian wood-chopper could *digest*, till the circumvented law of nature asserted itself by a congestive chill or a gastric cancer. Such ailments the gluttons of Imperial Rome ascribed to the influence of a malign planet, the unctuous prelates of the Middle Ages to the prevalence of heretical doctrines, the modern Romans to the *aria cattiva*, the poisonous exhalations of their coast swamps, to any cause but the true one. Should a man not eat while his appetite lasts?

The case is this: If a man swallow a handful of salt, or a spoonful of Cayenne pepper, his alarmed stomach cries out for a *diluent*, anything that will modify or palliate the burning effect of the unmixed irritant. Water, milk, gruel, beef-tea, even torrents of grease are welcome; platefuls of mild

solid food are accepted in the absence of fluids, and the pungent abomination, palliated, *i.e.*, wrapped up, in a larger quantity of neutral stuff, is hurried through the alimentary ducts and evacuated in an undigested state. Unmixed pepper would produce a gastric spasm; a five-pound dose of unpeppered ragout would operate as an emetic; but the mixture is tolerated, the ragout palliates the pepper, and the pepper goads the bowels into a perfunctory discharge of their duty.

Pepper, ginger, mustard, hartshorn, onions, garlic, vinegar, and I do not hesitate to add *salt*, and all their compounds, used as "appetizers," are evil and only evil. Wholesome victuals need no such admixtures, and meats that can not be digested without them ought to be altogether avoided. Things indigestible *per se*, may be justly suspected of not being natural articles of food.

The theory that our victuals are made healthier by *cooking* has become untenable, since it was demonstrated that heat coagulates the albuminous elements of vegetable and animal substances, and thus makes their digestion more difficult, and that the action of fire evaporates many nutritive fluids; but such disadvantages might be overlooked if cooking did not tempt us to eat our food hot. The idea that smoking-hot meats and drinks could benefit our system is a wholly gratuitous delusion, for nobody ever was or even felt the better for scorching his bowels. Next to the retina the inner coat of the stomach is the most sensitive membrane of the human body, and to scald it thrice a day with fluids or ragouts that would blister our fingers, can not fail to impair its functional efficiency. A famished hound would shrink from the deglutition of the smoking stews which we teach our children to swallow with the aid of forks and spoons; and there is no doubt but that French invalids who persist in drinking their coffee "*fort comme le diable et chaud comme l'enfer*,"* owe their dyspepsia as much to the temperature of their beverage as to its stimulating properties.

"*Der Mensch ist was er isst*—Man is

* "Strong as the devil and hot as hell," a phrase more emphatic than elegant.—E.D.

what he eats," is a German proverb, and almost literally true, as far as man's physical nature is concerned. Ninety-nine per cent. of all the "ills which flesh is heir to" might be cured if we could cure people of their dietetic manias. Of what use is all our boasted science if our sages must confess that savages, blessed by health, are happier men? The thousand undeniable blessings of civilization are more than outweighed by that one curse: the *hastula bellum lethale*—the deadly war waged against health by the frying-spit. The spit and the still have inflicted greater torments upon mankind than all the implements of ancient and modern warfare and all the instruments of torture in the dungeons of the Spanish Inquisition. From St. Petersburg to San Francisco the civilized world is a huge lazaret-house, a hospital filled with the dead and dying victims of gastric diseases, and it is very doubtful if the Caucasian race with its 320,000,000 human beings can now boast of 320 perfectly healthy men. In the valleys of Albania or among the Mohammedan mountaineers of the Caucasus we might find them, but not in Western Europe, nor even in Western North America. The vanguard of the Teuton distillery and French cookery alliance has penetrated to the furthest backwood settlements of Oregon and sends its skirmishers through the frozen forests of Alaska and the arid Sierras of Southern California. The German pioneers of the West Texas wilderness fuddle with schnapps, and the squatter's good wife fries salt-pork short-cakes in the solitudes of Southwestern Arkansas. Delirium tremens and dyspepsia are known wherever the Russian armies have carried the flag of their Czar, wherever British traders have established a frontier-post, or Yankee speculators a new railroad terminus.

There is a consolation in the thought that indifference rather than hopeless shortsightedness is the cause of our dietetic abuses. We tolerate the evil, not because we have mistaken a curable for a cureless disease, but because we do not care to apply the remedy. Indifference to physical unsoundness is one of the characteristics of Christian civilization: we have been

taught that corporeal evils need not concern us as long as we take care of our immortal part, till we have almost forgotten that the highest physical and the highest moral well-being can only be attained conjointly. "A healthy mind in a healthy body," was the *beau idéal* of the pagan philosophers, and would be ours, if our heavenward-directed eyes had not lost sight of this earth.

The mutual dependence and constant interaction of soul and body must be better understood, or rather, should not be willfully ignored, if we hope to recover our lost earthly paradise. Let us fully admit that the body is as inferior to the soul as the horse to the rider, or the boat to the boat-

man; it will not be the less certain that the welfare of the voyager who can not leave his boat, or of the traveler who has but one horse, will constantly depend upon the quality of those inferior things. What would we think of a merchant who should man his ship with reliable officers and a picked crew, but let her sail with rotten cordage and a worm-eaten bottom? Or of a sportsman who should put a first-rate jockey upon a lame horse and expect him to win the race?

Lessing's aphorism deserves an *encore*: "'The attempt to benefit the soul at the expense of the body,' sums up the fatal mistake of the last nineteen centuries."

F. L. OSWALD, M.D.

EXPERIMENTS IN MAGNETISM.—No. IV.

WHEN the gentleman whose experiments have been the subject of preceding articles was in his nineteenth year, by a misstep he received an injury to the spine, which at times caused him intense suffering. For three or four years physicians of the "old school" tried by powerful drugs to relieve him—none ever promised a cure. As years passed he became satisfied that their medicines did him more harm than good, and he turned to the homeopaths for help. The attacks of pain, however, became more and more frequent, and more than ever alarming, and his death was anticipated as an event not far distant. He became weary of doctors; and hot baths, fomentations, etc., were tried with some success for a time, when they seemed to lose their efficacy, and his friends were apprehensive lest each successive attack might prove his last.

In the spring of 1859 a paroxysm seized him which baffled every effort. All old remedies failed, and the family knew not what next to do. A friend who chanced to come in, after watching the sick man for a while, remarked: "My wife has a sister at our house, who has just come from the West, and she has a great deal of the same power over the sick which Mr. — has when he is well. If she could be induced to come here I believe she could give him relief."

At once the wife and the father of the sick man urged the friend to fetch the lady. Her name was Emily Rowe. In the course of an hour she arrived. The invalid, meantime, had been rapidly failing, and when Miss Rowe entered the house his father met her with the exclamation: "I am afraid you are too late; I think he is gone."

No signs of life were discoverable. He had not breathed for many minutes. The dark blood lay under the nails, and the pallor of death was upon his face. Miss Rowe approached the bedside, looked at the apparent corpse for a moment, then passed her hands from his head to his feet, over the clothing, without touching him. As she repeated this process three or four times, her own face became livid as the body before her, then with a sudden impulsive movement she placed one hand upon his back and one upon his breast, turned him upon his side as though he had been a child, and commenced manipulations upon his back and stomach. Not five minutes elapsed before the color returned to the patient's face; he commenced breathing and soon was able to speak. In less than an hour he was entirely relieved. Several times during that summer, when premonitory symptoms returned, this lady arrested the difficulty, and gradually the terrible attacks seemed to die out. The sequel, however, proved that

they were not conquered. Some four or five years later, soon after the death of his little son, the old pains returned with all their relentless tenacity. Miss Rowe was now several miles distant, and in the alarm of the family a new physician was called, but he gave no relief, and said the patient must die. The sick man's courage now gave way, and a lawyer was called to attend to his final business arrangements, while the aged father and friends looked on in despair. Meantime a swift messenger had been dispatched for Miss Rowe, who responded as quickly as possible to the call. She succeeded again in making a decided change in the patient in a very short time, and he gradually recovered, but not with the rapidity of the former occasion, from the fact that she became so thoroughly exhausted during the first hour that she could do no more for him. She undoubtedly saved his life; and more than that, the violence of these spells was broken. Since that time they have occasionally returned, as the result of over-fatigue, but never with those alarming features which had characterized them previously.

At one time Miss Rowe was stopping in the house when the eldest son (during the illness of his father) was attacked with dysentery. She was not well, and the good old family doctor was called. The child steadily failed, and at the end of seven days the doctor said the boy would not live through the night. That evening Miss Rowe came into the sick-room, and placing herself at the bed-head, said: "I will take care of Charlie to-night." The mother did not leave him; but Miss Rowe commenced making passes over the child, and continued the process for more than four hours, at the end of which time a great change had been wrought in his appearance, and when the doctor came in the morning he exclaimed, with astonishment, "The boy is better!" He recovered from that time.

On another occasion a little boy of the neighborhood lay dying, as was supposed, from inflammation of the bowels. The child's mother was a dear friend and relative of the magnetizer and his family, and in her sorrow she sent for him. He saw at once that the child needed more care and

attention than he could possibly give time to, and he begged the mother to let him fetch Miss Rowe, to which request she gladly consented. Upon Miss Rowe's arrival, the child's bowels were frightfully distended and their color a dark purple. He was unconscious, and his head in constant motion from side to side. Miss Rowe cured the boy, making the great radical change within the first three hours. She gave no medicines. These cures were all performed by "the laying on of hands." We call it magnetism.

The gentleman referred to in these articles soon learned to understand the significance of the words—"that virtue had gone out of him." In his own case, after treating a patient, he was conscious of more or less exhaustion, according to the debility of the person he had been treating, and in a few cases—where previous debility, as well as muscular weakness, had become chronic—he became emaciated, and for a short time weak, but in every case he soon rallied. He never took upon himself the diseases of others, but rather seemed first to scatter their diseases, and then to give them vitality from his own frame. The disease was not sent from one portion of the body to another, but seemed to undergo some change, perhaps a chemical one, and then disappeared.

But he found that in the case of Miss Rowe there was a tendency to take on the physical ailments of others. This gave her a repugnance to the exercise of her healing power; and, in fact, she was obliged to desist, and finally succumbed to the accumulation of disease within her own frame, and died of cancer. Whether impurities in her own system may not have attracted the like from others, or whether it was a lack of repelling power in her constitution, is a question for consideration.

The magnetizer was called to treat a lady who was prostrated from the exercise of her own healing gifts. She had treated an old gentleman apparently dying of dropsy. She cured this dropsy, and he lived several years. She, however, was unable to do anything for herself for a year, and finally resorted to magnetism for relief and was cured.

These cases, and others which came under his observation, led this gentleman to believe that there must be two distinct classes among magnetists, viz.: those who could both cure and repel disease, and those who could relieve pain and cure some ills, but could not annihilate or drive them away; so that they might return in time either to the operator or the subject. In

other words, some appeared merely to psychologize their patients, the result of which gave relief, but would not always cure; while others exerted an absolute power, so far as physical strength would permit, over disease itself, as well as a psychological influence over the mind of the sick.

MRS. HELEN M. SLOCUM.

THE PROPER POSITION FOR SLEEP.

AN article appears in a late number of the *American Medical Journal*, in which this topic is discussed by H. L. True, M.D., with much brevity, and some point. We take the liberty to copy it as a sort of courteous retaliation, having noticed an article or two of the PHRENOLOGICAL'S in the same number of the *A. M. J.*—ED. P. J.

"A variety of opinion obtains among medical men as to what position during sleep is the most conducive to health. The four principal positions usually observed by persons while lying down are as follows:

- "1. A supine position.
- "2. Lying on the right side.
- "3. On the left side.
- "4. The prone position.

"We will consider these different positions separately.

"It has been urged in favor of the first position, that, while the body is in this position, the internal organs are also all in their best possible positions to perform their functions properly; that one organ does not impinge upon others; that if no pillow is used under the head, this position will very much contribute to an erect form—a form very much to be desired by all.

"While I admit this position has its advantages, yet I find a great many objections to it. The stomach in this position rests directly upon the descending aorta, and interferes very much with the circulation of the blood to the lower extremities, and contributes to produce congestion of the cerebral organs; the effect of which is manifest in the bad dreams and the terrible 'nightmares' which patients themselves soon learn to consider as the result of sleeping on the back.

"If the stomach contains food, it very

much adds to the difficulty by increasing the weight and pressure on the artery; and even if bad dreams and incubus do not occur, the effect of the congestion of the cerebrum will still be manifest on the succeeding morning by the headache and lassitude which is nearly always present when a person has slept on the back.

"To obviate the cerebral congestion, persons who sleep on the back usually elevate the head with pillows; and if this is done, then the tendency is to produce a stooping posture, which is very much to be deplored; besides, it must be remembered that there is an interior curvature of the spine in the lumbar region; and in order to maintain this natural, the spinal column will require to be elevated in this region; as, for instance, by placing a small pillow under the back, which will restore or preserve the natural position of the spinal column; but if this pillow is too large or too small, or if it gets displaced, the tendency still remains to produce distortion of the spinal column; with all these difficulties staring us in the face, and with the fact, also, that none of the animals sleep in this position, I consider the dorsal or supine position the most objectionable of any of the positions above mentioned.

"For the second position, it is claimed that while lying on the right side, the pressure of the stomach is removed from the abdominal aorta; that the food is allowed to pass out of the stomach, or is assisted in passing out of the stomach by the power of gravitation. But while we admit that in this position food would naturally gravitate toward the pylorus, yet this opening would be closed by the pressure of the stomach

upon it, and the outward passage of food through it would be very much interfered with; besides, the duct from the gall-bladder would be placed in a disadvantageous position, or, in other words, would have to discharge 'up-hill.' If the force of gravitation is to be taken into consideration, it seems to me that, as this duct is not a muscular organ, it has more need of the assistance of this force than the stomach, which is a muscular organ.

"In this position, the internal organs would, by their weight; naturally settle toward the right side; and if the habit of sleeping exclusively in this posture was kept up for a long time, it would undoubtedly produce serious derangement or mal-position of the internal organs. And again: in this position the under-lying shoulder and arm is bent toward the front, and held there by the superincumbent weight of the body. This very much conduces to round shoulders, which is an accompaniment of a stooping form, and ought to be avoided.

"Many of the objections to sleeping on the right side apply with equal force to the third position. But as the position of the stomach is reversed, it is evident that its labor is increased, it having to perform the part of a force-pump to discharge its contents through the pylorus.

"I will say, in this connection, that if a person prefers a side position to sleep, he ought not, by any means, to sleep invariably on the same side; but he should change position occasionally, in order that the internal organs may not become displaced by long lying in one position.

"I will now consider the fourth, or what, in my opinion, is the natural position in which to sleep—this is, lying on the face, or in a prone position. This position admits of three variations, viz.:

"1st. With the body straight, inclined neither to the right nor to the left; the lower extremities extended; the arms folded across under the forehead; the face directly underneath, or inclining slightly to one side.

"2d. Inclining to the right side, with the right arm extended *behind the body*, and with the left leg drawn up or slightly folded, the right being extended, and the right cheek resting on the pillow.

"3d. This is inclining to the left side; and is the reverse, in every respect, of the last.

"My reasons for preferring the face positions are these: they afford the utmost facility for the internal organs to perform their functions properly, and the blood circulates to all parts of the system without obstruction. The head resting on the pillow, is forced backward into a straight line with the spine, and the natural anterior curvature of the spine in the lumbar region is preserved; for, by its own weight, the spinal column will fall forward or downward from the elevation produced by the hips.

"If we are to learn anything on this question by the position in which the animals sleep, certainly the face position has the preference. But this position is objected to on account that it will interfere with the motions of the chest in breathing; but I believe this objection groundless. The animals suffer no inconvenience from this cause; nor have I observed any difficulty in the lungs of persons who sleep in this position, that I could attribute to this cause.

"This position while sleeping should be assumed by persons who have disease of the stomach; and as I have had occasion frequently to commend it to patients, and have seen beneficial results from it, I can confidently recommend it to the profession. Having myself been troubled with a weak stomach during most of my life, I have found that I can eat a hearty supper, and immediately go to bed; and if I lie in this position, I have no trouble in digesting the meal; but if I sleep in any other position, I can not digest it at all."

A SONNET.

As in mid-winter there may come a day
So full of sunshine that we think of spring,
And fancy seems to hear the first bird sing
A merry song which bids the world be gay;
So in the winter of the heart some ray
Of hope a radiance may brightly fling
Upon joy's new-made grave, and thus may
bring
To us slight solace for our woe. But stay
These visions, promising our life to cheer!
Ah, no! Our fancy wakes from pleasant dreams
Of spring, and hears the winds of winter
moan,
While all the hopes we made too fondly dear,
Like wandering marsh-light's deluding gleams,
Leave us in ulsaries till now unknown.

DR. J. A. MOULLE

NOTES IN SCIENCE AND AGRICULTURE.

Ants as Epicures.—Among the strangely intelligent habits which have been discovered in ants, is that of fondling and pleasing the larvæ of the butterfly (*Lycæna Pseudargiolus*) for the tasteful matters which it exudes. In the last issue of the *Canadian Entomologist* there is a description of observations of this kind by W. H. Edwards, of Virginia, from which we quote as follows:

"The ants, when discovered on a stem, will invariably be on or near the larvæ. They run over the body, caressing with antennæ, plainly with the object of persuading the larvæ to emit a drop of the fluid on the eleventh segment. Most of this caressing is done about the anterior segments; and while the ants are so employed, or rather while they are absent from the last segments, the tubes of the twelfth segment are almost certainly expanded to full extent, and so remain, with no retracting or throbbing, until the ants come tumbling along in great excitement, and put either foot or antennæ directly on or close by the tubes, when these are instantly withdrawn. The ants pay no heed to the tubes, do not put their mouths to them or to the openings from which they spring, nor do they manipulate that segment. They seek for nothing and expect nothing from it. But they do at once turn to the eleventh, caress the back of the segment, put their mouths to the opening, and exhibit an eager desire and expectancy. By holding the glass steady on the eleventh, a movement of the back of this segment will soon be apparent, and suddenly there protrudes a dull green, fleshy, mamilloid organ, from the top of which comes a tiny drop of clear green fluid. This the ants drink greedily, two or three of them perhaps standing about it, and they lick off the last trace of it, stroking the segment meantime. As the drop disappears, this organ sinks in at the apex, and is so withdrawn. The ants then run about, some seeking other larvæ on the same stem, some with no definite object, but presently all return and the caressings go on as before. The intervals between the appearance of the globule varied with the condition of the larvæ. If exhausted by the long-continued solicitings, some minutes would elapse, and the tubes meanwhile remain concealed; but a fresh larvæ required little or no urging, and one globule followed another rapidly, sometimes even without a retracting of the organ. I have counted six emissions in seventy-five seconds. The larvæ did not always await the approach to the eleventh segment, but gave out the drop unsought and as soon as it was aware of the presence of the ant. Now and then the drop was preceded by a bubble several times larger than itself."

Another East River Bridge.—The project of building a bridge across the East River near Seventy-ninth Street, with pier on Blackwell's Island, has been revived,

the object being to connect the railways of Long Island and New York. The plans contemplate a bridge, which, including the approaches, is 9,500 feet long, and 137½ feet high in the centers of the spans over the river. The New York approach begins at Lexington Avenue, and is 3,500 feet long. The span across the New York channel is 718 feet long, and that over the Long Island channel 618 feet long. The roadway at the towers is 150 feet above the water. The distance across Blackwell's Island is 680 feet, and the towers on the island will be connected by trestle-work. The Long Island end of the bridge is in the neighborhood of Astoria, and the approach on that side of the river is 3,900 feet long. The New York approach crosses the streets by trusses 100 feet long, and reaches the surface at Lexington Avenue. The road passes under the avenue, and connects with the Central Railroad at Fourth Avenue. The channels of the river are spanned by rigid suspension bridges.

Regions of Wheat Production.

—No changes which have occurred in the agricultural relations of our country are more marked than those in connection with wheat. Thirty years ago New York and Pennsylvania were distinguished for their large crops of wheat. The report of the Commissioner of Agriculture for 1844 shows that New York, Pennsylvania, and Ohio produced nearly one-half of the total wheat crop of that year. Ohio then led New York by nearly one million bushels; the whole quantity produced by the three States being forty-one millions. In 1870 Illinois took the lead, showing a product of thirty million bushels, and Iowa and Minnesota have stepped toward the front rank as great wheat-fields. Now the wheat crop of Minnesota is greater than that of the New England States, New York, and Pennsylvania combined. The changes in the wheat-growing areas have been followed by changes in the location of the milling interests. This is what would be reasonably expected. The causes which have brought about these changes is found mainly in deterioration of the soil of the older States, making it unprofitable for wheat-growing, and the increase of population, which has turned the attention of the inhabitants mainly to manufacturing industries. Besides, as fast as the soil has become exhausted it has been abandoned or devoted to some other crops. Wheat producers have sought to obtain their crops at the smallest expenditure of labor and of manure, and there being an abundance of land of rich and virgin character in Western States, they have gone thither. The rapid exhaustion which has taken place in the wheat soil can be seen in the fact that twenty-five years ago New York lands which produced forty bushels to the acre now yield scarcely one-half their former crops, and that

only by fertilizing. The same can be said of Pennsylvania and Ohio. One important reason, which seems to be overlooked by most writers, and yet it is one of the most obvious, is the fact that the price of land has greatly appreciated in New England and the Atlantic and Middle States, and, therefore, the taxes and other expenses incident to its possession are a serious drain upon the profits of agriculture. The increase of population in the Eastern States has been such that wheat enough could not be raised to supply the demand.

In 1870 Pennsylvania had three thousand flour mills, the largest number in any one State; New York came next with two thousand; then the New England States with nearly the same number. Since 1870 the milling interests have grown and flourished best in Illinois and the Northwestern States. Over two thousand flour mills have been erected in Illinois, Wisconsin, Iowa, and Minnesota. The total number of mills in those States now is nearly five thousand. More than half the twenty-five thousand in the country are now west of Ohio. The improvements in trade facilities are marked, too; flour being shipped now directly from Minneapolis to Liverpool, and occupying only two weeks in the transit. Considering the advantages of the great West in the way of water supply and fuel, to say nothing of the soil, it would be entirely out of the question for the East to compete with it in wheat production, and the tendency will naturally be toward the absorption of the grain interest there.

A Ruin, accidentally discovered by A. D. Wilson, of the Hayden Survey, several years ago while pursuing his labors as chief of the topographical corps in Southern Colorado, is described as a stone building about the size of the Patent Office. It stood upon the bank of the Animas, in the San Juan country, and contained perhaps five hundred rooms. The roof and part of the walls had fallen, but what of it that was standing indicated a height of four stories. A number of the rooms were fairly preserved, had small loop-hole windows, but no outer doors. The building had doubtless been entered originally by means of ladders resting on niches, and drawn in after the occupants. The floors were of cedar, each log as large around as a man's head, the spaces filled neatly by smaller poles and twigs covered by a carpet of cedar bark. The ends of the timber were bruised and frayed, as if severed by a dull instrument. In the vicinity were stone hatchets, and saws made of sandstone slivers about two feet long worn to a smooth edge. A few hundred yards from this building was another large house in ruins, and between them rows of small dwellings, built of cobble-stones laid in *adobe*, and arranged along streets, after the style of the village of to-day. The smaller houses were in a more advanced state of ruin, on account of the round stones being more easily disintegrated by the elements

than the heavy masonry. The streets and houses of this deserted town are overgrown by juniper and pinon—the latter a dwarf, wide-spreading pine, which bears beneath the scales of its cones delicious and nutritious nuts. From the size of the dead as well as the living trees, and from their position on the heaps of crumbling stone, Mr. Wilson concludes that a great period of time has elapsed since the buildings fell.

An Important Need of the AMERICAN FARMER.—A writer in the *Germantown Telegraph* says appreciatively:

"The nation is looking with wondering gaze at the growth of railroads, mining, and manufactures, as the types of prodigious advance in material development. The farmer has learned to feel that he has a direct interest in all this, because it gives him home markets that render it unnecessary for him to depend upon the foreign demand. But the farmer has not yet learned (because the agricultural interest is not organized on the same scale as the industrial) that in all this opening of a higher and better cultivation he has new aims to look at, new interests to develop, new importance to understand and care for. He has not yet understood, because it is difficult for the scattered and isolated cultivator to learn these things, that with the increased variety of manufactures, there come openings for new crops that he can raise.

"The capitalists can employ chemists and scientists to prepare processes and adapt raw materials to the arts. But the farmer has no chemist at his command and no scientist to advise him of the methods of utilizing what he wastes for the lack of knowledge. The Agricultural Department tells him at times of new crops he can raise, for which there is a demand in the home markets, and it distributes seeds far and wide, some of which are always tolerably sure to fall on congenial soil. What is needed is, that our American farmers should exhibit the same intelligent spirit of enterprise displayed by the inventor and manufacturer; that they should appreciate the new spirit of American civilization and rush forward to make agriculture not the mere follower and servant of manufactures, but the great leading and advancing interest."

The Thermometer as a Remedy.—Sir Humphry Davy in his young days assisted Dr. Beddoes, who at that time was bent on curing all diseases by the inhalation of gases. Davy was then accustomed before applying the inhaler to ascertain the temperature by placing a thermometer under the tongue. While thus employed on a countryman, who fancied this was the wonderful process he had heard of, the man exclaimed that he already felt better. Davy took the hint, left the thermometer in its place some time, and reapplied it every morning. His patient improved in health and ultimately got quite well without any other treatment.

Facts of Value to the Housewife.—That salt will curdle new milk; hence, in preparing milk-porridge, gravies, etc., the salt should not be added until the dish is prepared.

That fresh meat, after beginning to sour, will sweeten if placed out of doors in the cool air overnight.

That clear, boiling water will remove tea stains and many fruit stains. Pour the water through the stain, and thus prevent it from spreading over the fabric.

That ripe tomatoes will remove ink and other stains from white cloth, also from the hands.

That a tablespoonful of turpentine boiled with your white clothes will greatly aid the whitening process.

That boiled starch is much improved by the addition of a little sperm, or a little salt, or both, or a little gum arabic dissolved.

That beeswax and salt will make your rusty flat-irons as clean and smooth as glass. Tie a lump of wax in a rag, and keep it for the purpose. When the irons are hot, rub them first with the wax rag, then scour with a paper or cloth sprinkled with salt.

That blue ointment and kerosene mixed in equal proportions and applied to bedsteads is an unfailing bedbug remedy, and that a coat of whitewash is ditto for the walls of a log-house.

That kerosene oil will soften boots or shoes, which have been hardened by water, and render them as pliable as new.

That kerosene will make your tin kettle as bright as new. Saturate a woollen rag, and rub with it. It will also remove stains from, and clean, varnished furniture.

That cold rain-water and soap will remove machine grease from washable fabrics.

Geological Changes in Progress.—In the *Popular Science Monthly* Prof. J. S. Newberry told us lately that various facts indicate that the coast of New Jersey and Long Island is gradually sinking. From the marshes of New Jersey are taken the trunks of trees which could not have grown there except when it was drier ground, and on the shore stumps are seen now under water, of trees which must have grown on land. So, too, the sea throws up in storms portions of turfy soil, once covered only by the air, and similar soil has been reached below the sea-level, in pits dug through drifted sand along its margin. The land boundaries have been changed and farms diminished, even where the wash of the shore waves produced no effect. The rate of this subsidence is very slow—only a few inches in a century—and it may at any time be arrested or reversed; but should it continue, as it may, for some thousands of years, it would result in a submerging of land now valued at hundreds of millions of dollars and a complete change of position in the seats of commerce and industry, which must always center about this harbor. This possible catastrophe is, however, so uncertain and remote, that it seems hardly suf-

ficient to disturb the equanimity of at least this generation of inhabitants.

A New Potato.—The Commissioner of Agriculture having heard of a variety of the "Irish" potato which is raised near Lima, Peru, procured a supply. Of these, he has already distributed some for planting in California and elsewhere southerly; the remainder will be carefully preserved until next spring, when they will be distributed among careful and competent farmers in different States. In order to be sure that the potatoes received were the same variety which had been reported to him, General Le Duc invited his informant to go to the department and inspect them. He did so, and after selecting three of the best, had them boiled in the laboratory. When broken open they were found to be of the kind he had described. They were of a deep yellow color and delicious flavor, entirely different from that of any potato ever seen by any of the gentlemen present, and all agree that if they could be grown in this country, it would undoubtedly be a great public benefit.

What Smoking does for Boys.

—A certain doctor, struck with the large number of boys under fifteen years of age he observed smoking, was led to inquire into the effect the habit had upon the general health. He took for his purpose thirty-eight aged from nine to fifteen, and carefully examined them. In twenty-seven he discovered injurious traces of the habit. In twenty-two there were various disorders of the circulation and digestion, palpitation of the heart, and a more or less taste for strong drink. In twelve there were frequent bleeding of the nose, ten had disturbed sleep, and twelve had slight ulceration of the mucous membrane of the mouth, which disappeared on ceasing the use of tobacco for some days. The doctor treated them all for weakness, but with little effect until the smoking was discontinued, when health and strength were soon restored. Now this is no "old wife's tale," as these facts are given under the authority of the *British Medical Monthly*.

Importance of Entomology.

—When Henry Edwards—one of the most celebrated of modern entomologists—sought to dispose of his admirable collection, worth over \$25,000 for \$12,000, he was snubbed by the ignorant and unreflecting, who wondered what use could be made of a vast array of dead bugs. But within a few days, new and hitherto unclassified insects of that sort have greatly aroused the fears of that bigger, self-conceited bug called man. The Connecticut farmers complain that their corn is being devoured in great quantities by a bug not before known. It is described as a "good-sized, six-legged, evil-looking bug, rather larger and much flatter than the potato bug; in color, brown; having a wide body and a very small head provided with a pair of small feelers." From Santa Monica comes the report of a marine worm that has de-

stroyed, or greatly injured, the wharves at that place. It is described as being very destructive, and rather more rapid in its operations than the ordinary *teredo navalis*. The services of a first-class entomologist would probably point out some way for preventing the depredations of these fearful pests.

Feed the Land Well.—It would be well, we think, says a thoughtful farmer, to offer a large premium to the man who raises the largest crop without running in debt to raise it, but the premium for the largest com-

post heap will soon lead to the same result. It is an unquestionable fact that in the fence-corners, the woods, and beat-ims of our farms there are to day millions of bushels of wheat, corn, oats, potatoes, etc., in the shape of dead leaves, litter, and rich earth, which can be had for the trouble of hauling.

Let manure gathering be a special business on every farm, on which a certain force is employed regularly every working day, and never taken away to do anything else. To encourage this great reform let the agricultural societies offer large premiums.



MRS. C. FOWLER WELLS, *Proprietor*.
H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK,
FEBRUARY, 1879.

PURE LITERATURE FOR OUR CHILDREN.

MANY years ago in these columns it was urged upon the attention of those who are exercised concerning popular education and morals, that much literature of a pernicious sort was given to the young in newspaper and volume form. At that time the PHRENOLOGICAL stood quite alone among periodicals in its advocacy of a purified press for the sake of American youth. With the progress of years, the frequent outcroppings of precocity in vice, which at this day have assumed a phase of the matter-of-course even in those walks of society that are deemed favored by fortune, show clearly enough the effect of reading baseless and extravagant fiction and highly varnished sketches of crime and immorality.

We can not wonder that the alarm is now sounded and that our magazines and "papers" of the better class contain words of admonition to parents and teachers with respect to the reading supplied or obtained by their children. The evil is upon us. The prurient and salacious appetite is strong. Witness the numerous cheap weeklies and paper novels which occupy the larger spaces on the newsman's stand, and whose preposterous cartoons or illustrations flaunt their vicious glamour into the face of the passer-by. The circulation of this meretricious trash is enormous. We have been told that the sales of some of the so-called "boys' weeklies" are upward of fifty thousand a week each. The reading matter in the body of such publications is vapid and perverting enough in itself, but as if that were not sufficient, the advertisements are largely made up of stuff even more reprehensible.

What a field for attack the societies for the suppression of vice have in these specimens of unhealthy journalism! If, instead of hunting up and withdrawing from public view an occasional picture whose moral tone may be to a large extent constructive, or now and then prosecuting a man or woman who may be but an instrument of some wily knave who gloats over a personal immunity from detection, they would aim to suppress the literature which is training young minds by the thousand to familiarity

with crime, they would accomplish a thousandfold more good. Something, to be sure, may be done by the chastisement of the effects of immorality, but it were better to correct the abuses at their fountain-head which are productive of so much social harm.

In this matter of pernicious literature, moral people as a class exhibit an astonishing apathy. They do not show anything like a realizing sense of its influence upon the juvenile mind. In the families of most church-going people the children are left to select their reading for themselves. Some attention may be given by father or mother to their lessons and exercises for school recitation, but beyond that the books, etc., which occupy a part of their out-of-school leisure are scarcely thought of. This is a serious neglect of an evident duty. Many a household laments now the waywardness of a son or daughter which was the direct consequence or outgrowth of loose, improper reading.

One of our neighbors (*The Churchman*) suggests a method which moral people could generally and easily apply toward suppressing the sale of immoral periodicals and newspapers. It is to refuse patronage to newsmen who sell the improper publications. This, if persisted in, would probably work well, not only for the community at large, but for the moral tone of the households whose heads should exhibit so practical an interest in things decent and in order.

CAN THE SEX OF THE HUMAN CRANIUM BE DETERMINED?

THE following paragraph is clipped from a newspaper:

"The sexual characters of the human cranium have lately engaged the attention of M. Mantegazza, and he has published his results in the *Lyon Medicate*. These are as follows: (1). There are no certain char-

acters yet ascertained by which the sex of a cranium may be recognized. (2). It oftener happens that the feminine cranium approaches the masculine type than the masculine the feminine. (3). A large development of the superciliary arch is the most constant character of the masculine cranium, and by this alone one may determine the sex with almost absolute certainty. (4). Smallness of cranium, less height, less marked development of the muscular attachments of the occipital bone are the most constant distinctive characters of the feminine cranium, and where at the same time there is almost an entire absence of the superciliary arch, the decision becomes almost absolutely certain. (5). The foregoing is what science can affirm of the human cranium in general. For a more complete knowledge of the truth, it would be necessary to study in all human races the sexual differences presented by crania."

This presents in brief about all that medical men, anatomists, and physiologists have been able to accomplish without Phrenology in the direction of knowing whether a cranium belonged to a man or woman. Let us see now whether or not Phrenology can throw some light on the subject.

We insert two engravings of skulls which are in the collection of the Institute. These engravings represent the exact relative size and form of the skulls, as taken by photography. Fig. 1, a well-balanced male skull, rises high from the opening of the ear, the elevation being indicated by the line running from the letter *a*. Look at the same development in Fig. 2, which represents a well-balanced female skull. In Fig. 1 the head rises high from the opening of the ear up to *b*, where the organ of Firmness is located. Contrast this with the other head at the same letter. The male skull is broader from side to side, especially at the base, than the female skull, giving more Combativeness, Destructiveness, and Acquisitiveness, and power to fight life's battle. It is also larger at Amativeness, which is located at the base of the back part of the skull, *c*. The female head, it will be seen, is longer, proportionally, from the opening of the ear backward to *d*,

which marks the location of Parental Love. The female head is relatively higher at *f*, Veneration, but is not so massive in the forehead. The bones of the cheek and nose, and the ridge over the eyes in the male, are large and projecting, as compared with those of the female skull. The bones of the face, as a whole, are light and delicate in the female, while they are prominent, strong, angular, and massive in the male. Just backward and below the opening of the ear, where the skull rests on the block, there is a large bony prominence called the *mastoid process*, which is adapted to the insertion of the muscles of the neck—those that ap-

pear so prominently sometimes when the head is turned sidewise. See the difference between these processes in the two skulls; that of the masculine is nearly twice as large as that of the feminine. There are many other points on the skulls designed for the insertion of muscles, which indicate on comparison the stronger muscular constitution of the male. Besides, the male skull is generally larger than the female, as the whole skeleton is larger and firmer and rougher.

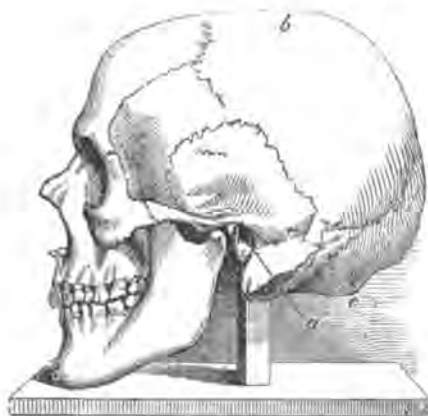


Fig. 1.



Fig. 2.

Fig. 3 is the rough outline of a bust in our cabinet which shows the crown of the head enormously developed, the back-head

short, the features particularly masculine, and the head very high from the opening of the ear. This is an extreme masculine development.

Fig. 4 shows the feminine form of head; the features being light, the bony structure above and about the eyes being smooth, and the head being elongated backward.

Fig. 5, from life, is a good specimen of the feminine and masculine in combination. The front third part of the head is feminine; the back third part is feminine; the middle section is masculine. It is broad, high, and heavy about the ears, and the middle third of the head, taking in the crown, is particularly masculine. Compare that head with Fig. 4 and it will show the difference.

Let a good phrenologist go into a collection of a hundred skulls and he would do nothing remarkable, in his own opinion, did he indicate the sex of four-fifths of them. Occasionally a woman inherits so much from her father, and a man so much from his mother, that their skulls appear to combine traits of both sexes. Occasionally we find a woman with a high crown, like Fig. 1; occasionally we find a man with a low crown, like Fig. 2; sometimes a woman has a short vertical head behind, and is not

well adapted to be a step-mother. Occasionally we find a man who has a long back-head, like Fig. 2, at least approximating to it, and he would do well as a step-father, so far as the children are concerned. Men generally have larger reasoning organs, which impart squareness to the forehead; a broader side-head, which gives force of character; and a higher crown, which gives pride and imperiousness and the tendency to control. Women have not so high or so massive a forehead, but a larger development proportionally in the region of the religious sentiments, a lower crown and longer back-head and a less development of the



Fig. 3.

side-head, except in the upper back region where Cautiousness is located.

Phrenology, in our opinion, furnishes the best means of determining this matter as to the sex of a given skull. We think that we could select a dozen boys and girls, twelve years of age, in any of the public schools, and by giving them one lecture well illustrated with skulls, enable them to go into a cabinet of anatomical specimens and decide the sex of the human crania better than physicians who are not acquainted with Phrenology, generally profess themselves able to do.

This subject is wide and could be extended almost indefinitely. In the lectures of



Fig. 4.—MME. FAVANTI.

the Phrenological Institute several sittings are given to this topic, and students are made so familiar with the subject that they are able to recognize the sex of skulls whenever they are presented in public or else-



Fig. 5.

where, and are also enabled to determine whether a man or woman resembles the father or mother most, and in what respects.

A DIFFERENCE.

A CERTAIN rich man set on foot a great enterprise for the benefit, it was said, of women who earn their living by the labor of their own hands. He hired architects, masons, carpenters, plumbers, and tin-workers, etc., and furnished them with large sums of money from his strong box, that they could procure the materials and do the work needful for the completion of his great aim. A vast building rose upon the view. It mounted high toward heaven, inclosing hundreds of rooms of size diverse. But ere it was finished the rich man died, and it fell upon others to carry out the plan which he had well-nigh perfected. But notwithstanding the rich man had provided an abundance of money, they to whom the charge of his wealth was intrusted did not bring to a successful end his great plan, but after some vain experimenting, turned the vast building, with its many hundred rooms and rich and marvelous appointments, to other and less worthy uses than those for which the rich man had designed it.

In an humbler part of the great city a young woman, boasting no treasure in bank or bond, rose up and said, when she saw how the great device of the rich man had come to naught, "Behold, now I shall make an attempt to do for these women what wealth and might have failed to accomplish!" Immediately her brave spirit designed a proper course, and taking a house that was already built and suitable, in a few days she had made ready, and many poor women, old and young, were glad to enter and live therein. And now, after many months, this same young woman, whose name it hath come to our ears is Sarah, with the surname of Leggett, finding a large measure of success in her

most excellent endeavor, is about to enlarge its borders, that other women may partake in the comfort and enjoyment of her well-appointed home.

And the people look on with eyes of wonder and whisper to one another: See what a feeble arm can perform that is sustained by earnest purpose; while riches avail not where the soul is not at one with the undertaking.

AN ELEGANT HOME SAVED FROM TOBACCO SMOKE.—If a person who is given to any habit of dissipation could have calculated beforehand all its cost, from the time that it was begun, he would, doubtless, never have suffered himself to become its servant. Many a man by merely laying up what a vice costs him in money, would find it a better investment than a life insurance. An exchange mentions the successful result of an experiment in this line by a Mr. Hubbard, of Connecticut. He was about eighteen years old when he determined to lay aside, day by day, the money he would have spent for cigars had he been a smoker. At the end of each month he deposited the sum thus accumulated in the savings bank. As the price of good cigars advanced, he correspondingly increased the money laid by each day. At times, when his savings in the bank had reached a few hundred dollars, he drew them out to make a more profitable investment. By careful management the fund at length amounted to upward of eighteen thousand dollars. A few years since, Mr. Hubbard took this money and with it purchased a charming site on Greenwich Hill, and built a comfortable and commodious home for himself and his family. The place overlooks Long Island Sound and commands one of the finest and widest views that can be found on the Connecticut coast.



"He that questioneth much shall learn much"—*Bacon.*

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.

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. Anonymous letters will not be considered.

SELF-ESTEEM.—J. G. S., and others.—

We frequently receive inquiries with regard to the cultivation of Self-esteem, and the reason for them is evident enough in the prevailing lack of the faculty in the American mental composition. As a people we have strong Firmness and Approbativeness, and a good deal of the impelling forces of character, but not so much of that quality which contributes to self-assertion and self-equilibrium. In general it may be said that one must train himself with a view to self-reliance—looking less to others for hints, suggestions, advice, and assistance in whatever he may have to do. Having decided upon a new course or undertaking, instead of appealing to friends for counsel and aid in carrying it into effect, one should seek to do for himself faithfully and earnestly what he can. People who lack in Self-esteem are backward in attempting even what they are capable of performing. They usually work below the standard of their capacity rather than up to it. Circumstances which tend to test their abilities bring out an expression of self-depreciation. They need to be spurred—incited to work up to the full measure of their strength and talent. Do not be afraid to undertake that which you believe you are capable of performing. Having once made up your mind, go ahead; paying as little attention as possible to outside influences, criticism, bickering, and ridicule, or whatever may be brought to obstruct your movements. Work earnestly toward your object and you will be likely to succeed.

HOUSE PLANTS.—S. M. B.—The keeping of house plants can not be otherwise than

healthful in the main. Vegetable growths are absorbents of carbonic acid from the atmosphere, and they are certainly, therefore, not inimical to our health. A Mr. Girdlestone, who has said something on the subject lately, found that if a number of flies are placed in a glass case, with plenty of sugar to feed upon, the case being made air-tight, they will in a few days have so poisoned the air with their breath that they will die; but if some living plants as well as the sugar are shut in with the flies, they will continue to live for months with active appetites and perfect health. This is in demonstration of the opinion that living plants absorb carbonic acid and ammonia from the air—poisonous elements which are given off in respiration.

MOLASSES.—G. C. N.—It is somewhat difficult for one to state what is the purest grade of this very common article of trade. We used to think that what is called "New Orleans" was as good as any that can be obtained. The methods of preparing molasses are somewhat varied and mainly dependent upon the manufacturing of sugar, as a great proportion of the molasses and syrup sold is the residuum and waste of the sugar factory worked into a form for the market. We would advise the use of good sugar or honey in preference to molasses, if one must have saccharine material as an adjunct to his food; but be moderate.

MESMERISM, ETC.—J. W. G.—The advertising department of this magazine will answer your question as fully as it can be done here. Two or three excellent treatises of a practical sort have been brought before the public recently. The best book we know of is that prepared by Dr. Deleuze, of Paris, introduced to the American public by a New England operator of remarkable power.

SOUL AND MATTER.—R. B.—Your question is a leading one, comprehending an infinite amount of discussion, controversy, and speculation. From what we have heard concerning the phenomena of clairvoyance, mesmerism, and certain psychical or religious conditions, it would appear that the soul or spirit more properly does act at times quite independently of matter. Practically, however, all that we have observed concerning the action or operation of spirit, its accomplishments, which have a substantial adaption to human life, are wrought out through material instruments. We can scarcely

conceive of a result of essential importance or value in our mental life which is altogether disconnected with the material.

VEGETABLE CARBON.—L. C.—The carbon contained in beans, peas, cornmeal, oatmeal, and other farinacea is of a different character essentially from that which exists in animal fat. The chemist may not find a difference in his last analysis, so far as the elements are concerned, but the dietetic effects are different positively. One may eat largely of vegetable food without the resultant functional derangement which is induced by eating largely of animal fat, notwithstanding that the quantity of carbon may be actually greater by analysis in the vegetable food.

No kind of food will supply the loss of bones. Eat good nourishing food when suffering from any local disturbance, like a felon or boil; but avoid oils, fats, grease, and alcoholic stimulants. Eat fruit liberally, so that the blood shall be kept cool and the digestive function in good order.

HAIR AND MORALITY.—A. W. C.—We are not aware that persons who have a liberal growth of hair usually have a large development of the moral organs. Neither are we aware that your corollary that a strong growth of hair is indicative of large moral organs is correct, and that the organs covered by the most hair are usually the most active. We might cite some illustrations which diametrically oppose such views. If you visit an insane asylum, you will find that some patients who have very active Combativeness, Destructiveness, or Self-esteem, or Cautiousness, or Benevolence, will exhibit a scarcity of hair in the region of the brain abnormally excited. The excitement of an organ is accompanied by heat, which is due to the rapid circulation of blood in that part of the brain. Abnormal heat tends rather to thin the hair than to thicken it. It is notorious that in the domain of religion, as, for instance, the priesthood of the Roman Catholic Church, those who are the most distinguished for their devotion to religious life are quite bald.

STRANGE INFLUENCE.—E. J. H.—You are apparently suffering from what is known as personal magnetism. Such cases are comparatively rare, especially when the subject himself is unfriendly to the person who exercises the influence. A book of practical magnetism by Deleuze furnishes a considerable amount of information on this point, which, we think, would be of service to you toward obtaining the relief you apparently so much desire.

MONEY.—Not many are aware probably of the singular origin of the word "pecuniary," as it is now applied. Before any regular system

of coinage was introduced, the metals which circulated as currency were rather irregular in size, their value being indicated by their weight. In the reign of Servius Tullus, King of Rome, 578-534 B. C., pound-weights of copper received the name of *pecunia*, because they were stamped with the image of cattle (*pecus*), and hence the term pecuniary has gradually come to be applied to whatever relates to money and monetary affairs. This was two hundred years before the circulation of gold and silver coin. Formerly, too, in England, even as late as the date of the Norman Conquest (1066), the currency of that country was of two kinds: the "live" and the "dead"—the "live" referring to cattle and slaves as a medium of exchange, and the "dead" to the various metals.

Several ANSWERS must be deferred to the next number.



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

PROGRESS OF PHRENOLOGICAL TRUTH.

—It is now forty years since I commenced giving public lectures on the science of Phrenology, and during this period there has been a steady progress among the educated men of the world in regard to its truth and usefulness. When Spurzheim unfolded to the citizens of Edinburgh, the Athens of Scotland, the important truth that the brain is the seat of the mental powers, the *Review* of that city denounced Phrenology as an imposition, and called it "a hallucination of a moon-struck imagination." The learned men of that day, who condemned Phrenology as a false science, without giving it a candid investigation, have passed away, and men who have grown up without prejudice against it, have examined its teachings and believe its doctrines. To-day, in conversation with a clergyman, now in the heyday of life, whose father is living at the age of nearly fourscore years, and an ex-president of a New England college, we asked him if he considered the brain the organ of the mind? and he replied: "No man of the present day doubts it!" And this seems to be the common opinion of all the distinguished writers of the age, especially those who have had the care of the insane.

We were led to write on this topic by reading a work on "Insanity in Ancient and Modern Life, with chapters on its Prevention," by Daniel Hack Tukey, M.D., a distinguished English author. This writer does not give prominence to Phrenology in his work on Insanity, but in speaking

of Auto-prophylaxis, he says: "The first and cardinal principle to hold from our point of view is that the brain is the organ of the mind, and therefore subject to the laws of physical life in general, and to those of cerebral life in particular. It lies at the basis of the prophylaxis, or prevention of insanity. The tritest truths are often those which are most forgotten and neglected. No one will dispute at the present day that the brain is the organ of the mind; that it is the material instrument through which its functions are performed; but see what follows. It is here that people fail to perceive clearly, or to act in accordance with what they do perceive. Therefore must it again and again be dinned into their ears, that their thoughts, their perceptions, their reasonings, their feelings, their way of judging of truth itself, can not be properly conducted unless this organ is supplied with healthy blood; unless it has a sufficient amount allowed it to supply it with nutritive materials and replace those which it has consumed in its operations; the *débris* left after the cells have been used up being thrown off. Nourishment, assimilation, discharge of effete matter—these are as necessary for the mind-organ as for any of the other viscera of the human body. This marvelously constituted brain, men may ignore it, despise it, degrade it, defile it, but they do it at their peril; and let them remember, that whether the result is or is not actual madness, they will pay the penalty sooner or later in some form or other; they will not be permitted to escape the consequences of the infraction of the laws on which its integrity hangs."

The progress of phrenological truth is seen in all the recent literature, and no author having good common sense speaks disparagingly of the doctrines of Gall and Spurzheim. Horace Mann, the greatest of modern educators, was a believer in Phrenology, and owed his success in a great measure to his knowledge of the human mind, which he gained by the study of Phrenology. The common schools of Massachusetts are indebted to Phrenology for the progress they have made in the right direction during the past forty years. Spurzheim and Combe wrote valuable works on education founded on Phrenology. Quite recently Nelson Sizer, of New York, published a work on teaching, and I consider his the best work extant to show the teacher how to impart instruction to the young.

It has been with Phrenology as with many other sciences founded on truth, that its first efforts, which should have been vigorous and self-reliant, have been obliged to rely for support upon the arm of time.

There is, however, an inclination among the editors of some papers to try to make their readers believe that Phrenology is going into disrepute or oblivion. The editor of the *Nation*, in a review of the life of George Combe, says of

"The Constitution of Man," that "now the book is rarely read." The editor probably passed his judgment on this matter, not from actual knowledge, but from his own consciousness, not having read it himself of late, if ever. And thus has it come to pass that those who have spent a long life in examining the truths of Phrenology are they who can bring facts to prove that phrenological truth has been making steady progress in the world since its first promulgation by Dr. Gall.

P. L. BUELL.

THE NATURE OF SIN.—When we consider the actions of men, we are irresistibly led to conclude that there is guilt on the part of humanity, and hence that sin does exist. Now, what is sin?

Volumes have been written on this very problem, and yet if we turn to the terse declarations of St. Paul, we find this ample definition of sin, which appears to satisfy the inquiry so fully as to cut off all further argument on the subject: "Sin is the transgression of the law." Man has a threefold nature, viz., the physical, the intellectual, and moral natures blended in one, and by virtue of his triune being he is the subject of three distinct systems of law. He who obeys any law reaps the reward of his obedience in the form of happiness, which, as a consequence, he enjoys; and, conversely, he who disobeys any law suffers in some way the pain which such transgression of necessity brings. We can not conceive of any suffering which is not the result of broken law. Were all the physical laws that relate to our being fully obeyed, "all the ills that flesh is heir to" would forever cease to exist, for they are the "wages of sin," "the transgression of the law." Were we true to our intellectual nature, we should be happy as rational creatures, for the legitimate exercise of any intellectual faculty can but bring pleasure to its possessor. Thirdly, were we to obey all the moral laws which bear upon our being, we should be free from moral guilt, and thus receive no punishment in this respect. "Sin is the transgression of the law." All pain which is punishment originates in *disobedience*. All happiness which is reward comes by *obedience*. An individual sins who perverts a single faculty of his being. He alone is free from sin and leads the true life who exercises every faculty of his being within its legitimate sphere. How important, then, the study of our faculties?

E. L. STAPLES.

GROWTH OF A LOCK OF HAIR.—A few months ago, in reply to a Southern correspondent, who desired to learn the reason for the growth of a lock of hair which was in his possession, we expressed doubt, and suggested that there might be some mistake in the observations. Recently we received the following letter with the annexed certificates, which place the matter in a clear light. The clerk's certificate, with ref-

erence to the character of the persons mentioned, is duly sealed, and the document, as a whole, bears the marks of intelligence, care, and a creditable desire to furnish all reasonable evidence in support of the statement concerning the wonderful phenomenon :

SUMMIT, MISS., November 10, 1878.

MESSEURS. S. R. WELLS & Co., New York.—*Gentlemen:* I beg to apologize for delaying so long the statement relative to the growth of that lock of hair. But quarantines and fever excitement have monopolized everything down here since I received your communication about it.

On the 21st of September, 1867, my brother died of typhoid fever, after an illness of twenty-one days. While a corpse, a friend of the family, by request, clipped the lock of hair in question in presence of myself and two or three others. My sister arranged and tied a small piece of braid around it which has never been removed, although it has been plaited repeatedly, as it grew from year to year, and shown to a great number of persons, who, as well as the family, observed and remarked its growth. It was placed in an ambrotype case containing his picture, and the case, with others, kept in a secretary where none but the family had access to it. This lock of hair, which we recognize from the color and fineness peculiar to his during life, as well as from other unquestionable evidences, has grown since it was clipped from a length not exceeding two inches to full seven inches; is live and soft as ever during life, and seems to be still growing.

I would still like to hear the laws governing its growth explained. If you desire any further information relative to same, it will afford me a pleasure to give any at my command. I give you below an exact copy of a statement of a similar occurrence, or "Freak of Nature," as it is termed, published by the Columbus, Miss., *Independent*. I would send you the clipping, but have it pasted in my scrap-book :

"SINGULAR FREAK OF NATURE.—Our old friend, Dr. S. Haley, has exhibited to us a lock of golden hair cut from his boy's head when eighteen months old, and since carefully wrapped up, marked, and laid away in the family Bible. At that time the lock was two inches long; now it is fully six inches and seems to be still growing, with all its old-time lustre, firmness, and beauty preserved. The son is alive and sixteen years old. The doctor assures us there can be no mistake as to the identity of the hair, and wants our explanation. We know the hair and nails of corpses are known to flourish for a while, but these have whereupon to feed. This lock of hair had not. Who can explain it? 'We give it up.'"

You are at liberty to publish this also if you choose. Yours truly, I. M. CURTIS.

CERTIFICATES.

"This is to certify that we have known Mr. Curtis' family for a number of years, and know them to be of unquestioned veracity, and are satisfied

of the correctness of the within statement in reference to the growth of the lock of hair.

"Signed,

"C. HOOVER, M.D.

"CHAS. H. OTKEN, Pres. Lea F. Col.

"W. M. McNULTY.

"SUMMIT, MISS., Nov., 1878."

"This is to certify that I am acquainted with the facts as stated within, in reference to the growth of the lock of hair, and know them to be correct.

Signed, W. H. JOHNSON.

"SUMMIT, MISS., Nov., 1878."

"This is to certify that I am well acquainted with the parties whose genuine signatures are attached to the above certificates. I further certify that I am well acquainted with Mr. Curtis' family, and know them to be of undoubted veracity.

"Witness my hand and the seal of the Circuit Court of Pike County, State of Mississippi, this November 19, 1878.

"A. P. SPARKMAN, Clerk."

PERSONAL.

LOUIS A. GODDEY, the founder of *Godey's Ladies' Book*, and until within two years its publisher and proprietor, died suddenly in Philadelphia the last day of November. He was seventy-five years old.

MR. GEORGE HENRY LEWES, the author, is dead. George Eliot and he lived together and were recognized by society as married. Sympathy of views and literary pursuits brought them together. Mr. Lewes had been married years before, but his wife had been long separated from him.

ARCHBISHOP McHALE, of Tuam, Ireland, is the oldest bishop of the Church of Rome living, and probably the oldest prelate in Christendom, having been consecrated fifty-two years ago. He is eighty-six years old, yet active and sprightly. He has seen six successive Pontiffs in the chair at Rome.

MR. EPHRAIM K. JENNY, for nearly thirty years connected with the New York *Tribune*, died in December last at the age of seventy-two. He was an active, thorough-going man, a warm advocate of mental and moral progress, believing in Phrenology and its efficacy as a civilizing instrumentality. We shall miss his frequent calls at our office.

DR. JOHN LORD, the well-known lecturer on didactic subjects, has commenced a course of twenty-five lectures in Chickering Hall, New York. His topics cover important periods in ancient and modern history, and discuss matters of vital interest to our civilization. The aim of Dr. Lord is to assist his auditors toward a better understanding of history and the relation subsisting between the eminent characters of the past and the world's mental and physical progress. Information concerning the course may be obtained of Messrs. Randolph & Co., 900 Broadway, New York.

THE Princess Alice, of England, whose death occurred in December last, was the third child of Queen Victoria, and born on the 25th of April, 1843. Her marriage with Prince Louis, of Hesse-Darmstadt, on the 1st of July, 1862, was an alliance which was generally well received in England. The Princess was a great favorite with the Londoners, and enjoyed the reputation of having a particularly sweet and gentle disposition. In personal appearance she was perhaps the handsomest of the Queen's daughters. In 1873 one of her children was killed by a fall from a window, and a few days before her own death another child died of diphtheria—the disease which proved fatal to herself. It is a curious coincidence that she died on the anniversary of her father's (Prince Albert) death.

WISDOM.

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

It is much easier to seem fitted for posts we do not fill than for those we do.

NEVER decide any matter hastily, lest you regret it. Those persons who decide instantly make about one hit to four blunders.

SHAME does not consist in having nothing to eat, but in not having wisdom enough to exempt you from fear and sorrow.—EPICTETUS.

A HAPPY life is made up of happy thoughts, and man should be a very miser in hoarding conscientiously every mill of the true coin.

A GREAT many persons think it is their business to preach, but they had much better make it their business to hear for a while longer.

JOY makes us to grieve for the brevity of life; sorrow causes us to be weary of its length; care and industry can alone render it supportable.

WHEN thou forgivest the man who has pierced thine heart, he stands to thee in the relation to the sea-worm that perforates the shell of the muscle which straightway closes the wound with a pearl.—RICHTER.

It has been said that the man who governs his thoughts when alone can control his tongue when in company. It is just as true, and far more important, that the man who keeps his thoughts pure will keep his hands from sin. Now and then society is startled by a crime which explodes the reputation of some one who had stood high in its esteem. But such explosions are no spontaneous affairs of an instant. The train of powder was slowly laid. No man commits embezzlement who hasn't allowed himself, un-self-rebuked, to think embezzlement.

MIRTH.

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

"WHAT I'd like to know," said a school-boy, "is how the mouths of rivers can be so much larger than their heads."

THERE is said to be several men at the present time whose memories only reach to their knees, and, therefore, they never pay for their boots.

WHENEVER you cum akrost a man who distrusts everyboddy, you have found one whom it is safe for everyboddy to distrust.—BILLINGS.

A YOUNG man in Nebraska sent an offer of marriage to a girl whom he fancied, and in reply received this telegram: "Come on with you; minister."

A GENTLEMAN was threatening to beat a dog which barked intolerably. "Why," exclaimed an Irishman, "would you bate the poor *dumb* animal for *spakin' out*?"

A MATTER-OF-FACT man was told by his doctor to put a check on his stomach if he wished to live long and be happy. He went immediately to his tailor, who filled the prescription by making a plaid vest.

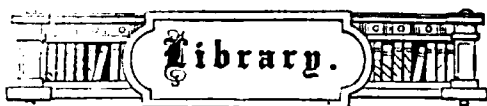
TURNING IT OFF.—Sprightly young lady: "I am afraid I have a very large foot." Polite shopman: "Large, Miss! Oh, dear, no, Miss! We have lots of gent—that is, customers, with much larger, Miss!"

"ARE you the saleswoman of whom I bought this handkerchief yesterday?" asked a purchaser at one of our dry-goods stores. "I am the saleslady who served you, Madam," responded the reduced empress in banged hair long watch-chain, and ringed fingers, who presided at the counter. "Well," said the customer, "I will take a dozen more, and as I wish to get them to my washer-lady at once, I will get you to send them to my carriage around the corner. My coach-gentleman can not get to the door just now for the cart of the ash-gentleman."—*Journal of Commerce* (Boston).

EVERYBODY thought it was a match, and so did he, and so did she; but last evening, at a croquet party, she hit her pet corn a whack with the mallet and he—he laughed. "We meet as strangers," she wrote on her cuff and showed it to him. "Think of me no more," he whispered huskily.

Mrs. PARTINGTON says the only way to prevent steamboat explosions is to make engineers "bile" the water on shore. In her opinion all the "bustin'" is done by "cookin'" the steam in board.

"You oughtn't to drink," says a friend. "See how it makes you stagger when you try to walk." "Thaz art," says the wretch. "I os-sent try to walk thaz waz matter."



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.

CAUGHT AND FETTERED. By Mrs. J. P. Ballard, author of "The Hole in the Bag;" "The Broken Rock," etc. 16mo, pp. 266, cloth, \$1.00. New York: The National Temperance Society and Publication House.

This is a volume of short stories designed for children. The first, which gives the title above, concerns an eagle which was caught in a trap by a farmer; and founded on such a hypothetical incident there are certain very proper reflections about the effect of bad habits. The list comprises about sixty little tales, some of which remind us of Arthur's excellent method in rendering vice odious to a reader. A dozen illustrations, of the kind which please children, appropriately set off the point of as many stories. One in particular deserves mention on account of its fine execution as an engraving, viz., that of the sleeping girl and the fine Newfoundland watching her.

THE HISTORY OF DEMOCRACY; or, Political Progress Historically Illustrated, from the Earliest to the Latest Periods. By Nahum Capen, LL.D., author of "The Republic of the United States of America," etc. Vol. I., 8vo, pp. 677. Hartford: American Publishing Co.

"The History of Democracy," writes the author in his preface, "is a history of principles, as connected with the nature of man and society. . . . The monarchist and the republican, the tory and the democrat, the Papist and the Protestant, the Puritan and the great family of dissenters, the Quaker, the pioneer, the adventurer, the fanatic, and the theorist, all, at one time or another, in some way, have been identified with the beginning and the growth of the American Republic. It is the purpose of this work to review their varied and combined labors and influences, and humbly to gather wisdom from their experience to serve as a guide to future endeavor." It will appear from this brief extract that Dr. Capen laid out an extensive programme in the beginning, a programme which might well cause one, however extensively versed he might be in the history of nations and society, to hesitate long ere he entered upon the work. The tone of Dr. Capen's Preface and Introduction indicate that it was in no spirit of cool assurance that he

prepared his paper and sharpened his pen for this treatise, but with an earnest conviction of the need of such a work and an earnest desire to "quicken and deepen the spirit of duty that dignifies citizenship and recognizes the rule of God in the government of nations."

This initial volume is the product of many years of labor and thought, and shows on every page a conscientious regard for thoroughness. This is indicated by the topics he discusses in separate chapters or sections, some of which are: Principles of Party; A World without a Party; Incapable of Progress; Formation of Parties; Religion promoted by Parties; Science advanced by Parties; The Tory Party; The Democratic Party; Origin and Principles of Democracy; Republics of Greece and Rome; Vox Populi est Vox Dei; American Colonies; The Puritans in England and America; Instruction, not Self-aggrandizement, the Object of Political History; Conditions of National Existence; The Exercise of Equal Rights; Sources of Civil Power; Character of the Different Colonies—Virginia, New York, etc.: The Best Form of Government, etc.

Every step taken by the author in the progress of his discussion is fortified by references to eminent authorities; and copious notes, in themselves very interesting, especially the biographical digests, are added wherever they are considered needful to explain and illustrate the current text. "By democracy," Dr. Capen means "the great principle of progress," the element in human thought which incites it to resist oppressive, restrictive influences, or tyranny and injustice of every kind; and his aim to trace its operation in the rise, duration, and fall of the ancient empires and its office in the organization of the governments and peoples of the present, the United States in particular, is so far most creditably wrought out. The complete work will occupy three volumes, which we trust the author will successfully deliver to an expectant public.

A FACE ILLUMINED. By E. P. Roe, author of "Barriers Burned Away;" "From Jest to Earnest," etc. 12mo, pp. 658. Cloth, price \$1.50.

There are some critics who sneer at novels which have a purpose; which, in other words, are intended to impress some principle of morality or religion or of human science upon the reader. We believe in writing with a purpose—one of benefit to the world. We believe also in art, and would have all its idealism and refinement brought to bear in literary work, but subjectively. A book to have substance, essential worth, must be pervaded with a tone of suggestive, useful, elevating morality. Mere idealism are superficial; their wit may sparkle and please for the moment, but they satisfy no true want of the mind, but rather stimulate the abnormal fancies and caprices and render us more disquiet.

and inharmonious than before we perused them. Mr. Roe's books exhibit his desire to meet the great need of the masses for moral and religious light; his characters illustrate phases of interior, or mental life, and are depicted with that fidelity which only close observation and personal experience can supply. "A Face Illumined" shows in its general treatment the impress of care and thought; in some parts there is a seeming stiffness and prolixity in the reasoning. In the course of the long story we are made acquainted with the processes by which a light, giddy, fashionable girl is converted into a thoughtful, sympathetic, earnest woman, and how a face which was perfect in its symmetry, but reflected no soul, became illumined with the radiance of generous emotions and exalted self-sacrifice. In working out his effects Mr. Roe gives us pictures in detail of society life in various situations, with the wine, cigars, and dancing thrown in.

JUVENILE TEMPERANCE MANUAL. By Miss Julia Colman, author of "Catechism on Alcohol," etc. 12mo, pp. 163, cloth 60 cents, paper 35 cts.

Whatever Miss Colman writes has the quality of usefulness, and is particularly adapted to a very essential department of moral instruction. She believes, as nearly all believe who have looked fairly into the tremendous subject of alcohol, that intemperance can not be cleaned out of our land until drunkenness is prevented. So long as dram-shops are permitted to exist in their amazing numbers where the population is dense, so long will the temperance reformer find it uphill work to make any impression. Careful religious, temperance instruction afforded our children will, of course, do much; but in order to make that sort of education effectual, parents and teachers must be deeply interested in the matter of temperance reform. This manual, into which Miss Colman has evidently put her heart as well as her mental energies, is intended as an aid to parents and teachers, but especially to those who would get up a temperance school, a novel idea. She goes for the discussion of the alcoholic habit in a scientific way, and not only considers alcohol, but also tobacco, and shows how its injurious effects are wrought. Pretty full suggestions for the formation of a temperance school are given, so that they who would enter upon such work in behalf of misery and vice-bound souls will find their way made smooth and comparatively easy.

TECUMSEH AND THE SHAWNEE PROPHET: including Sketches of George Rogers Clark, Simon Kenton, William Henry Harrison, Comstalk, Blackhoof, etc. By Edward Eggleston and Lillie Eggleston Seelye. 12mo, cloth, pp. 332. Price \$1.25. New York: Dodd, Mead & Company.

We hesitated, notwithstanding the appearance of Mr. Edward Eggleston's name upon the title-page, about giving this book so prominent a

place among our book notices. We feel a certain mistrust when books about Indians, battles, and adventures are placed in our hands, for we know how influential such reading is upon juvenile minds, and how pernicious is the multitude of extravagant, baseless, and mercenary story-books which crowd the common book-seller's counter! But an examination of "Tecumseh" reveals a book whose tone is generally healthy, and its facts instructive, while there is attraction enough in the incidents detailed to make their reading agreeable pastime to most boys.

Mr. Eggleston brings into good relief the characters of the Indian chiefs, crediting them with such noble qualities as they really exhibited, and impartially condemning the Americans for acts of cruelty and injustice of which they were guilty in their relations with the Indians. A few very effective illustrations appear in the volume, especially those in the characteristic style of Kelly.

A DOUBTING SUBJECT CONVINCED.—

A country subscriber sends us the following incident, which came under his personal notice:

"I will call him Smith, although that was not his name. He was a man of fair education, and possessed a good deal of practical common sense, but was an unbeliever in Phrenology. He was loud in his denunciations of that science, and held that it was utterly impossible for any man to tell his character by feeling on his head, for he knew that there were no 'bumps' on it, and he had heard that phrenologists judged a man's character by the 'bumps' on his head. Mr. Smith was a resident of St. Croix County, Wisconsin, and in course of time through this county there traveled a phrenologist who lectured on the subject. Mr. Smith attended, and was well pleased with the man and the manner in which he presented his subject, and was almost persuaded to believe it. But he clung fast to his old notions, yet with the determination to investigate and ascertain the truth if possible.

"The lecturer offered to give private examinations to those who wished, and our friend lost no time in calling upon him, with the determination that if there were any truth in Phrenology he would know it. He knocked at the door of the lecturer's apartment, and without waiting for an answer, stalked in right by the phrenologist, who was seated in the center of the room reading, and began to stare around in a ridiculous manner, finally asking the phrenologist if this was the place where the man stopped that looked at people's heads. The phrenologist remarked that it was, and asked if he wanted his head examined. Smith said he did, and wanted to know how much it would cost. The phrenologist told him his price. Smith answered that he thought it was too much, and concluded that he would not be examined unless the phrenologist could do it cheaper. Mr. Smith related this to us him.

self, and, laughing over it, said that if ever he tried to look and act foolishly and idiotically, it was then.

"The phrenologist told him to sit down, so that he could examine him, at the same time remarking that he (Smith) could not blindfold him. The phrenologist told Mr. Smith afterward that the minute he opened the door he knew he was not as green as he appeared, and before he had crossed the floor he had read his character. They had a good laugh over it, and Smith went home a firm believer in Phrenology, and has remained so up to the present time. A. W. S."

PUBLICATIONS RECEIVED.

THE NORTH AMERICAN REVIEW. The number for January contains several articles of a solid character. Those particularly entitled "Preservation of Forests," "The Solid South," "Substance and Shadow in Finance," are worthy of careful reading by those who are interested in public economics. The *Review* will be published hereafter monthly, an evidence that it has found a well-merited support. The terms are but five dollars a year.

THE QUARTERLY JOURNAL OF INEBRIETY, published under the auspices of the American Association for the Cure of Inebriates. The last or December number contains many interesting features relating to the phases and treatment of drunkenness.

ARTHUR'S ILLUSTRATED HOME MAGAZINE is well maintained. Although belonging to the domain of light society literature, it has elements of usefulness and a high moral tone.

THE NATIONAL TEMPERANCE ALMANAC and Teetotaler's Year Book for 1879, published by the National Temperance Society, New York. Just the thing which should be hung up in a conspicuous place in the home.

SCIENTIFIC AMERICAN SUPPLEMENT. Current numbers of this weekly publication are of special value to those interested in mechanical affairs. The scientific notes are instructive. In nearly every issue we find a lecture or paper of considerable length, from high authority, on some topic related to advanced scientific investigation.

STUDIES ON THE LAWS OF LIFE. Reviews of various essays by Dr. Nathan Allen on the principles of physiology as applied to education, health, and changes in population. We are pleased to see that Dr. Allen's investigations, which have occupied so large a space in his thought during the past twenty years or more, command respectful attention among physiologists everywhere. Dr. Allen's arguments for an enlightened physical culture in this country are irrefutable.

THE FAMILY CHRISTIAN ALMANAC FOR 1879. Astronomical calculations for Boston, New York,

Washington, Charleston, etc., with valuable scientific and useful information, by Professor George W. Coakley, University of New York. Published by the American Tract Society, New York. A well-arranged and illustrated manual of meteorology for the family, besides a variety of pleasant reading.

THE LIFE AND WORKS OF GUSTAVE SATTER: A Biographical Sketch in Memoriam of the great Pianist and Composer. Published at Savannah, Ga. An ex-Confederate soldier is the author of this panegyric.

VICK'S FLORAL GUIDE, No. 1, for 1879, is excellent for beauty and textural neatness, and issued early for the next season.

THE ECLECTIC MAGAZINE OF FOREIGN LITERATURE. Dr. Bidwell, the long-time editor, begins the year 1879 with a choice list of papers, and two or three installments of the best current fiction.

SCIENTIFIC AMERICAN CATALOGUE FOR 1879. This convenient catalogue has reference to the valuable papers contained in the *Scientific American Supplement*, published by Munn & Co., New York. Very convenient for reference by those who possess the numbers of the *Supplement*.

CATALOGUE OF ORIENTAL BOOKS, AND OTHERS, comprising the library of M. Garcia De Tassy, Member of the Institute, President of the Asiatic Society, Professor in the School of Oriental Languages, Corresponding Member of the Institutes and the Academies of St. Petersburg, Berlin, Vienna, etc. Also, A Catalogue of Authors in Hindustanee, Persian, Arabic, Turkish. Arranged by M. De Loncle, pupil of M. Garcia De Tassy. All of which will be sold on Monday, March 17th next, and on the following days, at Rue des Bons Enfants, 28 (Maison Silvestre). This catalogue comprises 2,975 titles, and its sale will afford an unusual opportunity to book collectors who are interested in Oriental philology.

ST. LOUIS ILLUSTRATED MAGAZINE. Vol. XVII., No. 96.

THE DENTAL REGISTER. A monthly journal devoted to the interests of the profession. A well-edited class publication of somewhat independent tone.

THE PREACHER AND HOMILETIC MAGAZINE. A magazine of sermons and other matters of homiletic interest and instruction. The Rev. I. K. Funk, editor, New York. This publication is well sustained, the number for January containing several sermons from pulpits of repute. We like the tone of Mr. Rhodes' strictures on fancy funerals.

THE HUB ALMANAC FOR 1879, for which the Hub Publishing Company of New York is responsible. The same neatness in typographical arrangement is shown in this as in the *Hub* well known to carriage makers.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 68. 1879.

NUMBER 3.]

March, 1879.

[WHOLE No. 484



CALEB CUSHING,

THE EMINENT JURIST AND STATESMAN.

THIS remarkable man affords an interesting study to the physiologist, as well as to the phrenologist and physiognomist. We remember him well from 1841,

when he was in his manly prime, and have always regarded him as one of the clearest and sharpest thinkers in the country.

He was a very handsome man in his prime, and we think it would be difficult to find a finer-looking old man. He was a man of good size, rather tall, and straight as an arrow. He had a very fine skin, indicating sensibility, clearness, and intensity.

His brain was large, particularly in the forehead; and it was remarkably long from the opening of the ear to the brows, showing amplitude of intellectual development. He had not only large perceptive organs, but he had great fullness through the middle of the forehead, indicating a wonderful memory. The upper portion of the forehead was particularly massive; he had a Websterian strength of logical power, with more than Webster's ardor and excitability.

He was probably one of the best scholars in law in this country. He had all the literary faculties amply developed, and was a perfect devourer of books. It is said that he would read a book twice as fast as most people, and not a fact or a point of thought would be lost in a week's reading; and that he could recall anything and everything which he had read, and use it on the spur of the moment; and he was considered at the head of his profession.

Mr. Choate in his palmy days was regarded as a most eloquent and influential man at the bar. These two intellectual geniuses happened to be opposed to each other in a great law-case, and to the astonishment of the court and the bar, both Mr. Cushing and Mr. Choate were willing to postpone the case to another term. The legal friends of Mr. Choate inquired why he consented to postponement. He replied: "To tell the truth, I am afraid of Cushing's knowledge of law." Mr. Cushing being rallied on the subject, tried to turn it off, and was charged with being afraid of Mr. Choate; to which he replied: "*I am* afraid of him; he will warp a jury, right or wrong, through his wonderful power of eloquence." For Mr. Choate to dread a conflict with Mr. Cushing was no mean compliment.

The reader will observe the width of the upper part of the forehead, in the region of

the organ of Mirthfulness, which gives him the power of sarcasm, playfulness of wit, and the ability to throw brilliancy and piquancy into his speech. The upper part of the middle line of the forehead is very prominent, showing a strong development of the ability to read character, to appreciate motive and disposition, and therefore the power to influence and control men. The center-line of the top-head is high, indicating Benevolence, Veneration, and Firmness. Mr. Cushing was a man of incomparable determination, was headstrong, and somewhat prone to be dictatorial; but with his wonderful scholarship and knowledge, with his clearness and strength of judgment, he was more likely to be right in his opinions and purposes than many of those who accused him of tergiversation.

The side-head appears flattened, as if he lacked Secretiveness. We believe that he was not a man of policy or concealment; that he made a straight path in the line of duty, as he regarded it, and was not afraid to declare his opinions on any subject of public concern.

Mr. Cushing had large Combativeness, which rendered him a brave, pointed assailant; and wherever he took sides against a subject, he was strong-headed, and his blows were always heavy, and hit the mark. This is well illustrated by his antipathy to England, which led him to avoid passing through that country on going to and returning from the Geneva Conference.

He was distinguished for his talent from the day he entered college till the day he died. As an orator he had few equals. His was a fresh and vigorous, but not a mellow style. There was little of the bland or mellow in his nature. He was brilliant, intensive, logical, critical, persistent, unflinching. The plow in passing through the field makes a furrow, not always straight and equally large, but adapts itself to that which it meets; but the glazier's diamond does not turn in its course, nor adapt itself. It goes straight ahead without compromising or wavering. Mr. Cushing was more like the diamond than like the rude plow that sometimes compromises. His social organs were well developed. Hence, he was a strong friend when

he took a liking to a person, though to some he would appear cold, dry, and distant. He was patriotic, a great lover of home and country. Hence, he deemed the little town of Newburyport, where he was admitted to the bar, big enough and good enough for him, though he was the peer of the greatest men in the land in his department of learning.

In the death of Caleb Cushing New England has experienced the loss of one of her ablest statesmen. Certainly after the departure of Sumner, Massachusetts possessed no man whose native endowments and abilities were more remarkable than Mr. Cushing's, and whose usefulness to the State and the nation in every field was more conspicuously exemplified. He was born in Salisbury, Mass., on the 17th of January, 1800. When but seventeen years of age he was graduated from Harvard College, and subsequently remained there for two years as a tutor in Mathematics and Natural Philosophy. He then prepared himself for the law and was admitted to the bar in 1825. As was common among lawyers of fifty years ago, he gave some attention to politics, and in the same year that he commenced to practice he was elected to the Lower House of the Massachusetts Legislature as a member of the Whig party. The next year he was elected to the State Senate. In 1833 he was again elected to the Legislature, and in the latter year he was elected to Congress, serving for four consecutive terms. As a Whig he supported John Quincy Adams for the Presidency, but becoming a Democrat, he supported the administration of John Tyler. The latter nominated him to be the Secretary of the Treasury, but his nomination was rejected by the Democrats. In 1844 he negotiated in China the first treaty made between that Government and the United States. Returning home after the completion of the Chinese mission, he was nominated and elected again to the Legislature of Massachusetts. There he became a warm advocate of the war with Mexico, and when the Legislature refused to appropriate funds to equip a regiment of volunteers, Mr. Cushing himself supplied the money. Of this regiment he was elected

Colonel, and during the war he was made a Brigadier-General. While in Mexico the Massachusetts Democrats nominated him for Governor, but he was defeated. In 1850 he was again elected to the State Legislature, and in that and the following year was elected Mayor of Newburyport. It is noteworthy that when Mr. Sumner's name was offered as a candidate for the United States Senate Mr. Cushing was active in opposition. So, too, he opposed the coalition between the Democratic and Free-soil parties. In 1852 he was a Justice of the Massachusetts Supreme Court, and held that position until appointed Attorney-General of the United States by President Pierce in 1853. In 1857, '58, and '59 he occupied a seat in the Massachusetts Legislature.

In the year 1860 Mr. Cushing served as President of the Democratic National Convention at Charleston, S. C., and a few months later he presided over the seceding delegates who in Baltimore nominated Breckenridge for President. In December preceding the outbreak of the late war he was sent by President Buchanan as a confidential commissioner to the South Carolina seceders, but his mission proved of no avail.

During the war Mr. Cushing remained in private life, but his sympathies were known to be on the side of the maintenance of the Union. In 1866 President Johnson appointed him one of three Commissioners to codify the laws of Congress. By President Grant he was appointed counsel of the United States before the High Tribunal of Arbitration on the *Alabama* claims, which was held at Geneva, and he acquired great fame by the able manner in which he conducted his cause to a successful issue. On his return he published a history of that tribunal, which was favorably received. In 1873 Mr. Cushing was appointed successor to General Sickles as United States Minister at Madrid, for which position his wise counsel in the management of the *Virginius* case had shown him to be eminently fitted. His departure was delayed by his nomination to the place of Chief Justice of the Supreme Court of the United States. So strong was the opposition to this last appointment, however, that the President withdrew his

name. Mr. Cushing remained in Spain until the appointment of Mr. J. R. Lowell in 1877. In his earlier years he gave some attention to literature, being at one time a contributor to the *North American Review*. In 1833 he published in two volumes "Reminiscences of Spain," the material for which he collected during a trip to that country three years before. In the same year he published a "Historical and Political Review of the late Revolution in France," in two volumes.

Mr. Cushing's political career was an eccentric one, as compared with that of most other prominent men. Instead of identifying himself with a party and following its course, he preferred to act and speak in accordance with his own views or impressions. For this he was taunted by politicians with vacillation, and the tendency to trim his sails to meet the breeze which at the time seemed most favorable. His great learning and legal abilities, however, could not be ignored, so that his counsel on matters of statesmanship and diplomacy was always in demand, and in his later years our Government has owed much to his wisdom and knowledge.

In his personal habits he was peculiar, illustrating the effect of long isolation, for he had been a widower forty-five years. When in Newburyport, where he mostly resided with a step-brother's family, in a plainly furnished house, on whose walls hang several hundred fine paintings, it was understood with the family that they should never enter his study for any purpose. He would never allow a woman to take care of his offices in Washington either, preferring to do the work himself. His library was large and miscellaneous—full of histories, works of travel, and many novels. He was a devoted novel-reader, and was apt to keep one beside him all day, ready to be picked up at the first spare moment. The Boston *Herald* tells this extraordinary story in relation to his wide knowledge: "Once the publishers of the first edition of *Webster's Dictionary* sent him from Springfield a presentation copy, requesting in return a critical notice. Cushing having plenty of leisure time, glanced at the first page and found

numerous mistakes. He read the second page and found as many more. He read the entire book, and wrote to the publishers that if they expected he was going to write a complimentary notice of a book with five thousand errors in it, they were mistaken. The publishers of course found fault with his extraordinary statement, and wrote back that if he would prove this to the satisfaction of Professor Porter, of Harvard, the editor of the dictionary, they would believe him. Angry at this imputation, this extraordinary man read the gigantic book over again, and wrote out the five thousand mistakes and mailed them to Professor Porter."

WHAT ART THOU, LIFE?

WHAT art thou, Life! O what art thou?
Thou lightest every earthly brow;
Thou showest every path we go;
Thou quickenest every thought we know!
Too short for joy—too long for woe.
Thou mystery! O what art thou?

Say, art thou limited in length?
Art thou activity? or strength?
Those only die who have had life;
Art thou, then, with destruction rife?
Thou workest thro' the nerve, the brain,
And thro' each sweet, sonorous strain.
No constant friend so near, we know,
And still we cry: "O what art thou?"

Imbuing every tinted flower,
Thou fillest every passing shower;
Thou'rt lost with each swift-fleeting hour;
Inscrutable, all-present power!

Thou speakest through the thunder's roar!
And through soft words which lover's pour;
Thou speakest through the hand, the eye;
And through the rising, panting sigh;
And in our untold agony!
"Yet Death"—with trembling lips we say,
While clinging to thine unknown way!

Thou plumest each fair angel's wing,
And those of smallest birds that sing;
And creepst through each creeping thing;
While Science, with her theories,
Stands back before thy mysteries
Not understood, although so nigh;
Unsatisfied, we ever cry:

"Why thus, mysterious Power! and how!
Why art thou, Life! and what art thou?"

GRACE H. HERR.

BRAIN AND MIND.

CHAPTER XII.—*Continued.*

COMBINATION OF ORGANS AND FACULTIES.

THE many faculties which enter into the composition of the human mind, afford a boundless scope for diversity in combination: and as the operation of each faculty is modified by its relation to others, it is important, in the application of the science, to understand how the faculties combine in the production of character. The many tints in the rainbow result from the combination, in different proportions, of only three primary colors. But there are upward of forty primary faculties which enter into the composition of the human mind, so that we can form some conception of the reason for the unlimited variety in disposition and talent which are observable among men. From the three simple elements in the rainbow—blue, yellow, and red—it is not difficult to form the four intermediary colors which result from their combination; but when we depart from these fundamental colors it is found difficult to estimate their exact proportions in the composition of any given tint. So, in judging character, it may not be difficult to trace out the combinations of a few elements in the production of common and prominent characteristics; but to estimate correctly the relative proportions of the primitive mental faculties in minute shades of character, requires a skill born of long practice and extensive observation. The student's own judgment and power of discrimination, aided by practice, must be his chief reliance in estimating the extent to which character is modified by the combination of its primitive elements. A few observations, however, may be made on this

branch of the subject, which will be of service to the beginner, and which will serve to illustrate its importance.

In the early part of Dr. Gall's investigations with respect to the functions of different parts of the brain, he observed that a prominence in the temporal region, a little upward and forward from the ear, invariably accompanied a thievish disposition, and supposing then that this part of the brain and this trait of character bore the relation to each other of organ and function, he named it the Organ of Theft. Further observation, however, proved to him that this idea was erroneous, and that the primary function of this portion of the brain was to give the desire to acquire and possess, and that it leads to theft only in combination with small Conscientiousness (which, when fully developed, imparts a due regard for the rights of others), and with large Secretiveness, which gives the disposition to work slyly and covertly.

Large Approbativeness impresses an instinctive craving for praise and esteem. In combination with large moral organs it inspires a worthy ambition, to be esteemed for the sake of moral excellence: honesty, kindness, and purity of character. In conjunction with large intellectual faculties, it will lead one to aspire after excellence in science, art, or literature, according to the particular cast of intellect. Combined with strong propensities and an inferior intellectual and moral development, it will give one ambition to obtain notoriety in vicious or brutal indulgences, as being the biggest eater, the best fighter, or even the greatest libertine in

the community; these tendencies being shown according as Alimentiveness, or Combativeness, or Amativeness shall predominate.

Large Cautiousness, with little Hope, inclines one to melancholy and gloomy foreboding. Add large Destructiveness to this association, and we have the combination usually existing in the suicide. Large Hope with small Cautiousness imparts a joyous, happy, and careless disposition. If large Combativeness be added, there will be rashness, precipitancy, and indifference to consequences, unless the intellect be powerful enough to counteract the tendency of this combination of sentiment and propensity.

Large Firmness and Self-esteem, associated, and in predominating activity, render an individual headstrong, and set in his own way. He can be neither coaxed nor driven, but must have his own way in everything. If, however, some one of the social organs be prominently developed, he may be approached and influenced through it. It then becomes the open door through which wife, children, or friends may enter and cause the stubborn will to yield. Large Self-esteem combined with a moderate intellectual and moral development renders the individual proud, haughty, and domineering. With the latter classes of faculties duly active, it will give dignity, independence, and a becoming sense of what is due to one's own personal worth. When Self-esteem is small and Approbativeness and Cautiousness large, the person will show diffidence in manner, and a sensitive regard to what others may say and think of him; will entertain a dread of giving offense, and if his intellect be weak, he may be a timid slave for the uses of unprincipled associates. If there be large Conscientiousness, Cau-

tiousness, and Benevolence, with small Self-esteem, one will be liable to continual annoyance, imposition, and injustice. He will give just weight and full measure, yet hesitate to exact the same in return. He will abound in neighborly and generous deeds, yet will suffer much inconvenience through fear of trespassing upon the rights or feelings of others. Such a combination of faculties renders an individual the easy prey of the unprincipled. If his position in life be easy, they flock to him and seek favors from him with fair speech and oily tongue, and he is powerless to resist their solicitations. His large Conscientiousness and Benevolence dispose him to believe them honest, and to judge them with leniency; his large Cautiousness and Approbativeness make him fearful to show the slightest distrust in their integrity, lest he may incur their displeasure; and from deficient Self-esteem he fails to perceive the indignity in their conduct toward him.

Large Secretiveness, combined with deficient Conscientiousness and Benevolence, inclines one to habits in which duplicity, cunning, and deceit are characteristic. Add to this combination large Approbativeness, and we have the human snake in the grass—one who is specious and fair to the face, but treacherous in the dark. Add to these a considerable endowment of Ideality and a good intellect, and we have the intriguing seeker after notoriety and popular applause; him who attains his purpose through trickery and plausibility.

These observations on the combinations of the propensities and sentiments, and their resultant manifestations in the mental life, as were cognize them among men, might be extended indefinitely. But enough, we think, has been said

to give the beginner a practical idea of the manner in which the different propensities and sentiments operate in association. An intimate acquaintance with the individual functions of the different organs and the practice obtained by personal investigation must be his chief reliance in tracing out the combinations lying back of the great variety of phases of character which he will meet.

ORGANIZATION AND PURSUIT.

As disposition is dependent upon the differential influence of propensity and sentiment, so talent is dependent upon the intellectual faculties; and as success in the different vocations of life is dependent chiefly upon the knowing faculties, it is most useful to understand how the intellectual faculties combine in the formation of talents for different pursuits.

The Mechanic in general should have a good endowment of the observing faculties, which is indicated by breadth and prominence of the lower portion of the forehead; especially should the organs of Form, Size, Weight, and Order be well developed to give him a just idea of proportion, and to make him neat and systematic in his work. Large Constructiveness is essential to give him facility in the use of tools; Imitation, to enable him to work after models; and Ideality, to give taste and artistic symmetry to his work. Causality added to this combination, makes the inventor. A person once presented himself for examination to a phrenologist, and was described by him as capable of excelling in the field of mechanical invention, the opinion being based upon his very strong Causality, Constructiveness, and Ideality. After the examination was finished, the young man remarked, in corroboration of the

deductions of the phrenologist, that he had already brought out twenty-two inventions, although not yet twenty-two years of age.

The Surveyor.—The combination of faculties essential to the surveyor is large Individuality, Form, Size, Calculation, and Locality. The engineer needs besides these, Constructiveness and a good endowment of Causality.

The Business Man.—Individuality, Eventuality, and Comparison confer talent for practical business, by the power which they supply for attending to the details of any subject. Causality



Fig. 106.—GOOD MECHANICAL ABILITIES.

gives planning talent, and the ability to take in far-reaching conditions, and should be added to the foregoing to constitute a successful manager of a large business. Order and Number are also essential to give system and ready calculation, and a good endowment of Acquisitiveness to give an appreciation of economy and of the value of property.

The Artist.—In the realm of art a high order of Quality is the first requisite. Individuality is essential to give attention to details; Form and Size to a

perception of shape, proportion, and perspective. Weight is essential to the sculptor, to enable him to give a natural pose to his figures, as well as to proportion the force of his blows to the effect which he wishes to produce upon the marble. Color and Locality are essential to the landscape painter, to enable him to appreciate the relations of tints and the laws of perspective.

Comparison is essential to critical ability and discrimination; Construct-

call at a particular street and number, and ask for a certain name. A few persons were collected, but the names were not mentioned. In the examination and description of one gentleman, we described him as being artistically inclined, but deficient in Color; he would be more likely to work at steel-engraving, or crayon, or marble than in colors. There being an oil-painting and a crayon picture hanging in the room, of about the same size and ap-

parent value, we said, by way of illustration, that if those two pictures were on sale at auction, he would bid forty dollars for the crayon, and only twenty for the oil-painting.

"The next man who took the seat for examination was described, among other things, to be very fond of art, but more particularly fond of colors, and the two pictures were again used as illustrations, by saying that if they were for sale at auction, he would bid forty dollars—the full value—for the oil painting, and only twenty dollars—or half its value—for the crayon picture.

When the examinations for

the evening were closed, we were introduced to the gentlemen by name—the first being the great crayon artist of New York, Mr. Rouse, who made the crayon picture, and the other, Mr. Church, of 'Niagara' fame, who had really painted the picture in oil before us. We were then taken into the parlor and shown the original study of the 'Falls of Niagara,' by Mr. Church.*

* "How to Teach." Nelson Sizer.



Fig. 107.—THE SCIENTIST.—DR. R.

iveness to manual expertness; Imitation to copying talent; and Ideality to taste and a sense of the beautiful.

As an interesting example of the dependence of talent on cerebral development, as well as of the facility which may be acquired in reading character from external forms, the following sketch is cited:

"About 1858 the author was invited to a house in New York, to make a few examinations. He was requested to

The Musician.—In musical talent a large organ of Tune is, of course, the first essential; Time is also necessary, to give a just perception of intervals; Form, to supply ability to read music readily; Weight, to proportion the force with which the chords should be struck to the loudness of the tone which it is desired to produce; Constructiveness, to impart manual expertness, and Ideality to give taste and exquisiteness to the performance.

The Writer.—In literary talent a large organ of Language is essential, combined with Individuality to give point and definiteness to the expression, Eventuality to supply memory, Comparison to give critical ability, and Ideality to give taste and refinement.

The Physicist.—A large perceptive development is in general necessary to a talent for the natural sciences, since these sciences consist chiefly in a knowledge of the existence, the appearances, and properties of natural objects. A good endowment of the reflective organs is essential to trace out the principles and the more remote connections and dependencies of these objects; but we frequently meet with men eminent for scientific attainments in whose heads the knowing organs much predominate, the reflectives being only moderately indicated.

The careful observer will notice that the local development of organs is influenced by their tendencies of association. The strongest organ of a group will so influence the growth of the other members of the group, that they will indicate a tendency of approach toward it. Thus, predominant Firmness attracts Self-esteem, Veneration, Conscientiousness, Approbativeness, Hope, and other neighboring organs so that the head, in some cases, will appear to be massed in that region. Or Acquisitiveness, when

very active and large, will attract Ideality, Constructiveness, Time, Calculation, Causality, and others, and will render them contributory to its operation. As a general rule, organs associated in mental activity grow toward each other, and in extraordinary cases, this growth is so considerable that an organ may appear to be quite out of its normal situation. The semi-intellectual organs exhibit much variation in this respect. When closely allied in activity with the perceptive faculties, they appear to be drawn forward and downward. When working with the reflectives, their direction of growth is forward. While in close sympathy



Fig. 108.—THE ARTIST—DELA ROCHE.

with the moral sentiments, they show an upward tendency. If, however, they co-operate mainly with the physical forces, the growth takes a downward course. Some writers who have noticed this characteristic of brain development and deduced composite mental qualities, have sought to subdivide some of the organs, assigning to their front, back, and side parts, functions of an

intermediate class. For instance, Prof. L. N. Fowler divides most of the large organs into three sections. Veneration, in his scheme, consists of Worship, with an anterior division defined as Respect, and a posterior division entitled Antiquity; Acquisitiveness is made up of Acquiring, Saving, and Hoarding; Ideality, of Expansiveness, Refinement, and Perfection; Friendship, of Gregariousness, Love of Family, Sociability; Alimentiveness, of Desire for Liquids, and Desire for Solids; Comparison, of Criticism and Comparison.*

Practical Importance of the Propensities.—In these remarks on the combinations of intellectual faculties it should be borne in mind that the propensities and sentiments exercise a very important influence in the manifestation of talent. Many persons having the intellectual qualifications which would enable them to take a leading position in almost any pursuit, occupy an inferior station from lack of energy and force of character, qualities conferred by large Combativeness and Destructiveness. Others whose talents are excellent, fail to accomplish results in proportion to their talent, through constitutional sensitiveness and diffidence, the effect of small Self-esteem in association with large Cautiousness and Approbativeness. Others, again, abuse intellectual gifts of a very high order by perverting them to base and immoral purposes, a weak endowment of moral sentiment failing to restrain their active and powerful propensities. The intellectual organs which give a talent for drawing and painting may be perverted by powerful Amativeness and a generally low organization, to the representation of lewd and immoral pictures; or

from the predominant activity of the higher sentiments, the artistic talent may be directed to the purest and loftiest conceptions of art. In Buonarroti, Delacroix, Da Vinci, Delaroche, and other great artists whose best works are of a religious type, the moral development of their heads is at once noticed.

The organ of Tune, when combined with Veneration, leads to the production of sacred music; consider the portraits of Handel, Mozart, Beethoven, currently accepted; combined with Amativeness and Alimentiveness, it tends to the composition of unchaste and bacchanalian songs. A taste and talent for dramatic writing are dependent chiefly upon the intellectual and esthetic faculties; but the class or character of the plays is an indication of the bent of the writer's disposition. In all our large cities there are theaters of different grades, and the character of the plays which are represented in them, and the character of the audiences who assemble to listen to them, correspond. The manager of a theater once remarked to Mr. Combe, that in the absence of a star performer, he found it advantageous to introduce a genteel comedy or a bloody tragedy. In the former case the parquet would be crowded, while the galleries would be empty; in the latter the galleries would be crowded and the parquet empty.

* * * * *

It is said that in Frankfort, Germany, the hotel-keeper found that the members of the Peace Congress, who were mostly teetotalers, ate so much of solid food as to create a deficiency in certain dishes, as compared with an equal number of his countrymen who are given to wines, brandies, and lager-beer. If this proves anything, it shows that temperance secures a good appetite and a peaceful disposition.

* See L. N. Fowler's *Bust of Phrenology*, published at Stationers' Hall, London.

PHRENOLOGY AND "CONVERSION"—AGAIN!

A CLERGYMAN TO A CLERGYMAN.

REV. A. J. H. — MY DEAR BRO.: Though Mr. Nelson Sizer has given you an able, and, I think, complete answer, permit a brother clergyman, who once had many doubts of the truth of Phrenology forced upon him by the irreverence of the earlier apostles of it in this country, and who once, because he felt that whatever was irreverent was so far false, rejected it, give you a chapter of his experience that will show that conversion may be accompanied by a change in the shape of the head.

I further believe it could be widely substantiated if the data were gathered—and we clergymen would be the best committee on the collection of such data; for, instrumentally, conversion is our business. Also, I believe, that whenever it is necessary for the salvation or usefulness of a man, a change always takes place in his coronal organs; because that crown organ of Veneration is set in a heavenly-jeweled circlet of Hope, Spirituality, Benevolence, and Conscientiousness, and too, I think, of Firmness and Concentrativeness, for they belong to religion in my Presbyterian faith in "the Perseverance of the Saints," and are, all of them, necessary mediums of our religious life—one or more of them for our *perception* of God; for you know man has three kinds of sense and seven senses. The latter are: a skylight to see God in His faith by His Spirit, a looking-glass to see himself in his self-consciousness by his soul, and five doors and windows in what is usually called his senses by his body to see the world (see the Greek difference between "wholly" and "whole" in 1 Thessalonians v. 23), and as mediums of our relative duties to God and man.

That change of shape may take a short time, such as my case shows, or a longer period, as described by Mr. Sizer, according as God's need of the man is urgent, his own case imperative, or as the style of his development in grace is—not to mention the conservative or radical character of his creed. One of the Fowlers records the

cases of men whose heads had changed on their whole surface, as if there had been a mental earthquake, for their craniums were broken like the surface of the earth by an earthquake. When he asked if the men had not undergone some great and recent trouble, the answer was always affirmative.

The case I record was one where the trouble was sharp and terrible, though brief; for it was followed by a full surrender to the will of God, though it included the earnings of years swept away by fraud and the dearest child of his heart by death. You, no doubt, know of cases of volcanic and earthquake conversion, and have read of the trance conversions, where long unconsciousness followed the arrow of conviction. In such cases, I believe, a sudden change of cranial shape could nearly always be found. You know also that blessed fact that the soft, last-ossified portion of the infant head includes the organ of Veneration *et al.* Now this often does not round out till the child is a man of twenty-five years, and it seldom rounds out later than that age. I think it will yet be proved that after that age it never does except on conversion. But the real point I desire to make plain is, God evidently designs two things thereby—a divine approval of Phrenology and a blessing on the endeavor to convert a soul by making it *phrenally* easy. If will can change brain-action, and so brain-form and cranial shape, which it undoubtedly can, I know that by experience man is left without excuse because of his "nature, etc."; for God makes this religious, coronal portion of the brain easiest to change. Blessed be His holy name! Then, too, you know that the objective point of salvation is the *body* by man's regenerate spirit through the soul, because of the blood of Christ and His mighty working by the Holy Spirit. That body changes here and will be changed up to the grade of its spirit hereafter. Phrenology is thus in the line of God's foreordination. In conclusion, before I proceed to my story, let me remark that I

now find the PHRENOLOGICAL JOURNAL the most reverent scientific work I read, and the later exponents of the science, reverent men. It shows the truth of their phrenological faith, that its works are so divine.

About 1866 a young man of varied talent and undoubted genius was convicted of his sins. He is an inventor of high order. He has beaten a champion billiard-player of Indiana. He always kept himself in spending-money by the marbles he won as a boy. He can with a revolver shoot a duck's head off at thirty yards on the water. He was a polite gentleman at six years of age and always very attractive to women, besides being now the handsomest man in his town. Since his second conversion he has walked one hundred and twenty-five miles in five days, wading streams of ice-water waist-deep in the mountains in March thirty-six times in the trip, yet taking only four hours sleep in the whole time, in order to organize a church in a frontier town. He can lay several "squares" more of flooring or shingles a day than any man he ever worked with. On only a grammar-school education—cut short because he was an unruly boy and would crawl under the seats to stick pins in the other boys, and fought the teachers when they wanted to punish him, and learned cabinet-making before his temporary exile was ended—he became a first-class preacher in one year. He is also something of a poet, a musician, and a singer. A celebrated physiognomist says he would make a first-rate detective. He is the youngest born of six living children, and was the only one in the family lacking in Veneration. You could lay your hand in the hollow on the top of his head. You see, with all his deficiency, he was worth saving to the world.

I said that thirteen years ago he was convicted of his sins. He thinks now that it was nothing more. He nearly went crazy. He was sitting in a saloon at 11 P. M. waiting for a boon companion to go on a "bum." All at once he heard a voice saying, "Get out of here." An internal, but audible voice. He got out in a hurry, but was ashamed of it, and said he would be

d——d if he was afraid of anybody, as he turned now and then in his flight with clenched hand to face his invisible foe. But still he fled on homeward in the darkness. For days afterward he was in agony. Sometimes he would lay and roll on the hill above the house till his very eyes seemed starting from their sockets or changing their places.

He resolved to do the usual thing—join the church—after he had found peace in the forgiveness of God and man. His thoroughness therein is shown by his writing me, who was absent a distance of thirteen hundred miles, and asking pardon from me for things I had never known he had done against me. He entered the church and I my closet, where I prayed three times a day for a year that the Lord would make a preacher of him. I urged him to the office and work, but as he was zealously industrious after his turning to God, and was making money in real estate—he cleared twenty thousand in five years, from eighteen to twenty-three, and had "married a wife"—he said he would not preach, but would when he got rich build churches, as then, houses. His only religious life besides some church-work was Benevolence, which was and is large. He gave two hundred dollars to his church the first year.

But "he that hasteth with his feet sinneth." He could not help it, for it is only him that *b. lieveth* who "shall not make haste." His faith was "smaller than the smallest of all seeds;" only enough to germinate hope sufficient to save him from his sins. Hope always precedes faith, both Scripturally and salvationally—that is, saving faith in the man without in his sins looking unto Jesus. He went astray; he went greatly astray. The crimes of the bold, bad, ready, handsome, and "hail well met" man were his. "He feared not God, nor regarded man." His mother was his sole allegiance. He would have whipped any other relative on provocation.

A faithful, praying wife bent the heavens to him, and I saw him fall under God's hand. It was like the falling of a house. The one sin that now remained prominent was spiritual pride, and it was especially

rampant against the clergy. I "sat down" on him for that. There was no further correspondence for a year, in which time his desire to enter the ministry by irregular ways increased. Then his child died. I wrote him in condolence. He answered, revealing a truly changed heart. Then came the point of my story.

He heard in a distant Southern city of the loss of his property. Sharp on the heels of this news, as he was writing one night at nine o'clock, he saw his little daughter dancing so merrily in one corner of his room that he laughed in sympathy with her mirth. At that the vision disappeared, for it was a vision, his family being in one of the Northern States (Missouri); a deep depression fell upon him. He shortly got a telegram saying this little one was dead. She died at the moment of his sight of her, with the words on her lips, "I am going to see papa." He went out upon the beach of the Gulf and walked it all night in agony. In the morning his dark hair was streaked with white.

The results were these: he sought companionship in the Young Men's Christian Association. He became a street preacher. A precious revival and many conversions followed the faith with which he inspired his companions and his ministry. His poetic talent awakened. *His head in the organ of Veneration raised half an inch in six months at the age of twenty-nine years.*

He sought me for an education to fit him for his work. He came first to help me build a church. He built it almost alone,

at the same time preaching twice a month, and quitting tobacco, his last vice. The leaving off of this habit nearly drove him wild, as his use of it had been very excessive—amounting in money to one hundred and forty dollars a year for several years. But now even the desire for tobacco has left him. In four months I ordained him an elder of the church, because the people liked his preaching so much. In six months more he carried the presbytery's favor by his sermon before it, and he was licensed. In a year more he was ordained, after a creditable examination. He is still, after two years, the popular and much-esteemed pastor of the same flock. When he came to me his manners had been degraded to those of a rough; he now has the manners of a kind, Christian gentleman, and is growing more gentle and refined every year. Truly, a trophy of grace and a proof of Phrenology.

When we add to all this the fact that I have known a mediocre intellect to become bright and vivid after conversion and remain so—when there are many records of persons who were sick being restored to *physical* as well as spiritual health at conversion, the change in the form of a skull at conversion should be the rule instead of the exception; and when clergymen come to know Phrenology, the only science of mind that agrees with Scripture, numerous cases will be noted in every revival of religion, especially where there are thorough conversions of those not brought up closely under covenant and devout instruction.

Yours, fraternally,

SELRAD.

ONE OF OUR TEMPERANCE WORKERS.

FRANCIS MURPHY.

LIKE nearly every man of his class, socially, who has accomplished much as a worker in the field of temperance reform, Francis Murphy's career from childhood has been one of marked vicissitude. He was born in Ireland about the year 1837, and while a lad of fourteen or fifteen, came to America. His pursuits here were

various; bar-keeping being that to which he gravitated by reason, we might say, of his type of organization and his lack of the training and associations which tend to develop the moral nature. Appetite was strong, and he early became a drinker of alcoholic beverages. The reader can easily imagine the daily relations of a man thus

inclined ; how dispensing strong drinks renders one restless, irregular, disposed to shift from one dram-shop to another, to yield to this or that depraving influence, and in time to hesitate little on the score of personal obligation or honesty, when an apparent advantage is in view. The spirit of the liquor traffic is so entirely antagonistic to everything honorable and pure that

sustained injuries of a fatal character. Murphy was arrested and tried for murder, but was acquitted. Soon after this affair, he joined a Protestant church, declared himself a temperance man, and went into the ranks of the advocates of reform, and has become one of the most successful of lecturers. Encouraged by men like Captain Sturdevant and Joseph Nye, he labored



FRANCIS MURPHY.

men of the best principles, if such ever enter into it, soon lose their moral delicacy.

Murphy was about thirty-one years old when a crisis occurred of so startling a character as to change the current of his life. He was then connected with a common hotel in Portland. One day he became engaged in an altercation with a drunken man who had insulted a guest in the hotel, and during the squabble, Murphy threw the drunken fellow down-stairs. By this fall he

in Maine for upward of four years. To his efforts are largely due some of the most stringent temperance legislation now in force in Maine. From Maine he went to the West, and for two years or more labored zealously in Iowa and Illinois. Then he made his appearance in the Quaker State, where great results have attended his efforts. Armies of men signed the pledge, and thousands of drunkards have been redeemed. Bar-rooms in cities and towns by the doz-

ens have been closed. Continuing his course, he has visited other States East and West, and powerfully aided the struggling band of reformers.

A writer in the *New York World* describes his manner when on the platform, with much fairness, in the following :

"The story of his own life makes up a good part of all his speeches. If he stays only a day or two in a place, you get an abridgment of it. If he tarries longer, he gives it to you at length, in installments, with more or less of discursive moralizing and description and appeal thrown in evening by evening. The story is well told. You would not tell so much of it, if you were in his place ; but you do not feel, after all, like censuring his frankness. You can see in his experience the depths of degradation and woe into which drink plunges men ; and he evidently thinks he has a better right to show you the dark side of his own life than that of any other man's. Often as he has told the tale, it is far from being a mere recitation. His heart swells with emotions that are not simulated, and the tears start from his own eyes as he speaks of the woes of 'mother' and the children in the days when drink was cursing his home.

"Now and then he strikes off into digressions—humorous, descriptive, dramatic—some of which are very telling. The story of the Irish girl who felt so grand riding in her mistress' carriage that she wished she could stand on the sidewalk and see herself drive by, is capitally told ; and always when he drops into his native brogue, the Irishman that he gives us is a genuine bit of character. Some of his more tragic passages are simply tremendous. His description of Sheridan's Ride, for example, or his imaginative portrayal of the 'upas tree' of intemperance are astounding performances. Such rhetoric, such elocution, such acting are not often heard nor seen. He races back and forth across the platform ; he roars like a caged tiger ; he leaps, at the climax of his passion, three or four feet into the air.

"Of course, you do not approve all this. It is not your way of doing it. Neither do

you approve all of Murphy's orthoepy or syntax. But it does the business. Crude though the performance may be in spots, it is a telling performance. The acting is immense ; but it is scarcely more excessive than is often seen upon the classic stage. The rhetoric may be faulty ; but it is a big-hearted man that is talking, and the people do not stop to measure his words by critical standards. And now and then comes a passage of natural description or a touch of human nature that mark the real orator."

In stature Mr. Murphy is small, but has a large and compact frame, with a predominance of the Motive Temperament, showing great bodily strength and a vigorous and healthy constitution. His manners are genial and polite, exhibiting a natural courtesy in conversation which rivets the attention and wins respect from his listeners. His eyes are dark gray, expressive and clearly indicating that their owner is wide awake and spirited. His hair is black, slightly tinged with gray, and his forehead prominent ; the perceptive faculties being large and active.

He should be credited with a degree of self-consciousness regarding his own organization and fitness. At one of his last meetings he remarked to the immense audience : "I am not," he said, "a temperance reformer in the common acceptation of that word ; I can not preach the Gospel like a minister ; but I am doing the best I can. If I am wrong and ignorant of the right plan to save men, what I need is light. I have gone on in my stumbling way, and I think that, in spite of obstacles, we have accomplished glorious results."

REGRET.

They are poor

That have lost nothing ; they are poorer far
Who, losing, have forgotten ; they most poor
Of all, who lose and wish they might forget.
For life is one, and in its warp and woof
There runs a thread of gold that glitters fair,
And sometimes in the pattern shows most sweet
Where there are somber colors. It is true
That we have wept. But O ! this thread of gold,
We would not have it tarnish ; let us turn
 Oft and look back upon the wondrous web,
And when it shineth sometimes we shall know
That memory is possession.

MRS. "SYSTEMATIC STACY."

SHE came to me as I stood in one of the long halls in the ——— Insane Asylum, where I had been admitted to see an unfortunate friend of mine, a delicate, fragile little creature, who interested me at once by her artless, lady-like manners, and the sweet, gentle voice in which she asked, softly, but somewhat abruptly: "Are you *systematic*?"

In reply to my answer that it would hardly be possible for her to find a person who was less so, she said, casting her large, tender blue eyes to the floor, and in a sad tone: "I feared as much; it is very singular how few people I find who can appreciate the utility and beauty of perfect method.

"Now, it is constitutional with me to be systematic, and therefore it is not only expedient, but impellent for me to perform my household duties by a system. Should I attempt to disregard the stated rules and reasons which I have laid down for myself, the household machinery becomes disarranged, and disorder worse than confusion confounded is the consequence.

"Yes, I wash Monday, iron Tuesday, churn Wednesday, sweep Thursday, scrub Friday, and bake Saturday. By going through these inexorable, yet pleasant rounds, I manage to perform my inevitable household duties with comparative ease—with very little physical or mental strain.

"Of course, preparing my meals, taking care of the milk, making beds, dusting, keeping the house in order generally, looking after the children, and seeing to the birds, the plants, and the aquarium has to be gone through with daily. Then, there is the general superintendence of the whole place; our wardrobes to see to, and the family mending, which is no small task, as we are obliged to use economy; but I do the same things, in the same way, day in and day out, week in and week out, month after month, and year after year, until the wheels and the wheels within wheels of my domestic machinery roll on just like clock-work, even if I am not at the helm.

"Now that I am down here for a little time visiting some friends of my husband,

and to recuperate my health, which they say is not good, there's nobody at home but the little Irish girl that my husband took from the Home of the Little Wayfarers some time ago. He can't afford to hire a housekeeper, and, in reality, there's no need of it, and the work is doing itself; I have given it such an impetus, you see, and the system was so perfect. I am glad to have given it a fair trial.

"My husband's friends here, tell me that *system* is my hobby. I have a theory in regard to it, to be sure. In my opinion the millennium will come when a great and universal *system* is established which every one shall follow voluntarily; then order, household order in particular, will come out of confusion, and everything will move as if to slow music—the music of the spheres, you know—that's what it means.

"Children should be taught in schools, the first thing, to be systematic. Then, there will be no sickness, and even death will be warded off by having a time for doing everything, doing everything in time, and keeping the whole vast mechanism of things, animate and inanimate, in such wonderfully complete working order that it will be simply an utter impossibility for anything to happen out of the rhythmically established course.

"Some public benefactor must, eventually, begin this reform. I have it all arranged in my own mind, and as soon as my visit here is ended, and I shall have become thoroughly 'rested,' as they say, I shall myself set about putting this thing into practice. Meanwhile you can be thinking about it; oh, will you not, lady? I know by the looks of your eyes that you have schooled yourself to correct and systematic ways of thinking, and perhaps sometime, when you have a favorable opportunity, you will divulge my plan to the visiting public.

"If I could only get the right people interested in it, a real, pervading enthusiasm engendered, it would be a success at once; but I am so confined here, I feel so crowded and oppressed like. Wait a moment; let me rub my eyes. My head is aching more

than usual this morning. Where was I? Oh, I was going to say that when this system shall be in full operation it will be such a welcome refuge to myriads of weary women."

"We call her Mrs. Systematic Stacy," said an attendant, as we turned to re-enter the visitors' room. "She never had a care in her life until her marriage to a bustling, prosperous business man, who placed her at the head of his large household and farm establishment. She was naturally ambitious to become a model housekeeper and a good wife, and as her husband continually impressed on her mind the necessity of their practicing all possible economy, she fell into the way of many New England married women, of retrenching in the matter of maid-servants' wages. Her husband, a man highly esteemed in the business world, a leading member of the Church, was particular and exacting in his mannish thoughtlessness and disregard of women's peculiar physical weaknesses, requiring her to superintend the whole establishment, outdoors and in, with the most painstaking care, and the nicest taste, during his daily absence at his office in the city. On his return, he expected to find his six o'clock dinner nicely cooked and handsomely served, and housewife and children in dress-parade for company, of which they had a great deal. He furthermore exacted that she should keep along with her music and reading, that she might keep abreast of their fashionable friends. Doing all this with the help of one Irish servant, no wonder that her busy brain sought so continually for some method of lightening her cares and labors, that reason lost its guiding and controlling supremacy, and she became absolutely demented."

I bade adieu to this very ladylike attendant, whom I found to be an intelligent and educated person, begging as a favor that she would allow me to enter into a correspondence with her, with a particular reference to my being apprised of this poor patient's condition from time to time, for I lived at some distance from the institution, and had become greatly interested in this sad case.

I had received but one note from this kind lady, which stated that there was no perceptible difference in Mrs. Stacy's condition, when, in a few days, I saw the notice of her death in the papers.

I subsequently learned that the unfortunate lady had begged so piteously to go home, where she could, "only for a few days," watch the working of her "system," and give it her personal superintendence; that her husband, regardless of the head physician's warning, that any shock in her weak state might prove fatal, thinking to cure her of harping upon a topic of which he had become heartily tired, took her home, and, without any considerate and timely preparation, led her abruptly through dining-room, kitchen, pantry, and dairy, where an inexperienced Irish girl had reigned supreme for three months.

Poor thing! she had left the whole establishment in such perfect order, and every day during the period of her stay at the Asylum, had imagined so vividly, how nicely and orderly everything was going on at home under the "impetus" of her former *régime*, that when the actual state of affairs dawned upon her, and she realized, as she seemed to do for a moment, that her darling system was but a myth, she became at once a raving maniac, and lived but a few days.

Moral:—

Pleasant the social intercourse of man,
When, flowing through congenial pores of mind,
Thoughts, feelings, impulses, and sympathies,
Made manifest in speech, or silently
By speaking eye, blend in harmonious tone,—
As different voices, blend in choral airs,
Transferring each to each a moiety,
Grow richer in the sum for the exchange.

MRS. ANNIE A. PRESTON.

TEMPERAMENTAL AFFINITY.—The celebrated Frenchman, Bernardin de St. Pierre, once visited a friend who had a sister greatly admired in society, but whom he had never previously seen. "Shall I tell you," said the author of 'Paul and Virginia,' to this tall, blonde lady of slow movements of flaxen hair and blue eyes, "which one of your many admirers finds the

most favor with yourself?" The maiden blushed, but knowing that St. Pierre was without information as to her social circle, gave him opportunity to answer his own question. "He whom you most admire," was the reply, "is a brunette, active, of quick movements, your opposite, with dark hair and dark eyes." The maiden turned to her brother with a look of rage, and

said: "Why did you reveal my secret?" But the man of science and letters replied: "No revelation was made to me, except through my knowledge of elective affinities."

Had he said "temperamental preferences," his expression would have been more in accordance with physiological accuracy.

HENRY WELLS,

THE EXPRESS MANAGER.

ABOUT the beginning of December last the death of Mr. Henry Wells, in Glasgow, Scotland, was announced. He has been well known to the business men of this and other countries for years; was one of the first to perceive the importance of quick transit in the transportation of freight and news, and one of the first to carry into effect an organized express business, whose operations covered a large territory.

Our portrait represents him at the age of fifty-five or fifty-six, when he was in the zenith of his strength, the vigorous administrator of a very extensive business. He had a large head, with a constitution expressive of endurance. The features are heavy, marking a strong impress of the Motive temperament, with enough of the Vital to sustain the operation of the mind. The head appears to be largest in the base, showing thorough coöperation with the body, and that the forces of the physique ministered actively to the organs of the brain.

The perceptive faculties of the intellect are large and active, enabling him to take knowledge of all the affairs of property and business. The forehead rises high, and is well pronounced in the region of Comparison and Human Nature, showing that he had quickness of judgment and discrimination. The side-head forward of the ears is well filled out, indicating excellent mechanical acumen, with talent and ability to suggest new methods and to plan new enterprises.

His will was strong, and supplemented by unusual executive energy. His words and deeds evinced a consciousness of power to

do what he desired to do. The head is high in the crown, the region of self-reliance, positiveness, and perseverance, and he was well known for his self-confidence and his ability to carry out his purposes. With so much strength of character in the line of work and accomplishment, there was nevertheless associated with it a good deal of sympathy. He had an iron will, but a kind heart. He expected his employes to do his bidding thoroughly, yet he spared not himself as a worker, yielded not to difficulties, but forced his way toward the end he had in view. Still he could feel for those who were in circumstances of need and sorrow, and was willing to give them aid.

The sense of duty, judging from the elevation of the head near the crown, was very influential in his character. Doubtless, in cases where he had been unjust and the fact was brought home to him, he would take more pains than nine out of ten men similarly situated to make restoration.

He was born in Orange County, Vermont, in 1806, the son of a merchant, attended the district school of his native place, and probably would have taken up some professional calling had not an impediment in his speech prevented his entering upon the preliminary studies. At sixteen years of age he was apprenticed to a tanner and currier in Palmyra, N. Y., remaining there about five years. For the next ten years he tried several kinds of business, and in 1831 became interested in the transportation and forwarding line. In 1841 he took a position as agent for Messrs. Harnden & Co., at Albany, in the express business. Having requested Mr.

Harnden to put on an express line to Buffalo, he received for an answer that if he (Wells) chose to run an express to the Rocky Mountains at his own expense he might do so. Being satisfied of the practicability of the undertaking, Mr. Wells did start the New York and Buffalo Express, which was established under the name of Pomeroy & Co. In the course of time this new and

press interests took place, under the name of Wells, Butterfield & Co., and Livingston, Fargo & Co., whose influence and efficiency continued for many years, and still exists, though under other titles.

Mr. Wells was one of the company that built the New York and Buffalo Telegraph line in 1846, and which was one of the first telegraphic lines put into operation. He was



responsible enterprise became well known and well sustained by the public, and extended its limits to other and more distant parts of the United States. In 1843 further connections were established, under the firm of Livingston, Wells & Co., with offices in London and Paris.

In 1850 a consolidation of different ex-

pressed interests took place, under the name of Wells, Butterfield & Co., and Livingston, Fargo & Co., whose influence and efficiency continued for many years, and still exists, though under other titles.

When the enterprise known as the American Express Company was formed, Mr. Wells was elected its president, and retained that position until a few years ago, when ill health induced him to withdraw from it.

Early in November he sailed to Europe with the view to find some relief from his growing infirmities, but survived the passage only a few weeks.

He was successful in acquiring wealth,

but indicated a philanthropic spirit in the use of it. The Wells Female Academy at Aurora, N. Y., was founded and maintained by his endowment, and has obtained a wide reputation.

USELESS BURDENS UPON SOCIETY.

EMERSON says that what is desirable is attainable. If this be true, and there is no good reason to doubt the soundness of the proposition, the "good time coming" can not be far off. Whenever the freedom and health-loving people conclude that the shackles of servitude and disorder have been worn long enough, and it has become desirable to exchange them for other raiment, we may say it will be done. Statisticians show the cost of injurious articles of consumption to exceed by many fold the expense of the useful and healthful. Add to this the expense of litigation and of vain show, and it will be seen to what an enormous degree the labors of those who create or produce are multiplied. Lift these dead weights from society, and what is called progress would be increased by an hundred-fold. The mode of accomplishing this result is plain and simple in the extreme. Remove the premiums that are now placed upon disorder of every name and nature, and the thing is done. The system of fee in individual cases and the credit system are the most prolific causes of disorders—inducing its cultivation. By a thorough discontinuance of these two causes, the results consequent upon their continuance would eventually and certainly cease. A great and growing people need not to borrow, and are amply able to pay whatever debts they may have been unfortunate enough to contract.

The more densely inhabited portions of the earth are dependent upon this, and it is the height of criminality for the managers to reverse the law of production and supply by allowing debts to stand and burthen the young republic. The amounts annually squandered upon useless sinecures would wipe out the score against us in less than ten years, if vigorously and thoroughly conserved. And with the discontinuance of custom-houses and an entire free trade, an

amount of productive force would be immediately transferred to our land; for it is perfectly plain that, given the material for manufactures all at hand, and without cost for transportation or removal, and no foreign manufacture can compete with the home—thus inducing the transfer of whatever foreign force now depending upon our market to our shores at once—*adding producer, consumer, and capital* sufficient to discharge all obligation in five years. Then hurrah for a government without taxation!

T. M. SHAW.

"TRIFLES" IN PHYSIOGNOMY.—

It is said that a famous old artist once saw a statue of a faun standing in a public place. Desiring to give it an appearance of old age, he took his hammer, and with one light blow struck a single tooth from the jaw. That was enough; the marble no longer portrayed a young creature, and the perfectness of the other teeth ceased to have any importance. So, in personal character, it may be a very little thing which tells to the most careless observer the whole story of the badness or the goodness of that life. Since we can not always tell just when or just how we are displaying to the world evidences of weakness or of sin, we can not too carefully guard the lesser acts of life. We may be betrayed by a word, or a look, or a smile, or even by our silence itself. Nor is it enough to try to present a fair show on the surface, if that which is within be not pure and good. The best of men must sometimes display the weak points in their character; but a bad man, even though he be the most discreet of hypocrites, is absolutely certain to betray his real nature, even at times when he considers his efforts at concealment most successful.—*Sunday-School Times.*



THE KREMLIN.

THE TWO GREAT CITIES OF THE CZAR.

FROM the days of Peter the Great, Russia has been an important element in European affairs. Scarcely a war of any marked extent has shaken the soil of the continent which did not in some way enlist the close attention, and in most instances, the participation of Russia. Hence the history and general character of that great Slavonic people have been made known to the reading public on both sides of the Atlantic Ocean. The development of the empire in literature and science can not be said to have taken a definite form until about the beginning of the eighteenth century, when Peter the Great wielded the sceptre. His genius and remarkable ability in practical affairs stimulated to activity every civilized element possessed by his people, and nearly all his successors, especially Elizabeth, Catharine II., Nicholas, and Alexander II., the present Czar, contributed by their enlightened, yet in most respects arbitrary, policy to promote the education of the people, and the development of the exhaustless resources of the country.

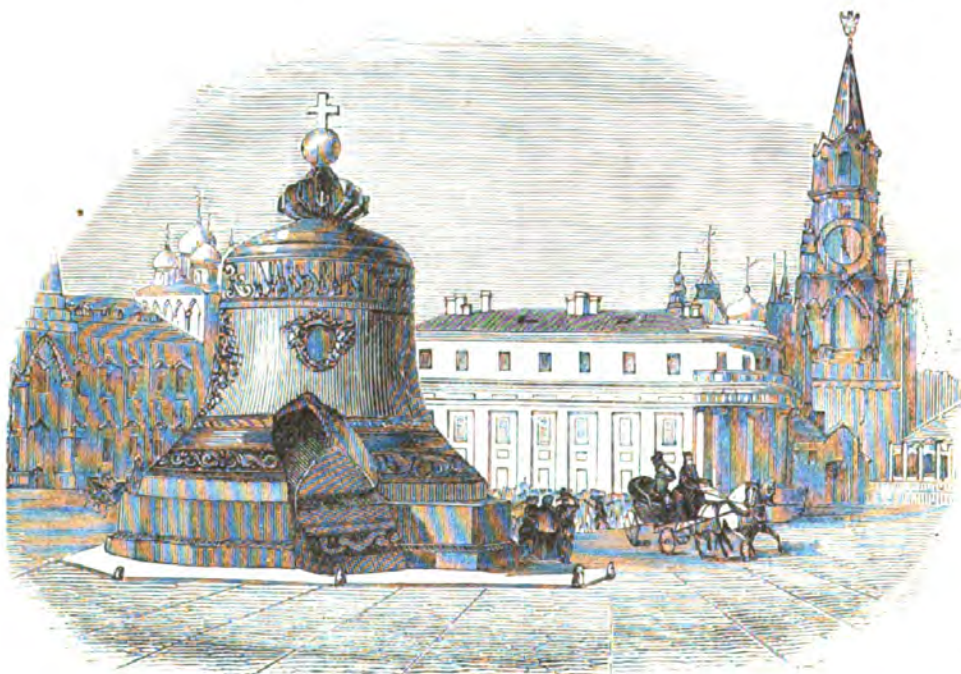
Every school-boy who has read his First Book of history, knows something of Moscow, the former capital of Russia, and whose seven hundred years existence has

experienced many changes, brought about through intestinal convulsions and foreign wars. Devastated by fire three or four times (on the last occasion, by the Russians themselves, to prevent its being occupied as a winter asylum by Napoleon in 1812), Moscow is nevertheless a city which attests the power and civilization of the empire. Its citadel, the Kremlin, a part of which dates back to 1339, is the most interesting building. Situated on the bank of the Moskva, which, curving upward, flows through the city, the Kremlin is in the very heart of Moscow, and surrounding it are beautiful gardens and extensive buildings of a public and private character. From the river the hill of the Kremlin rises, picturesquely laid out with turf and shrubs. The observer's attention is first drawn to the column of Ivan Veliki, which towers above all. Then his eye wanders over the other buildings, some of them of imposing aspect, which stand upon the plateau of the Kremlin like gems decorating a crown. Among these buildings are churches and palaces whose turrets, spires, and cupolas in hues of red, white, green, gold, and silver, present a very impressive scene on a sunny day.

A strong wall surrounds the Kremlin,

embattled with many towers, and there are several gates, two or three of which have, to a Russian, a sacred character. The most important is the Spass Vorata, or Gate of the Redeemer, the triumphal way of Moscow. Every one who passes through this gate must take off his hat. Over the gate is a picture of Christ, which has been there during many generations; its preservation amid the havoc of battle and fire being deemed miraculous. The custom of uncovering the head when passing through the gate is, however, much older than the picture. The Nicholas Gate, so called from a picture

mand of the Empress Anne, and bears her figure in robed estate upon its surface. The tower in which it once hung was burned, it is said, in 1737; and in falling, a large fragment was broken out. It lay where it had fallen until 1837, when the Czar Nicholas caused it to be placed upon its present site. The height of the bell is twenty-one feet three inches, its diameter twenty-two feet five inches. The metal forming it exceeds three hundred thousand pounds in weight, and is worth, on account of the gold and silver in it, over a million of dollars. It has been consecrated as a chapel.



THE GREAT BELL.

of St. Nicholas over it, is also held in deep respect as possessing sacred qualities. It may be said that the wall of the Kremlin contains within its vast triangle the most interesting and historically important buildings of Moscow; the churches, tombs, and palaces of the old Czars and Patriarchs, and architectural memorials of every period of Russian history.

Close to the tower of Ivan Veliki, and resting upon a pedestal of granite, is the great bell of Moscow, "The Monarch," the largest construction of the kind in the world. It was cast in 1730, by com-

The visitor in Moscow finds the cathedral of St. Basil an object of curious interest, on account of its oddity as an architectural design. It combines all sorts of features, having twenty towers and domes of different forms, and painted in different colors, some with green and yellow, some with red and white, and others gilded. Some historians say that it was a whim of Ivan the Terrible, who was so well pleased with it that he caused the architect's eyes to be put out that he might never build such another edifice.

St. Petersburg, the modern capital of

Russia, can not be said to possess the interest of Moscow to the lover of history and the antique, but it represents, in a strik-

column erected to the memory of the late Emperor Alexander, a shaft of red granite which, exclusive of its pedestal, is upward of eighty feet in height. The statue of an angel bearing a cross surmounts it.

Among the Government buildings, all of which are colossal in size, are the Senate-house, St. Isaac Square, the Exchange, and the Custom-house, which are represented in the engravings. The two first-mentioned are six hundred and fifty feet each in length. Between them is the colossal equestrian statue of Peter the Great. The towers pic-



CATHEDRAL OF ST. BASIL.

ing way, the later growth of Russia in what is related to European civilization. The location of the city on the Neva is so low that the stranger while approaching it obtains a very inadequate impression of its size and character; but once entered, he finds himself in spacious streets lined by buildings of unsurpassed splendor, the grand avenues stretching in straight lines far away, and on a dead level. The finest thoroughfare is Nevski Prospekt, which is two miles long and one hundred and fifty feet wide. The winter palace of the Imperial family is one of the most superb of the royal residences of Europe; it covers a very large area, having a frontage toward the Neva of seven hundred feet. It contains many exquisitely adorned halls and chambers, and collections of art treasures which attest the power, taste, and culture of the Romanoffs. Near the winter palace stands the largest monolith of modern times, the



NEVSKI (NEW) PROSPECT STREET, ST. PETERSBURG.

tured on the quay fronting the Exchange are used as outlooks for observing the ap-

proach of vessels. The site of St. Petersburg was, scarcely two hundred years ago, a desolate marsh, and why Peter the Great

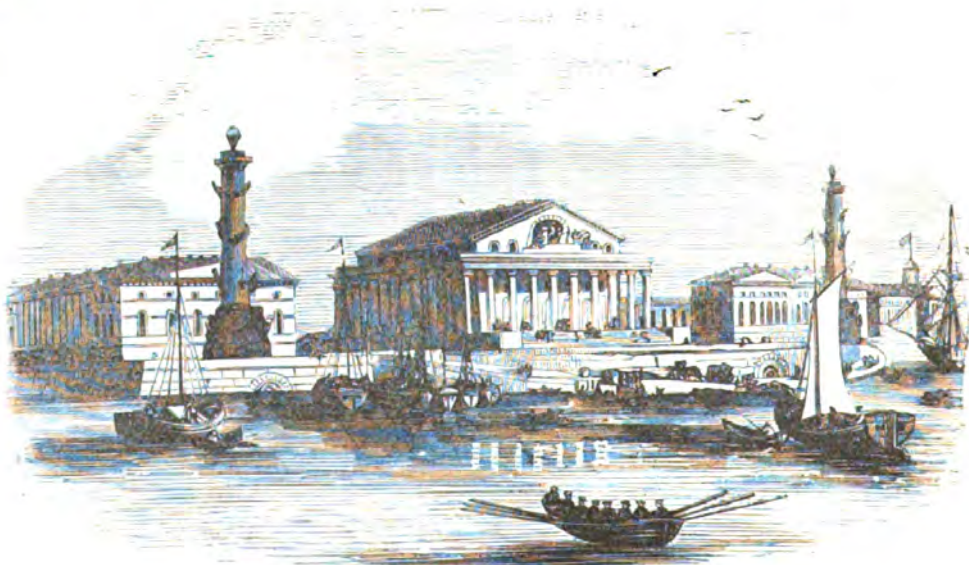
has suffered greatly from inundations, and is liable to almost total destruction from such a cause. Mr. Sears says that a strong west



ST. ISAAC SQUARE AND THE EXCHANGE.

selected it as his capital, is only a subject for speculation. A substantial footing for buildings is only obtained by driving piles, and the whole region is so low, that the city

wind at the breaking up of Lake Lodoga in the spring, would force the rushing waters and icy masses upon the city, and crush its palace and temples to fragments.



THE EXCHANGE AND CUSTOM HOUSE.

SOME QUEER INDUSTRIES.

IN all countries and all large towns, there is a certain section of the population to which the old saying applies—namely, that one-half of the world does not know how the other half lives; a saying, by the way, that touches a great many more people than the world suspects. In these days, when everybody must be, or fancies he or she must be, “in society,” the struggle to make ends meet involves many shifts in the home circle, which are only known to the members of that circle, and the secrets of which they keep with Spartan firmness. Outside are show, expense, and glitter; inside are anxiety, shabbiness, pinching, and gnashing of teeth; and if, Asmodeus-like, we could peep into all the fashionable houses and note the interior *ménage*, we should be more than a little surprised, and probably very much startled.

But it is not with these decorous griefs and difficulties that this article will deal, but with a much lower stratum of population—indeed, the very lowest. There is not a capital in Europe or America in which hundreds of people do not rise up in the morning uncertain as to where they shall get their meals for the day, or indeed if they shall get any; and the hidden life of these dinnerless and supperless ones must be as extraordinary as often it must be grievous. In London and New York there is probably a more monotonously sad existence for thousands of their inhabitants than in any other cities; for the masses of people are so great, and the race for existence so keen, that numbers must get shouldered aside and forced to depend on charity, or to do worse. In Paris, too, there is a vast amount of distress and crime, but there are at the same time, probably, more outlets for employment amid the restless and varied life of the Parisian world. Some few of these industries we are about to relate; for, with their extraordinary qucerness, they read us many a lesson of perseverance, and the value of little things.

In no towns in the world, perhaps, except those of China, is the value of little things better understood than in Paris, and partic-

ularly in that essentially Parisian branch of industry which caters for the hungry man. Even in the lowest quarters of Paris, people must dine, just as they must in the Boulevards and the Palais-Royal; but the modes of dining are so different that they might belong to two different worlds. The expensive dinner has often been described, and in these days of quick traveling, when Paris is only eight hours from London, dining there is as familiar as dining in London; but few people have ever penetrated into these nooks and corners where the customers measure their appetites by centimes, and very frequently can only gratify them in an unpleasantly intermittent manner. In these Barmecide establishments, a plate of meat can be had for two sous (a penny), and one of vegetables for a halfpenny, while some of the meals combine with the chance of getting something good to eat the thrilling possibility of getting nothing. This is playfully called *l'hasard de la fourchette* (the chance of the fork), and consists in the player taking one shot for his money with a broad two-pronged fork into a seething cauldron, and bringing up whatever he is able to stick the fork into. An old hand often succeeds in landing a succulent fragment of something unknown, but a novice finds the coveted morsel evade the prong, and leave him despondent and dinnerless.

Another branch of the purveying business, and one, too, in which fortunes have been made, is that of selling “harlequins,” which consist of an *olla podrida* of scraps of every kind, and sold for a halfpenny a plate. The idea of calling this collection of eatable patches by the name of harlequins, from the dress of divers pieces and colors which decorate that stage professional, is Parisian to the backbone, and suggests the cynical grin with which the mess is regarded by its purchasers. The harlequin purveyor is on terms of business with all the cooks at the restaurants of the neighborhood, from whom he or she buys the broken scraps collected by the end of the day, at the rate of three to three and a half francs the basketful. Indeed, this is the most lucrative portion of

the cook's trade; for, though he earns probably a pound or thirty shillings a month for his salary, he will make twice or three times as much by the perquisites which he sells to the harlequin merchant. A fine basketful it is, from bread-crumbs to beefsteak and truffled turkey—bones, fat pickings, parings—all is fish that comes into this net. But valuable as the assortment is for nutritious purposes, some portions of it fetch a still higher price, such as the fat, which is carefully sorted and sold to merchants to be converted into lamp oil. The bones, too, at least those which are bare of meat or skin, are picked out and sold back again under the name of *réjouissance* to the restaurants, to make their commoner soups; and, having done duty in this department, they pass to the very lowest cook-shops or *gargotiers*, who again use them in a mess of broth flavored with carrots or burnt onions. One would surely think that a bone had now done its duty sufficiently, and that it might be allowed to rest in peace. But no. There is still money to be made out of it; for, if big enough, it is sold to the bone-button makers; and if it has been too much reduced by repeated cracking and maceration for this small purpose, it is, at all events, fit to be made into animal charcoal, and probably does duty in a box of charcoal tooth-powder lying in a place of honor in the window of a fashionable perfumer.

Thus, it will be seen, that nothing is too small for a Parisian speculator, and that there are depths in each station of society which even our philosophy dreams not of. Just as the eating material descends a step at a time to fulfill its various uses, there is a corresponding grade of professional industry connected with it; for the harlequin purveyor, like the flea which has smaller fleas to bite it, employs a number of hands, chiefly women, to sort out the savory messes and apportion the elements so as to suit the cooking department, the lamp-oil maker, the button-maker, and the preparer of animal charcoal. It is a noteworthy fact, however, that even in little restaurants and cook-shops which carry their occupation and class of customers on their face, there is often a most appetizing display of meats, vegeta-

bles, and poultry hanging up at the window or near the door, giving the visitor the idea that there is good fare within, notwithstanding the humble exterior. But these succulent joints, plump fowls, and tasty vegetables are a delusion and a snare. They are real, it is true, but they do not belong to the establishment, and are, in point of fact, let out for show from day to day, for a small sum; just as a beggar-woman hires a baby for her stock in trade to appeal to the sympathies of the charitable. So, then, there is a regular industry of provision-renters, the eatables being returned as wanted, after having done their duty in practically advertising the excellent resources of the cook-shop!

Touching this cheap soup, there is one fact connected with it which is worth mentioning, as it shows another branch of industrial cooking as ingenious as it is nasty. It must be admitted, by even the most unprejudiced, that soup made of three or four times used bones, and flavored with a burnt onion, can not be very strong, neither can it look strong, which is perhaps more to the purpose; so, with a view to rectifying the latter defect, an appearance of fat, at all events, must be given. But as all the fat in the harlequin's cellars has been sold more profitably to the oil-merchant, he makes good the defect in another way. The soup-concocter takes into his mouth as much fish-oil as he can hold, and at the critical moment, blows it out again in a sort of well-regulated fog into the pot, where it settles on the top of the soup, and gives it the appearance of actually boiling over with richness, like the milk-and-water so graphically emphasized by Mr. Squeers. This ingenious process is called "putting the eyes into the soup." No wonder that money is made in a trade of so many resources; or that a few years ago a celebrated harlequin purveyor, a Madame Maillard, retired with a large fortune, having already settled her four daughters in establishments of their own.—*Chambers' Journal*.

MR. SETH GREEN, the fish culturist, has received a gold medal from France. It is labelled "Paris-Green, Poissonier."

UNWRITTEN CALIFORNIA.

SAN BERNARDINO'S NATURAL CURIOSITY.

OF all that has been written of the Golden State, not one-third its wealth of natural beauty and wonder has made general acquaintance with public prints. As the railroads advance upon the frontier sections, across the cactus deserts, and through southern valleys where only the ranchero's voice is heard shouting to his herds, the unwritten wonders will gradually crowd into note and attract a major share of the attention that has heretofore centered around Yosemite Valley, Big Tree groves, the Geysers, and mountain lakes of beauty. San

note and importance. The salubrity of the climate and superior agricultural resources tend to its importance as well as note. The town stands at the base of a mountain that is but a spur of the grand range overlooking a stretch of valley hundreds of miles in extent.

A NATURAL CURIOSITY.

Upon the side of this towering mountain, and six miles distant, there appears a large section of barrenness, totally unlike the rest of the surface, that describes in perfect



ARROW-HEAD SPRINGS.

Bernardino has long been known as the old town, on the western border, near to Arizona, and east of the great Los Angeles valley. Old San Bernardino was the ancient Spanish Mission, six miles distant from the present town.

Emigration centered in this most fruitful of all valleys as early as 1861, and the town was originally laid out by Mormons who were recalled to Salt Lake some years ago; a few, however, remained, calling themselves close-flints, and thus the settlement became permanent. The increasing traffic from frontier towns, and between Arizona and California, has brought Los Angeles and San Bernardino into rapid

shape, an arrow-head—some call it a spade—others, a trowel; but its accurate resemblance is an arrow-head. It can be seen for miles, and distinctly visible and traceable ten miles distant. It is of a grayish color, perfectly destitute of vegetation, and covers an area of 100 acres. During a severe storm a few years since, the mountain was washed by a freshet that defaced one corner of this strange arrow-head desert. It has identified the locality as a wonderful freak of nature, bestowed the name of Arrow-head upon the mountain and the hot springs that are located at the base of the mountain, and are also features of rare curiosity.

All mountain regions in this part of the Pacific country vegetate a scrub growth of bushes and coarse grass, but on the Arrow-head ground, not a blade or leaf of anything green has ever been known to grow. It is not as stony and rugged as any other portion of the mountain, but leveled off with the smoothness of a lawn, and presents its dusky surface to the sunshine, "bare and brown," thousands of feet above the fruitful valley below.

In the autumn of 1857, a gentleman greatly interested in the subject of hygiene, discovered these remarkable springs, which cover about two acres of the broken, rocky foothill, directly back of the town, and under the "Arrow-head." Over the boiling spring he erected a steam bath-house; another he devoted to cooking purposes exclusively, the water being unusually clear and free from mineral or sulphurous taint. The gem of the place is a fine swimming-bath, held in a natural basin of rock and fed with several living streams of both hot and cold water; the mingling of the two, tempered sometimes by a single turning away of one or the other stream, affords a delightful swimming-bath. Here, this scholarly man, with the very unpoetical name of SMITH, opened and improved a natural Hygeian Home several years since; the strawberries ripen in his garden in March, and Nature's wonderful supply of hot and cold sulphur and mineral waters proved as interesting to visitors as the grave, gray arrow-head of the higher prominence. A more wild, novel, lonely, and salubrious spot can hardly be imagined. The boiling of the hot springs, the great boulders shooting up out of the ground, the beautiful terraces that formed the garden, glowing with fruits, flowers, and vegetables, while far as the sight travels below, a rich Southern California landscape, with its valleys of alfalfa and wild clover, its shimmering of sunlight and sunny warmth.

Early as 1867 these living waters attracted the sick and afflicted of the near neighboring ranches, vintage lands, and towns. When the Southern Pacific Railroad completes the grand chain from Kansas City to San Francisco, the world will hear some

elaborate descriptions of Arrow-head Mountain and Arrow-head Springs. The accompanying cut presents the slope of the mountain above the town of San Bernardino, with its arrow-head in full view, and the springs with the Hygeian Home buildings at the base, among the foot-hills proper.

LISLE LESTER.

LIVING IN AN OMNIBUS.

A TRUE STORY.

"CHIPS, ma'am? Only five cents a basket," said a little voice, as I stood at my gate one morning, deciding which way I should walk.

Looking around I saw a small, yellow-haired, blue-eyed boy, smiling at me with such a cheerful, confiding face that I took the chips at once and ordered some more.

"Where do you live?" I asked, as we waited for Katy, the girl, to empty the basket.

"In the old 'bus, ma'am."

"The what?" I exclaimed.

"The old omnibus down on the Flats, ma'am. It's cheap, and jolly, now we are used to it," said the boy.

"How came you to live there?" I asked, laughing at the odd idea.

"We are Germans; and when the father died we were very poor. We came to the city in the spring, but couldn't get any place, there were so many of us, and we had so little money. We stopped one night in the old 'bus that was left to tumble to pieces down on the Flats behind the great stables. The man who owned it laughed when my mother asked if we might stay there, and said we might for a while; so we've been there ever since, and like it lots."

While the boy spoke I took a fancy that I'd like to see this queer home of his. The Flats were not far off, and I decided to go that way and perhaps help the poor woman, if she seemed honest. As Katy handed back the basket, I said to the lad:

"Will you show me this funny house of yours and tell me your name?"

"Oh, yes, ma'am; I'm just going home, and my name is Fritz."

I saw him look wistfully at a tray of nico

little cakes which Katy had put to cool in the window-seat, and I gave him one; saying as he put it in his pocket very carefully: "Six besides the mother."

I just emptied the tray into the basket, and we went away together. We soon came to the Flats behind the stables, and there I saw a queer sight. A great shabby omnibus of the old-fashioned sort, with a long body, high steps, and flat roof, with the long grass growing about its wheels, and smoke coming out of a stove-pipe poked through the roof. A pig dozed underneath it; ducks waddled and swam in a pool near by; children of all sizes swarmed up and down the steps; and a woman was washing in the shadow of the great omnibus.

"That's mother," said Fritz, and then left me to introduce myself, while he passed the cake-basket to the little folks.

A stout, cheery, tidy body was Mrs. Hummel, and very ready to tell her story and show her house.

"Hans, the oldest, works in the stables,

ma'am, and Gretchen and Fritz sell a many chips; little Karl and Lottie beg the cold victuals, and baby Franz minds the ducks while I wash; and so we get on well, thanks be to Gott," said the good woman, watching her flock with a contented smile.

She took me into the omnibus, where everything was as neat and closely stowed as on board a ship. The stove stood at the end, and on it was cooking a savory-smelling soup, made from the scraps the children had begged. They slept and sat on the long seats, and ate on a wide board laid across. Clothes were hung to the roof in bundles, or stowed under the seats. The dishes were on a shelf or tied over the stove; and the small stock of food they had was kept in a closet made in the driver's seat, which was boarded over outside and a door cut from the inside. Some of the boys slept on the roof in fine weather; they were hardy lads; and a big dog guarded the pig and ducks as well as the children.

LOUISE M. ALCOTT.



BATHS AMONG THE GREEKS AND ROMANS.

(FROM THE GERMAN.)

THE immense and yearly increasing assembly at the watering-places might give warrant for the supposition that it is more a fashionable mania or an expression of the rambling spirit of our age. If, however, we look back into antiquity, we will find that among the Greeks and Romans, although they had no railroads or steamboats, and traveling was attended with great expense and difficulties, the rush to the mineral springs and watering-places was even greater than it is to-day; and what will further be remarked, is the surpassing extravagance and luxury of such establishments. As the fashionable world to-day takes up its

abode in Saratoga or Long Branch, the English at Brighton, the French at Biarritz or Dieppe, so the fashionable Romans wandered with their families and a host of slaves to the beautiful Baiae, situated on a magnificent gulf of the Mediterranean, where they could by a strict diet and abstemiousness recover from their debaucheries at Rome. In our readings of Seneca and Amianus Marcellinus we find descriptions of great summer and winter excursions, which have no parallel in our time. The latter tells us that in such a journey to the country seat, the whole household moved under the direction of officers of different

rank, just like an army of infantry and cavalry under their officers. The baggage and wardrobe went on in front; then came a number of cooks and lower servants, who were followed by the chief corps, consisting of a promiscuous mass of slaves, and the rear was formed by the favorite band of eunuchs. Baiae was similar to a watering-place of our days, and consisted of the most magnificent palaces, among which were houses to be let out; and Seneca narrates that he occupied such a house, the lower apartments containing a complete bath with all the Roman ideas of comfort.

The ancient physicians were acquainted with a great number of mineral waters, and appear to have been familiar with their effects; but they prescribed them without regard to their chemical composition, which could then scarcely be discovered by their defective chemistry. From the aquis granensibus and the Mattiacic Thermæ (at Wiesbaden near the Rhine), to the lukewarm springs of Hamma Berda, near the Syrtis minor in North Africa, called by the Romans Aquæ Sibilitanæ, from the Thermæ of Hercules at Mehadia, and the mineral waters of the Asiatic Taurus to the numerous sulphur Thermæ of the Pyrenees, none but the most insignificant escaped the searching glance of the physicians and speculators. Wherever the Roman legions advanced, ruins of grand baths have been found. It is quite natural from this high estimation of mineral springs by the Romans, that warm and cold springs were everywhere made use of; and even at the latter, baths were erected, among which those at Clusium and Gabii, which Horaz frequented, were renowned.

The origin of the use of baths is lost in the obscure antiquity; among the oldest nations, of whose usages history has left us authentic accounts, especially throughout the whole Orient, bathing occupies the first place in the dietary rules, and was even consecrated by religious rites. For the purposes of health, baths appear to have been first used in Greece, and the Greek physicians were especially active in introducing them into Rome. About two hundred years before Christ Roman citizenship was granted to Greek physicians for the first time,

and after that they were in high esteem. Julius Cæsar, on banishing all Greeks from Italy, excepted only the physicians. No wonder, therefore, that a continually increasing number of educated Greeks sought their fortune in Rome and introduced the systematic use of the baths of their country.

When Asclepiades, from Erusia and Bithynia, through manifold charlatanry adapted to the spirit of the times, became a renowned and fashionable physician in Rome, Greek physicians stood in as high esteem as in their own country. At this time the Romans were becoming degenerated; the immense treasures captured in the East had caused the most extravagant wantonness, so that luxurious practices of all kinds were instituted. Then the first magnificent private baths and public thermæ were built, and the Romans tried therein to equal the Greeks, Egyptians, and other nations of the East, as in other relations of luxurious living. Among the Roman emperors, until the time of Emperor Constantine, the use of the baths remained a national custom.

Besides the private baths, of which Rome in the time of the emperors possessed about eight hundred and sixty, there were twelve public baths, and in all the thermæ were baths of a superior structure, provided with everything that luxury and the comfort of the time demanded. These thermæ, which were at first called gymnasii, and which numbered in that time about twenty, were an imitation of the Greek institutions, and, like them, originally intended for the cultivation of mind and body. Here the orators, philosophers, poets, and other scholars had their assembly rooms, libraries, arcades, pleasant groves, and promenades planted with plane trees. There were places for wrestling, racing, playing at ball, throwing at the target, and swimming. The baths were of different kinds, either warm, cold, or vapor baths. Besides, there were rooms designated for special objects, as, for instance, a salve-room and the conisterium, wherein the wrestlers anointed and sprinkled themselves with dust, etc.

Other buildings were set apart as residences for the superintendents, among

whom the *Gymnasiarch*, the *Palæstrophylax*, the *Argonistarch*, the *Gymnast*, and the *Pædotriba* were the most prominent. The *gymnasiarchs* stood in the highest esteem, and acted in doubtful cases as judges. The *palæstrophylax* seems to have had the superintendence over the buildings and economy, and the *argonistarch* over the athletic exercises. The *gymnast* and *pædotriba* were, in latter times, when medicine was connected with the gymnastic, educated men, who had to prescribe the different bodily exercises and baths, according to the diseased state of the organism, and who tried to check all pernicious excesses.

Everywhere in Rome the ruins of those grand structures can still be seen; those of the *thermæ* of Agrippa, Caracalla, and Diocletian being especially conspicuous. The first were erected by Agrippa, the son-in-law of Augustus, evidently for the benefit of the people and for the improvement of the sanitary condition of the city. It seems that up to this time the lower classes were very insufficiently provided for; and during the single year of his administration as *Ædilis*, he established one hundred and seventy public free baths. The number of free baths was increased under the succeeding emperors to such an enormous extent, that Alexander Severus had them erected in all parts of the city where there were none. This benefit of warm baths, which contributed greatly to the comfort of the lower classes, at a cost of about one farthing, every one could enjoy. So extensive were the buildings of the *thermæ* of Caracalla, at the foot of the Monte Aventino, that the ruins resemble a ruined city. These baths were ornamented with 200 columns and 1,600 marble seats, and 3,000 persons could bathe simultaneously. The *thermæ* of Diocletian were still more extensive, as they enabled 6,000 persons to bathe therein. One may form an idea of their vastness from the fact that within their ruins a large Carthusian monastery had been erected. Also a part of the Villa Negroni and many of the surrounding buildings, with their gardens, are located on the site of these *thermæ*, in whose erection 4,000 Christians are said to have been engaged. Diocletian had

the halls ornamented with the most artistic mosaics, and continuous streams of water flowed from silver mouths into receivers of Egyptian granite and Numidian marble. To get an idea of the works of art with which these baths were decorated, it may be mentioned that the Farnesian Hercules, the Farnesian bull, and the colossal tops of granite at the Piazza Farnese, and the sumptuous floors in the upper stories of the Lateran palace, are from the baths of Caracalla, the much admired Laokoon is from the *thermæ* of Titus, and the two colossi of the Dioskuri on the present Monte Cavallo from the entrance of the *thermæ* of Constantine. Many columns which are admired in our days as ornaments of recent buildings of Rome are the remains of gorgeous colonnades in the interior of those *thermæ*, and even to-day are to be seen the bath-tops of the most costly material, which are exhibited in the Roman museums.

Probably the most of these *thermæ* were fitted up with libraries; this is positively known of those of Diocletian, who had the library established by Ulpian Trajanus, in the Temple of Peace, transferred thither. Not alone in Rome were there numerous bathing institutions, but the villages also contained public and private baths. Plinius Junior tells us that in a village near by his country seat there were three public baths, and that it was very convenient for him, if he unexpectedly came there or made a short stay, to use these baths, because he had no time to have his own prepared. It seems even to have been the law to have a vapor bath fitted up in every hired country seat.

As the water in Rome and vicinity was muddy and unfit for bathing, the supply had to be conducted thither by aqueducts many miles long, structures which call forth the admiration of all times. Of fourteen of such aqueducts only two are left—the Aqua Trajana and the Aqua Virgo of Agrippa, which supply the present beautiful Fontana Frati with crystal water. These two carry such a quantity of good water into Rome that it may be counted among the first cities in regard to their water supply. The water of the Aqua Virgo was led over forty-six miles from Tusculum (the present Frascati) mostly

underground. In the vicinity of Tivoli the conduit pipes were led through a hill.

As regards the inner arrangements, the Roman baths were more complete than ours. From the more or less spacious vestibules and colonnades, one entered a large room, where the bathers undressed themselves; this was the *Apodyterium* or *Frigidarium*, around the walls of which were seats; from here the bather went either naked or in the bathing-gown into the warm room, the *Tepidarium* or *Calidarium*. From the *tepidarium* the bather went either directly into the warm bath, or this room served the purpose of the ante-room of our Russian baths, which prepared the body for the vapor bath—the *Sudatorium*; from thence the bather went to the cold bath, or submitted himself to the cold shower-bath. The baths were heated from the common heating-room, which was usually in the center of the building on the ground floor; above the heating-room was an apartment in which three copper kettles were walled in, one above another, so that the lowest was immediately over the fire, the second over the first, and the third over the second. In this way either boiling, hot, or lukewarm water could be obtained. The bathing-tubs were sunk into the floor and were one-third longer than wide. In adjoining rooms exercises were gone through, or the body was brushed and rubbed with woolen cloths. In the *Elacotherium* the body was rubbed with salves, oils, and sweet-scented waters, after which the bathers took a rest in the lukewarm air of the *tepidarium*.

Originally the baths were for men and women in common, but later they were divided, and the sexes bathed separately.

The purposes of the ancients in the frequent use of the bath were manifold. In the first place they were indispensable on account of bodily cleanliness. The ancients wore no shirts. Men of quality, who possessed abundance of clothing and could change often, had but little to suffer thereby. But to the poorer classes, especially those whose daily occupation was of a dirty nature, frequent bathing was a necessity. Everybody in ancient times walked barefooted, the soles alone being protected by

sandals, consequently the upper part of the foot was easily soiled. It was therefore the usage to offer a guest water on his arrival to wash the feet. Strangers and especially people of distinction, on their arrival from a journey, were commonly served with a bath; and men of good breeding thought it improper to appear in society without first having washed. A bath was also taken and the body anointed before every meal, and many took from six to seven baths a day. A bath was usually taken just before the *cœna* (dinner) in summer at two, in winter at three o'clock. In most cases they washed but the face, hands, and feet, and at the *Nundinæ* (the eighth day of the week) they always washed the whole body. In the private establishments bathing went on at any time; in the public, however, it was only at a certain hour, and was announced by the ringing of a kind of a bell. During great national calamities bathing was sometimes interdicted for a short period.

The baths were also used for pleasure. The comfort, ease, and liveliness of mental disposition which are obtained or promoted thereby, could not long escape the observation of the pleasure-seeking Romans; so men of rank had their baths fitted up with the utmost magnificence and taste, so as to make the practice more agreeable. With the increasing effeminacy and luxury of the Roman people, the use of the baths was exaggerated, and gave rise to the most unheard-of excesses.

Poppea, the wife of Nero, who bathed only in asses' milk, had an accompaniment of five hundred she asses on all journeys. The greatest abuse as regards bathing was carried on in the time of the total degeneration of the Romans, when both sexes bathed promiscuously, and their shamelessness went so far that the attendants of the bathers were of the opposite sex, and the most beautiful boys and girls were selected. Juvenal, Martial, and other satirists of the time censured these practices in severe terms.

The third use of the baths was for medical purposes. It is to be regretted that we do not have any detailed report of the experiences of the ancients in regard to this,

but only short notices. In the works of Hippocrates are found certain general rules about the deportment before and after bathing, and then in single cases about the length of time one should stay in the bath, and how often it ought to be taken. He cites cases in which a plain water or mineral-water bath, or a bath compounded with physics, should be used. He says further that one should bathe neither before meals nor before drinking, and expresses opinion as to when warm and when cold baths are proper. He charges that persons who want to grow thin should avoid bathing; heavy and full-blooded persons should bathe daily; but weak ones should use baths but seldom. In certain diseases he rejects the use of baths altogether, as, for instance, epilepsy, cases of sores, the quartan type of ague and fever, etc.; but he recommends baths to persons troubled with calculi and daily and tri-daily fevers. He also makes restrictions in regard to the temperature of the baths; warm baths are, for instance, forbidden to children; cold to those who suffer from nervous diseases and headaches. Concerning the influence of warm and cold baths on respiration and the pulse, the ancients had no little knowledge. What weight the Greeks laid on the correct application of the baths in sickness, shows that the compilers of the Hippocratic works thought it better not to bathe at all than to bathe injudiciously. The views about the dietetic and clinic use of bathing, together with corporeal exercises, passed from the Greeks to the Romans, and Asclepiades especially assisted greatly toward their correct application; he preferred them to all internal medicines. However, the empirical rules of Hippocrates soon fell into oblivion, and when Galen, from Pergamus, came to Rome, the sick were treated without regard to principles based on experience. Fashion then, as in all times, played a great part, and when accidentally a remedy had effected a cure, the public used it for all diseases.

In this way cold baths were generally considered a remedy when the Emperor Augustus was apparently delivered thereby from a severe attack of rheumatism; but

when Marcellus, the son of Octavia, died shortly after the use of cold baths, they were repudiated just as quickly. In the time of Emperor Nero hot baths, with cold shower-baths following them, were fashionable. Galen laid down certain principles regarding the dietetical and clinical use of baths. He considered the dietetic and especially the regular use of baths most important both for the prevention and cure of diseases, and separated them from gymnastics. He ordered new-born children to be sprinkled with salt, rubbed with oil, and then washed in lukewarm water. He prohibited heavy bodily exercises and cold bathing until the twenty-first year, as being injurious before the time of the organic developments.

How much the ancients were convinced that proper bathing and bodily exercises were essential to the preservation of health and the cure of diseases, appears from a remark of the elder Pliny, that the Romans during the first six hundred years of the Republic, instead of taking medicine had resorted to baths alone, and that the mortality was not greater than after the adoption of the Greek physicians. So much the more was it to be regretted that the use of the bath decreased with the spreading of Christianity. In Rome and Italy those magnificent edifices were destroyed by the Goths, Huns, Alani, Vandals, and other nations from the north; those on the Rhine were destroyed by the Allemanni and Franks. So the public baths, against which a fanatical hierarchy had systematically taken the field, were overthrown. St. Augustine gave young women leave to bathe only once a month, and St. Jerome prohibited bathing after childhood altogether, so as not to kindle the flame of sinful lust.

Not until the beginning of the eighth century, when the sciences and pharmaceutics of the Greeks and Romans began to revive among the Arabs, did the artistic use of baths come again into esteem in the Orient and Spain, and Charles V. contributed greatly toward awakening interest in the study of the Romans and Greeks. Through his example especially, he made the use of baths renowned. He selected Aachen as his resi-

dence, to enable him to use the baths there; and many of the people followed his example. The Crusades also did a great deal toward the preservation of the baths, as the Crusaders were made acquainted with the use of the baths in the East and intro-

duced them into their own country; and also the spreading of leprosy made greater cleanliness absolutely necessary in the West, until at last the bathing establishments became again for a time a feature of luxury and excess.

W. & D.

PHYSIOLOGY OF TASTING.

WHEN a substance to be tasted is placed in the mouth, we press it with the upper surface of the tongue against the palate, and thus force its particles in every direction. The saliva, poured in by its glands responsive to the stimulus, aids in dissolving and disseminating the particles over the mouth. When the substance reaches the fauces, and it is swallowed, a current of air escapes from the glottis, and carries any volatile portion to the posterior nares, where it is liable to affect the sense of smell. Plainly, therefore, in order to separate the two sensations, we must either shut off the cavity of the nose during the tasting, which can be done by most persons voluntarily by breathing through the mouth and applying the soft palate to the back of the pharynx, or we must interrupt the current of air through the nares, which can be done by holding the nose with the fingers.

We recognize two classes of impressions made by articles of food—one of *savors*, of which salt affords an example; the other of *flavors*, as that of vanilla. Most substances have both properties; thus a strawberry has an acid and a sweet taste, besides its own delicious flavor.

The distinction between these classes has not, indeed, been fully made by physiologists until of late; and still less has the fact been recognized, that *all flavors are perceived by the organ of smell only*, reducing the number of impressions which the organ of *taste* is capable of receiving to four only, viz., Sweet, Sour, Salt, and Bitter. This can, however, be easily and certainly demonstrated. Let the nose be closed by the fingers, or let the posterior nares be shut off by the soft palate, and a solution of vanilla be taken into the mouth and swallowed. It can not be distinguished from

water. Soup, nutmeg, cheese, pineapple, and assafoetida are alike entirely *flavorless* under similar conditions, though the *ordinary sensibility* of the mucus membrane, and the perception of the four savors above mentioned, may enable us to comprehend certain *other* qualities which distinguish these substances. The common practice of holding a child's nose while it swallows disagreeable medicine, has its origin in this peculiar relation of these two senses.

We have now to consider the exact locality of the sensations produced by these four classes of stimuli. Experiments have been tried by various physiologists with entirely different results, which may be attributed to want of care, and to not recognizing the fact that all *flavors* should be excluded from the investigation. All agree, however, in this—that, to be tasted, a substance must be brought to the sensitive part *in solution*, inasmuch as insoluble substances have no taste.

In the experiments performed by the writer, solutions of white sugar, tartaric acid, common salt, and sulphate of quinine were carefully applied to various parts of the mouth and fauces by means of a camel's-hair pencil, pains being taken that no excess of fluid should be used, which might diffuse itself over other parts than that directly under observation. The following results were uniformly obtained in six different individuals, they all being unaware of the substances used in each experiment:

1st. The upper surface, tip, and edges of the tongue, as far back as to include the circumvallate papillæ, are the *only* parts concerned in the sense of taste; the hard and soft palate, tonsils, pharynx, lips, gums, and under surface of the tongue being entirely destitute of this sense.

2d. The circumvallate papillæ are by far the most sensitive portion of the organ. They perceive, at once, very minute quantities of any one of the four substances used, and are particularly sensitive to bitter. Irritating these papillæ by pressure, or placing a drop of cold water on them, excites decided sensations of bitterness.

3d. The central portion of the dorsum of the tongue, to within half an inch of the edge, is the least sensitive portion. Substances are distinguished with difficulty, or not at all, when applied to it.

4th. The edges and tip of the tongue are quite sensitive, the edges becoming less so

as we come forward. They recognize all the four classes of substances. The tip detects bitter with great difficulty, but is particularly sensitive to sweet. A sweet sensation, sometimes mingled with sour or salt, is produced by gently tapping it with any insipid soft substance.

The tongue possesses *ordinary sensibility* to a marked degree, especially at its tip, and in this way detects the size, shape, and texture of substances. It is in the same way that the qualities of pungency and astringency are perceived, which fact is proved by their being nearly imperceptible to the conjunctiva.

N. F.

C H E E S E .

Origin of Cheese-making—Sour-milk Cheese—Rennet—Camel's Cheese—Used in Cookery—Its Digestibility—Nutrition in Cheese—The Curdling Process—A "Ripening" Process—Hygienic Authorities.

"THE pressing of milk bringeth forth cheese"—so the critics tell us this passage in the Proverbs of Solomon might correctly be translated. But this is by no means the most ancient mention of this substance. In the book of Job we read: "Hast Thou not poured me out like milk and curdled me like cheese?" And Solomon's father, when a young man, a keeper of the flocks and herds, was sent to his brothers in the army with provisions for them, and a present of ten cheeses to their captain—"cheeses of milk" the margin reads.

ORIGIN OF CHEESE-MAKING.

The references to cheese by ancient secular writers is very frequent. The Greeks attributed its invention to a king of Arcadia, named Aristarcus, and said to be the son of Apollo, "and the whole of Greece welcomed this royal and almost divine present." "In the time of Pliny little goat cheeses, which were much esteemed, were sent every morning to the market for the sale of dainties from the environs of Rome. With the addition of a little bread they formed the breakfast of sober and delicate persons. Asia Minor, Tuscany, the Alps, Gaul, and Nismes especially furnished very good ones for the ta-

bles of the Romans, who preferred certain sweet and soft qualities. The greater part of the barbarous nations esteemed only the strong cheese."

To us this idea that the making and use of cheese was known so long before butter seems a little inexplicable. Our butter-making is far more simple and easy than our cheese-making, and more common too, and these facts doubtless influence our ideas on the subject. But there are several considerations to be taken into account. Milk that was kept in goat-skin bottles would not be likely to raise much cream, and if by chance it should get "churned" on some journey, the lumps of fresh butter would not be very clearly distinguished from cream. The most of this milk, however, was probably drawn when it was wanted, and if a little did stand, it soured quickly in that warm climate, and the little cream that rose could easily be used in cooking or as an ointment, for which purpose it was quite popular. A people who ate with their fingers, who broke their thin cakes, instead of having loaves of bread cut in slices, who had no facilities for keeping butter cool, and no knives to handle it with at table, would not be so likely to make or use butter, as we might suppose under our own circumstances. They might use it melted, as the Arabs and Hindoos do now, but they had an abundance of olive oil, which answered every purpose.

SOUR-MILK CHEESE.

On the other hand, however, there was the thickened milk (if milk had been standing), with which they must do something. If they drained off the whey, the thick residuum could be made very palatable; and if they wished to hasten the process of its manufacture, they had only to add sour milk to that which was fresh. Doubtless many of the "little cheeses" of which we hear were made in this way, as might be inferred from the "sweet and soft" qualities mentioned in those which were preferred for the Roman tables. Very much of this character is the Russian cheese, known as *Tworog*, of which more than seven million pounds are sold annually in St. Petersburg alone. It is made of sour skimmed milk, which is placed in the oven overnight, and then strained and pressed. In Bessarabia it is made of the whole milk, soured and pressed, in which case artificial souring must be used, or the cream could not be retained. Sour-milk cheese is not unknown in our day. The Dutch use it still. I have very definite early recollections of what our clean-nosed Yankee doctor used to style the "dong-heaps" (when they stood too long) of our Dutch neighbors in the Mohawk Valley, and of late we too have "little cheeses, sweet and soft, brought fresh every morning into the markets," not of Rome, but of New York and Brooklyn.

RENNET.

In the course of time it often came before observant eyes in the butchering of sucking calves that the milk was coagulated in the stomach of the suckling, and eventually this stomach would be tried to produce coagulation for cheese-making. When this first occurred we know not, but it would seem necessary to assign to it a very early origin.

CAMEL'S CHEESE

was most highly esteemed by the ancients; next in order of excellence was that made of the milk of asses and mares, while cow-milk cheese, although more fat and unctuous, was considered only third-rate. The milk of goats and ewes was also used for this purpose. The Romans smoked their

cheeses to give them a sharp taste, and they possessed public smoke-houses, subject to police regulations, for this purpose. It was known in those days that rich pastures would make rich cheeses, and Salonia, a city of Bithynia, possessing large, well-fed herds, furnished an exquisite kind, known as *Salonite* cheese, often served to the Emperor Augustus, who ate it with brown bread, little fish, and fresh figs.

USED IN COOKERY.

In those days of curiously-compounded dishes, cheese often played an important part, though usually considered rather a vulgar ingredient. The following is a fair specimen of dishes which won the popular favor.

BITHYNIAN CHEESE-SALAD.

Cut some slices of excellent bread; leave them for some time in vinegar and water; then make a mixture of this bread with pepper, mint, garlic, and green coriander; throw on it a good quantity of cow's cheese, salted; add water, oil, and wine.

This is taken from the writings of Apicius himself, that prince of Epicurean cooks. But it is easy to see, from its delightful indefiniteness as to the quantities of the different ingredients, that the art of cookery had not reached very great perfection. Individuals might be artists, and no doubt they often were so, allowing for difference of tastes; but cookery with such recipes could not be a very definite process. Cheese was also largely used in the composition of pastry and cakes, where now it never appears, any more than in salads.

Perhaps we could not well bring a better illustration of the fallacy of following an old custom or an old precedent simply because it is old. There is no article of disputed wholesomeness, the approved use of which in antiquity can be more firmly established, but shall we therefore receive it and partake of it, ignoring the logic of consequences to ourselves personally, and the logic of common sense in our judgment of probabilities?

ITS DIGESTIBILITY.

We have already found in our consideration of the milk question that milk once cur-

dled by itself in masses was very difficult to manage by the adult stomach, so difficult that traces of it were found undigested throughout the intestinal tract below. How can we suppose that it helps the matter any to curdle it and press it very compactly before eating it? How can all this make it any easier of digestion? I never have seen any answer to that question, but I have seen many bold and unproven assertions that cheese is a digester, as the oft-quoted poet has it with more rhyme than reason:

" Cheese, the mighty little elf,
Digesteth all things but itself."

I can explain this, if susceptible of explanation, only by supposing that its presence may get up an unnatural excitement in the stomach, which will but suffer the more for it afterward; but after all, there is the cheese, the unnatural residuum, what becomes of that? If it would only be content to remain quiet in a corner of said stomach until it was wanted next time—but no, there is no such down-at-the-heel-ateness in the stomach as that. It allows no uncalled and extra servants dodging about in dark corners to breed mischief, least of all such a character as this, which is probably not considered a servant, at all by the powers that be in this culinary department. So the poor cheese is kept knocking about in the stomach, not having earned the right to pass out at the pylorus by virtue of being in a fit condition to nourish the system, until at last it is let out by sufferance in sheer despair, and the poor stomach rests. I think if you could see its true condition, you would never send it any more such "digesters" as that.

NUTRITION IN CHEESE.

I know cheese is said to be "very nutritious." I suppose there is no end to authors and doctors and quacks who call it so. And their principal reason for calling it so is that it contains the solid part of milk, that substance which is considered a perfect food. Yes, go a little further; *burn* it, and you have the solid part still more condensed, but is it improved by the process? Is it digestible in any degree? It seems to be a very difficult matter to make due al-

lowance for the fact that there is a time when all food, and especially all animal food, is at its prime, and after which deterioration commences and proceeds rapidly. In the case of milk this is especially true. Nature's plan is that it should be taken without exposure to the air. Immediately on such exposure its elements begin to separate, acidity soon enters, and decomposition commences, of which the curdling by acidity is only one stage. If there is any sense in which it can be said that milk is "preserved" in cheese, it certainly can apply to but very few of its essential qualities. It does not contain its original fluids—a very important lack. If it has the casein and some of the oil and a trifle of the sugar, are they in a digestible state? What is the process they pass through in cheese-making, and how are their nutritive qualities affected?

THE CURDLING PROCESS

in milk is one of decay. It is so recognized in the case of natural souring and the separation of its ingredients by warmth, and the nature of the change is not affected by the addition of other acids. In many countries this is the method resorted to in curdling the cheese rather than the use of rennet, and the fact that such cheese is not quite so well liked by some tastes, does not affect the nature of the process. The action induced by rennet is now largely conceded to be one of fermentation or decay, and though it is not customary to use the latter word, it is correct according to Liebig, more nearly correct in this case than "fermentation." It was formerly thought to be due to the presence of gastric juice in the stomach, but the fact that fresh rennet would not effect the curdling, that the rennet must be washed and dried and stand some time before it would produce the best effect, has upset that theory, and it is now generally conceded that its efficacy depends on the same principle by which decay and fermentation of any kind can be accelerated, *i.e.*, by contact with another fermenting or decaying substance.

The subsequent process the dairymen and cheese-mongers delight to designate as

A "RIPENING" PROCESS,

though what it is to bring forth after the ripening is completed, but a mass of rottenness, they fail to show. Ripening is properly a process of structural growth, as in the case of growing fruits and grains. But that can not in any manner apply to cheese, which is a conglomerate mass without roots or seeds; nay, it is already partially decayed; it is obeying the laws of death, and not of life; it is under the domain of chemistry, and not of vital organization. And the business of chemical action in such cases is to pull the dead organic matter to pieces and return its materials to their original forms of carbon, nitrogen, hydrogen, and oxygen.

A late English author tries to evade this truth by declining to call the "ripening" of the cheese a fermentative process; says he "does not presume to explain this action; believes it to be *sui generis*, and known only by its effects" (!) But before he finishes his treatise of several pages, he seemed to forget his guardedness, and speaks repeatedly of fermentation as essential to the proper ripening of the cheese, and, in one place at least, evidently fearing that his directions about the temperature of the cheese-room will not be carried out, he says: "The ripening of cheese is essentially a process of fermentation, proceeding best at 60 to 75 degrees."

Another author says, in speaking of "ripening" cheese, that the curd by degrees becomes softer and more soluble in water, and gives rise to products of decomposition which are soluble in water, and this makes old cheese "mellow" and "rich"—these qualities not being due to the butter it contains, in which statement other authorities corroborate him. He speaks also of the existence of ammoniacal salts in old cheese, which can be shown by pounding it up with quicklime, when ammonia will be set free. We presume that most of our readers who have been in the vicinity of stables, know that ammonia is one of the refuse products of animal systems, or, what amounts to the same thing, one of the products of the decay of animal matters; but it may never have occurred to them before, that the pungent

smell of old cheese was due to the same substance.

HYGIENIC AUTHORITIES.

If any of our readers have ever wondered why hygienic authorities usually prefer new cheese to old, although the former is so much more difficult to pull to pieces, this may explain. The gases, the acids, and the generally increased state of fermentation in the latter, make it much more obnoxious. We believe that the most, if not all of those hygienists whom we consider authorities on food topics, now unite in condemning cheese entirely, or if they allow its use, they do not justify it. The great plea for its use is that it is

AN APPETIZER;

that with it one can eat much more than without it. This is usually true, as any one can prove by commencing to eat it with other food after he has already satisfied himself at the table. He will find himself eating quite an additional dessert with relish. It was largely for this reason that it was prized by the epicurean Greeks and Romans. Homer says: "Gluttons perceived that it sharpened the appetite, and great drinkers that it provoked copious libations. Thus the aged Nestor, wise as he was, brought wine to Machaan, who had just been wounded in the right arm, and did not fail to add to it goat cheese and an onion, to force him to drink more." And yet it does not follow that we need copy such wisdom from either Homer or Nestor. Unfortunately, the beer-bibbers of the present day have similar ideas. But hygienists have learned that we are benefited not so much by the amount of food we swallow as the amount we digest.

That it is an *agreeable* addition to the lunch of many a poor man who may be hardy and vigorous enough not to realize that it hurts him, we do not deny; but we venture to say that if the time and expense now devoted to cheese-producing were devoted to apple-raising, and the laborer would substitute fruit for cheese, he would be more cheaply and agreeably fed, and his health, his family, and his country would be great gainers. We are glad to say, that in

spite of extraordinary efforts made to increase the consumption of cheese *per capita* in this country, it is daily decreasing, and

we hope that, through the good sense of the people, it will continue to decrease more and more.

JULIA COLMAN,

THE VENTILATION OF BEDROOMS.

ALTHOUGH the blood-circulation is less active during sleep than when awake, it is of considerable importance to health that bedrooms should be well ventilated. The sleeper, like a bed-ridden person, is entirely dependent upon the atmosphere supplied to him for the means of carrying on the chemical purification and nutrition of his body. He must breathe the air that surrounds him, and he does this for a lengthy portion of each period of twenty-four hours, although it is probable that in a large majority of cases the atmosphere has become so deteriorated by the expiration of carbon and the emanations from the body generally, that if the senses were on the alert some change would be sought as a mere matter of preference. When a person places himself in a condition to take in *all* air, without being able to exercise any control over its delivery, he ought to make sure that the supply will be adequate, not merely for the maintenance of life, but for the preservation of health. If a man were to deliberately shut himself for some six or eight hours daily in a stuffy room, with closed doors and windows (the doors not being opened even to change the air during the period of incarceration), and were then to complain of headache and debility, he would be justly told that his own want of intelligent foresight was the cause of his suffering. Nevertheless, this is what the great mass of people do every night of their lives with no thought of their imprudence. There are few bedrooms in which it is perfectly safe to pass the night without something more than ordinary precautions to secure an inflow of fresh air. Every sleeping-apartment should, of course, have a fire-place with an open chimney, and in cold weather it is well if the grate contains a small fire, at least enough to create an upcast current and carry off the vitiated air of the room. In all such cases, how-

ever, when a fire is used it is necessary to see that the air drawn into the room comes from the outside of the house. By a facile mistake it is possible to place the occupant of a bedroom with a fire in a closed house in a direct current of foul air drawn from all parts of the establishment. Summer and winter, with or without the use of fires, it is well to have a free ingress for pure air. This should be the ventilator's first concern. Foul air will find an exit if pure air is admitted in sufficient quantity, but it is not certain pure air will be drawn in if the impure is drawn away. So far as sleeping-rooms are concerned, it is wise to let in air from without. The aim must be to accomplish the object without causing a great fall of temperature or a draught. The windows may be drawn down an inch or two at the top with advantage, and a fold of muslin will form a "ventilator" to take off the feeling of draught. This, with an open fire-place, will generally suffice, and produce no unpleasant consequences, even when the weather is cold. It is, however, essential that the air outside should be pure. Little is likely to be gained by letting in fog or even a town mist.—*London Lancet*.

COSTLINESS OF FOOD.—Thousands of persons, we might say hundreds of thousands, in our great republic, begin life poor, live poor during life, and die poor because of the exceeding costliness of the foods they eat. Think of our eating butter at thirty-five cents a pound, when one can buy Indian corn at sixty cents a bushel. One bushel of hickory nuts has more oil in it than five pounds of butter. One bushel of Indian corn has more nutriment in it than two dollars worth of the best beefsteak you can find. One bushel of real graham flour has more nutriment in it than a barrel of superfine flour and fifty pounds of beefsteak. We spend ever so much to live when it need cost us but little, and our health be all the better.—*Exchange*.

NOTES IN SCIENCE AND AGRICULTURE.

Gas as a Fuel.—A writer in the *New York Times* urges the more general use of gas, as in almost every way superior to wood and coal for cooking and even heating purposes. He says: "The 'heater' and the furnace are generally hot in mild days and cool in cold ones; at breakfast, cheerlessly dull, and over-bright at bed-time, the lower part of the house too hot, and the upper too cold, and the windier the weather the less efficiently the heat will rise. At best the heat they supply is dry and burned, laden with the odors of combustion, provocative of colds, headaches, and languor. As for stoves, it is impracticable to put them in every room; and as for the range, the kitchen has its own troubles. No possible improvements in the fissures can remove these defects inherent in the process of coal burning; the dirt, labor, inconvenience, injury to health, discomfort, and general disturbance consequent upon the present method of obtaining heat—the rare use of steam and hot-water circulation excepted—form a chapter of troubles and make our domestic economy, in this important particular, fifty years behind the times. Perhaps the majority of well-to-do people have used gas more or less for cooking in the summer; but comparatively few understand its advantages. Unless used for the purpose of giving heat, it works with the minimum of heat; is instantly ready for work without waiting, runs indefinitely without fluctuating, and is 'out' the instant it is no longer wanted; the labor is only the same as that of managing an ordinary burner for light, and there is no dirt of any sort. There need be no odor. On the Bunsen burner, properly used, every culinary operation can be performed; meat can be cooked directly in the flame, with a better flavor than when coal is used. Gas, in fact, is always used, the process of combustion being simply one of evolving heating or luminous gases, the solid fuel being present merely that its oxygenation may evolve those gases. If we have the gases for heating, without the coal, we obviously no more need the latter than we do for light; and, on the merits of the case, it is as needless, absurd, and objectionable to make our own heat by burning the coal as it would be to make our own light."

An Alimentary Science Association.—A movement has just been set on foot for the establishment of a society with this title. Many hygienists and others interested in health reform are working in its behalf. It is a "happy thought." Among the principal objects are "to collect information relative to the effects of various articles of food; to ascertain by investigation and experiment what description of food is best calculated to secure the highest degree of health; to expose the character of such food as is known or is discovered to be poisonous or injurious,

and to disseminate such information in regard to alimentary science as will most effectually promote the public interest."

The organization provides for an Executive Committee, consisting of the President, Secretary, and Treasurer; for an annual meeting or convention; for a Committee on Publication; prohibits incurring indebtedness beyond the cash in hand; admits any person to membership on sending name and address to Secretary; and all members entitled to vote and to receive copies of proceedings who subscribe one dollar or more per year to the funds of the association.

Dr. J. H. Lovell, 224 Kaighn's Point Avenue, Camden, is Secretary.

Hygienic Influence of Vegetable PERFUMES.—Readers of this department have already seen in past numbers allusions to research in this matter, the view being advanced that agreeable odors are healthful, and the offensive poisonous. Now in this line it is announced by the *Medical Press and Circular* that an Italian professor has recently made some very agreeable medicinal researches resulting in the discovery that vegetable perfumes exercise a positively healthful influence on the atmosphere, converting its oxygen into ozone, and thus increasing its oxidizing influence. The essences found to develop the largest quantity of ozone are those of cherry, laurel, clover, lavender, mint, juniper, lemon, fennel, and bergamot; those that give it in smaller quantities are anise, nutmeg, and thyme. The flowers of the narcissus, hyacinth, mignonette, heliotrope, and lily of the valley develop ozone in closed vessels. Flowers destitute of perfume do not develop it, and those which have but slight perfume develop it in small quantities. Reasoning from these facts, the professor, according to the authority quoted, recommends the cultivation of flowers in marshy districts and in all places infested with animal emanations, on account of the powerful oxidizing influence of ozone.

A Writer in the Rural Home says: "I have just made gates to replace some old-fashioned pairs of bars that I am heartily tired of opening and shutting. They are cheap, durable, and very easily made. Each gate is twelve feet in length by four feet in height. Five boards four inches wide are used, besides battens and braces. Battens should be placed on both sides, making three thicknesses to nail through. It does not take more than thirty-three feet of boards, worth, perhaps, sixty-six cents, to make each gate. Add to that ten cents for nails, and the value of one hour of your time, and you have the whole expense. A gate of this kind will outlast a framed one costing four dollars, and as no hinges are used, that expense is saved also. It is held in position by means of a

stake driven in the ground four or five inches from the post; not in a straight line, but a little more than the thickness of the gate toward the drive-way, so that when opened the gate can be turned half-way round and be parallel with the drive-way. It is kept a few inches from the ground by a strip nailed to both stake and post, on which one end rests when shut, and on which it slides half its length and then swings round as on a pivot when opened. The strip is usually placed under the second board, in a space arranged for it, by cutting away two of the battens. This strip takes the place of hinges. A gate of this kind can be made in much less time and at as little expense as a pair of bars, and is certainly much more convenient."

Warts in Skin Grafting.—A discovery which is credited to Dr. Searle, of New York, is announced in the *Medical Record* as follows: As common warts of the skin are collections of vascular papillæ, admitting of easy separation without injury to their excessively thick layer of well-nourished epidermis, the idea was conceived that, by their use for the purpose of skin grafting, better and more rapid results would be obtained than when the ordinary skin of less vitality is used. As proof of the theory, the following case is cited, where there had been complete destruction of all the skin on the dorsum of the foot, involving to a great extent the deep cellular tissue, and where for several weeks no healing advanced until grafts of freshly-removed warts from the patient's hand immediately started little islands of new tissue, which rapidly increased, until they coalesced and met the margins of the border skin, thereby completely covering the foot by firm, protecting integument.

Warts of the hand can be used with better results than small pieces of normal skin in skin grafting, in consequence of being easily separated uninjured into numerous cylindrical rods of great vascularity, and containing a large proportion of hypertrophied epithelium, which, when planted in healthy granulating tissue, readily adapt themselves to the new soil, receiving direct nourishment and quickly growing as starting points for a new and smooth epithelial covering.

Interesting Experiment.—M. de Chancourtois, Professor of Geology at the School of Mines in Paris, has devised an experiment to illustrate the formation of ridges of hills by risings in the crust of the globe while still soft from the primitive heat. M. de Chancourtois represents the globe by an inflated rubber ball, which takes the place of the terrestrial nucleus in fusion, destined to contract on cooling, and by its shrinking to produce on the surface the elevations and depressions which constitute the mountains and valleys of the existing earth. The ball is dipped in a bath of melted wax, and when that has partially set, a small portion of the air is allowed to escape by the tap. The sur-

face of the sphere then contracts slightly, and sinks in portions, wrinkling the wax. When a little more air is allowed to escape, these slight wrinkles become more distinct, and form ridges and hollows precisely analogous to the ranges of hills and valleys on the face of our planet, except that their relief is relatively greater. M. de Chancourtois lately presented to the Academy of Sciences two of these balls, one in the first stage of the operation and the other in the second or final one.—*Engl. Mech.*

Experiments with Solar Heat.—

Among those who are experimenting with the purpose of utilizing solar heat is M. Mouchot, of Paris. His experiments have for objects, on the one hand, the cooking of food and the distillation of alcohols; on the other, the use of solar heat as a motive force. In the matter of cooking it was found that mirrors of less than one-fifth square meter sufficed to roast half a kilogramme of beef in twenty-two minutes; to complete stews in an hour and a half that required four hours with an ordinary wood fire, and to raise to boiling in half an hour three-quarters of a liter of cold water. For obtaining a motive power, M. Mouchot had constructed a large solar receiver, the mirror having an aperture of about twenty square meters. In its focus was placed an iron boiler weighing with accessories two hundred kilogrammes, and having a capacity of one hundred liters, seventy being devoted to water. This apparatus was put in action on September 2d, for the first time; in half an hour the water was raised to boiling, and a pressure of six atmospheres was ultimately registered. On September 29th a pressure of seven atmospheres was reached in two hours, notwithstanding several passing vapors. On different occasions the steam (with a pressure of three atmospheres) was made to drive a Tangye pump, raising 1,500 to 1,800 liters (about 480 gallons) of water per hour a height of two meters, and to produce ice in a Carre apparatus.

Haystack Fires.—The frequent mysterious burning of haystacks and farmers' buildings has led to the discovery that they are usually set on fire by wasps' nests, and that the nests are ignited by spontaneous combustion. This is produced by the chemical action of the wax in contact with the paper-like substance of which the nest is composed, a comparatively small access of oxygen being sufficient to make it burst forth in a blaze.

Egg Production.—Among the special duties which fall upon the farmer in the autumn is the preparation for the winter keeping and comfort of his fowls. The wealth contributed to this country by poultry rises up into the magnificent millions. Some families depend upon their poultry not only for their garments, but also for their luxuries. Even preachers are immensely indebted to

the poultry-yard for a large part of their earthly bliss. In the fall the farmer should prepare comfortable winter quarters for his grateful birds. It will pay him liberally to have these quarters warm, well ventilated, clean, and light. It pays in the satisfaction which a man of soul experiences in the consciousness that his dependents are comfortable. It pays in the pleasure one enjoys in hearing the music that comes out of the quarters upon the cold, piercing winter air. It pays in the regular compensation returned by the thankful fowls in the shape of rich and nutritious eggs. It pays in the accumulation of a quantity of manure so rich in nitrogenous materials as to rival very successfully the best of imported guano. It pays in having good-conditioned fowls ready for the table upon any emergency which may arise during the season of ice and snow. And it pays in every other sense.—*Chautauqua Farmer.*

Making Fires on Cold Mornings.—The farmer and country householder are not always well informed on matters relating to their commonest practices. On the subject above named the *N. E. Farmer* gives a few suggestions: "If we will go into many a farmer's kitchen about five o'clock on a cold winter morning, we shall too often see the woman of the house sitting by the stove whittling shavings with a dull knife, with which to start the fire. Now, as one's happiness for the day depends in a great measure on how the day is begun, you will easily see what an annoyance it is to whittle shavings in a temperature down to zero. This unpleasant task can be easily avoided by two hours' work in the fall, before the ground is covered by snow. Let the farmer and his hired man take a team, with rakes and baskets, into the woods, and rake together fifty bushels of pine needles and haul them home and stow them in some dry place under cover. These are among the best kindlings there are for starting a fire quickly. I have used them for twelve years and should not know how to do without them. I adopted the practice, when I first began using them, of arranging my stove the night previous, so that in the morning I had nothing to do but to light the fire and get back into bed again, all which I can accomplish in ten seconds. In fifteen minutes the room will be comfortably warm, so that we can begin the day without any drawback."

Berries on Light Soils.—A correspondent of the *Country Gentleman* writes: "I find no soil so favorable to the growth of berries as a sandy loam. The proportion of sand may be quite large, if manure is put at the surface, so that its strength may be washed down as needed. Even with only a mulch of leaves and weeds the blackberry will thrive in what seems almost pure sand, as in different sections of the country, notably in the North Woods, which supplies Central New York to so great an extent with this

berry. A manure mulch is the great requisite, both in a drouthy and in a wet season; in the former to gather moisture, and in both to get fertility.

"The superiority of sand over clay for the long blackberry, I have seen demonstrated under circumstances that can admit of no doubt. It was where a knoll of sand occurred in a clay section; the berries on the knoll were a much greater success—stalk and root of enormous growth, penetrating the sand vertically to the depth of some eight or ten feet. On the clay soil only a few rods distant, and all about the fields, there was invariably only the ordinary growth. Much the same I find is the case with the strawberry. It wants room for its roots, and, like all berries, goes deep for moisture, much being required. It will thrive in clay, providing it is lightened up with some material like sod or other vegetable matter well rotted. I have grown strawberries successfully, and for three years in succession, on a rigid clay soil, by working it and keeping it mellow and feeding, mulching, and watering the plants, whereas in sand only mulching and watering were required, and the success was greater."

Left-Handedness.—At the late meeting of the British Association, Dr. H. Muirhead made a communication on "Left-Handedness." He thought it depended upon which half of the brain took the lead. Left-handedness once begun in a family was likely to run in it. It is a curious fact that left-handed people usually have the left foot one-third to one-eighth of an inch longer than the right.

Ammonia versus Malaria.—The Augusta (Ga.) *Chronicle* says: "The Georgia Chemical Works, which are of a very extensive character, and manufacture annually large quantities of commercial fertilizers, are situated in the southern suburbs of the city, on South Boundary Street. This portion of the city is low and damp, and the people living there had always been subject to chills and fever and other malarial diseases. We say *had* been subject, for yesterday morning Mr. Lowe, of the chemical works, informed us that the works had exterminated malaria in their neighborhood. He contended that since the company commenced operations it had routed chills, etc.; and that persons living near there who once suffered a great deal, suffer now on South Boundary no more. The effect of the works on the health of the country adjacent had been as marked as it had been beneficial. There could be no doubt as to the cause of the change. A practical test had been applied in the buildings of the company. Men had been employed there who were ague-shaken and fever-fired, but who, in a comparatively short time, were entirely relieved of the companionship of their malarial friend. The theory is that the ammonia does the business."



MRS. C. FOWLER WELLS, *Proprietor*.
H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK,
MARCH, 1879.

MORAL SENTIMENT AND INTELLECT.

BENEVOLENCE is a grand quality in the moral nature of man, but its blind, untrained exercise may be productive of injury to its subjects. They who live in great cities know the harmful effect of promiscuous almsgiving upon the poor; how injudicious charity increases mendicity, by promoting idleness and recklessness. The effusive generosity of the well-to-do is responsible very largely for the existence of that army of tramps which has become a matter of so much concern to society.

Veneration, the faculty which inspires us with the devotional sense, the adoration of the All-wise and Bountiful One, must be illuminated by intelligence, by that discernment which proceeds from an appreciation of the useful and practical, otherwise its manifestations are spasmodic, irregular, perhaps without definite aim, and often excessive. The offices of religion are designed to purify and ennoble human nature in all its parts; to impress man, in the first place, with a sense of his relation to God; and in the second place, to supply him with the highest motives for action, and to penetrate his conduct with respect and courtesy, ear-

nestness and fidelity. Just as the Creator is seen to be infinite in truth, purity, and industry, so the true worshiper feels actuated by the disposition to perform his whole duty as a man.

Faith is closely and indispensably associated with religious activity in the normal life. Its confidence lends enthusiasm to effort. The grandest achievements of history signalize its operation in the affairs of men. The exodus of the Jews from Egypt under Moses, the settlement of New England by the Puritans, occur to mind as salient illustrations of the influence of Faith in undertakings of surpassing importance, not only to individuals, but to nations and the world. M. Taine, in his "History of English Literature," is lost in admiration of the stern virtue and wonderful energy of the Roundhead soldiers who gave victory to Cromwell and glory to England. But the French author sees an element of fanaticism in their earnest piety rather than an influence which most powerfully sustained them in their resistance to royal tyranny and class exactions. Those stern-featured, Bible-reading, and psalm-singing warriors practically applied the precepts of Scripture in their "walk and conversation," and if in some respects they were severe and exacting in their view of what constitutes Christian duty, the world nevertheless is indebted to them for exemplifying many of the noblest traits of human character.

Paul, the great apostle to the Gentiles, insists upon the necessity of work to the expression of Faith. James, one of the twelve disciples, says: "Faith without works is dead." Here is the source of the great activity which is shown by the different church denominations in benevolent enterprises. Indeed, as one surveys the field of charitable work, it seems as if the ensign of Christianity covered every line of effort. Aside

from its influence in this particular respect, we observe the workings of religion in every social relation known to Christendom, softening the harsh features of human conduct and ameliorating the general tone of whole communities. That keen, scientific observer, Max Müller, writes: "Let us see what other nations have had and still have in the place of religion; let us examine the prayers, the worship, the theology even, of the most highly civilized races, the Greeks, the Romans, the Hindoos, the Persians, and we shall then understand more thoroughly what blessings are vouchsafed to us in being allowed to breathe from the first breath of life the pure air of a land of Christian light and knowledge."

When in the same person a high degree of executive energy is united with large moral faculties, Benevolence, Veneration, and Conscientiousness being particularly strong, and the practical organs of the intellect are not deficient in activity and culture, there is usually a manifestation of warm interest in religious and humane efforts. If Faith and Hope be powerful also, then the man of earnest enthusiastic spirit is seen, who readily coöperates in moral and reformatory undertakings, and performs his part with the assurance of success. The present day has known few, if any, more striking examples of the practical operation of religious zeal and benevolence than the undertaking of George Müller, of London. With scarcely a friend, and no money, this man of Faith organized his schools and Orphanage, which have grown with the passage of time to colossal proportions, involving the expenditure of millions of dollars, yet he never applied to a single person for aid, and believing it wrong to run in debt, even for charitable purposes, he did not attempt new or greater enterprises until the funds were accumulated which were necessary. No

one can read his "Life of Trust" without experiencing something of the wonderful confidence in divine power which illumines the remarkable narrative. His appeals for help to carry out his excellent purposes were all to Heaven. He can well say with the poet:

"More things are wrought by prayer
Than this world dreams of. Wherefore let thy voice
Rise like a fountain both by night and day.
For what are men better than sheep or goats,
That nourish a blind life within the brain,
If, knowing God, they lift not hands of prayer
Both for themselves and those who call them friends."

The moral instincts, unenlightened by the intellect, unrestrained by the prudential sentiments, are capable of exhibiting the extremes of fanaticism. The absurd and brutal fetichism of the undeveloped peoples of the old world, and the cruel persecutions which stain the history of Christian Europe, illustrate this fact. With the increase of intelligence, superstition declines. The devotee of Buddha, having learned the rationale of worship, no longer lacerates his body or submits to the murderous wheel of Juggernaut. So, too, the African, whose mind has been awakened by the processes of education, spurns his idols and turns with disgust from the mummeries of their horrid worship.

It is the office of the intellect to discover the *uses* of things, and to furnish to the instincts, emotions, and sentiments of the mind properly formulated motives for their exercise. The higher the intellectual cultivation, the more nearly perfect its balance of faculty, the more nearly complete will be its ministry to the moral nature and its control of the physical forces.

MARCH OF REFORM IN NEW YORK.

THE recent decision by the Court of Appeals of the State of New York, which establishes the constitutionality of the Civil Damage law of 1873, must en-

courage every lover of decency and order. Now it is adjudicated that the provisions of that law cover not only the seller of intoxicating liquors, but also the owner of the building or real estate which is used for the purpose of selling alcoholic liquors. Hence, if a man in New York when intoxicated does any injury to person or property, claims for actual or exemplary damages may be made against the owner of the land or building where the liquor was obtained which made him drunk. This decision will stimulate real-estate holders to watchfulness concerning the uses to which their property is devoted, and those who own store property can not let it for the sale of liquors without incurring much risk.

The step from such a law to Prohibition would not be a wide one, and with the admirable example of so near a State as Maine urging that course, it will not surprise us if the growing strength of the Temperance cause in New York ere long asserts itself in that desirable way. It is unnecessary to plead specially for Temperance before such an audience as that composed of the readers of the *PHRENOLOGICAL*, but let us, in view of the contradictory statements which are seen in the newspapers concerning the effects of Prohibition in Maine, quote a paragraph or two from some testimony on the subject published not long since by Rev. Dr. Cyrus Hamlin, for forty years a missionary in Turkey :

"Maine being my native State, and not having resided in it for forty years, my return to it led me to examine the Maine law and its workings with great interest. I have been through the State in various directions, from Kittery to Calais; have attended the public meetings in many of the counties, and have had intercourse with men who have known the State all their lives. I am prepared to maintain this proposition with regard to the Maine law: It is an incalculable blessing to all the owners of real es-

tate. It is the chief reason why the State has not been ruined in these hard times.

"1. It has almost annihilated drunkenness among the farmers. The farms have prospered, and buildings and roads have wonderfully improved throughout the State. The most intelligent men attribute this largely to the Maine law.

"2. It is a boon to all manufacturers. Their men work better, produce more, and break and injure less. Manufacturers have told me that they could not get on successfully with rum-shops around them, nor would they attempt it. It is nearly an equal blessing to the lumber-men.

"The Maine law is to some extent evaded in the cities, and there are found most of the crime and pauperism. Rum is brought or smuggled in in every possible way. Even there, however, the evil is diminished, and as a public sentiment becomes more sound, stronger measures will be resorted to. The whole rum interest has fallen into the lowest and vilest class, who defy public sentiment, and, like thieves and tramps, look only at what they can get without too much danger."

CHANGES IN THE FORM OF THE SKULL IN ADULT LIFE.

THIS is a subject which is a delicate one to discuss publicly, because the mere assertion of our belief in it, and of ability to show the nature and effects of a change of cranial shape, is followed by the ridicule of the anti-phrenologists. The matter is one which almost everybody can determine for himself in his own person. Let a man of twenty-five, thirty, thirty-five, and even of forty years, have a plaster cast of his cranium accurately taken, and ten years later let him have another made; then a comparison of the two will reveal differences of contour which may surprise him. On the shelves of the Phrenological Cabinet there are casts which were made from fifteen to thirty years ago of men now living, and occasionally one whose head is thus repre-

sented in our collection has come in, and on being shown the cast, is certain to remark, "Can that be my head? How I have changed!" We have a fac-simile of the head of the late William C. Bryant, as he appeared when about forty years old. One will perceive marked changes on comparing his late portraits with it, and to one who knew the poet well, the modifications of contour which the cast shows his head

must have undergone between forty and eighty are very striking.

A very earnest contribution to the evidences in support of the phrenological position concerning the growth of special organs is that of the letter of "A Clergyman to Clergymen," which appears in this number, and which, it seems to us, must have no little weight in the reasonings of doubting readers.



"He that questioneth much shall learn much."—*Bacon.*

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.

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. anonymous letters will not be considered.

INCREASE OF ORGANS.—J. G., JR.—Yes. Organs are increased in size through exercise. It seems to us that if an organ be small, it is more likely to show its growth through exercise. A large organ, by reason of its size, is naturally prone to activity. Large organs exercise dominance in the mental economy, appropriate a larger share of blood, which circulates through the cerebral arteries; while the small ones, unless special effort be made to give them a place in the mental operations, do not receive their fair proportion of the sanguineous current. The smaller an organ is, the more effort, activity, and use are necessary to render it active and influential.

It would be more difficult to exercise some of the intellectual faculties separately, for the reason that our conceptions of objects are comprehensive; that is, include several qualifications.

Think of a horse, and at once his size, color, style of movement, temper, speed, value, etc., are immediately associated. It would not be possible to designate a material object which possessed but one quality. We were taught when a boy that matter has three positive qualities—form, size, and weight—at all times, and we think it would be next to impossible to exclude color, except in the case of some gases, which in the ordinary state appear transparent, yet when condensed show peculiar tints.

SENTIMENT.—L. B., JR.—If you will look through the numbers of the PHRENOLOGICAL for the past three months, you will find the names and functions of those organs which are classified among the sentiments. Those people are designated "sentimental" who have usually a good degree of the social nature, are affectionate, somewhat reserved, perhaps timid, with a good degree of Approbativeness, or the desire of praise and consideration. Sometimes people are called "sentimental" because they exhibit a strong love of the opposite sex, a disposition to read poetry of an amorous and emotional type. Sympathetic persons usually have large Benevolence, a good degree of Caution, large Friendship, and a sanguine nature.

EXPLODED.—H. S. C.—We frequently hear of such explosions, but somehow or other the subject is alive and kicking, and seems to have no limit to its vitality. Had you the opportunity to cull the opinion of thousands, we might almost say millions, in civilization, we think that the idea that Phrenology is a dead science would be clean exploded from your noddle. If the statements of scientific men are to be credited, they are coming over to the side of Phrenology with

a decided steadiness. Scarcely a month passes but some acknowledgments are made which show the way the wind blows.

MAGNETISM.—E. T. L.—Operators differ much in their methods. Some who give their services to the public are desirous of indicating to the unlearned that they have discovered something new. That is probably the case with your Professor C. One may indulge in certain forms or mummary simply for their effect upon the uninitiated, but the process of magnetization is in itself quite simple.

PRAYER.—SEEKER.—People regard prayer according to their education and moral development. We hold that he who exercises faith in a normal way will be earnest, energetic, industrious, in the attempt to achieve what he prays for, and will be most likely to accomplish his purpose. We know some "praying Christians" who have not much of the genius of work, yet boast an exhaustless faith, but who are failures so far as useful life is concerned, being burdens to their friends and society. We hold that the truly devout man will endeavor to do his duty in every respect, to make himself acquainted with the laws of life so far as he can, and will conform to them. There is a world of meaning in that much-abused phrase, "muscular Christianity." He who takes the proper view of it and acts accordingly, will glorify God in his body and also in his spirit. We have heard a great many stories of the efficacy of prayer, and we believe many of them, but we believe that the results when inquired into exhibit a rational side as well as a religious one.

PSYCHOLOGY.—L. B.—Presuming that your inquiry relates to works treating of the application of mesmerism and magnetism, we would suggest Deleuze as probably the best author now accessible. Our little book, entitled "How to Magnetize," furnishes many practical hints.

COMBATIVENESS AND SELF-ESTEEM.—A. L. O.—It requires no little effort to strengthen these organs when they are small in the brain; yet effort and time will accomplish much. We would not have you expose yourself to the contact of rowdies for the sake of "getting up" your muscle; nor would we have you expose yourself to unnecessary danger, but in your relations with friends you can cultivate a steady, defensive spirit, not permitting yourself to be thwarted, snubbed, or put aside, where your rights are interested. The reading of books in which the elements of courage and steadfastness and personal reliance are illustrated, will help in the direction of your aim. Some of Scott's works are illustrative of courage and manly integrity. Read especially the biographies of some great

men noted for courage and endurance, like Nelson, Washington, Havelock, whom defeat, difficulty, and opposition could not daunt.

COCOANUT AS FOOD.—A. M. S.—Did you live in the tropics, we would say that you could eat the cocoanut with benefit. Those which are brought Northward are not picked in a perfectly ripe and edible state, and therefore are not suitable as an ordinary diet. They serve rather as a condiment, and are used mostly, you know, in confectionery and pastry.

DEVELOPMENT OF CHARACTER.—O. Y.—To answer your question thoroughly and practically would require a volume, and we can not do better than to refer you to the works of eminent writers. Combe's "Moral Science," "Constitution of Man," Fowler's "Education Complete," Weaver's "Mental Science," would be serviceable. By referring to our "List" you will find prices of these and others, which by their titles you may also perceive are suitable for your reading.

NIGHTMARE—SOMNAMBULISM.—F. W. D.—Nearly every case of nightmare is traceable to a disordered stomach. Somnambulism in many instances is traceable to the same source, although it may be due to an unbalanced mental organization. People who indicate a tendency to somnambulism are usually of very excitable temperament. The young lady to whom you refer is probably precocious in brain development, supersensitive, and perhaps has been spurred in her studies, so that her brain has been kept in a condition of abnormal excitement.

EXCITABILITY VERY LARGE.—A. G.—Excitability can not be reduced from No. 7 to No. 2, except in its action, and that only by reducing the subject to a state bordering on insensibility by the use of narcotics. Cultivate your physical forces; strengthen your body by a proper mode of living; avoid all exciting conditions, and your excitability will take care of itself. You need but to balance your excitability through the development of other physical and mental qualities.

RUBBER OVERSHOES.—G. A.—In wet, sloppy weather, overshoes are useful in protecting the feet from dampness. While one is exposed to such conditions, it is safe for him to wear such overshoes; but we would not advise one to wear them indoors, as their tendency is to render the feet tender.

"UNRAVELING."—This is one of the many words found in the English language which is indicative of its philosophical inconsistency. The particle *un* is equivalent to *not*, and is therefore expressive of the negative of the qualities or action indicated by the word to

which it is prefixed. But in "ravel" and "unravel" we have words which mean substantially the same thing, to wit: to separate, untwist, disentangle. Both words with their compounds or derivatives are in common use, and accepted.

PIMPLES ON THE FACE.—Bad diet is the cause of these. Regulate that and they will disappear.

QUALITY OF ORGANIZATION.—I. D.—Opportunely for your question an article appeared in the February number on the subject of quality, which has probably answered your questions. Education indicates itself in the manner and the expression more than in the contour, although usually the man of culture shows a smoother, more distinct outline than he who has not experienced its refining effects.

SELF-ASSURANCE.—How can I best acquire confidence in my own abilities?

Answer: This depends upon your temperament or organization; you may have too much Cautiousness or too little Self-esteem, or too little Combativeness, or too much nervous excitability. You may need to build up some faculties, or check and depress some. Consult "Answers to Correspondents" in late numbers for suggestions on cultivating organs and developing character.

Several ANSWERS must be deferred to the next number.



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

SOME TEMPERANCE THOUGHTS.—A few years ago, Dio Lewis predicted that in twenty years the temperance movement would achieve a triumph in the Northern States of the Union. The prophecy looks more credible than it did. When we meet one of the old anti-slavery warriors, we are inclined to inquire of him if the conflict with slavery did not terminate sooner than he expected. Some of us said, when we have throttled slavery we will make a fresh onset upon alcohol. The Civil War perhaps increased the use of intoxicants; but now is the blessed reaction. When the Father has a work to be accomplished among men, the right leaders appear. There was a time for the children of Israel to go over Jordan; for the Puritans to cross the Atlantic; for the Emancipation Proclamation; and now is the hour to strike for temperance. Who that watches closely can not see

and feel there is something mysterious, something providential, in the influence of a Moody and of a Murphy? I once heard Ralph Waldo Emerson say—it was years ago—that when chattel slavery was abolished, we should all admit God Almighty did it. In the present sweep of reform as to drinking habits, we are conscious not only of moral and social enthusiasm, but also of an awful reverence toward the Creator. There is a conjoint call for praise, prayer, and work. The Scripture, that now is the day of salvation, spreads out from the page of the Bible into the sons of men. Intemperance is the monster vice, the Beelzebub of all evil spirits. Cast him out, and the Millennium will speedily come. We know there is a great work beside the temperance rescue, but every sober man will help to do it. What good thing can be expected of a drunkard? A man whose head is clear can and will think. His mind will embrace enterprise—progress. He will consider public virtue, finance, and every good work of a private or public nature. He will not be likely to follow a demagogue; he will sift doctrine, hunger for science. Clear from ardent spirit, the Holy Spirit may possess him.

The expense of drinking habits is immense. One year of temperance equals a gain as great as our national debt. What need has a well man for alcohol? It is an indigestible element. When taken into the stomach, it flies in all directions to escape; in other words, the constitution agonizes to expel it. Its power to arrest the poison of a serpent depends upon this fact of at once entering the circulation like the virus of the rattlesnake. Poison then meets poison. Acids, as has been well said, can be obtained directly from fruits. Oh, happy period when the human race shall subsist much more upon fruits and upon bread made from meals and water! Let us rejoice and be diligent while the sun of unwonted success is shining upon us. Those we had not calculated upon, to our great delight, all at once put a broad, strong shoulder to the car of victory. Give the Lord all glory.

LUCIUS HOLMES.

DETECTIVE AGENCIES.—They are a sad satire on our civilization. However needful they may be, we can not help looking on them with disgust. The circular of one of them lies before me. It solicits patronage, and promises to find out by its secret spies the habits, associations, and doings of one whose ways need watching. Give the detective time, a certain sum of money, and he will dog the footsteps of any one and find out all the secrets of his life.

Are the days of the Inquisition to be revived? The writer was in Paris in early life, when French espionage was very strict. His room was entered, his papers read, and all

about him known, twenty-four hours after his arrival. Are Americans ready for this *régime*?

Some months ago, in his address to the jury in the Miller divorce case, Judge McCue said: "It is very difficult for me to criticise the position of a detective, and to say to you what, perhaps, I ought to say without saying too much. I do not mean to say that a detective is not to be believed. I have no doubt there are many reputable men in that business; that a great many of them render essential service, not only to individuals, but also to the community, in ferreting out crime; but it is a business that does not strike one as being of the highest standard, and it subjects a man to this criticism, whether he deserves it or not, that he is a spy working for money, and, of course, the argument follows that a man who is mean enough to devote himself to that kind of business will not stop at anything to accomplish a purpose. It is for the jury to say how much reliance they can place on the testimony of a man who occupies that position."

This paper is not intended to discuss the evils of the system, but rather to elicit thought on the subject. The list of reputable business men who have employed the agency we refer to is a long one. If the work were confined simply to the detection of crime, their indorsement might be conclusive; but the system of spies is sometimes made the instrument of cowardly abuse, of jealousy, of slander, and of cruelty. The enemies of a minister, not a thousand miles from New York city, hired a detective to lie in wait for him, to shadow his way, and glean up all he could that might be used against their pastor. Other cases could be given of the tendency of the system in domestic and business life. One practical lesson may be learned. It is especially valuable to the young just entering life. Avoid the *appearance* of evil. Be, like Cæsar's wife, "above suspicion."

An anonymous letter from a New York clerk asks us: "Is it right to keep moucy given for car-fare, and walk?" Certainly not, without leave; for delay is occasioned, time and strength consumed, and the act has a wrong look. Many other illustrations might be adduced where employes unwittingly incur suspicion. Particularly should religious people, those who manage the financial affairs of the church, and, above all, the ministers of God, be watchful. "Be ye clean that bear the vessels of the Lord."

The existence of an organized system of espionage, and the wary eagerness with which hungry newspaper reporters lurk about families and churches to pry into every scandal, should lead every one to guard his speech, his deportment, and especially what he puts into writing. Public opinion is dreaded by some more than the Judgment Day, and the severity and injus-

tice often expressed in its verdicts, with these other agencies named, should at least aid in giving force to the nobler incentives to a virtuous life.

UNWILLING MATERNITY.—Our press is very active with words upon this subject. Ministers denounce it from the pulpit in a sort of wholesale way, throwing all the blame upon woman—looking only at one side; which irritates our own sense of womanhood, most especially as, in our intercourse with the world, we find quite as much of pure motherly instinct as we do of pure fatherly instinct in it. When we hear such criticism from man's lips, we always wish we might suggest that, if a feeling of paternity *alone* actuates the use of those functions, why need the wife be subjected to such frequent demands, at all seasons? We have heard men as innocently discourse on this subject from the pulpit, when we knew their own souls were reeking with sensuality and licentiousness. We think it is quite time that some one arose for the vindication of woman, "more sinned against than sinning."

First, let us glance at the grand responsibility of creating a soul, and launching it upon this beautiful and wonderful earth. When *well done*, a mother is a creator; she stands very near to God; and here let me add, that two human beings whose souls are truly wedded will not shrink from duty here; but if, as in too many wedded lives, they have united only for convenience' sake, or are, in short, merely licensed lord and mistress, they will shirk the duties of a family as long as they can or dare; and, if offspring be given them, they are not welcome, are likely to be deformed in either body or mind, or both, and generally prove to be the criminals of our land. What sin can be greater? In the first instance, man will be sure to come in for his share of the honor, which is right; but is he equally willing to accept the dishonor in the second instance? We think not. He seems to have the idea that he is a privileged character; that it is woman's place to obey, and accept his will; what discomfort to her there may be in the matter does not concern him. Can not any of us look about and see examples enough of the picture I have drawn? Does not the husband generally think he owns the person of his wife? that no matter what her state of mind or body may be, she must minister to him uncomplainingly?—and, where the wife does assert herself in this matter, a barrier forms between them, for he submits by no means willingly or uncomplainingly.

This manner of living has gone on until nearly all the manhood originally given to man, when God said, "I create man in my own image," has gone out of many, and we are cursed to-day with a large class of husbands and fathers almost

devoid of the common instincts of the lower animals.

But has not woman suffered too in this way? We think she has. Our women—many of them—are daughters of these same fathers, and the law of inheritance is by no means one-sided. Even this same nature descends to them, many times intensified and strengthened by the demands on the mothers during gestation. And just here is where a great cause for unwilling maternity originates. This constant demand creates utter disgust, and the child begotten thus will be *very* likely to be an alien to such matters and instincts, abhor children, and curse men generally.

Now, what is the cure for all this? It is reverence and respect for woman. No ruling over, no violation of her own personal rights. She should own her own person; and any man that does not accord this right *willingly* is not worthy of the mother who bore him. In the first place, we would say, two must not marry from a mere fancy, and for the sake of gratifying passion. They should be first fully assured that their tastes and aspirations are alike; that their souls are in complete harmony, and can move onward without the wear and tear of a jarring, inharmonious life. If they are in perfect harmony and love, the question of a family will become a sacred one, and they will live in accordance with the laws of health—never being guilty of that freedom and vulgarity so much exercised in the marriage relation. The mother-nature in every woman's soul, in such a relation, would assert itself, and with beauty, nobility, and honesty, she would willingly do her part toward peopling the earth.

MRS. H. E. WILLETT.

MY JOURNAL.—As a teacher, the PHRENOLOGICAL JOURNAL has no superior, if indeed it has an equal. It carries the light of scientific knowledge wherever it goes, and being in these particulars always in advance of the times, all who read it are elevated in mind and character. We have often, while listening to the voice of our pastor, seen ourselves, as it were, in a mirror, and have wondered at the clearness with which he would point out our thoughts and feelings, just as if he could look within the secret chambers of our soul and read it there. Indeed, we rejoice that we have the privilege of listening to his voice; for thereby we learn much of our own nature and our relation to God, and a good system by which we may become wiser, better, and happier. But never did we get a perfect analysis of our internal selves until we commenced reading Phrenology.

Last Sabbath our good minister delivered a sermon from this passage of Scripture: "Having eyes, they see not;" and he used the text with great effect, illustrating with instances of color-blindness. We all enjoyed the sermon,

and went home feeling that our spiritual vision was a little clearer.

In the JOURNAL for June, 1878, and also the January number, we noticed short articles on the subject of color-blindness which threw much light upon the text; and though they made the sermon appear somewhat less perfect, they made the illustrations much more powerful and the whole subject more grand. While looking over the articles and meditating upon the sermon, we thus soliloquized: The JOURNAL is one of the indispensables of life, and we could not get along without the pastor.

SUBSCRIBER.

THE PHRENOLOGICAL TEACHER.—Mr. Kimber, of Worcester, Ohio, is of opinion that no person ought to be employed as a teacher who has not a very good knowledge of Phrenology. He attributes his success in teaching, in great measure, to Phrenology, never having had occasion to use the whip. "The poor work," he further says, "that has been done in our common schools is entirely uncalled-for. More children have been ruined by bad school-teachers than people are aware; simply because the majority of bad teachers do not know how to manage. Much of the crime and vice which prevail in society are due to ignorant teachers." He believes that before one is engaged for such important work he should be examined by a competent phrenologist and receive letters of commendation for such a pursuit. Because one is a good scholar, he should not be reckoned fit until his ability to manage children is shown. We think that Mr. Kimber is sound in his views. One of our late students was the first man to enlighten him on the doctrines of Phrenology.

BEGUILED IN THE RIGHT DIRECTION.—Mr. L. C. W. writes from Texas: "On account of hard times, I had decided to discontinue my subscription to the JOURNAL, highly as I appreciate it; but your new premium book on the Temperaments beguiled me into another year. Although hard pressed, I feel better already for having decided to continue your valuable monthly."

LIFE AND DEATH.—According to Dr. Hall, nine-tenths of all who are born ought to complete their "three-score years and ten," because nine-tenths of all diseases are avoidable by the practice of temperance and outdoor activities. Colds or constipation immediately precede or attend almost every case of ordinary disease. The latter can be antagonized by abstinence, cleanliness, and warmth for thirty-six hours; and a cold need not be taken once a year if three things are attended to. Avoid chilliness, damp clothing, and cooling off too soon after exercise.

PERSONAL.

RICHARD HENRY DANA, well known for over half a century in American literature, died in Boston, February 3d last. He was born in 1787, and educated for the law, but left it to pursue the more congenial paths of literature, and may be said to have been the first contributor toward the formation of a distinctively American class of literature and criticism. His career was a long and eminently useful one.

GENERAL SHERMAN is credited with saying that he has seen all the royal ladies at European courts, and has never seen one who is superior to Mrs. Hayes, or who could discharge the duties of her position at the White House with more grace.

MR. CLARK MILLS, the sculptor, has gone from Washington to Hampton, Virginia, to make plaster casts of the heads of the forty Indian boys and nine Indian girls who are students in the college at that place, and represent the Sioux, Arapahoes, Gros Ventres, and Mandans. The casts will be placed in the museum at the Smithsonian Institution. Is the Government becoming interested in Phrenology?

MR. EDSON L. CLARK, in his work on "The Races of European Turkey," says that gypsies are really an offshoot from the Hindoos, being simply a wandering tribe from the valley of the Indus. Their language is a branch of the ancient Sanskrit, akin to the modern dialects of Northern India. A modern Hindoo would probably make himself understood by any tribe of gypsies in Europe.

JOHN BLAIR SCRIBNER died in January last. Although a young man, but twenty-six years of age, he occupied the responsible place of senior partner in the large publishing house of Scribner and Company, of New York. Being possessed of culture, fine taste, an unusual degree of energy and practical judgment, his sudden death is a great loss to the business of Scribner and Company, and is felt by the book trade generally.

MRS. LOCKWOOD, the woman lawyer of Washington, whom Judge Magruder, of Baltimore, would not permit to conduct a suit in his court, and whom he treated with rudeness, intends to test the question of her legal right to practice in the courts of Maryland. Good. May she win!

MARSHAL MACMAHON, under the pressure of measures taken by the French Assembly and the Ministry, reluctantly sent in his resignation of the Presidency of the Republic of France. It was at once accepted, and M. Grevy elected to fill the vacancy. M. Gambetta has been elected President of the Assembly by an overwhelming majority.

M. L. WOOD, once a superintendent of the U. S. & E. Road, has invented a hay-burning cook

stove, to consume the straw and grass of Western prairies. Six pounds of such material will burn fifty-six minutes and create heat equal to the consuming of twenty pounds of hard coal.

LYDIA F. FOWLER, M.D., wife of Professor L. N. Fowler, died on the 28th of January last, at her residence in London, England. The immediate cause of death was pleuro-pneumonia, but it is believed to have been accelerated by pyrexia, contracted by Mrs. Fowler in the discharge of her duties as one of the district visitors of Dr. Parker's church. The deceased lady took her degree in medicine at Rochester, N. Y., and was the first female professor of obstetrics in America. In 1860 she accompanied Professors Fowler and Wells in a lecturing tour through England. Her lectures will be remembered by many as addresses to ladies on the laws of life and health. She also gave lessons in gymnastics. Mrs. Fowler was born at Nantucket Island, Mass., and was a lineal descendant, on her father's side, of Benjamin Franklin's mother, from whom it is said the American philosopher inherited his mathematical and astronomical genius. She married Professor Fowler in 1844, and shared his labors in England and elsewhere. Last summer Mrs. Fowler lectured in London at the Mansion House before the ladies of the British Temperance Society; her last effort in this cause being made in November last, when she lectured with Professor Fowler in the Leicester Square Congregational church. The deceased lady was remarkable for the dignity of her manner, and highly respected in the medical profession.

GEN. D. C. MCCALLUM, who died in Brooklyn near the beginning of this year, was one of the most remarkable among the many remarkable men who were brought into distinction through the events of the war. Previously he had been known as the inventor of a valuable kind of wooden bridge for railroads, and a very energetic railway superintendent; and when Mr. Stanton had to look for the man to control, for the uses of the war, the various railroads lying in the recovered portions of Virginia, Tennessee, Georgia, Louisiana, and other rebel States, he selected McCallum. It was a quasi-military function, and the ability, incorruptible integrity, and tireless energy which he displayed throughout those eventful years ought never to be forgotten.

WISDOM.

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

If you would be strong, conquer yourself.

ANXIETY is the poison of life.—BLAIR.

ONE may be sincere without being safe.—*Prov.* xvi. 25.

THE more quietly and peaceably we get on, the better for ourselves and our neighbors.

As the shadow of the sun is largest when his beams are lowest, so we are always least when we make ourselves the greatest.—SECKER.

HE who promises more than he can perform, is false to himself; and he who does not perform what he has promised, is false to his friend.

"A SACRED burden is this life ye bear;
Look on it, lift it, bear it solemnly;
Stand up and walk beneath it steadfastly.
Fall not for sorrow, falter not for sin;
But onward, upward, till the goal ye win."

MANKIND are always happier for having been happy; so that if you make them happy now, you can make them happy twenty years hence by the memory of it.—SIDNEY SMITH.

WE must despise no sort of talent; they all have their separate duties and uses; all have the happiness of man for their object; they all improve, exalt, and gladden life.—SIDNEY SMITH.

THE table of life is abundantly supplied. If we don't eat too fast, it will taste the better; if we don't eat too much, we shall be better nourished; if we don't snatch, there will be enough for all.

MIRTH.

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

IF you undertake to hire a man to be honest, you will hav to raise his wages every morning, and watch him dreedphull cluss besides.—BILLINGS.

As they parted at the railroad station—"Do not forget me, nor cease to love me," murmured the husband. "Never, never!" sobbed the wife, and she pulled out a handkerchief and tied a knot in it, that she might remember.

"SUPPOSE I should work myself up to the interrogation point?" said a beau to his sweetheart. "I shall respond with an exclamation!" was the reply. We presume if the old gentleman should come in about that time, he would put a "stop" to that kind of quotations.

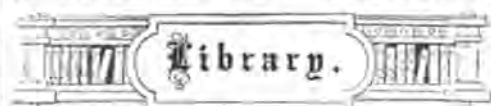
THERE is one thing about it. The lady who insists on carrying a good share of her dress in her hand must keep her shoes laced up or buttoned, or everybody will know that she left home in a hurry.

A PROFESSOR at Cornell (so says an exchange), lecturing on the effects of the wind in some Western forests, remarked: "In traveling along the road, I even sometimes found the logs bound and twisted together to such an extent

that a mule couldn't climb over them, so I went round."

THE schoolmistress told the boy to prepare a composition on "Winter," and this is how he did it: "Winter is the coldest season of the year, because it comes in the winter mostly. In some countries winter comes in the summer, then it is very pleasant. I wish winter came in summer in this country, which is the best government the sun ever shone upon. Then we could go skating barefoot, and slide down hill in linen trousers. We could snow-ball without getting our fingers cold, and men who go out sleighing wouldn't have to stop at every tavern to get warm, as they do now. It snows more in the winter than it does at any other season of the year. This is because so many cutters and sleighs are made then."

THE English language is wonderful for its aptness of expression. When a number of men and women get together and look at each other from the sides of a room, that's called a sociable. When a hungry crowd call upon a poor minister and eat him out of house and home, that's called a donation party.



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.

DRIFT FROM YORK HARBOR, MAINE.
By George Houghton, author of "Christmas Brooklet," "Album Leaves," etc. Octavo, pp. 48. Price, paper, 35 cts. Boston: A. Williams & Co.

This well-printed little book comprises upward of two dozen pieces of verse, some of which possess lines of genuine fancy and the smooth flow of true poesy. The author has good abilities for description, and his pictures of scenery are rich in that detail which indicates the close observer of nature. "Alongshore" and the "Witch of York" contain strokes of pathetic energy and rhythmic movements well expressive of the incidents narrated. "Niagara" is an ambitious effort in the difficult hexameter. "Anniversary Hymn" we like, and deem it the best piece of the collection, which, as a whole, is superior to many of the volumes of rhyme and poetry, so called, that attest the ambitious longings of many young writers nowadays.

A COLLECTION OF SPIRITUAL SONGS, with Music, for the Church and Choir. Selected and arranged by the Rev. C. S. Robinson, D.D. Pp. 441, in cloth, with red edges, \$1.50. Extra edition, bound in silk, with gilt edges, \$2.50.

In his preface the compiler intimates that the drift of public sentiment and taste has been in two directions: toward music, with a decided melody and hymns accompanied by a refrain on the one side; and toward hymns of a more stately character and a more varied refrain, with tunes constructed somewhat on the plan of the English and German chorals, on the other.

In the preparation of this work we notice an attempt, and a successful one, has been made to meet popular taste in both directions. Exclusive of doxologies, there are 1,086 hymns, and the number of tunes is unusually large for a book of the sort. Evidently the work is the result of much experience in musical matters; for we find by a cursory examination, that nearly everything of excellence in the hymn line has been drawn upon. Many of the beautiful hymn-poems of the English Church are included; and so in regard to the tunes, many which we have been in the habit of considering choice in such collections, as "Cantus Ecclesiæ," the old "Boston Collection," "Greatorox," "Church Choir," and other well-known standard collections, have been incorporated in this. Montgomery's hymn on "Prayer," Keble's "Sun of my Soul," "Abide with me," and the beautiful "Eventide," whose melody so well becomes the sentiment, Faber's inspiring "Hark, hark, my Soul," Hastings' sweet "Return," Neale's "Our Master," and its *sine qua non* "Stephanus," Newman's "Lead Thou me on," and the charming music associated with it by Dykes, and choice compositions like "Holley," "Woodworth," "St. Hilda," "Bethany," "Refuge," "Palestine," are among the list. We find that the compiler has shown good judgment by including many an old standard melody, like "Dennis," "Wells," "Autumn," etc. Then, too, there are many of the better hymns used in Sunday-schools, so that our children can use the book as well as grown people.

The publishers have taken great pains in the manufacture of this "Collection." It is elegantly and substantially bound; the extra edition in silk, with gilt edges, is particularly beautiful, and quite unique among books for church purposes.

MEMOIR OF GEORGE DAVID CUMMINS, D.D., First Bishop of the Reformed Episcopal Church. By his wife. 12mo, pp. 544, cloth, gilt. Price \$2.50. New York: Dodd, Mead & Company.

Who can be better fitted for the performance of the part of a biographer than an intelligent, cultivated wife? Affection, devotion may color the page at times too warmly, but if her culture

be high and her aim to contribute something of more than transitory value to the world's literature, the product of her pen will be a more faithful portrait of the life than any one outside the home circle of that life can fashion. Boswell's work teems with adulation, but nevertheless Boswell is esteemed a paragon of biographic excellence, because he has placed on record the very sayings and doings of the great man whom he so closely shadowed. Mrs. Cummins' work exhibits Bishop Cummins as the bishop reflected himself through sayings public and private and correspondence. Of the latter, the bulk of a rather considerable volume is made up. The acknowledged leader in the most important schism of the past fifty years; the organizer, indeed, of a branch of the Episcopal Church whose growth has been unsurpassed in American Church history; and dying, too, just at the moment when his work had assumed definite form, had emerged fairly from the chrysalis or experimental stage, it is certainly most fitting that his character and life should be set forth upon the printed page. His death came so suddenly that the young Church trembled under the shock; but the earnest, assiduous spirit had set its foundations too deeply for any material disturbance or retrogression. It would appear as if his work were accomplished.

The letters include many written to members of his family, old and young, and reveal glimpses of the inner heart of the man. Mrs. Cummins has given, with a freedom of which some readers will probably question its propriety, notes from the private jottings of the bishop, besides correspondence relating to his parish and diocesan and business relations. Comment of her own is rare. She now and then permits others to utter opinions concerning the character and conduct of her husband, while she simply weaves in a plain and almost too brief account of his career, as it was known in the ministry and before the public.

PUBLICATIONS RECEIVED.

THE AMERICAN SKETCH-BOOK, and Historical and Home Magazine. Mrs. Bella French, editor and publisher, Austin, Texas. This number contains a historical and topographical outline of two counties, Washington and Brazos. We notice an addendum which states the marriage of Mrs. French to Mr. J. M. Swisher. We hope that the union will be a harmonious one.

THOMPSON'S BANK-NOTE AND COMMERCIAL REGISTRY. Current numbers received. This well-known financial publication has entered upon its thirtieth year.

PROCEEDINGS OF THE FIFTH ANNUAL MEETING OF THE WOMAN'S CHRISTIAN TEMPERANCE UNION, Illinois, held October, 1878, with Constitution, etc. The plan of work contains some

practical suggestions for others who may be interested in the active prosecution of temperance work.

SUNDAY AFTERNOON; a Magazine for the Household. The opening numbers of this comparatively recent venture are well sustained. The corps of contributors includes several well-known *litterateurs*.

THE CHURCH versus THE LIQUOR SYSTEM. A sermon delivered by the Rev. D. C. Babcock, at Old Orchard, Me. A clear representation of the duties resting upon the Christian Church in the matter of the liquor habit. Price ten cents. Published by the National Temperance Society of New York.

PROCEEDINGS of the Twelfth Annual Meeting of the Telegraphers' Mutual Benefit Association, held at New York on the 20th of November, 1878.

TRAVELERS' OFFICIAL GUIDE of the Railway and Steam Lines of the United States and Canada. Containing maps of the principal lines, and lists of the general officers, together with miscellaneous information on railway matters. Published under the auspices of the General Ticket and Passenger Agents' Association. Current numbers received.

RELIGIO-PHILOSOPHICAL JOURNAL's Series of Biographical Sketches of Prominent Spiritualists. No. 1; price 25 cents. This pamphlet of sixty-one pages contains biographical data relating to Samuel Watson, D.D.; Robert Hare; Hudson Tuttle; Giles B. Stebbens; Mrs. Francis G. McDougal; James G. Clark; Rev. J. Pierpont; J. M. Peebles, M.D.; William E. Coleman; E. D. Babbitt; Andrew J. Davis; J. R. Buchanan, M.D.; which will be of interest to those to whom Spiritualism is of interest. Mr. Tuttle is responsible for most of the sketches, and nearly all of them are illustrated by portraits.

THE NATIONAL REPOSITORY; devoted to religious and other literature, biographies and travels, criticism and art. This magazine commences the year 1879 with intimations of progress, especially in its artistic features. There seems to be a disposition on the part of the editor to follow the example of sundry Eastern monthlies, whose artistic excellence has become their chief attraction.

ON GARDENING AND FLORICULTURE.—From Messrs. B. K. Bliss and Sons, of New York, we have received a voluminous catalogue of garden, field, and flower seeds, which is profusely illustrated with neat representations of plant and root growths, and contains also useful hints for the planting and care of gardens.

Messrs. Beach, Son & Co., of New York, and Mr. James J. H. Gregory, of Marblehead, Mass., also have sent us neat catalogues of vegetable

and flower seeds and bulbs. Now is the time for planning out garden and field work. Spring will soon be upon us.

THE ILLUSTRATED WOOD-WORKER, for Joiners, Cabinet-makers, Stair-builders, Carpenters, Car-builders, etc. A neat candidate for the consideration of mechanics in its line. A monthly, and low-priced.

PHYSIOGNOMY.

Popularly, this means the art of reading character by the means of its signs in the face, although it has a more extended meaning in the original. There are many people who believe heartily in Physiognomy who do not understand and therefore do not appreciate in full the claims of Phrenology. In fact, there are few who do not claim to receive some strong and very correct impressions from the general appearance of persons they meet. To all such, the large and complete work called "New Physiognomy," by Samuel R. Wells, will be specially interesting. This work contains nearly 800 pages, with more than a thousand portraits, including the widest possible range, from the best and most gifted of persons to the most debased and lowest grades of humanity. The whole ground of character-reading is covered fully, including the general principles of Physiognomy, together with pictures and illustrations of the general forms of faces; the chin, and what it indicates; noses, with upwards of seventy illustrations of this one feature; all about the eyes, their language, color, and character; the cheeks and complexion; the forehead; the hair; the jaws and teeth; neck and ears; the hands and feet; and a most interesting chapter is that devoted to the "Signs of Character" in the actions, walk, and voice. The physiognomy of the insane, and the exercises in expression, are both interesting and important. The physiognomy of different classes is illustrated by groups of portraits of divines, pugilists, warriors, surgeons, inventors, statesmen, actors, poets, etc. A chapter of special interest to many is that of love-signs in the lips, chin, and eyes. If the suggestions given here were heeded, many disappointments in life might be avoided. Comparative Physiognomy is well illustrated. The book concludes with an extended chapter on Character-Reading, containing portraits of many men of the day, with brief sketches of character, as indicated in their physiognomies, together with a few words biographical.

It is published by Messrs. S. R. WELLS & Co., 737 Broadway, New York, who will send it by mail, post-paid, on receipt of price; and it is also offered as a special premium in connection with their well-known and popular magazine, the PHRENOLOGICAL JOURNAL.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 68. 1879.

NUMBER 4.]

April, 1879.

[WHOLE No. 485



REV. CAMPBELL FAIR, D.D.

FURTHER than that he is a clergyman by profession, the gentleman represented by this photograph is utterly unknown to the writer. When we remember that among the twelve apostles there was as much variety of character as could well be found among so many men—and one of them is represented as possessing a very

bad character—the fact of a man being a clergyman is not a certain sign of his possessing that harmony of faculty and organization which is desirable in such a position, or that he is free from unfortunate natural tendencies.

Some people seem to think that the phrenologist is bound to presuppose the

good character of all who are engaged in an honorable calling, and that it is something quite unnatural for him to recognize anything good in one whose vocation is calculated to break down and hold its subjects in a low level of morals.

The portrait before us indicates a temperament both fine and strong. Its fineness is shown by the classical cut of the features, by the expression of the face, by the fineness of the skin, and by those peculiarities of appearance which are expressed under the head of "Quality." The toughness, strength, and vigor of this character are manifested by the abundant, strong, dark hair and complexion, and by the build of the head.

At the intellectual region we see sharpness, practical talent, intuition, quick impression of truth, ability to gather in at a glance all the facts presented, and to derive from them a definite idea or impression. This qualifies him to take a sweeping view of his surroundings, and to make such sharp inferences from them as will enable him to give a clear and vivid expression to his thoughts in word and act. If he were to practice extemporaneous speaking, and would trust, for his preparation, to a mere skeleton of the topics upon which he wished to treat, he would become a vigorous, earnest, clear, and rapid speaker, and the trooping thoughts that would come to him on the instant, suggested by the place and the occasion, as well as by the topic, would give him power to awaken and sustain an interest in his subject among thinkers, and hold their attention throughout.

He inherits his intellect from his mother; especially his power to gather facts, and form definite opinions, and ability to put these opinions and thoughts into words easily, fluently, and specifically. His logical cast of thought is indicated by the fullness in the upper part of the forehead; but he is not one of those dry, hard, logical workers who can not come down to the common, active realities of life. He can so clothe the framework of his argument with incidents of common life that the discourse will seem fresh, original, and practical, and the strong trellis-work of logic will not be particularly

seen, although it will uphold the foliage and fruitage of his subject.

If he were a lawyer, he would take the facts, law, and logic of a case, and present them to the jury so that common men would see the point, would understand the argument, and carry it with them to the jury-room. He has an orderly cast of thought and character. System is one of his special points. He appreciates the witty. He sees the absurd and the ridiculous. He is a sharp critic of resemblances, contradictions, and adaptations. He reads character very correctly, generally understands a stranger at a glance, and seems to adapt his conduct and conversation, as well as his selection of subjects, to the persons before him. If he were an extemporaneous preacher or lecturer, he would select half a dozen persons in his audience to talk to, and would address himself to these persons according to their mental peculiarities, until he saw each one yield assent to the sentiment. He would revolve and evolve the point by fresh illustrations, until the one he was especially addressing appeared to accept it.

He has a generous spirit, is liberal in his feelings; but is not one of those yielding, mellow men who can be molded and governed by the caprice of his associates. From the day he left the cradle he has been a marked personage; we do not now say, by greatness, but by that which was characteristic and specific and positive; by determination, by self-reliance, by pride and ambition, by the tendency to center himself on his own foundation, and face the world, with its difficulties, and not cry for help.

If he were a lawyer, he would face opposition squarely. He would address the jury with a calm strength and self-reliance which would be very impressive. He is not one who waits to find out everybody's preferences and prejudices, but he studies his duty, and then persistently acts upon the course which he thinks is right. He moves forward as the plow, not as it crashes through the field, upturning vegetation, unhousing animals and insects, but in another sense like it, taking a direct and earnest course, fulfilling duty as if there were nothing in the way.

He has Firmness enough to make him steadfast and unswerving; Self-esteem enough to give him dignity, self-reliance, and the desire to be arbiter of his own fortune and the planner of his own course. He does not like to be dictated to; plans his own course as if he were alone; seeks to know what is right, proper, convenient, and just, and carries himself with steadfastness and strength in the path that seems to him proper. He is ambitious; and, while he is sensitive in regard to opinions which may be entertained respecting his motives, he has more power than most men to rise above public praise, censure, and criticism.

He has Combativeness and Destructiveness enough to fight the battle of life manfully and to move forward in the line of duty, as if he were strong enough to carry out his purposes; and he would impress people with the idea of power, resolution, and ability to conquer difficulties.

If he were in a secular field, like manufacturing, commerce, railroading, or navigation, he would be a moving spirit and a controlling force among strong men. He has the signs of social power—the ability to win friends and hold them. Still, with his governing and independent spirit, he is likely to be a little too overbearing and positive in the social circle.

His intuitive sense of truth, his promptness in forming opinions based on facts, and his resolution and firmness, all make him a master of many men who may have a broader logical mind, and who are more capable of reasoning and resolving abstruse subjects which demand a severe and critical course of reasoning. He is a natural leader in affairs; perhaps not the General to plan the battle so much as a leader of men and the carrier out of the plans. He has a magnetic presence, and wherever he moves, people are attracted to him—are drawn into his wake. He exerts an overshadowing influence, and is very likely to be the master of the situation.

We venture that he does not often run to his bishop for advice, but, knowing the general policy to be pursued, he carries himself with an individualism that is something like that of the commander of a ves-

sel in a squadron, who may obey the general sailing order as to the positions of latitude and longitude, but handles his own ship, is the master of his own crew, and makes observations with his own instruments, and thus works out his position without help.

BIOGRAPHICAL SKETCH.

Though called to preach but a few years since, Dr. Fair has already taken position as one of the leading divines in Baltimore. He was born in Holymount, County Mayo, Ireland, April 28, 1843. His father was a large landed proprietor, at whose death, in 1846, the estate devolved upon and is now in the possession of his eldest son. He left a wife and eight children, all of whom are living.

Our subject was educated principally by a private tutor. As a boy, he looked forward to becoming a civil engineer, and was accordingly placed under the instruction of one of the most distinguished members of that profession in Dublin, the late Maurice Collis. But, when about fifteen years old, he altered his mind, and decided to enter the ministry; whereupon he was admitted to Trinity College. There he proved himself an apt student, shared the honors of the institution, and was graduated with distinction.

He then entered upon his theological studies at St. Aidan's Theological School, Birkenhead, England. There, too, his course was a very successful one, taking, in many of his examinations, the first position in his class.

He was ordained a deacon by the late Lord Bishop of Chester, on Trinity Sunday, 1865, his appointment being to the curacy of Holy Trinity Church, Birkenhead. The following year he received the order of Priest at the hands of the present Bishop of Chester, Dr. Jacobson. In November, 1866, he was made Superintendent Missionary of the Irish Church Missions, Dublin. The following year was that of his promotion as London secretary of the same society, with the curacy of St. Jude's Church, Chelsea, and Deputation Secretary in the midland counties of England, and North and South Wales.

In September, 1868, an event occurred which proved the turning-point of his life. He was traveling from Birkenhead, England, to Llanidloes, Wales, when he was involved in a terrible railroad accident, by which he sustained a paralysis of nerves at the base of the brain, and was deprived of the senses of sight, hearing, taste, and smell. A long confinement to his bed followed, and, when able to go out, being advised to try a sea voyage, he came with his mother to the United States, arriving at New York in the latter part of 1870.

A desire to explore the country led to a tour, in the course of which all the important cities between New York and New Orleans were visited. "During this tour," says the doctor, "I was received kindly wherever I went. To the Hon. H. D. Lesesne, of Charleston, S. C., and Bishop Wilmer, of Louisiana, I am particularly indebted. Their kindness to me, together with the great climatic advantages, led me to make this country my home"—a resolution to which he still adheres, though not forgetting Ireland, which he visits annually.

In 1871 he accepted the assistant rectorship of Christ Church, New Orleans. He remained in this connection until 1875, when he became rector of St. Ambrose Church, New York city. The following June he removed to his present charge in Baltimore.

He is now known as the popular rector of the Church of the Ascension—a reputation which he has fairly won in the increased interest which he has aroused in all of her departments. His congregations are large and his schools crowded. Several societies have been established to push on the charitable and religious enterprises now in successful operation. Among the church organizations are the "Brotherhood," for the gentlemen of the congregation, and the "Aid Association," for the ladies—while a "Mothers' Mission" is the avenue through which the homes of the poor are reached and their necessities provided for.

Dr. Fair is Secretary of the Convocation of Baltimore—a body of which the Rev. A.

J. Rich is Dean. He is the author, too, of several popular lectures, and has recently published a work called "Sound Words," embodying a course of Sunday instruction for children.

With reference to his degree of D.D., the *Baltimore American*, of June 18th last, says: "The degree of Doctor of Divinity has been conferred on Rev. Campbell Fair, rector of the Church of the Ascension, by the University of Nebraska. The nomination was by the Right Rev. Bishop Clarkson, and is the only D.D. degree conferred this year by the University. Mr. Fair is a gentleman of fine scholarly attainments, and his preaching is marked by the simplicity of language, directness of expression, and simple purity of style that are the characteristics of scholarly eloquence. His sermons are always brief, extempore expositions of the matters pertinent to the selections for the day, and during his rectorship the congregation of the Church of the Ascension has become very large in numbers, and active in church effort."

In 1875, Dr. Fair married Miss Alice McLean, youngest daughter of the late Wm. J. McLean, a merchant of New Orleans. Mrs. Fair is thoroughly one with her husband, particularly in the affections of his people.

It is noteworthy that Dr. Fair stands conspicuously among his episcopal brethren as an earnest advocate of temperance reform, now and then discussing the subject before his people; and, as it would appear, with much good effect.

TRUE HEROISM.—There are many great deeds done in the small struggles of life. There is a determined though unseen bravery, which defends itself foot to foot in the darkness against the fatal invasions of necessity and baseness. Noble and mysterious triumphs which no eye sees, which no renown rewards, which no flourish of trumpets salutes. Life, misfortune, isolation, poverty, are battle-fields which have their heroes; obscure heroes, sometimes greater than the illustrious heroes.

THE CHINESE AT HOME.

SOCIAL AND DOMESTIC CUSTOMS—DIVINATION—CHARACTER-READING—PHYSIOLOGY—MEDICINE, ETC.

TO the student of social science there is no field in the world of more interest than China. Here one lives in contemporary times with Abraham and Confucius, and may find the ideas of antiquity in full life and career at the present. We here meet with humanity in a greater variety of forms and under as varied conditions as are to be found in the human race. The influence of food and occupation upon the physical development of man is here as clearly marked as the same influence in the development of horses and cattle. Although the illustrations usually given of the Chinese appear all to be taken from one model, yet there is no people presenting a greater variety of complexion and physical form. The effects of generations of cultivation of the same faculties and physical habits, have produced characteristic marks of each class, until one soon learns to locate a man in his relative position in society from his facial and physiological characteristics.

Chinese society may be divided for convenience into the following classes: 1. The gentry, which includes the literary and professional classes, and from which the officials are usually chosen. 2. The commercial, which includes all grades of merchants. 3. The mechanical, including all artisans. 4. The agricultural, which covers the list of gardeners, horticulturists, florists, etc. 5. The religious, or the priests and nuns, which may be said to compose a distinct type. 6. The common laborers, or coolies; and I might add a seventh class, composed of the army and navy, which is chiefly recruited from the last-named division.

Their regard for ancestors and the established usages of past ages requires that the son shall engage in the business calling of the father. Hence each of the above classes might be subdivided, forming as many distinct classes as there are distinct callings—the fifth class must be excepted, as all their priests are celibates, and recruited from the other classes, but the choice is generally

made so early in life that the sedentary and vegetarian life marks the physiognomy of the priest.

The peculiar nature of their written language also tends to separate the different learned professions. Hence each student is a specialist. There are but few comparatively of the literary classes outside the priesthood who know anything of their religious literature, and so of the other special branches. The natural result of this fact is to give greater deference to each professor in his department. Thus the judicial order is confined to a few judges in each district, from whose decision there is no appeal; and likewise the medical fraternity, although, strange to say, they are among the most ignorant. Yet they wield an absolute influence in their sphere, and all classes submit to the most needless and excruciating torture upon the prescription of the *doctor*, simply because *he* is supposed to know all about it.

Among the best patronized, most remunerative, and respectable of their learned professions is the fortune-teller, or *clairvoyant*, whose business it is to study the sprites for fates of men, and thus know just what is safe and profitable for each man to do. So complete is the belief in the powers of this class, that nothing is begun without first consulting an *oracle*, and his instructions are followed to the letter. This class correspond to, and are contemporary with, Daniel, the interpreter of dreams and handwriting upon the walls of ancient Babylon. When a house is built, the oracle is consulted to know where to put the doors. They think the devil is a great fool; hence the doors of all the houses are put in some eccentric angle, so that his satanic majesty may not find his way into the house to disturb the fortunes of the tenants. The idea is the same as that which obtains in the trap with an open trench for quails, which look around the wall for a place of escape, but never think to look in the center of the inclosure

for the open trench through which they had entered. When a person dies, the fortune-teller is called in, to ascertain a lucky position for the grave, and this is often a difficult task—especially if deceased had money. It is much like the arduous task of praying the soul of a rich prodigal out of purgatory in Roman Catholic circles. It is no unusual thing for the dead to remain unburied for months or even years, waiting for the oracle to determine the proper place; or more often with the poor, waiting to get money to pay the fee, for fortune-telling is a *cash* business. There is no danger of the professional losing a patron by refusing credit, for the belief of the people is so complete that they dare not neglect this important feature, and thus incur the displeasure of the spirit of the dead, whose powers for evil are supposed to be unlimited.

It not unfrequently happens that a bird will delay a wedding for days. The houses, wherever it is possible, are surrounded with trees or shrubbery, and these are the favorite resorts of birds, which are very numerous, and almost every variety of bird, especially the crow and magpie, are connected with some tradition of ill luck. Hence, when the professional oracle is consulted with regard to a safe time for a marriage, he often tells them that a day must be selected upon which a certain bird either does or does not light upon the premises; and thus the bride is sometimes kept in waiting for days, while the family look out for the omen of good luck. If a crow cries over the head or abreast of a man on a journey, it fills him with a dread apprehension of some dire calamity. Very similar to traditions in some parts of the United States, where a dove cooing upon a housetop is a sure sign of a death in the family. This class of foretelling events is based upon a secret power of divination possessed by the professional.

I have also met with men who were examining heads and hands with a view to ascertaining their owner's mental aptitudes. In other words, practices akin to those of Phrenology and Physiology are found among the Chinese. True, their methods are in a crude state, as all their sciences are, yet they seem to have discovered that the contour of the

cranium has some relation to the mental aptitudes. I was not able to learn the extent to which the decisions of the phrenologist influenced the life of the subject, as the cases met with were generally those of young men. But the feature that impressed me was the implicit faith the people seem to have in what was told them. Once or twice I saw fathers having the heads of their boys examined, and were taking written charts of what was told them. For what purpose I did not learn. But it is fair to infer from their usual faith in their teachers, that the information was employed to direct the education of the boys; and if this were true, it was a good thing, even though the phrenologist depended simply upon his intuitive convictions in regard to the talents of his subjects. It is at this point that the teachings of the science should be regarded more in this country. There is too much tendency to put boys to doing that for which they have no natural talent, and I think it is largely due to this that there are so many men of mere passive character in the professions. It is good logic that said "the Lord had spoiled a No. 1 blacksmith and made a very poor preacher out of the material."

It is rather remarkable that all modern sciences in the West have their counterpart in the East. There is scarcely an idea in our religion that has not a counterpart in Chinese religion; and scarcely a superstition with respect to devils, witches, ghosts, etc., in China, that has not been also in the history of Western nations, and even yet exists among the less thoughtful. This fact suggests that the proper methods of benefiting China are not to endeavor to create a revolution in their ideas and systems, or to transplant our theories instead of theirs, but to accept their established theories and refine them by culture, as we have refined our own—eliminating the gross and superfluous, leaving only the true and useful.

The Chinese have practically no knowledge of physiology. They have never practiced anatomy—regarding the human body as too sacred to be dealt with in so sacrilegious a manner. They depend wholly upon the external shape for their system of

physiology. The result is that their theories, or nearly all of them, are erroneous. They locate the heart in the abdomen, and suppose the soul to reside in the same place. Their treatment of disease is often the most absurd, as one would expect from such a superficial knowledge of the human body. The common diagnosis of chills, which is a very common complaint, is a possession of devils, and the *shaking* is the symptom. It is an offense to tell a man he has chills, for it is equivalent to telling him he has devils in him, and that implies that he is a great sinner, for, strange to say, they never accuse the devil of injustice. Their conduct toward this fabulous being is a constant endeavor to outwit him. But all calamities are regarded as his work, and hence there is no sympathy for the suffering.

Consumption is declared to be the loss of blood from the system, and the pale face of the patient is the evidence. Their treatment of this disease is to give the patient blood to drink. For this purpose consumptives attend public executions, which are done by beheading, for the purpose of catching the blood of the victim in their rice bowls, to drink it *medicinally*. Small-pox is very general among them, and although they know nothing of vaccination, they have learned the benefits of inoculation, and this is extensively practiced. They regard this disease as under the special jurisdiction of a goddess, whose whole time is devoted to this one disease. They accordingly have images and pictures of the goddess, which are worshiped with much display. They pronounce the small-pox as "flowers of heavenly planting," and the varioloid as "flowers of human planting." No one dare speak reproachfully or disrespectfully of the disease, lest the goddess be offended and bring summary and speedy punishment. When one is taken with this disease his friends send congratulations, and the family put on the semblance of rejoicings. The priest is first called in, who enthrones an image of the goddess in the house, which is worshiped by a committee in behalf of the patient. If this succeeds in bringing out the pustules, no more is done; but if the case is an urgent one, the priest is again

called in, and the image is escorted through the streets with music (?) and fire-crackers. If this fail, a doctor is called in, and if then the patient dies, as they often do, strange to say, the matter is acquiesced in as one of fate. In either the event of death or recovery, the priest comes to escort the image of the goddess from the house. Thus this *holy office* is called into requisition with these people on occasions of distress, the same as in other countries.

Their decision upon *colic* is that it is an accumulation of wind in the stomach, and their treatment is most ludicrous. Last summer I was sojourning in a Buddhist temple in the Li San Mountains, when I had an acute attack of cramps in the stomach, which came near being the end of me, and a solemn, greasy old priest stood by with his hands folded on his breast beseeching the huge idols to have mercy on the stranger; and he recommended those in attendance to *rub me down*. I recovered, however, and I will never know whether the medicine I took or the old man's prayers cured me; certain it was that I was in great distress, and the medicine and prayers were given, and I recovered. What logic, therefore, will tell me the necessary relation between the treatment and the cure?

Their knowledge of one of the most delicate and important branches of the science of medicine is sadly deficient, and from this results much suffering and death. I refer to midwifery. The medical missions in China are doing more good in this one direction by teaching their doctors how to treat dangerous cases than in any other way, yet these are often defeated by the prejudices of the people. They are too modest to receive treatment, and expect relief in difficult cases by looking at the tongue and feeling the pulse of the patient.

Last year a patient was received at a mission hospital at Hankow who had a suspicious wound upon his arm. The surgeon learned that the ancients had said that the flesh of the dutiful son, eaten by the father, would cure any disease, and this young man's father had been afflicted with dropsy, and the son was persuaded by his friends that it was his duty to give flesh to cure his

father. They had, accordingly, with a razor cut a piece of flesh from the muscle of the boy's left arm as large as a hen's egg, and his mother had cooked the same with pork and beans and his father had eaten it. The old man died, however, and the boy was abused and accused of not having a pure spirit, or else his flesh would have made better medicine.

Among the list of drugs and medicines are many of the most ludicrous things. Tigers' bones, especially the claws, are of priceless value. Ginseng is worth its weight in gold; one root, when properly wrapped in red and yellow paper, will bring from three to five Mexican dollars. Any unnaturally-developed bone or horns of goats, buffaloes, etc., are to be found among their medical collections. Last summer I found among the collection of a *great doctor* a head of a mountain goat, brought from Thibet, which had five distinctly-developed horns. I tried to buy the specimen, but found it too valuable for my purse. In the same collection was the foot of a man, which had been taken off at the ankle-joint and dried. He called it the foot of a *wild* man. From what I could learn I concluded it to be a foot of one of the aboriginal inhabitants of Central China, a colony of whom still exists in one of the western provinces. They are a very low type of humanity, and would be of historic and scientific interest if more was known of them. What virtue there was in that foot, medicinally, none but the initiated know. But that there is great virtue none dare deny; otherwise the "great and good doctor" would not have it. Among their herbs and minerals, however, they have some of the most popular medicines, but they know practically nothing of pharmacy. Hence the practice of medicine in China is one of the most worthless things imaginable. And as to surgery, it is even worse; they can not puncture an ordinary abscess or boil. Once I saw an itinerant doctor, a sort of street-corner-patent-medicine-man, who had a statue or figure of a human body made of cloth and stuffed, much like the rag-doll of the nursery. Upon this figure he had a chart drawn, with points to indicate the vital functions, and he had a number of long

needles with which he punctured the flesh over the various organs supposed to be diseased. This man treated upon the "counter irritant" plan. In a year's travel and residence among them I only met with one incident of this kind.

It is indeed a novel feature to find among a people so shrewd and so given to literature such a remarkable lack of common sense. The most ridiculous theories are propounded with all the gravity of certainty and authority. I can not conceive of anything too absurd to be accepted by the Chinese mind, if it only has tradition or mention in the *classics* to back it.

W. G. BENTON.

THE PYRAMIDS OF EGYPT.

THE manner in which the Pyramids were built is thus clear enough: the mechanical skill their construction shows must remain a marvel. The main materials were, indeed, quarried from the limestone rock on which the monuments stand, but the finest quality used was brought from quarries on the opposite side of the river, and, in the instances in which granite was employed, usually for details, from the First Cataract. How were the vast blocks lowered from the quarries and transported to the river, how embarked, again transported to the edge of the desert, raised to the low table-land on which the Pyramids stand, and then elevated to the heights required, in the case of the Great Pyramid up to above 450 feet, and how were not alone the casing-stones, but also the stones lining and roofing the narrow passages and chambers, fitted with an exactness that has never been surpassed? We know from their pictures something of the machinery of the Egyptians, how they transported huge masses of stone by the use of the labor of men or oxen, on sledges moving on rollers, and we also know that great causeways led up from the valley of the Nile to the plateau of the Pyramids. But this is all. Of their mode of raising masses we are wholly ignorant. People have talked of mounds up which the stones were dragged to build the Pyramids, but the work of con-

structing an easy incline for a pyramid 460 feet high would have been tremendous, and the materials, unless it was built of stone, would not have been at hand. At present we are as far as ever from a solution of this curious problem.

The Great Pyramid was originally 480 feet high, and each side of its base measured 764 feet, dimensions slightly reduced by its use as a quarry in later times. The successive Muslim capitals of Egypt, of which Cairo is the latest, have been built of the monuments of Memphis. The city and its temples have disappeared, and left scarcely a trace; yet the larger Pyramids have lost but a small portion of their materials, and where there are marks of ruin, it is rather due to the efforts of explorers than to the actual removal of the stones from the site. Seen from afar, on what Horace well calls their royal site, the vastness of the Pyramids strikes us; as we approach them, and begin to distinguish the courses of stone, this im-

pression wanes, to return with an oppressive force as we stand beneath them. All other works of man are dwarfed by them, but it must be remembered that no other works of man occupied a whole nation, as it is all but certain the greater Pyramids did, for one or even two generations each. No public works save the Pyramids are known of the Memphite kingdom. When true public works begin, Pyramids become far less costly, like that of the wise king who excavated the Lake Mœris.

The object of each Pyramid was to entomb a single mummied king: sometimes two supulchral chambers may point to a double burial: in one case an early monument, the Third Pyramid, seems to have been enlarged by a later sovereign; but in general each monument seems to have been designed for a single entombment. The purpose of so vast a labor is no longer a mystery if we may assume that the Egyptians held the preservation of the body to be essential to immortality. It is certain that all Egyptian tombs were constructed under the influence of a belief in the immortality of the soul.—*Contemporary Review*.

BRAIN AND MIND.

CHAPTER XII. — *Continued.*

RELATIVE IMPORTANCE OF THE FACULTIES.

EVERY mental faculty has its legitimate sphere of activity and is essential in adapting man to his relations and surroundings in the present life. If any organ be deficient in the brain, the mind in that particular will be wanting in the completeness of its manifestation. But some organs are much more important than others in the influence which they exert over the life and conduct of the individual. Color, for instance, may be entirely wanting, yet the person be well qualified to win success in avocations where a capacity to judge of hue and tint is not required; or he may be deficient in the organ of Tune, and yet have excellent capacity for a wide sphere of usefulness. If, however, the organ of Caution be very small, there will be a

lack of prudence and forethought which will extend to every department of the individual's activity, and prove a serious hindrance to his success in any independent vocation. Or, if Firmness be wanting, vacillation will characterize the individual in all his affairs, and prevent him from accomplishing results which in other respects he may be admirably fitted to achieve. On the other hand, as every organ tends to activity with a degree of energy proportioned to its size, if one be developed much in excess of all the others, it will give a bias to the mind which it will be difficult to correct. An intellectual organ may be possessed in a very large degree, and seek its gratification to the fullest extent without detriment to the individual or the community; but an exceedingly

large organ of propensity or sentiment will warp the character, and may prove a serious impediment to the success and happiness of the individual. Bidder and Colburn, through very large organs of Number, while yet mere children, astonished the world by their mathematical calculations. Mozart's greatly developed Tune sought its gratification, at a very early age, in musical composition, and in after years delighted the world with divine symphonies. We look upon these men in wonder, and admire their genius. But had this excessive development been in the region of propensity, at Amativeness or Alimentiveness, for instance, we would have been disgusted with their exhibitions of sensuality or gluttony. Or had these intellectual organs changed places with the sentiments of Hope, or Benevolence, we would have pitied them for the failure and misery brought upon themselves and others through excessive hopefulness and generosity.

Thus, when any mental organ is greatly predominant or deficient, the result is necessarily a departure from harmony in the mental manifestations, and from symmetry of character.

But some faculties are higher in authority than others, and are naturally fitted to be the guiding and controlling powers of the mind. Hence a mind well constituted to cope with the existing conditions of human life should possess these powers a little in excess of the inferior or ancillary faculties, so as to enable them to exercise the habitual supremacy which is necessary to regulate properly the moral and secular life.

The careful reader of the preceding chapters will need but little reflection to determine for himself what organs should be the stronger for this purpose.

CHAPTER XIII.

THE ACTION OF THE FACULTIES.

ALL the mental faculties in their individuality are mere instincts. They spring involuntarily into activity on being excited, and though we may repress their manifestation, we can not avoid the feeling which accompanies the exercise of an organ, when once it has been excited to activity; Acquisitiveness, for instance, instinctively desires to possess, and the accumulation of property affords it gratification. If there were no feeling of fear, nor any sentiment of justice in the mind, it would seize upon property wherever it existed without regard for the rights of others, or dread of the pain which might be inflicted by him whose rights it would assail.

In the squirrel, Acquisitiveness acts thus blindly and instinctively. The mere sight of an ear of corn would be sufficient to excite it to activity, and impel it to seize upon the grain, and to store it away for future use. Just so Alimentiveness acts in the bird, prompting it to help itself to seeds which may be exposed to its gaze. The only power of mind which would prevent these from instantly gratifying their desire is Cautiousness, which, if danger were near, would repress the manifestation of Acquisitiveness in the squirrel, and Alimentiveness in the birds. They have neither Conscientiousness to remind them of the rights of others, nor intellect to teach them how they may supply themselves with food without violating any principle of duty.

Philoprogenitiveness is equally blind and instinctive in its activity. It is naturally related to children, and they are the objects which afford it gratification. If they are well and happy, it delights in their felicity, or if they are

in pain, it is grieved and sorrowful; but it is incapable of perceiving what is good for these children for their own sakes, or of devising schemes for promoting their welfare and enjoyment. This is abundantly evident from the commonly observed fact that many mothers, through the great activity of Philoprogenitiveness unregulated by reason, pamper and spoil their children, and bring upon them as well as upon themselves much unnecessary trouble and unhappiness.

The intellectual organs, in like manner, respond instinctively to impressions. A very active organ of Tune tends involuntarily to activity, and makes music through its own instinctive impulses. Number, also, when very large, instinctively prompts the individual to perform arithmetical computations. And even Causality, the highest organ of intellect, in its own individuality is a mere instinct blindly seeking to know causes and remote relations, but there its activity stops. Of itself it can not apply the knowledge which it acquires to any useful purpose. Every day life brings us into contact with men who think, theorize, and scheme without any apparent object of a practical or useful nature. Books of large dimensions are published, which are full of dreamy speculation, and lacking entirely in positive application to any subject.

When we rise into the moral region, we find its faculties characterized by the same instinctive activity. Benevolence, for instance, acting alone, would prompt the individual to rush to the aid of the distressed without considering the danger which might threaten it, and to give liberally of its bounty to relieve suffering, though by doing so it might take the bread out of the mouths of its own children and reduce itself to poverty.

Veneration in like manner gives a mere impulse to reverence or worship. In itself it can not discern what objects are worthy of its homage, as is shown by the religious practices of the uncivilized or unenlightened races in bowing down to sticks and stones, and even to animals of the lowest order.

Conscientiousness, although possessing a very high office as a regulator of the other faculties, is blind and instinctive in its activity. It prompts to the performance of duty, obligation, and justice, but the nature of duty and obligation as understood by any one person is dependent upon his birth, training, and associations. The "conscience" of a Carib, or Hindoo, differs much from the moral sense of the Englishman. A Carib, stimulated by the feeling of duty to his people and himself, would do things which an Englishman would regard with abhorrence. In its application to human affairs, Conscientiousness under the guidance of the intellect is necessarily variable. It may decide upon a case to-day in accordance with the facts which are laid before it, but to-morrow, when new facts are acquired, it may give an entirely different, perhaps opposed decision. It restrains the other faculties because it is pained when they pass beyond the bounds of what is just and right, but it is the intellect which defines those boundaries.

Thus each faculty acting alone seeks its gratification blindly, and with a degree of energy proportioned to its size and the influences of quality and temperament. It has no power of itself to set a limit to its activity, but seeks its indulgence without restraint, except that imposed by the other faculties.

Special characteristics of the classes.
—We come now to consider the ques-

tion: In what faculty or class of faculties does *the restraining and guiding* power of the mind over its own activity reside? This will be understood clearly, we think, after we shall have discussed the peculiar characteristics of the three great classes of faculties, viz.: the Animal, the Intellectual, and the Moral. The peculiar characteristic of the animal faculties is selfishness. Their activity terminates in self, family, or friends, and they never seek the welfare of mankind in general. The propensities, located at the side-head around the ears, are entirely personal in their activity. Alimentiveness is related to the food which nourishes the individual's own body. Vitativeness gives him a love of life from the mere pleasure of existence. Combativeness imparts the boldness to oppose all encroachment on his own individual rights. Destructiveness seeks to destroy, that the individual himself may not be destroyed. Acquisitiveness is gratified with accumulating for the mere pleasure which it experiences in self-aggrandizement. Secretiveness suppresses feelings which it may be injurious to one's interest to manifest, and gives slyness and reserve which are often highly useful in maintaining the individual against superior power; and Cautiousness supplies the prudence and guardedness essential to the maintenance of existence amid the countless dangers which beset man's pathway.

These faculties may minister greatly to the welfare and happiness of mankind in general, as well as to the individual's own aggrandizement. Acquisitiveness, for instance, may accumulate that it may give the more liberally to objects of charity. Combativeness may fight valiantly in defense of the weak and the oppressed, without considering its own advantage. Secretiveness and

Cautiousness may be exercised in the interest of a stranger, without any regard to self; but it is only as they are conjoined with the higher sentiments of justice and benevolence, that their motives are subservient to the welfare of others.

In the domestic propensities we appear to make some advance upon the individual selfishness of the faculties which we have been considering, but they are entirely selfish in their nature. They terminate in other individuals, and experience pleasure in the happiness of those individuals, or are pained by their suffering, but it is only because of their natural relation to those objects. The love which springs from Amativeness in its severalty is faithless and indifferent to the welfare of the object of its attachment; but in combination with the other social organs and the moral sentiments, it becomes a most powerful element in the maintenance of social order; some of the noblest institutions of a philanthropic and esthetic nature known to man have sprung from its influence.

Philoprogenitiveness gives a love for children and an interest in them solely because they are the objects to which it is naturally related. It generally acts along with Benevolence, and a disinterested regard for its object mingles with and elevates the mere instinct of parental affection. But in its own individuality it is entirely selfish.

Adhesiveness inclines us to make friends, and to indulge social and fraternal feelings; but it does not give us an interest in its object for that object's sake. It loves merely for the sake of the pleasure which it experiences in the object of its attachment. The ox will sometimes pine and become sick when his companion is removed, but he does not grieve for his companion on that

companion's account, but solely because his Adhesiveness is disagreeably affected by the absence of an object which afforded it pleasure. His grief is of the same stamp whether his companion has been led to the slaughter-house, or introduced to a much more agreeable condition, and is assuaged only by time, or the introduction of another object upon which Adhesiveness may be exercised.

The sentiments of Self-esteem and Love of Approbation are entirely personal in their nature; the former leads us to esteem ourselves and whatever belongs to us, and is completely centered in self; the latter is delighted with praise, and the good-will and respect of our fellow-men. It may, indeed, lead us to treat them kindly, and to make considerable sacrifice of ease and comfort to do them service; not, however, that they may be made happier, but that our own Approbativeness may be gratified by the praise and esteem which will be accorded in return for our kindness.

Thus all the propensities and feelings which man possesses in common with the lower animals center in self as their object, and never lead the individual to do good to others purely from a desire to promote their welfare.

The common characteristic of the *Moral Sentiments*, on the other hand, is unselfishness. They tend to lead the individual's thoughts and desires from self outwardly, and they would sacrifice every selfish impulse to duty and principle.

Benevolence is entirely unselfish in its nature. The misery and unhappiness of others cause it pain, and it finds its highest gratification in alleviating their distress and promoting their enjoyment. Its activity, indeed, affords the individual himself much pleasure,

but the normal activity of any organ is attended with pleasure. Its ultimate aim is the good of others.

Veneration gives the tendency to worship the Supreme Being, and to reverence whatever is great and good. It is directed exclusively to other objects, and tends to humble self in the contemplation of their noble and venerable qualities. Hope looks with happy anticipations to the future, and is delighted with the expectation of good to come. It may, indeed, lead the individual to look forward to a good which shall be exclusively his own, but it is not necessarily selfish in its activity. Marvelousness gives faith in the unseen, and a love of the new and the wonderful, but there is no appropriation to self in its activity. Conscientiousness recognizes our own rights as well as those of others, but it would not diminish these, or add to those, one iota beyond the strict requirements of justice. It raises the individual entirely above all personal considerations, and enables him to condemn himself as readily as another, and to sacrifice every personal, family, or friendly interest on the altar of duty.

Thus the moral sentiments, inasmuch as they tend to lift the individual above all selfishness, and prompt him to seek the welfare and happiness of other beings as their object, are superior to the animal propensities and sentiments, and are naturally constituted to exercise a restraining influence over them whenever their undue activity would lead to abuse. But we have seen that the moral sentiments themselves are blind and instinctive in their activity, and when excessively developed, just as liable to run into abuse as the propensities; hence, while they are naturally constituted to exercise the restraining power over the

mind, they are not fitted to be the guides of any faculty or class of faculties. This is the

PROVINCE OF THE INTELLECT,

which is fitted to gather knowledge from every quarter of the universe, to trace out the laws which govern the world, and to perceive the relations which every being and every object hold to each other. It thus gives us the power to foresee consequences and to anticipate results, which may be in the highest degree useful in warding off calamities and in promoting enjoyment.

Acquisitiveness, for instance, being large and active, may desire to acquire wealth. A well-developed Conscientiousness may exercise its due authority, and restrain Acquisitiveness from encroaching on the rights of others, in gratifying its desire. But unless the Intellect be well instructed in the details of the occupation through which gratification is sought for, failure and chagrin will be likely to ensue. Given equal Acquisitiveness and Conscientiousness, the larger the Intellect, and the better informed it is in regard to the laws of trade and the relations of the things with which men deal, the more complete, far-reaching, and comprehensive it is in its operation, and the greater will be the success in the accumulation of property.

Benevolence may be possessed in such a large degree that the mind may run habitually on schemes of charity, but unless the Intellect be sufficiently powerful and well informed to form wise plans, and to carry them out completely, Benevolence will fail of its purpose.

Through the organ of Veneration, man is naturally prone to religion, and disposed to worship the Supreme Being, and to reverence whatever is great and

sacred; but if we look back over the history of any people, we will find that the worthiness of the object on which their Veneration has been exercised has, in general, accorded with their degree of intelligence. Unenlightened by Intellect, Veneration has led man to prostrate himself before idols of wood and stone, and to worship beasts and disgusting reptiles. It has made him the slave of superstition, and caused him to bow down in abject submission to priests, to yield implicit obedience to the asserted representatives of Divinity, even to the giving up of life and property at their command; and it has invested with the utmost sacredness meaningless forms and ceremonies in religious worship. As man has risen in intelligence, priestly authority has decayed, superstition has given place to intelligent faith, forms and ceremonies have lost their sacredness, and the objects of veneration have risen to the true dignity of man's nature.

Amativeness, Conjugality, and others of the domestic faculties, may inspire a person with a powerful interest in another, and ardently desire to form an alliance with him. This love may be sanctified by the truest and purest devotion which Conscientiousness and Benevolence can inspire; yet if the Intellect shows the alliance to be improper, unhappiness will inevitably ensue. The true cause of a very large proportion of marital infelicity lies just here. In selecting matrimonial partners, the feelings are too often allowed to forestall the judgment. They fasten upon their object before the Intellect has had an opportunity to become familiar with its qualities. Were the Intellect keen enough to discern character and motive, and powerful enough to rise above the bias of the feelings, it would be in the best condition to guide the

individual to an object in which every feeling might be gratified, and the person find enduring happiness.

The peculiar province of the Intellect, then, is to guide and direct the other faculties in their efforts at gratification. It may be exercised in conjunction with the moral sentiments, and devise schemes for the promotion of justice, charity, and good-will among men; or, combined with the propensities, it may lay plans which will subvert justice, destroy happiness, and bring untold miseries on mankind. If the moral sentiments are deficient, the stronger the Intellect, the greater will be the individual's capacity for knavery. The shrewdest criminals possess keen powers of observation which are made the servants of the masterful propensities, and minister to their gratification; the moral sentiments not being powerful enough to exercise their rightful authority over the other faculties.

Right Conduct results from the harmonious activity of these three classes of faculties. The propensities impart prudence, forethought, courage, and energy to the character; the moral sentiments supply the principles by which conduct should be regulated; and the Intellect is the discriminating power which is essential to guide the other faculties in their instinctive efforts at gratification. In order, however, to fit the Intellect to perform this duty successfully, it must be fully instructed in the laws and relations of the objects on which the other faculties are exercised. By nature, the Intellect is constituted to acquire information concerning all the relations of man, and is susceptible of training and culture to an indefinite extent, there being no contingency in this life which the reasoning sense can not fairly resolve.

* * * * *

RENTING ONE'S CONSCIENCE.

[NOT inappropriate to follow what has been said in the foregoing paper, are these reflections which are found in an exchange.]

"The whole question of the relative moral responsibility of employer and employed is not in danger of too frequent or too careful consideration by either party. It is certain that the employer has no right to shift the responsibility of bad acts done by his own suggestion, merely because they are performed by his agents. It is equally certain that the agent can not silence a reproving conscience by the reflection that his evil doings were of his employer's bidding. And yet both too often seek to evade their own direct responsibility, acting on man's universal and perverse desire to get behind something or other, ostrich fashion, if only his own head be out of sight. As Edward Everett Hale justly said in a recent speech to young journalists of Boston: 'If a man has sold his soul so completely that he does

not care whether he fights with Eugene, Marlborough or Saxe, with Rupert or Cromwell, that man has fallen pretty low down. It is pretty bad to be engaged on Tuesday writing up a revival, and then engaged on Saturday, on another paper, writing it down. That, gentlemen, is a thing we have all got to bear in mind. The press of this country has been losing influence for thirty-five years, because the opinion is gaining that writers have sold their swords. . . . It is your business, young gentlemen, to raise the standard of morals, to encourage that perfect moral conviction of the man who writes that he will go to the cross, if necessary, for his opinions.' The same truth runs through all other employments. A clerk who knows his employer's business to be improper had better starve than work for him another day. A minister who stands up in his pulpit after he has ceased to believe the fundamental doctrines of his

Church, is a Liguori without Liguori's consistency. A physician who pretends to cure by a system he knows to be false, is not very far removed from a murderer. Nor is the legal profession exempt from the sway of ordinary honesty. Where is the Scripture justification for the plea sometimes put forth by able lawyers, that their first duty is to free their clients by any means whatsoever? Is this the commandment, 'Thou shalt not bear false witness against thy neighbor, save when addressing a jury'? What shall we say of advocates who suddenly break in upon their ordinary plea for a prisoner whom they know to be guilty, and say in their most solemn manner: 'Gentlemen, on my honor as a man, and quite aside from my duty as a lawyer, I tell you that I know the prisoner to be innocent'?"

COLUMBIA'S PROPHECY.

THIS is the title of an odd series of rhymes said to have been found in an old scrap-book dated November 16, 1809. A contributor to the *World's Crisis*, of Boston, essays an interpretation, which in some respects is decidedly ingenious. We, however, give the lines without his notes, preferring to let the reader make his own comments and application; only essaying the remark that a considerable number of "old prophecies," which for a time excited interest and discussion, have been found to be only the work of clever men, who sought in this way to impose upon popular credulity.—ED.

COLUMBIA, home of liberty,
Shall not twenty rulers see,
Ere there shall be battle smoke,
Ere peace shall seem to be broke
And in waves of peril tossed,
The ancient order be deem'd lost.

But Columbia shall again
Rise, and fairer be than then.
Wonders great all men shall see,
Coaches without steeds shall be,
Air shall burn, and water fly
Swift as eagles cut the sky.

Brother shall with brother speak
Whom he hath not seen a week;
Letters shall go 'neath the deep,
Likewise o'er the mountains steep;
Boats shall sail against the wind,
Or, sailless, leave fleet ships behind.

Men shall speak to brazen ears
That shall be mouths in after years;
Word spoken shall be sent by post,
And no syllable be lost.
A drop of water shall have then
The force of many thousand men.

Ghosts shall guide the plow, and rain
And snow shall fall as men ordain.
The commonest of stone or stick
Other shall be than long, broad, thick.
Here and in a foreign clime
Men shall be at the same time.

Bread, folks shall from ashes bake,
Ice they shall to diamonds make.
And the salt seas his (their) thirst shall slake.
Fish shall be where fish are not;
Wells of fire shall be sought;
Women shall be turned to men.

All these things shall happen—when?
They shall happen—not before
Six years shall be reckoned four;
Thirteen shall be thirty-nine;
This shall be the certain sign:
Nine and nine reversing take
(Eight and one the nine shall make).
When ninety-two are eighty-one,
All these marvels shall be done.

TRIPLET MAXIMS.

THREE things to love—courage, gentleness, and affection.

Three things to admire—intellect, dignity, and gracefulness.

Three things to hate—cruelty, arrogance, and ingratitude.

Three things to delight in—beauty, frankness, and freedom.

Three things to wish for—health, friends, and a contented spirit.

Three things to like—cordiality, good honor, and cheerfulness.

Three things to avoid—idleness, loquacity, and flippant jesting.

Three things to cultivate—good books, good friends, and good humor.

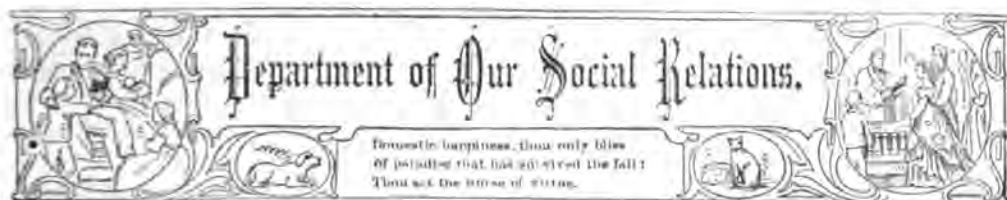
Three things to contend for—honor, country, and friends.

Three things to teach—truth, industry, and contentment.

Three things to govern—temper, tongue, and conduct.

Three things to cherish—virtue, goodness, and wisdom.

Three things to do—think, live, act.



POE AND RACHEL.

WILL the world never let Edgar Poe rest? I see it stated in one of the papers that it has been discovered, by examining his dust, that the brain is ossified, and rattles in the skull! "To what base uses may we come at last!"

To apply the caliper of moral measurement to this child of genius seems labor lost. There must have been in him a chameleon-like temperament, by which he assimilated to those with whom he associated, and thus each analyzer of Poe gives us a glimpse of his own idiosyncrasies rather than a revelation of this unique, wonderful creation.

I prefer to regard these persons of rare, exceptional genius as demonized—in a high, not malignant sense. When Luther stood before the august Diet convened at Worms, his memorable saying, "Here stand I, I can not be otherwise," was a conscious illustration of this. He, Luther, courageous, penetrating, discerning, could be only Luther, just as the cells of his brain and the leadings of conscience had brought him down from the ages. A strong will may achieve much; but the bias of nature can not wholly be controverted.

I like the Bible method of biography, that gives us the facts of a life and leaves the moral status to be adjusted by the reader. There we have Sarah forcing Hagar and Ishmael out into the wilderness; Rebecca inciting her son Jacob to deceive her husband and wrong her less-favored child; Rachel and Lear, with their domestic quarrels; and all down the history of the favored people, heinous crimes committed, scarcely without reprehension; the design being to give us the experience of individual life, good and bad, praiseworthy or blame-

worthy, with surprising candor, as if facts were the only important things in delineating a life. But a careful observer will detect an enlarging silver thread of approval for the truly excellent pervading all the pages of Jewish history; as in the wise courtesy of Abigail, and the steadfastness of the mother of the Maccabees. I think we must learn to accept genius as it is, and not pester it with too critical an eye, leaving the "stern daughter of the voice of God," Duty, to look after her wise children and approve them in her own time and way. Our judgments of genius, in any sense, seem an impertinence. Who are we, that we dare condemn?—we, who have not the spear of Ithuriel, to test the right of a being to be just what he is, and nothing else; to be what he is, and powerless to be otherwise—part and parcel of a lurid phantasmagoria, over which steal weird shadows, half human, half devilish—half divine, it may be.

We may hold the breath, feeling as if some hidden arcana were about to open before us—the breaking of the last magic seal once held by old King Solomon, by which the demons of Eblis are about to break from their bondage; but it is becoming in us to look on, and hold our peace.

In 1855, New York was alive with excitement over one of these wondrous demonized creations. The windows in Broadway were full of a tall, statuesque figure, about whom the classic robe fell in long, heavy folds, and upon whose arm glittered the form of a serpent. I was never tired of studying this Sphinx; the small, compact, beautiful head, that somehow made mine ache; the strange eyes under the contracted brow; the brow contracted by no ordinary emotion, but from a terrible intensity. It

seemed as if a fiery band encircled the head in the shape of the coral fillets in which she delighted.

My first sight of Rachel was in company with Mr. J. C. Derby, the favorite book-publisher at that time, and noted for his Abrahamic beard, which a Turk might envy, together with Mrs. Terhune (Marian Harland) and Caroline Cheeseboro—both writers of some eminence—and the latter a woman of unquestioned genius, as is testified in her work, "Victoria, or the World Overcome." Miss Cheeseboro was a small, weird-looking woman, taciturn, and gentle. I think neither she nor her companion were at all drawn to me; but in this world people meet and part, and see each other as "through a glass darkly."

The curtain rose, and Rachel was there: tall, lithe, panther-like. A movement, not a walk—an undulating stir, and she was before us. How she came there seemed a mystery. A lofty, magnificent statue, draped, motionless, and causing the heart to stay its beat; and the vast multitude could no more have applauded the instant of her appearing than if an unearthly spirit had suddenly become visible to the eye; but the applause that followed was something to be remembered.

Her voice was indescribable—a marvelous voice, deep, clear, distinct. No other French ever spoken was so like a Cathedral hymn; it assumed a majesty, a dignity like a Miltonic rhythm. The tragic tones of her voice were a soul-harrowing wail; her low sob went through and through the heart as the sobs of a suffering child affect us. Her infantile tears—real tears—were echoed by a flood from our own eyes. The abandon of her passion so expanded her whole aspect, that she was the veritable reality of the tragic muse.

In one point of view Rachel affected me as no other human being ever did. In others there is incompleteness, impediment, obstruction, as if the designs of nature had not been well carried out—as if she had started, perhaps, with some splendid intention, but her work had been marred or hindered. The opportunities had not been favorable; Destiny had interposed with

an iron grasp, and the great work sank to oblivion, and the result was a failure in some way; giving us characters too good for much, too bad for safety; and they are lost among plodding schoolmen, or behind prison bars.

Not so with Rachel. All that had been designed in her—morally, mentally, physically, whatever may be said of the nature of the design—was complete in her. Her most careless glance, movement, tone, sigh, or tear, were each and all perfect in kind. You would not change it; you would not criticise it, but yield to it as to some overmastering fascination. She had not been hindered nor obstructed—nothing had been in the way of her full development to the full pattern laid out in the projection of nature. She seemed to have taken herself up, as it were, and, without let or hindrance, become just what the intimations suggested. It was said of her that she never knew what trouble was. Not that she did not have occasion for discontent and suffering such as all persons of sensibility feel; but she would not accept it. She was not gay; neither was she sad or sentimental. She was an artiste, without the tenderness allied to art. She was a feminine King David, without the conscience that rendered the remorse of the sweet psalmist of Israel sublime.

There is something in the Jewish nationality favorable to this entire individual development—fostered, it may be, by their vagrant, isolated experience as a nation. The physique of Rachel was purest porcelain—the finest of clay; every line of every nerve and limb perfected to the nicest adjustment; not a particle of superfluous bone, not a shred of needless muscle. She belonged exclusively to the serpentine, fascinating class—to the Cleopatras and serpents of old Nile. She had a marvelous attraction, but evolved no sympathy. One might be cruel to her, and feel no remorse.

ELIZABETH OAKES SMITH.

WOMAN AS A SMELLER AND TASTER.—The marked superiority of women over men is, in few respects, more remarkable than in

their superior powers of smelling and tasting. A woman will detect the faintest odor of tobacco when a man, even though a non-smoker, often fails to discover any symptom of it. As with smell, so with taste. Women are wonderfully acute and fastidious in the manner of sauces and all flavoring ingredients. The faculty has been recognized in a very pleasing manner by the composition of the jury who decided on the qualities of

mustards exhibited in the Paris Exhibition. The Mustard Congress consisted of twelve gentlemen and an equal number of ladies. The arrangement, it is stated, was owing to a suggestion that the palates of men are vitiated by smoking, whereas women, who do not, as a rule, indulge in that pernicious habit, are likely to be better qualified to form a correct opinion on the merits of condiments.



MISS ELIZABETH THOMPSON,
THE YOUNG ENGLISH PAINTER.

AMONG the young painters of Europe there are very few who have achieved reputation with the rapidity which has signalized the career of Miss Elizabeth Thompson in art. Her choice of subjects of a military and national character has probably had

much to do with her popularity, but subjects, however felicitous in themselves, would not win attention unless they were treated with taste and that skill which is the product of industry joined to native esthetic endowment. In the portrait, which is taken from an

English publication, there is a mixture of qualities gentle and strong. The symmetry of the features is unusual; the delicate nose and well-nigh perfect mouth indicate a natural refinement and ready susceptibility to the influences of high culture and a delicate appreciation of the tender phases of emotional life. The broad head, the full cheeks, and the chin which borders on the massive, indicate physical vigor and mental strength. The motive temperament of her father is conspicuous in her action and largely controls in her thought. It is this element which appears in such pictures as "The Roll Call" and "The Charge of the Light Brigade," subjects generally deemed foreign to the lady who wields the artist's pencil. This element is conspicuous in the mental and physical organization of Harriet and Rosa Bonheur, and their creations in marble and on canvas are marked by energy and forcefulness. Miss Thompson has, we are of opinion, a warmly affectionate nature, but her affection is directed more toward strong than toward weak objects; and the best expressions of her affection are imbued with respect or admiration. Into her affection for the weak and petty, benevolence and kindness enter as stimuli. A courageous, meditative nature is hers, with leanings toward those bold, impassioned, unrestrained outbursts of expression which are largely dramatic. Her force must have its channels of relief, and the easel of the artist is one of the media by which she can "let herself out."

Miss Thompson's executive energy finds gratification in her choice of subjects, and is the source of the persevering labor which is essential to the complete working out of the details of a picture. It is probable that next to the subject, the patient industry shown in its development was the quality which has won the esteem of the art-loving public.

Miss Thompson is scarcely thirty years of age, the daughter of people in the middle class of English society, who were appreciative of the fondness for art which she exhibited when a mere child, and afforded her facilities for its practical culture. Previous to 1874 she was entirely unknown to the

British public, although in the Royal Academy Exhibition of 1873 she had a small picture entitled "Missing," which represented an incident of war. This was in many respects a very clever work, but drew little or no attention. Another picture of hers, which had been publicly displayed in a minor way, viz., in an exhibition of the Society of Lady Artists, of which she is a member, was "The Tenth Bengal Lancers at Tent-pep-pling." The merit of this also was not discovered until after her "Roll-call after an Engagement in the Crimea" had excited attention. This latter picture found a place on the walls of the Royal Academy in the spring exhibition of 1874, and the vigor of the composition, the drawing of the horses, and the management of the color were too expressive not to command notice. The Prince of Wales and the Duke of Cambridge were much pleased with the picture, and commented openly upon its merits. Royal approval has much to do with giving direction to the current of opinion in England, and Miss Thompson all at once found herself famous.

D.

AT THE SHRINE.

With quiet lips, but restless heart—

While dim conceits and fancies caught;

While acting out life's minor part,

We gather at the shrine of thought.

From argosies of hopes and fears,

From fields where fertile fancy sprouts,

And from the graves of buried years

We gather our beliefs and doubts.

Our childish faith so soon is lost,

The realm of mystery reached so soon;

Life's barques on sea of doubting tost,

With darkness shrouding star and moon.

And all we are, or hope to reach,

Mark faintly shiving drifts that lead

Our minds to thoughts that dimly teach

The lesson that may suit our need—

Until we gather at the gate,

With heart and head at bitter strife,

And ask the Oracle of Fate

To read the record of our life.

The Delphic oracle is dumb!

The world-old riddle, who shall read,

Save at the moment it must come,

When useless all for human need?

So many comments on one text—

Where is the true solution known?

How many savants stand perplexed

About the Old Rosetta Stone?

In the shekinah of the sea,

How many world-old secrets sleep!

Up from your slumber—tell to me
Why mortal man must wake and weep?

Ye stars that look so calmly down
From yon abodes of space unknown,
Shall bearing cross insure a crown?
Is there a joy for every moan?

For sorrow is there equal bliss?
What far-off circle holds its home?
Will trial in a world like this
Bring triumph in a world to come?

Vain questioning! The sea, the star
Are mute as Memnon on the plain.
Some hopes there were—some joys there are.
Oh, heart! that may not come again.

Ask it of those whose feet have trod
The sands that line the other shore.
Oh, vain attempt for those who plod
Earth's breast as they, in days of yore.

They look not back—they come not back.
Their noiseless echo can not cross
The tide whose bosom shows no track
By which to trace our gain or loss.

In darkness and in doubt we tread
The path all humankind have trod,
By sorrow and by suffering led,
To sleep at last beneath the sod.

WILLIAM E. FABOR.

UNCLE JIMMIE, THE CRIPPLE.

CHAPTER I.

THE COUSINS' QUARREL.

THE grand old trees which surrounded the cottage and shaded the lawn at "Maple Dell" farm were older than the proprietor himself. In his boyhood, Russell Howard had played beneath their ample shade as his own children were playing beneath them to-day.

It was the last of May; that season when the new dress of nature is at its loveliest. The air was laden with the fragrance of apple-blossoms, and the merry voices of children at play seemed to give words to the unwritten music of the hour.

Between two large trees was stretched a hammock, on which reclined Uncle Jimmie, the cripple. He watched the games and gambols of the children with evident pleasure, and his beautiful face would light up as one after another came to him with some story of their play.

Willie and Mary, aged respectively fourteen and twelve years, were the son and daughter of Mr. Howard. Their playmates, Marcus and Susie Gray, were from the city; his only sister's children.

"There, I've beat! I've beat this time, anyhow!" cried the clear voice of Marcus Gray.

"Yes, but you didn't do it fair; you cheated. I saw you hit the ball with your foot," said Willie.

"I say I did not cheat; and I won't stand it to be told I cheat, by a green country fellow."

"You did cheat. I saw you do it; and my eyes can see as straight as any of your city boys'."

The two had now become thoroughly angry, and their loud voices drowned the weaker one of Uncle Jimmie, who was trying to arrest their attention. Being unable to move from his hammock without assistance, he could not reach them.

"I should be ashamed to cheat, and then lie about it," said Willie.

"Don't you tell me I lie! If you do, I'll spoil your face, you greenhorn!" said the pompous and bullying Marcus.

"You do lie, and you know it," replied the angry, but fearless Willie.

Marcus now lost all self-control, and rushed upon his cousin with furious rage. He had been accustomed, at home, to rule the boys with whom he associated by his imperious will and physical prowess; but his present antagonist, though neither as old nor as large as himself, and entirely unaccustomed to quarrels, was the cooler and braver of the two, and would on no consideration have commenced a fight of this kind. Now, however, with the folly which generally accompanies youth, and, too often, maturity even, he supposed because he was in the right in the commencement of the difficulty, and because his cousin was the aggressor in the fight, that it was manly and brave to defend himself, and conquer, if possible, his opponent.

Warding off the first thrusts aimed at his head, he waited until he saw a favorable moment, then leveled a powerful blow against the ear or side-head of his cousin.

Marcus fell like one shot, and his head struck against a sharp stone, cutting an

ugly gash. The blood trickled over his face, which became white as marble, and he lost all consciousness.

The screams of the girls and the cries of Uncle Jimmie brought Mr. and Mrs. Howard and Mrs. Gray directly to the spot.

"Oh, my boy is dead! my boy is dead!" cried Mrs. Gray, as she knelt down and lifted his bloody head to her breast.

Mr. Howard's face was as white as that of the bleeding boy. He called a servant and dispatched him for a physician, and then carried the senseless body to the house. He bathed the face and head in water, and chafed the now cold hands, to bring back life.

Mrs. Howard stood by, moaning, "Oh, that my Willie should have done this thing, this awful thing! My noble, my great-hearted boy! What has possessed him?"

Meanwhile, Willie leaned against the wall, his arms folded. He made no sound. He knew that it was an awful thing he had done, but, somehow, he could not comprehend his own guilt. He knew he was right when he accused his cousin of cheating, for he saw him cheat. He knew he told the truth when he accused his cousin of lying, for he did lie; and he knew he should never have struck him had he not received the first blow. That kind of false courage which has so strong a hold upon the minds of men generally, the sentiment of which is, that he who does not resent a wrong is a fool, and he who does not return blow for blow is a coward, though never taught Willie by his father, had yet, through the influence of the world around him, the habits and customs of those he met, and much of the literature with which he had become familiar, so impregnated his mind that as yet he could see no wrong in what he had done. He was grieved, however, that he should have been the means, even in part, of bringing such grief into the hitherto joyous home, and horrified at the thought that his cousin was dead; for he supposed that nothing but death could deprive one of all life and consciousness, like his cousin before him. He watched each look and motion of his father as he labored to restore animation to the pale body, hoping to discern from him something that might bring

a ray of hope. At last his eye caught his father's. His own open questioning glance was met by one so cold, so condemnatory, that he went silently to his room, like one in hopeless despair. He had thought his trouble as great as he could bear before; but to find, by that one terrible look, that he was held guilty of all, crushed his young heart with an intolerable weight. No tears came to his relief, and for two long hours he lay like one in utter darkness. He could see no hope, no joy, ever again, for himself.

"They think me a murderer," he said to himself; "and surely I am one; but I did not mean to do it. I wonder if I shall be sent to prison? I wonder if I shall have to be hung?"

Then the awful horrors of such a fate chilled his blood. The cold perspiration started all over his frame. His teeth chattered and his muscles contracted, and, save for a constitution of great vigor, he must have gone into convulsions.

At length the door quietly opened, and his dear, sweet mother, her pale face wet with tears, came in, and, taking his head upon her breast, said: "Willie, darling, your cousin is better. The doctor says he will soon be well again."

"Oh, mother!" cried the boy; "then he will not die, and I will not have to be put in prison, and hung?"

"No, no, my son!—and did you think it was as bad as that, my poor boy?"

"Mother, mother, I did not mean to do it; you know I did not intend to hurt him so," was all he could say, as a shower of tears came to his relief.

"I know you did not intend it, Willie; but you have, nevertheless, done a great wrong. I feel, however, that you are not the only one to blame, and at a proper time we will talk it all over."

Willie, great boy that he was, clung to that loving mother's neck. She had understood him. He felt in his heart that she was not condemning him, and her gentle caresses and tender words soothed his shaking nerves, and brought hope back, once more, to his spirits.

"We must go down now," she said. "Uncle Jimmie wishes to see you."

"Does he blame me?" questioned the boy.

"No, not even as much as I do. He says he saw it all; and that had you been told the story of his own unfortunate life, as you should have been, this would never have happened. It will be told you now; and I trust that Marcus may get well, and that the whole thing may prove to us all a lesson of wisdom."

CHAPTER II.

MRS. GRAY'S ANGER.

WHEN the family at Maple Dell had gathered for their evening meal, Marcus, who had been assisted by his mother to the table, was the main object of interest. All were anxious for his speedy recovery, and the recent intense excitement, during which it had been feared he might never speak again, had not fully subsided. A little faintness at first kept him still, and he sat with his eyes closed, reclining in an easy-chair. Gradually his strength returned, and he began to look about and take part in the conversation. His mother's face beamed with satisfaction, though she could not look complacently upon Willie, who maintained a sad silence. His father, however, had relieved his weighted spirits by laying his hand upon his head and saying, "My son, I am very thankful to learn that you are much less to blame than I thought."

Uncle Jimmie spoke kindly to him, and endeavored to make him feel at ease. Yet, altogether, a restraint rested upon the hitherto happy party, which no effort had the effect to dispel. Even the two little girls could not come quite together upon the old terms of affectionate familiarity, for each was soured toward the brother of the other. Susie tried to tempt Marcus with every dainty of which she was herself fond, while Mary would slip her little hand into that of her brother, as if to say, "I love you, and I think you are just as good as ever, and a great deal better than Marcus."

The latter, from improper guidance, not from any innate wickedness, had grown up conceited, arrogant, and selfish. A certain air of politeness was natural to him, which

served, on ordinary occasions, to cover his disagreeable traits, and which had blinded his parents somewhat to their real character. The events of the afternoon served to feed his self-love, and now he put on the air of a hero and martyr. When tea was over, his mother arranged the cushions for him in a large easy-chair upon the balcony, around which the family had gathered.

"Does your head pain you much, my son?" questioned the fond mother, anxiously.

"Yes, it pains me; but I suppose I must not complain, so long as it was your model of excellence, cousin Willie, whom I have to thank for it."

This unkind rejoinder, instead of calling out a rebuke from the mother, stirred her anger against her nephew, and she quickly replied that he would never be troubled with the unpleasant comparison again. "I have," said she, "always looked upon your cousin as a boy of kind disposition, and as entirely truthful; but I am sorry to learn his altogether different nature. I think, brother Russel, that as soon as Marcus is able to travel we will return home."

"I regret this should have happened, my sister," said Mr. Howard. "We had anticipated much pleasure from your visit; and I think, when Marcus has slept, he will be nearly well. The doctor said it would prove nothing serious."

"Even so, I can not risk my only son with one whose temper is so ungovernable; and, as I see no disposition on your part to reprove him, he doubtless will feel himself privileged to do the same thing again, at the slightest provocation; and next time it might prove fatal, as it came so near doing to-day. I must say I am surprised that one of your apparent wisdom can be so blinded in this matter. I am sure, had Willie received such treatment at the hands of Marcus, I should have given him a severe chastisement, and kept him in his room, on bread and water, until he had repented and begged pardon."

It was evident she was very angry, and Mr. Howard waited for a few moments before he ventured a word. "Sister May," said he at length, "this is the first time

that you and I have ever been at variance. When our mother died, and left you and Jimmie to my care, begging me with her dying breath to be father and mother to you both, I held your little cold hand in mine and promised myself that until death should us part I would be unto you as a guardian and protector. I thought then that it would be no difficult task to link my brother's life to mine. I thought it would be easy to go side by side with him and care for him; but I feared I might not fully understand my duty to you, or that I might fail in its fulfillment. Hence, I fortified myself, that I might never be remiss toward my only sister. The greatest error of my life was, that I did not use equal precaution in regard to him. I have never spoken unkindly to you, and, while reason remains, I never shall; but I have something to tell you which, had I but told it you years ago, might have saved us both much pain—you, perhaps, great grief."

"Sister May," said the cripple, and every one started at the sternness of his voice—a tone so entirely foreign to his habit—"Sister May, I have no children. I can look with impartial vision upon the conduct of nieces and nephews, and judge the merits and faults of each; as you are, at present, incapable of doing. Now, let me assure you that Marcus has not only received what most people would consider a just punishment for his aggressive conduct, but he both cheated in the game and then lied about it, as Willie said he did. Then, because his cousin accused him of the cheat and the lie, he blusteringly commenced the fight—which Willie warded off as long as he was able, except he had gone away and left him, which, of course, he should have done. But when he found that he must either strike or be struck, he gave the fearful blow. According to the code of honor accepted by men of the world, and even in accordance with your own ideas of vindictive punishment, Willie did no wrong; and it is my fixed conviction that the wrong done lies mostly at the door of you who are the parents and counselors of these fiery-tempered boys. You are, of course, innocent of any intentional misguidance; but

had you disciplined your children into habits of self-control, and had you trained your son to a proper appreciation of others' rights, or to a practical application of the rule, 'To do unto others as he would that others should do unto him,' this disgraceful quarrel could never have occurred."

"Mamma," cried Marcus, in desperation, "you see Willie has told his story to Uncle Jimmie, and he believes it; while I have not had a chance to explain a word."

The mother's eye flashed for a moment, as she thought this was probably the case; but the stern look of the cripple fastened upon her son told the whole story. The boy hid his face as his uncle slowly remarked:

"Marcus, my boy, I am sorry you should add another falsehood to the list. I was watching the game, and saw the whole affair."

No one ever disputed *his* word—it was as law in the household. His plain utterances had often gone home to them like the cutting of a two-edged sword; but they, old and young, knew that it was the deep love which looks to permanent good that prompted his severe speaking, and they bowed under it as under a chastening rod. For some moments no one spoke. Mrs. Gray buried her face in her hands, and wept bitterly. She felt herself resting under a weight of woe. To discover such perfidy under the smooth guise of her son's nature appalled her; and then Uncle Jimmie had said the fault lay at her own door.

"Brother James, wherein am I so much at fault?" she said at last. "What shall I do? I was so proud of my son! Oh, tell me, how can I make him what I had hoped him to be already?"

"Teach him that, first of all things, he must learn to respect himself. The opinion of others is of no value to us unless we can first respect ourselves. Whenever a boy or a man loses his self-control and becomes angry, he loses his respect for himself. He does not understand the feeling, perhaps, but if, under the same provocation, he rises to the occasion and maintains a calm, unruffled spirit, he is really master of the situation, and unmistakably looks upon his

companion as, for the time being, quite his inferior; while his own self-approval remains undisturbed. If he gets angry, he sees nothing in the clear light of justice. Willie was in error to allow himself to go

down to the level of anger. But brother Russel's story will do you more good, and serve a better lesson for both parents and children, than my moralizing."

(*To be continued.*)

REAL TEACHERS AND REAL TEACHING.

THE business of education, being carried on for the people by political managers, the real purpose is likely to be overlooked. It used to be the business of every father and mother, to see that the children were educated; but this is now turned over to the trustees of the ward, village, or district. Gradually a change has been coming upon the methods that were once thought so excellent. And yet the people are not satisfied; in fact, they are very much dissatisfied. The cause is plain. There are only a certain number of persons who can teach—for teaching is not a mechanical business; and yet almost any one is permitted to engage in it. Then, again, the distinction between *teaching* and *instruction* is vital; yet it is almost lost sight of at the present time. Let us consider these two points.

(1). *Only those who have an aptitude by nature can teach.* If there is any truth in Phrenology, this is proved to be an incontrovertible fact. Men and women vary in the power to communicate knowledge, and influence others by means of that knowledge; and, lastly, they vary in moral power to use that knowledge and ability to influence others. All of these must exist in the good teacher. It is one of the great leading truths of mental and moral science, admitted by all observers, that there is an immense variation in the aptitude with which people themselves learn. Some never get a truth clearly before their minds; they are always moving in darkness. Others apprehend the knowledge and its relations with the utmost ease. It is enough to say that only those who have clear apprehensions can teach. But still greater is the variation in the power to communicate to others what we know ourselves. Those who have this power are marked persons.

But the ability to *influence* others is quite another affair. We know that some, naturally, as we say, are listened to by their associates. They form and disseminate opinions, and no one questions them, or their accuracy. The power to utter, and with commanding effect, is often found. Salesmen, jockeys, auctioneers, etc., possess it. But those who teach must do more than proclaim or state truth or knowledge; they must desire that those who hear should learn for the benefit it will be to them.

And, again, this difference is discernible in children or pupils. The rapidity with which some learn is so remarkable that only the fact that they have persons of skill as teachers can explain it. What was Wesley or Loyola but founders of schools—schools that exist to-day? The gatherings that surround this or that man are explained by the fact that his statement is more comprehensible than that of another.

The present mode of selecting teachers ignores these great mental facts. "What does the candidate know?" is the only question. Hence we have examinations in geography, history, grammar, etc. The one who answers best is most likely to be selected. But oftentimes other considerations come in, such as: "What religion is he of?" or, "What shall be *made* by appointing this person?"

So long has this method been used, that *natural* teachers have almost disappeared; there is no demand for them. In Cromwell's time there was a demand for men who could make long prayers and talk solemnly through the nose, and they got them. The demand now is for scholarship; and the would-be teacher, instead of being solicitous whether she can induce the growth of mental and moral faculties, is only anx-

ious to be able to answer the questions. In California, the questions have secretly been sold for \$200! The one who got out the answers to them got a place! The result of getting those who are simply *absorbers* of knowledge into the schools, instead of those who are able to incite others to ab-

sorb it, is being felt on all sides. The world will never go right until the right man is in the right place; and the schools will fail until those whom the God of nature has designated as suitable are placed in them as teachers.

A. M. KELLOGG,

Editor N. Y. School Journal.

WILLIAM NOBLE,

THE ENGLISH TEMPERANCE EVANGEL.

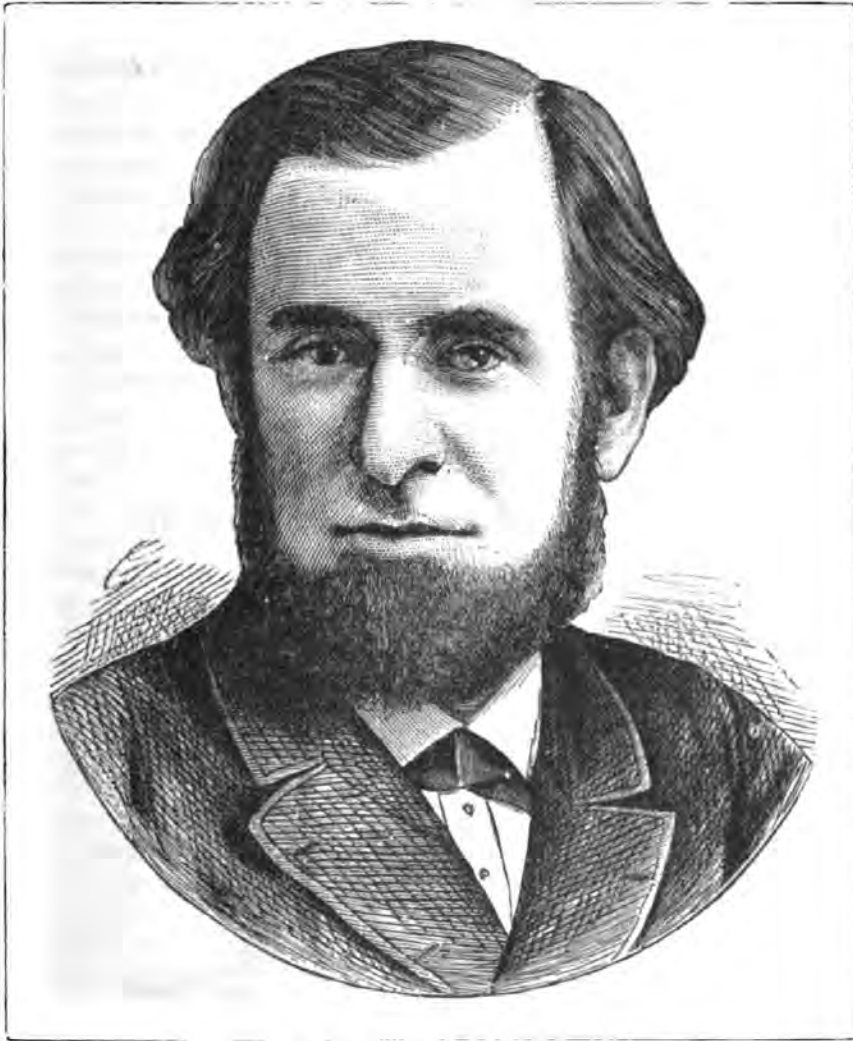
A CONTEMPORARY with Mr. Murphy, of whom we took occasion to speak in the March number, and like him a comparatively young man, but working in a different sphere, with even more of the wretchedness and vice induced by intemperance, surrounding him and stimulating his effort, is William Noble. He was born in London on the 17th of February, 1842. His parents were in humble circumstances, his father being a plain working-man. The strength of his character seems to have been derived chiefly from his mother, as she was of a rather stern and energetic disposition. He commenced life for himself as a sailor, having been placed by his father on a brig used for the transportation of coal. After a time he entered the Royal Navy. Like Mr. Murphy, his associations in youth were not of the elevating, improving sort, morally, as he then formed habits of intemperance, which had a disastrous influence on his character and prospects. In 1860 his father purchased his discharge from naval service, and he obtained employment in the Royal Arsenal at Woolwich. There, after a while, he came under the eye of Sargeant Ray, a man of earnest Christian character, and deeply interested in efforts for the reclamation of intemperate men. Noble, through the persuasion of Ray, was led to see how he was wasting his life and degrading his manhood, and at length was prevailed upon to sign the temperance pledge. His sincerity in reform was evidenced by an attempt to advocate temperance principles before the public, and to work for the reformation of men like himself, who were still in the bonds of a most

baneful appetite. His first oratorical attempt consisted in the recitation of several of the more striking addresses of Mr. Gough. He made a deep impression. He kept on, and ere long his audiences numbered hundreds. Such indeed was his success, and so many were the demands for his services, that he concluded to devote himself entirely to the temperance cause. The growth of public interest in his personal efforts is shown by the fact that on thirteen successive Sunday nights, from February 10th to May 8th, of 1876, upwards of sixty thousand persons attended the National Standard Theater, in which meetings were held, and where Mr. Noble made addresses.

In the summer and fall of 1877 he made a tour in the United States, speaking on his favorite theme in public cities, and large audiences on each occasion gathered to hear him. He has found very cordial support among the clergy; his plan of working on the minds of the intemperate, uniting religious principles as well as the simply moral. Returning to England, he resumed his labors after an interval of rest. A large building, known as Hoxton Music Hall, situated in the midst of a dense population, where such work as he is engaged in is much needed, has been taken for the use specially of Mr. Noble, and there the "Blue Ribbon" army, or the "Gospel Temperance Band," as his movement is termed, has its quarters. Since the commencement of the work at the Standard Theater, ten thousand persons have signed the pledge. Mr. Gough, now visiting England, said in the course of an oration at Sheffield, "William Noble is doing a grand work at Hoxton

Hall, in the north of London. I went there to one of his meetings, and took with me Doctor Taylor, of New York. I never shall forget it; there were from one thousand to fifteen hundred, among whom were some low, debased, ragged, wretched creatures; the gallery being filled with those who,

'Well,' he said, 'I will go with you; I will trust you.' I said, 'They are going to sing now,' when I stood on the platform, and they sang, 'Oh, I am so weary of sin.' My heart went out to them, poor, wretched, sinful creatures! steeped to the very lips in impurity, crying out as they lifted their



WILLIAM NOBLE.

probably, came to look on just out of curiosity. Doctor Taylor had asked me where I would take him that night. I said to the Hoxton Music Hall. 'Oh, dear me!' said he; 'you don't go to such places as that, do you?' 'Oh, yes,' I said; 'I shall go to-night.' 'What do they do?' 'They sing,'

soiled hands and stained arms, 'I am weary of sin.' Then Mr. Noble said: 'Let us sing our favorite hymn,' and they sang, 'When I survey the wondrous Cross.' Doctor Taylor and I sat like a couple of boys. We were deeply affected, and could not help it. No, we did not want to help it. And when

Mr. Noble said, 'Those who will sign the pledge, come forward,' they came. 'Now,' he said, 'before you take the pledge we will have two minutes of silent prayer.' I said to myself: 'This is a risky business for all those roughs at night.' But you may have heard a whisper during the whole two minutes. You heard some sighs, and some soft aspirations, and that was all. I never had my heart so stirred in my life as I did when I looked upon them and realized the work that was being accomplished by means of William Noble. The whole country ought to help him, and to support him in that grand and noble work."

Mr. Noble was married in 1865, and his efforts in the redemption of poor enslaved humanity have been vigorously sustained by his wife, she doing among the poor of the neighborhood what can only be successfully attempted by a Christian woman, sustained by the spirit of devoted self-sacrifice.

The portrait indicates an organization with naturally a good moral development, and a tone or quality above the average. There are not the evidences of the culture of the schools; but the face has the meditative cast of one who has had deep experiences. Conviction takes deep hold on such a nature, and is the basis of its action. While there is strong emotion, it is felt more interiorly than expressed outwardly, and does not conduce to impulsive or spasmodic conduct.

Such a man when he has once put his hand to the plow, doesn't look back; his conduct is deliberate, prudent; it is difficult for such an organization to withdraw from old habits; and it was a matter of triumph indeed when Mr. Noble, although young, was reclaimed from the path of perverted appetite into which he had been led by the unfortunate associations of his boyhood.

CIVILIZATION AND BRAIN-DEVELOPMENT.

THERE is no fact more striking and pertinent in the proof of Phrenology than this: that uncultured races are not so well developed in the front portion of the head and in the top-head as those who have been affected by ages of civilized culture. The

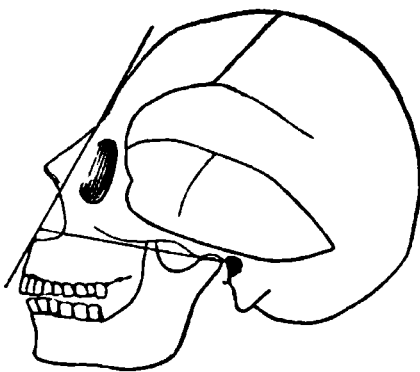


Fig. 1.—AMERICAN INDIAN.

cranium itself shows this fact unmistakably. A man must be a very poor physiologist who can not select and classify a hundred skulls, one-half of which are good specimens of the skulls of civilized races, and the other half good specimens of those of barbarous

and savage and uncivilized races, and place each class by itself without a mistake.

Let the reader observe the difference between the two skulls presented: The first, Fig. 1, a careful drawing of the skull of an American Indian. The entire portion where

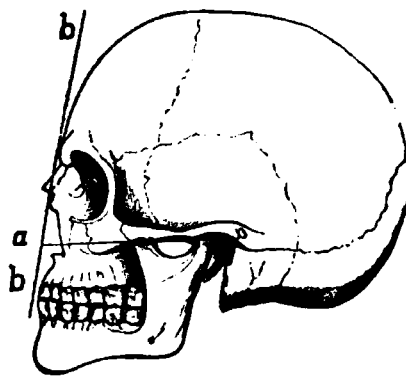


Fig. 2.—CAUCASIAN.

the intellectual organs are situated, it will be seen, is narrow, small, pinched, contracted. The middle section, through the region of the ears and upward from that part, contains the bulk of the brain-development, showing that the passions, the propensities,

and the selfish elements, which are manifested by that section of the brain located above and about the ears, is relatively large; while the frontal portion, which represents the intellect, is small in its development from the lack of culture.

Fig. 2 represents the skull of a refined and cultured man. How much larger the frontal portion! how much more capacious the head in length and in breadth, from the opening of the ear forward! The middle section of this head is not small, but it does not bear so great a proportion to the other parts of the head as is the case with the Indian skull.

Let us represent the middle section of the Indian skull by the number 50, and the frontal portion by the number 30. Let us do the same with the skull of the civilized man. Let us also mark the middle section of this head at 50; but in following out the proportion, the anterior portion should be marked at least 50; and though the man of culture has, if you please, just as much of the force element and of the animal propensities as the Indian, he has at

least two-fifths or forty per cent. more of intellectual vigor to balance the animal part of his nature.

If this mode of inquiry were to be extended, it would exhibit tribes of men much more depressed in intellect than the North American Indian. If we visit hot climates, where food is abundant and raiment and shelter not required, the energies and talents are not called into use to procure these, and we find the brain much inferior to the North American Indian, who lives in a cold climate where necessity presses upon him and demands the exercise of intellect and skill to secure food, clothing, and shelter.

If the Indian could have the benefits of civilization, his anterior brain would increase in size in proportion to his cultivation, and being removed from the conflict which belongs to a savage race and taught how to secure his rights without resorting to might and cruelty, the middle section of his head would become depressed in size, thus bringing out a desirable balance between the middle and anterior sections of the head which now, unfortunately, does not exist.

WHAT WILL SHE DO WITH IT?

SCIENCE is old, belonging to the far past, as far back as history tells; and science is ever new, for the glories achieved in one era are repeated in the succeeding ones. Science is old—ancient with the might of the pyramids, and young with the light of the blazing star whose beams are dying away forever.

Though science is old, it yet seems that the present is pre-eminently the age of science. Three-fourths of a century ago and steam was quietly singing in the fireside kettle. Little by little has it been tamed and applied to the works of the world. Until now men even command the lightnings of heaven to write and speak and sing for them. With the telescope, microscope, and spectroscope the heavens and earth and all things therein have been interviewed, and have yielded their secrets. Science is young in this our era—active, lusty, enterprising, and irrepressible.

Woman has dwelt with the men of science of the ancient and the modern days, and history records her achievements during the onward march of Time. It shows that every name on the scroll is accompanied with the testimony that woman gave the same earnest, unflagging interest and faithful study and energy as that bestowed by man, and, like him, is rewarded by honor and emoluments, and science's own priceless compensations. Science is therefore "no respecter of persons."

The women of these days emulate the women of the ancient time, for in the various departments of science they are found as busy students. In 1849 Miss Blackwell graduated from Geneva College, N. Y., a pioneer in this country in medical science. Now there are nearly or quite one thousand women practicing as physicians. In Europe they also compete at the side of man for honors in the medical world.

Astronomy has kings who rule the starry realms; at their side also are queens, who track the celestial worlds with keen sight and unwearied quest. Linnæus opened the flowery kingdom, and woman has entered and reveled within its delightful bounds.

An Agassiz seeks new varieties and classes of fishes; woman participates with him, and from her studies utilizes an aquarium and awakens a wide and deep interest in the fish world.

Microscopy opens its infinity of little to man, and woman equips herself and instructs us with the methods of architecture and habits of life among the invisible dwellers of the waters, and shows us the blood of creatures whom the plants devour.

Daguerre taught the sun to make pictures for man; his methods have been developed and new processes found by his successors. Woman also, with man, has guided this science and made it yield, year by year, new and more beautiful results. The nearest approach to fine art yet made by photography has been made by an English lady, Mrs. Cameron.

Spencer, Darwin, and Huxley put forth their discoveries. Women are at their side questioning and examining their facts and imaginings, and testing all by inquiring of Dame Nature, who opens her arcana alike to woman and to man.

Mungo Park seeks new and strange lands and peoples, recording what of interest attracts his attention. Ida Pfeiffer makes successive trips over terra firma, and then prints her experiences for the stay-at-homes of her day. Navigation is thought to belong exclusively to man; and yet the school of navigation belonging to the proudest metropolis of our New World was founded by, and instruction is given by, women.

Having briefly shown that woman follows man, and sometimes leads him, into the realms of science, let us repeat the question, "What will she do with it?" Will she merely enjoy the discoveries of man and the additions she makes to them? or will she work in the field of "Applied Science," and utilizing her own and man's discoveries, employ them for the comfort of the race? If the microscope reveals the pres-

ence of infinitesimal seeds of death in the water brought to our houses, or malarial protoplasms are evolved from the network of gas and sewer pipes in our dwellings, will she still suffer disease for herself and family? or will she insist that new and better methods be found for supplying pure water in abundance, and require the plumber to make so perfect all his work that noxious vapors shall be prevented or removed?

Science is old, dating away back to the Garden of Eden, where amid flowers and perfume, sweet breezes and all peace and beauty, the desire *to know* was awakened, and the first experiment ever recorded was made upon an apple. In passing we would remark, that however much men of these days may claim science as belonging to *man's sphere*, in the beginning it was not so. Eve was the first scientist.

Science is new; for each generation with its facts and theories demolishes, corrects, and revises the observations and theories of the preceding one, leaving through successive periods some granitic and massive bulwarks of science untouched.

Science is young; for new forms of old sciences appear, and new sciences are evolved to assist in explaining the old. In the midst of this antiquity of science, and these modern times, what will woman do with science? Will her sphere be enlarged and ennobled by her pursuit of scientific things? or will she impress herself upon the sciences and lead them into new and higher forms?

Science—the old, the new—what will woman do with it? S. E. FULLER.

INDUSTRY AND PUBLIC SAFETY.—Give me a world encircled with self-help among working-men; give me firesides numerous enough to be in sight of each other on a line extending once around the earth, and made bright by family virtues such as self-help inspires, and I will show you a globe encircled in a ring of fire that will burn off the planet all the ulcerous growths of communistic and socialistic disease.

JOSEPH COOK.



THE DIET OF MAN—ITS ORIGIN AND HISTORY.

Lack of Human Instinct—The Food assigned to Man—The Great Temptations of the Race—The Children of Israel—Prepared for the Messiah—The Early Christians—Man's Stupidity—An Impulse toward Purity.

IT is a matter of no small curiosity to compare the methods of men and animals in the selection of their food. Man takes infinite trouble to get what suits him, and often literally compasses sea and land to obtain one new article to gratify his appetites, or to add to his list of edibles, while the animals take what they can find without much apparent picking or choosing, and seem satisfied. Man tries a great variety of things; the animals take each kind its own appropriate food. Man uses reason to guide him in the choice of his food, while the animals have unerring instinct.

At first glance the animals seem to have the advantage. They have little or no trouble in making experiments. They are seldom poisoned. They live where their food grows, and, so far as we can judge, they seldom fail to find enough to supply their wants.

LACK OF HUMAN INSTINCT.

Some people ignoring history speculate curiously enough on the unfortunate situation of our earliest ancestors in this respect. They are pictured as finding themselves turned out loose, "with no knowledge of what was good and what bad, what palatable and what nauseous; no physiological chemistry to tell them what is nutritious; no one to analyze the berries, herbs, roots,

barks, and leaves around them, and determine which were best designed for the human system. Obviously they must depend upon experiment. The taste, the sight, and the smell would be called on to aid, but none of these would be infallible. So with animal food, they could not tell till they had tried it what was good and what evil. For drink they would be as likely to lie down on the beach and lap the waves of the sea as by the brink of a moss-fringed stream. Their next experiment would likely be with the milk of animals or of trees, and with the juicy fruits. By comparison, and teaching their children what they learned, dietetic knowledge would accumulate; but in the meantime it is probable that many must have suffered in health and lost their lives in consequence of these experiments, and it is probable that many thousands have thus died that we might live."

I have here actually given the outline of a theory which some man who sets himself up for a teacher of dietetics has spun out, and then he tells us that the history of the race shows that this must be essentially true. I need hardly say that his dietetic teachings are as absurd as his theories. Observe but a moment. Human beings thus seeking food must be devoid of sense and reason that would not seize upon fruits first of all, instead of last; or that would undertake to "lap the waves of the sea" when springs or even rivers were accessible. Herbs and leaves and roots would come

later still, while a long period would elapse before, with no weapons of slaughter, they would think of eating the flesh of other creatures, certainly not till they had seen other animals eat it.

THE FOOD ASSIGNED TO MAN.

But we can not better offset this than by giving a veritable history of what occurred in the earliest days of our race, and though the occurrences were tragic enough, we shall see that it was not because man was left so utterly unguided by his Creator or unsupplied with a positive knowledge of his proper food. It is upon record that God said to man: "Behold I have given you every herb bearing seed which is upon the face of all the earth, and every tree in which is the fruit of a tree yielding seed; to you it shall be for meat." This was the general outline—seeds, grains, and fruits. But they were not to eat everything, even in this line.

A SPECIAL EXCEPTION

was noted when the first pair was placed in the Garden of Eden, a place so well fitted to the wants of the infant race, that only one hurtful or poisonous fruit was to be found, and this was especially pointed out. Here was one thing not suitable for food, however attractive it might seem. I see no reason why this should not be interpreted literally and simply. If the kind and wise Creator saw it necessary to definitely point out to the untaught and inexperienced couple their food, why should He not warn them of the immediate presence of anything obnoxious? There is no reason why this command should have been a mere arbitrary test. It is far more probable that the commands of God were reasonable, as they are now, and suited to the best good of man. What the particular article forbidden was, is an item of much less importance. The law furnished two far-reaching and most important indications; first, that man was not to eat *everything*; he was placed in this world not to eat it, but to govern it; and second, that through the appetites were to come

THE GREAT TEMPTATIONS OF THE RACE.

History has too well proved that through

indulgence of the appetites have come the greatest disasters—the prevailing sins. If one reads either sacred or profane history with his eyes open, it is wonderful to see the proofs of this. Not only do the victims of Samson, in his last outburst, the overthrow of Babylon, the death of Alexander and many of his compeers, the decadence of the Greek and Roman empires, give stupendous evidence in this direction, but in the olden times the whole tissue of history indicates a prevalence of gormandizing and of the gratification of the fiercer and more brutal passions which this was fitted to arouse. Almost every public event was accompanied by feasting and carousing; wars were made not so much for political or even ambitious reasons, as to gratify some personal passion of desire or revenge. And very often we find that the conquerors immediately gave themselves up to feasting and drunkenness, so that reprisals were sudden, and the conquerors were overcome in turn.

Not content with the food which had been assigned them at first, they killed and devoured living creatures, and when even this was permitted by an indulgent Father, who would give them every opportunity of probation, they only went on to devise poisons, which should literally deprive them of reason, and it is not a little significant that this permission and this record of the use of wine for self-indulgence should have occurred in connection with the same person.

One of the greatest apparent difficulties in the training of

THE CHILDREN OF ISRAEL

for a new epoch, which should introduce better things, was to wean them of their habits of self-indulgence. When they found themselves restricted in their diet in the wilderness, their souls longed for the flesh-pots of Egypt and other delicacies to which they had been accustomed in that fertile land, and only that they had been "driven out with a high hand" they would probably have returned to slavery, in spite of the noble leader who had delivered them. And when for a few days he was lost to their sight, they prepared a great feast and indulged

to such an extent of grossness and idolatry (two things then intimately connected) that God in His anger would have cut them off and made of Moses a nation that should serve him with purer tastes and greater submission. Forty years he disciplined their appetites in the wilderness, and as religious restrictions and ceremonials were the only directions to which they would give heed, by means of a code of "clean and unclean," their ravenous and all-devouring self-indulgence was restrained, and the principle first promulgated in Paradise was laid down with new variations. They understood fully that they were not to eat everything, that self-denial and restraint upon their appetites were legitimate aids, by means of which they could lead purer and better lives, and even become physically stronger and better men, and to some extent they succeeded. "Their Nazarites were purer than snow." It is every way likely that the physical reasons for Samson's strength, Samuel's purity, and Daniel's wisdom were far better understood by them than we suspect; but the difficulty with most of them was that they did not *care* for matters of this higher character. They would not give up the daily gratification of the appetites for any such desirable purpose.

Still, many were found who did so. There were religious orders, like the Nazarites, the Rechabites, the Essenes, and the Pythagoreans, and some among the Romans and Grecians, who practiced great self-denial. Very possibly there was more or less superstition about it. Very probably they attributed to "the favor of the gods" more or less of the physical good results that came with abhorrence of pork or with separation "from wine and strong drink, vinegar, liquor of grapes, and moist grapes or dried." This is not a very intelligent division of the good from the bad, but it was far better to forego the grapes than to take the wine and strong drink, and they certainly drew the line on the safe side, which is more than can be said of the "moderate" men of this more enlightened day.

PREPARED FOR THE MESSIAH.

And as an outcome of this Jewish disci-

pline, a large part of which had reference to things clean and unclean, to be eaten or to be refused, individuals were prepared for the duties required of them, and we know not how many others besides who may have gone up more meet for the purer heavens than they would have been without it, because it brought self-denial, that subjection of the appetites which makes easy also the subjection of the passions; restraint for a high and holy purpose, securing that purity of the body which favors purity of the soul. There are on record Zacharias and Elizabeth, "both righteous before God," whose promised offspring should be filled with the Holy Ghost, "drinking neither wine nor strong drink"; a maiden who was ready to say: "Be it unto me according to Thy word;" a Joseph who could receive her justification in a vision; a Simeon who could recognize the "God with man" when the child was brought to the temple; and an Anna who departed not from the temple, and served God with fastings and prayers night and day, even though passing one hundred years of age.

While it is believed that the disciples of Christ and those subsequently converted came largely from the Jewish sects, who held to purity of living, it will be observed that their peculiar creeds were not engrafted upon Christianity. The law with its ceremonial and symbolical peculiarities had done its work, and there followed in the new dispensation a higher standard, including all purity of soul and body.

THE EARLY CHRISTIANS

were exhorted to "present their bodies a living sacrifice holy and acceptable in the sight of God." Christ himself had so fully imbued them with a belief of the possibility of the indwelling of the Holy Spirit, and the promise of its coming, as to give them the highest incentive to purity of life. Not only is the body of the believer repeatedly called the temple of the Holy Spirit, but he is solemnly assured that "He that defileth the temple, him will God destroy."

These matters of diet and ceremonial observances were subjects of grave and repeated conferences. Many of the converted

Jews, who still continued them, thought that the converted Gentiles should do the same; but the result of all the deliberations was that the latter should be required only to abstain from things strangled and from blood, from meats offered to idols and from fornication, some if not all of which were specially connected with heathen religious observances, and in many ways opposed to the purity of life which was desirable for the highest development of man. The special directions and restrictions were removed, and it was left to the genius of the Christian religion to work out a purer result than could be accomplished by the enumerations of the law.

MAN'S STUPIDITY.

We can not say that man has been an apt scholar in discerning what was specially fitted to his use. It is not to his credit that, though released from the injunctions of the law, he has indulged in pork, for example, until he has become even in this Christian land filled with scrofulous and tuberculous disease. Still less does he demonstrate the superiority of his insight when he indulges in wine, from which Mohammedans abstain, following the spirit of the old law. Still, in the long run, the plan of God is justified even to our narrow understanding. We see now those nations which have been elevated by Christian civilization discovering the defilement brought by the indulgence of intoxicants, and making a mighty effort to release themselves from such enslavement. It is to a Christian civilization that we owe the origin and the successful working of the modern Temperance movement, and it is the religious element in this movement which is proving its success, and the idea of purity which it embodies is even now laying hold of and forbidding the poisoning with tobacco, opium, and hashish—points which Mohammedan temperance utterly fails to reach. Some are learning that the use of coffee and tea are not compatible with that clearness of mind with which they can best serve God and keep a conscience void of offense. A great many find themselves in better health for not eating pork, and they rightly conclude that the best

bodily condition they can command is none too good to serve God with.

AN IMPULSE TOWARD PURITY.

We find ourselves, then, in this last quarter of the nineteenth century without an extended list of foods which our priests or our consciences forbid us to touch, yet using our keenest powers of mind, our reason, our science, our analysis, to find out that which is really best for us, under the spur of that noble impulse toward purity, feeling assured that purity of body does conduce to purity of soul. It is easy to see that we are yet only in the infancy of the undertaking, since the majority of people have not yet made up their minds whether it is best to poison themselves or not; professedly many of them are unable to tell whether or not these poisons used in "moderation" do any harm. How can we, then, expect them to use any nice discrimination about their food? But some of the more advanced are doing this. Pork is going into disuse among the more intelligent. Grains in largely-increased variety of forms, and fruits in abundance, are finding new patronage. The ideas of personal, mental, moral, and religious purity are gaining ground continually. Health and strength and a long life free from disease are more and more prized and sought. Slowly but surely intelligence on these topics is gaining ground, and there are those who are helping themselves directly to health and strength, purity and happiness, mainly by a wise ordering of their food and drink.

JULIA COLMAN.

MOODS.

A DREARY winter's day; driving, pelt-ing, icy rain. Yet who can afford to wage war with the elements? Rather let us gather every drop of distilled sweetness that we can extract from the inner life, to meet the outer. Though closely allied are our natures to the elements—when the sun shines, we laugh; when the storm comes, we brood and murmur. Since this is so, we must turn it to profit, and never degenerate into weakness, so unlike Nature. Who does not prefer change, to an unvarying

monotony? From grave to gay, from sorrow to joy, we turn with relief; let us cultivate more variety in manner and feeling, and enrich ourselves and others. Seek not too much for the intense; do we realize the heavy doom it brings? If lighter moods alternate, we are safe; but to give up wholly to depths of thought, oftentimes brings madness. The disposition to think, to give up to reveries, is strong upon us; and often when the body is very weary, the mind is fresh and bright, and lingers dreamily, fascinated by the charm of imagery which can not be broken. Then again, there is a gloom of the mind which resists every effort to dispel, when involuntarily some slight trifle, little in itself, but grand in its results, will burst the chain which has prisoned us so long. A little philosophical indifference to the wear and tear of life, in the daily tread-mill of existence, is promotive of calmness at least; still it should not interfere with the fire and spring of feeling which slumbers in temporary silence. Outward repose must conceal inward energy. A man, to be truly *great*, should use all his moods, letting no *one* feeling preponderate; let him live a different life each day, giving up, to the fullest extent, to the mood which is working within him. We must act more from the impulse of the moment, or we gradually grow into machines, kept merely in working order; if we allow rest of life, freshness of feeling, appreciation of pleasure to depart, what materials have we left to build the future with? There is, at times, an energy of mind, perhaps amounting to irritability, which is like the sparks thrown off the fire, and which would smoulder back into dead ashes if we did not find vent for it. It is the overworked feeling which we can not contain. Though extremes are dangerous, we are bound to make much use of them. From gloomy sadness, we may rise to unspeakable joy. The reaction which comes is of golden value to us, if we but touch the proper chords. As we give ourselves up to despair, we are constrained to dwell on our imperfections and shortcomings. This analysis, then, prepares the mind for greater growth. As we emerge from the darkness,

light strikes us in new places, and what we would have once passed over, we now eagerly grasp, as a new-found treasure. Lights and shadows are a blessing, not the bane that we would make them, and they make of life one moving panorama. We must not always soar too high; if we come down and walk a little in dry meadows, we shall go back to those higher fields of light, freshened. When, like a swift flashing of light, some bright vision beams suddenly upon us, let us take it as God's means to cheer and spur us on. Constant dwelling on, and thinking of, the part we are to play in life, will make us but poor actors. Study of ourselves, up to a certain point, is good; beyond that it generates morbidness, from which the mind sinks into helplessness and despair. To be a guide to ourselves, we should have two eyes of the mind. One we should keep open, to see every beauty, every possible step onward; the other, we should close to all the contaminating, corrupting influences around us, making the most of our strength and keeping our weakness in check.

AN IMPROVEMENT.—We are pleased to note the change people have made in the matter of swathing their children's necks. A few years ago the error of hugging a boy's or girl's neck with a great comforter or scarf was general, but nowadays we don't often see it; the feet and wrists are the proper members to keep warm; the face and throat will harden into a healthy indifference to cold, but that muffler exchanged for an extra pair of thick socks and knitted gloves would keep a boy or girl really warm and well. Bronchitis and sore throat have declined fifty per cent. since the absurd use of high collars and twice-around neckerchief went out of fashion; and if the poor would take better care of their children's feet, half the infantile mortality would disappear. It only costs a trifle to put a piece of thick felt or cork into the bottom of a boot or shoe, but the difference is often considerable between that and a doctor's bill, with perhaps the undertaker's besides.

PHYSIOLOGICAL EFFECTS OF COLD AND WARM BATHS.

A WRITER in the London *Lancet* says on this subject: "The effects of baths are produced mainly by their action on the cutaneous nerves. The sudden immersion of the body in cold water produces a shock which is followed by a slight shiver in the muscle, and the contraction of the cutaneous capillaries. There is often also a slight gasping of the breath. There is a feeling of cold, and the temperature is at first slightly elevated and then depressed. The pulse and respiration are both quickened, and the amount of carbonic acid eliminated by the lungs is notably increased. If the water be very cold and the bath continued, these symptoms deepen in intensity; but if the body be quickly removed from the bath the familiar phenomenon known as reaction appears, and the first effects are all reversed; there is dilatation of the cutaneous vessels, accompanied by a sensation of warmth and a general feeling of vigor. The cooling effect of a cold bath is brought about, probably, in two ways: first, by the actual conduction of heat from the surface of the body by cold water; and, secondly, by a modification of heat production, induced by the influence of the cutaneous impressions upon the heat-regulating centers in the upper part of the spinal cord and the medulla. The very rapid depression of temperature which takes place when hyperpyretic patients are immersed in water can hardly be explained by reference merely to the ordinary laws of heat, and it is almost certain that the central effects produced by cutaneous impressions play a very large, if not the largest, part in the process. The effects of the cold bath being mainly due to impressions made upon the cutaneous nerves, the modifications of the cold bath largely depend on their power of increasing its stimulating action. The colder the water, the more violent the impression. The frequent change of water, such as we get in the sea or in running streams, increases the stimulating effect. Great force of impact, as when water falls from a height or comes forcibly through a hose upon the body; the division of the stream, as is seen

in shower baths and needle baths; and the addition of acids or salt to the water, all act, it would seem, by increasing the stimulating power which the water exerts upon the cutaneous nerves.

"Warm baths produce an effect upon the skin directly contrary to that which is brought about by cold water. The cutaneous vessels dilate immediately under the influence of the heat, and although this dilatation is followed by a contraction of the vessels, this contraction is seldom excessive; and the ultimate result of a warm bath is to increase the cutaneous circulation. The pulse and respiration are both quickened as in the cold bath. The warm bath increases the temperature of the body, and, by lessening the necessity for the internal production of heat, it decreases the call which is made upon certain of the vital processes, and enables life to be sustained with a less expenditure of force. While a cold bath causes a certain stiffness of the muscles if continued for too long a time, a warm bath relieves stiffness and fatigue, as every hunting man must know full well. The ultimate results of hot and cold baths, if their temperature be moderate, is about the same, the difference being, to use the words of Braun, that 'cold refreshes by stimulating the functions, heat by physically facilitating them; and in this lies the important practical difference between the cold-water system and the thermal method of treatment.'"

THE APOTHECARY MAN.

"Now, John," says 'pothecary Jones, "I'm going home to tea.

And soon there'll be a bearded man come in and ask for me.

Then say, 'Are you the gentleman that ordered pills to-day?'

And if he says, 'I am the man,' tell him what he's to pay."

Then Jones went home, and John athirst, some soda-water drew,

Tried ginger syrup, then drank hock, and sars'-parilla too;

Steered clear of pills, no powders took, abjur'd the tinctures all,

But filled his mouth with that black stuff, known as the Ille'rice ball.

Then came the bearded gentleman, for pills to make him well,
And ask'd for Jones, and ask'd for pills—ask'd John the price to tell.

"Four fifty's mark'd upon the box, which master said you'd pay."

"Four-fifty," quoth the gentleman, "four-fifty, did you say?"

"Well now, my lad, these pills must be compounded all of gold;

What's in 'em that they cost so much, if I may be so bold?"

"Don't know," says John, "tart. antim's up, and ipecac will rise;

You can't keep these things down, you know, and up must go the price."

"Good Lord! my boy, no antim's in that recipe—just smell;

But here are fifteen cents, my lad—you know 'twill pay you well."

John scratch'd his head, the man was gone, the profit sure is lost;

"Too big a discount," mutter'd John, "don't b'lieve we've got the cost."

John, feeling something down in mouth, more soda-water drew,
And from the glycyrrhiza drawer he took another chew;

To brace his nerves, and stiffen up against the coming muzz,

Took spiritus vini rect. cum oleum juniperuss.

Now Jones came in with mind intent on what he was to make;

John saw him come, and felt that now 'twas time for him to quake.

"The man," said he, "found fault with price, and wished some discount made,

So I took off four thirty-five--was that too much?" he said.

"Too much—why, John—but let me see; the jalap cost a cent,

And half a cent for calomel, and something more for rent;

The box and label—well, not much; I guess I'm leetle ahead;

Five cents will cover all the cost, so we've made ten," he said.

—F. H. in the *Boston Advertiser*.

WHAT IS FOOD?

IT is safe to say that by far the largest proportion of the diseases which afflict mankind are the result of eating unwholesome food, and injurious substances taken with the food as condiments. To all animals nature supplies food which gives the requisite nutriment, while it does not tend to make them sick. The same is true in regard to man, but his manner of preparing much of it renders it very unwholesome. The result is, the food man uses is the most prolific source of his diseases. Now it can not be reasonably supposed, that as long as man uses unhealthful food, he can avoid the diseases which such food naturally tends to cause. Imagine a person daily doctoring a sore on his foot caused by a nail in his shoe, while he continues to wear the same shoe with the nail still lacerating his foot! Would not he be considered a fool?

Then, too, many prescribers of drugs either can not or *will not* define food so that people can learn anything of profit from their definitions. They can scarcely give a good definition of food that will be consistent with the theory of drug-medication. Food and medicine are so analogous, ac-

cording to this theory, that the definition of the one must allow or imply the usefulness or necessity of the other. And it seems hard for them to come anywhere near agreement as to whether some substances are food or not. Witness the long and tedious discussion of the alcohol question. Some claim that alcohol is positive food; others, that it is "negative food," or a mere "supporter of vitality," or an "arrestor of metamorphosis"; others still, that it is a "caustic and irritant poison!" These are some of the views of the "regular" class on one of its most commonly used medicines.

In an article in the *New York Medical Journal* for September, 1876, on "The Therapeutical and Social Aspects of the Alcohol Question," the writer said: "At random we might say, and be partly correct, that all substances which undergo chemical change in the body are foods, but this does not include water, an important factor in the process of nutrition, which does not undergo chemical change in the body ordinarily." Now, there are many poisons which when swallowed "undergo chemical change in the body." They are not therefore considered

nutritious, nor in any sense foods. Indeed, it is generally the chemical affinities of poisons which make them dangerous to life. The absurdity of the above definition of food is therefore apparent.

Not satisfied with the above definition of food, which hits the mark about as nearly as usual in random shooting, the same writer gives another. Food, he says, is "anything which is capable of supporting life, or any material which is essential to sustain the vital functions, and this embraces air, water, ordinary foods, etc."

What this "etc." refers to, one could hardly imagine, unless he read the whole article, when he would find that it refers specially to alcohol. But the definition is too wide in its scope to be reasonable. Why should it embrace "air" (breath) and "water" (drink)? And if "ordinary foods," why not *extra*-ordinary foods? The object of the whole article is to prove that all "supporters [exhausters?] of vitality," and especially alcohol, are not only allowable, but also more or less "essential."

But what is a "supporter of life," or vitality, or vital action? According to the advocates of drug-medication, it is any substance which, when taken into the system, occasions increased local or general vital action; and this is simply stimulation. Now stimulation always exhausts, never supports or sustains, vitality; and hence, persons are always weaker after stimulation than before. What simply exhausts can not be food, nor in any sense a "supporter of life;" it is just the opposite, and should be avoided by especially the sick and weak, who wish to become strong and well.

This truth seems to be self-evident, that whatever is good to eat at all, is good to make a full meal of in case of necessity. To the healthy and vigorous no evil effects should follow its use. This rule would effectually prove all substances proposed as food. Although the caution may be considered unnecessary, great care should be exercised in the testing of the healthfulness of foods by eating them. Be very cautious about doubtful substances. Better let them alone than run a great risk.

The physician above quoted makes in his

definitions no distinction between food and drink, although there is a very clear distinction. The one supplies nutrition, the other is the vehicle of nutrition.

Here, then, is our definition of food: Food is any substance from which the system can derive suitable materials for the growth and repair of its several structures. It is pure in proportion to its freedom from materials which, on account of their nature, are calculated to injure the organic structures or interfere with normal vital action; and it is perfect in proportion to the completeness with which it furnishes the materials needed by the system.

F. E. ASPINWALL, M.D.

A JUDICIAL OPINION ON FASHIONABLE DRESS.—A woman, while riding in one of the street-cars of Philadelphia, in which she was unable to find a seat, was thrown down and injured by the sudden stopping of the car. A suit was brought against the company for damages, and the answer of the company was that the injury was due to her own negligence, since she did not take hold of the hand-straps with which the car was provided. To this it was replied that it was inconvenient for her to do so, especially as it would have "disarranged her dress." The Judge who tried the suit in the court below told the jury that this question about the hand-straps and the dress was one of fact for them to determine. The Supreme Court, in reviewing the case, held that this instruction was correct, adding that "possibly a woman may be so fantastically and foolishly hooped, wired, and pinned up as to deprive her of her natural power to help herself; but, if so, the question is one of fact, and not of law, and so we incline to leave it, instead of imposing upon our brethren below the difficult duty of prying into the artificial stays of the plaintiff's case." The reporter adds: "If women will, by their mode of dress, disable themselves to exercise their physical powers of self-help in an emergency, and for this reason suffer injuries which they might otherwise easily avoid, they must not be surprised if courts of justice should relax their dignity enough to be a little funny when they bring such questions before them." But aside from the dress question, should not the grave judiciary have censured the horse-car corporation for carrying more passengers than they can accommodate with seats to which the passengers are legally entitled?

NOTES IN SCIENCE AND AGRICULTURE.

The Way to Obtain a Delightful Home.—About five years ago, having accumulated a little competence in New York city, I came to the sane conclusion to secure a comfortable home in some rural district where I might spend my last days environed by the luxurious comforts which any one may call his own who will do as I then did. After looking about on Long Island, and examining scores of localities in different parts of New Jersey, I chose a few acres in the northeast corner of New Jersey, near a small hamlet (Closter) on the Northern Railroad of New Jersey, about one hour's ride from the city. Having rented a small house for a few months, preparations were made to erect a convenient and commodious cottage. A plan of the cottage was prepared, and a bill of the timber and all other requisite materials was made out. Then, before and after business hours in the city, I went to lumber yards and hardware stores and made the necessary purchases. Two house-joiners were employed to erect the superstructure. During the morning hours, before I was required to take the cars for the city, I supervised their operations; keeping an eye on any and every piece of work in which either or both of them were engaged. By means of this personal watchfulness and direction every morning and evening my employés rendered fair service without any perceptible lounging. In less than three months the cottage was ready for occupancy, and the cash expense in the aggregate was less than one-half the amount required by professional jobbers for building a dwelling of the same dimensions and the same architectural style. No portion of the work was performed by the job. I built a goodly number of houses during the early part of my life, and I always preferred to employ workmen (masons and joiners) by the day. Fortunately, as I always supervised every piece of work, my employés usually rendered a dollar's worth of service for every dollar they received.

The next thing after the dwelling-house was completed consisted in stocking a small portion of the ground with choice fruit. Four years ago last spring, pear trees, peach trees, apple trees, and cherry trees were put out, in connection with raspberry, blackberry, currant, and gooseberry bushes, and strawberry vines. The second season we had all the small fruits that the family desired. The third year the trees would have yielded a small supply of apples, pears, and peaches, but as it is ruinous to young trees to be allowed to mature a crop of fruit, all the young fruit was plucked off except one or two specimens per tree. In 1878, the fourth year after the trees were transplanted, many of the peach trees produced more than half a bushel per tree of beautiful fruit. Some of the pear trees and apple trees were literally loaded

with luscious fruit. In the season of 1878 we had ripe peaches in the middle of July; and, as I had selected such varieties as would ripen in close succession, we had an abundance of excellent peaches from July 16th until the middle of October. Two years after the vines were planted out we had all the choice grapes that the family desired from the middle of August until winter. The garden yielded asparagus, pie-plant, melons, cauliflower, sweet potatoes, tomatoes, sweet corn, and every other desirable article of food in abundance.

"Well," the reader inquires, "what did all this cost?" At the present prices of labor and building materials, if one will do as I did, he can purchase good land for one hundred dollars per acre, and can erect as nice and commodious a cottage as any small family needs (if not too proud and scornful), and stock the ground with more than a hundred trees for less than one thousand dollars. Land is now held at nominal prices, and lumber is exceedingly cheap.

If any denizen of the great metropolis is sighing for a little home in the country, within a short ride from the city, let him ride to my rural retreat and see for himself what an old man has accomplished in four years by the expenditure of only a little money; and let him note, also, the solid and never-failing enjoyment incident to the "*Otium cum dignitate*" which a little home in the country brings, besides the rich milk and gilt-edged butter, the fresh eggs and juicy chickens, the balmy air and invigorating breezes, and the perpetual environment of one of the dearest spots on earth by untold numbers of benignant Nature's gorgeous beauties. What I have done others can do.

"Oh, give me back the farm, a little plot,
My prattling children and my bridal cot,
The trees I planted, vines and shrubs and flowers,
The garden, warbling birds, and sunny bowers."

SERENO EDWARDS TODD.

A New Law of Motion—the Gyroscope.—The discovery of a new law of motion at this day might be considered somewhat apocryphal, and also that a clear solution of the mysteries of the gyroscope was within the grasp of the ordinary man of letters. Mr. James McCarroll, a resident of New York, appears to have worked out a theory respecting these two points, which certainly deserves the attention of the savants. Mr. McCarroll avers that all bodies moving in right lines change their distance from the center of gravity, and, consequently, their weight at every moment, and that when moving in curves, whether concentric with the circles of the earth or otherwise, the tangential force, antagonizing with that of gravity, serves to change their weight also. Hence he lays it down as a fourth law of motion

that "a body is of uniform weight when at rest only."

In relation to the mysterious problem of the gyroscope, his demonstration is seemingly quite clear that a vertical wheel in motion does not press upon the same points of its bearings that it does when it is at rest, from the fact, as he alleges, that all the particles of matter in the periphery on one side of the wheel have a tendency to fly off at various angles in the line of the earth's gravity, and one of them directly in that line; while all the particles in the other half of the periphery have a tendency to fly off in a contrary direction, establishing an unequal distribution of force upon the axis and a minus and plus side of the wheel; as on the one side we have the earth's gravity, plus the tangential force of the wheel, and on the other its gravity, minus that force. This, once admitted, the motion of the horizontal ring on which the vertical wheel revolves is apparent at once; for the ring, being free to obey any impulse given it in its own plane, simply retreats before the plus side of the wheel and in a direction contrary to the revolution of the wheel itself. In explanation of the mysterious manner in which the whole weight of the gyroscope is sustained on one side of the upright pivot upon which the small projection from the horizontal ring rests freely, Mr. McCarroll says that when the vertical wheel is made to rotate so rapidly that the tangential force is in excess of that of gravitation on the whole mass, both ring and wheel will remain suspended, without any material support on one side of the upright, and be carried round the pivot upon which the projection from the ring rests, revolving more rapidly as the tangential force of the wheel decreases and is the more readily bent out of its plane, until, falling below the force exercised upon the whole mass by the gravity of the earth, both ring and wheel begin to gradually describe downward the arc of a circle vertical to a line tangent to the earth's surface, with the pivot for its center, and the axis of the wheel, together with the projection of the ring, for its radius, until, at last, the exhausted mass tumbles to the ground.

The Mutineers' Home.—Pitcairn Island, the home of the descendants of the County mutineers, is about three miles long by two wide, and very mountainous, being about 1,200 feet high in some parts. The coconut, breadfruit, pineapple, and many other fruits grow there in great abundance, especially oranges, lemons, and citrons. There were, three years ago, seventy-three inhabitants all told—men, women, and children—some being very handsome, the women having beautiful hair, and, allowing for the hot sun, have fairer skins than would be supposed, being hardly darker than Europeans. They depend on passing vessels for all their clothes and agricultural implements, etc.; always going barefoot, except on Sundays, when some few of them wear boots. They grow

sweet potatoes, yams, cotton, arrowroot, and Indian corn, which they give in exchange for clothes. The chief person in the island is Simon Young, grandson of Midshipman Young. He officiates in church on Sunday, also at the day and Sunday schools. They use the Church of England service, and generally read a sermon from the "Sunday at Home," of which they have some volumes. All have a fine ear for music, and sing most beautifully. When anything has to be decided they call a general meeting and go by the majority of votes. The oldest person on the island is a stepdaughter of John Adams. She is eighty-four years of age, and a hale old woman. They still have a cannon, which belonged to the *Bounty*, and a carpenter's vise. Consumption is the only disease known among them. There is a great scarcity of water, which, they fear, will eventually force them to leave the island.

The Broken Leg of a Horse CURED.—We extract the following from proceedings of the New York Farmers' Club:

"G. G. Williams, of New York, sends a letter, and a good sketch of a mare, which, having broken her hind leg, was condemned to death by a veterinary surgeon. Mr. Williams, however, set and bandaged it without any anæsthetic. Cooling lotions were applied, and the animal slung, so as not to derange the injured limb. A band, perforated for the forelegs, supported the breast another reached all the way from the fore to the hind legs—each side having its separate pulley—from this latter another broad band went around the rear of the animal, these three bands being buckled together, the breast band having also a pulley at each side, the rear band not being for lifting. On the wounded leg was also a band at the hock, about nine inches across, and also attached to each side, a pulley; the fracture being of the bone between this joint and the hoof. The experiment was entirely successful."

Texas ranks third among the wool-producing States, having 3,674,000 sheep, and so treading closely on the heels of Ohio. California leads, of course. Nueces Co., Texas, has more sheep in its limits than any other county in the Union—656,000.

Scientific Poetry (?)—Mr. John Gibbs, a botanist of the Essex and Chelmsford Museum in England, has tried his hand at reducing science to verse, with this result:

DESCRIPTION OF A DAISY.

"Of this little plant of the Composite order,
Bellis perennis is surely the name;
A perennial herb in the garden's gay border,
To ornament which from the meadows it came.

"Its roots of a good many filers are growing
From under the sides of a prostrate rhizome;

Which branches above, but is never found going

At any great length from the center to room.

"Spathulate leaves in a rosulate cluster,

Every ramification surround ;

And in the middle, about which they muster,

A simple peduncle is commonly found.

"For each of the ligulate florets composing

The circular ray is a separate bloom ;

And each little cup in the center reposing,

For every part of a flower has room.

"It seems that the cup of the calyx adhering

Unto an inferior ovary so,

Accounts for that innermost organ appearing

To be in the place where we find it below.

"The corolla above it of tubular figure,

Coherent epigynous petals compose ;

As whoso describes it with technical rigor

By five little teeth on the edge of it knows.

"The stamens are called syngenesious truly,

Because of the fact that their anthers cohere ;

The style passes through them, and on it will duly

A couple of stigmatic branches appear.

"When all this is done and the blooming is over ;

When fruits monospermous are ripened and gone ;

They leave the receptacle nothing to cover

Its form, which we find in the shape of a cone.

"If now I have done my agreeable duty,

I venture to hope I shall have better luck Than the flower itself, which, because of its beauty,

Some ruthless examiner haply may pluck."

Solidification of Petroleum.—A very curious effect is produced on the oils of petroleum, even those of the least gravity, by the addition of powdered soapwort (*saponaria*), an herbaceous plant of the order *Caryophyllaceæ*. On digesting the powder with water and mixing it with the oil the latter forms a very thick mucilage, so that the vessel in which the experiment is made can be turned upside down without spilling the contents. What is still more singular, is, that if a few drops of carbolic acid be added, and the mucilage be shaken, it becomes in a few minutes perfectly limpid again.—*Ironmonger*.

On Reclaiming Farms.—The San Francisco *Bulle in* uses some very practical language with reference to the recovery of worn-out farms, and the suggestions have their application to farming in general :

"In building up an unprofitable farm, the first aim should be to stop the process of running down ; to make it pay first, expenses,

and then a slight, yet increasing profit, and to this end both thought and labor must be directed. No matter how cheaply the family has been living ; if it is possible to reduce expenses, do so. Cut off everything except plain food, coarse warm clothes, a single newspaper. Raise your own vegetables, and save on the meat bill. Pay cash as you go. Everything has to be paid for in the end, and the whole credit system is a delusion and a snare. Enlist the energies and whole nature of each and every member of the family in the one great effort to save the farm—the home. Be proud of your utmost economy ; even study the economies of other men. Keep a strict and honest account with everything about the farm, so that you know exactly how you stand. This is the most important of all. Every successful farmer keeps strict accounts. The value of account books on a farm is not so much (as many suppose) to merely show what is received and what is spent, but to show exactly which field or which crop paid best, and where losses were incurred or too small profits received. The direct bearing of such knowledge on the successful conduct of a farm may be easily understood.

"On every farm, but especially on one which is doing poorly, there must be a scrupulous saving of all manurial substances. Barn-yard manure, decayed animal or vegetable matter, refuse of every description, bones gathered up in waste places, leaf-mold hauled from the deep ravines—all these must be utilized, and their effects will soon be evident."

Magnetic Alimentation.—The case of Miss Fancher, of Brooklyn, has awakened much attention ; the fact of her subsistence on "next to nothing" being the chief wonder. Mr. Andrew Jackson Davis was lately interviewed on the subject by a *Sun* reporter, and said, among other things :

"In physiology the cellular tissues are the natural generators, protectors, and feeders of all the membranes of the system and all the vital organs. There are thousands—yes, hundreds of thousands—of these life-giving cells near the surface and through the system, and there are hundreds, if not thousands, of feet of nerves. These nerves are co-operators with the tissues as protectors and feeders of the entire membranous and vital systems. Now I should call Miss Fancher's case, judging from my own, one of nerve and cellular tissue feeding, which makes the use of food by mastication almost entirely unnecessary."

"But is not food required to keep up the nerves and tissues of which you speak ?"

"Those tissues and nerves are the products of elements and essences that are totally unknown to chemists. The moment we come to that boundary, we glide over into the spiritual. A cell can not be organized without a potency that is exactly qualified for such a labor, and the nerve, in the same way, is a product of what is to chemists an unknown

science, which our folks call the spiritual principle. Now that is what requires to be fed, not the tissue and the nerve, but those essences or principles which develop or evolve nerves and tissues, and those essences or principles can be received in various ways. They may be inhaled and taken with pure water or milk in very small quantities, or they can be absorbed through the entire surface of the skin. And that is the case of a person in that high state of impressibility, which, from all accounts, seems to characterize Miss Fancher. Now, a magnetizer, as I know—for I have been for several years magnetized twice a day—a magnetizer supplies that creative principle. A magnetizer fed my vital forces, just as Miss Fancher is fed by breathing, and through the nervous system and through the skin. The magnetizer's force, by a process of assimilation, entered into my vital powers and kept the heart beating and kept up a certain amount of bodily heat, so that my mind was entirely emancipated from the necessity of carrying out those processes in the body in which we are all constantly engaged under ordinary conditions. In fact, the reason why many of us can not command our powers, is, because we are too much anchored to earth, or freighted, as it were, by those vital powers which consume our mental energies. As soon as the mind is emancipated from the necessity of keeping the bodily system from death, why, its inner senses are opened and strengthened, just as they are a few moments before death, in almost everybody's case. Miss Fancher is on the border land of the other world very many times, and whenever she is exactly there, she can hear sounds that are utterly inaudible to common ears, and can see sights that no human eye can discern. As she settles back down into her circulation, her muscles, and nerves, she drops out of what we call the lucid state and becomes again a sick patient and probably has some of her disagreeable symptoms, to alleviate which physicians have to be called in. Then the hysteria comes in."

Water Used by Plants.—M. Marie-Davy, two years ago, worked out the calculations of experiments which show, that, for the production of sixteen grains of corn, as much as three and a half pounds of water are transpired. M. Risler has found that a field of growing wheat transpires between April and July as much water as would cover the surface of the ground to a depth of nine inches. These experiments have obviously direct practical bearings on agriculture. The influence of sunlight on transpiration has been investigated by Professor McNab. Experimenting with the leaves of the bay laurel, he found that in sunlight there was but little difference between the amounts of water transpired in an atmosphere saturated with moisture and in a dry atmosphere. The amount per hour in the first case was 25.06 per cent. and 20.52 in the second. In the

shade, however, the transpiration in a saturated atmosphere was *nil*, and in a dry atmosphere only 1.69 per cent.; showing in a marked degree the great influence of sunlight and the small influence of dryness or moisture of air.

The rate of the ascent of fluids in plants, ascertained by the employment of spectro-scope examination of the diffusion of lithium citrate as adopted by Bence Jones in studying the fluids of animals, gave a maximum result of twenty-four inches per hour. M. J. B. Lawes has published the result of long experiments, which show that two hundred times the weight of organic matter elaborated by a plant passes through it in the form of water during its growth. With regard to the comparative amounts of carbon assimilated by plants and evolved by animals, Professor Dewar has elaborated tables which show that an acre of the best cultivated land fixes annually about twenty-two cwt. of carbon, and a healthy man evolves about two cwt. of carbon annually in the form of carbonic acid, so that eleven such persons supply as much as can be economized by an acre of land.

Luminous Clock-Dials.—Professor Morton, of the Stevens Institute of Technology, has recently analyzed the substance with which the dials of "self-luminous clocks" are coated, and found it to consist of nothing but sulphide of calcium, attached by means of some resinous medium like varnish. This substance is a phosphorescent one, absorbing light from the sun or artificial light, and giving it out in the dark. The substance, as prepared for the clock-dials, has shown an intensity of the phosphorescent quality never before equaled. One of the dials was still visible in total darkness after having been shut up in a box for five days. Professor Morton suggests that if further advances should be made in this direction, it is easy to imagine some wonderful results, before which even Mr. Edison's new electric-burner would fade into insignificance. Thus, if our walls were painted with such a substance, they would absorb light enough during the day to continue luminous all night, and thus render all sources of artificial light useless. The coloring of houses on the outside with a like material would also obviate need of all street lamps.

Deep Plowing Dependent upon SOIL.—Not long ago there was a mania among agriculturists for deep plowing. Every farmer it was said had a farm under his lands of great value where the plow had not yet reached. No matter what the character of the surface and the sub-soils were, the plow should go in to its beam. But these men are beginning to get their eyes open. Mr. George E. Waring, Jr., in speaking of the results exhibited in the management of "Ogden Farm," in the *Agriculturist*, says:

"About six acres were (some seven or eight years ago) plowed about twelve inches

deep. The sub-soil of blue clay, which was brought to the surface, was a lasting injury to the land. It still shows the ill effect of the treatment in spite of time and manure. There are some soils that would be benefited by plowing twelve inches deep, but they are scarce."

The rule may be said to be: "Never turn up over one or two inches of unfertile sub-soil in one season; and when so turned up, the land should receive a dressing of manure."

Millstones Made of Glass.—The *Manufacturer and Builder* calls the attention of manufacturers who can cast heavy pieces of glass, and also of millers, to a recent German discovery, that the finest flour is produced by those millstones which have the most glassy texture and composition, and the consequent discovery that pieces of glass combined in the same way as the French burr and similarly grooved on their surfaces will grind better than the burr millstones. The consequence of this discovery has been the invention of the glass millstones now made by Messrs. Thom, and used in Germany and in Borkendorf with great satisfaction, as it is found that they grind more easily and do not heat the flour as much as is the case with the French burr stone. In grinding grist, they run perfectly cold.

In order to make such stones, blocks of glass of from six to twelve inches wide are cast in a shape similar to the French burrs, but more regular and uniform. They are connected with cement in the same way, and dressed and furrow-cut with picks and pointed hammers; but we believe that diamond-dressing machines might be profitably applied. It is said that these millstones, made of lumps of hard glass, do not wear away faster than the burr stones. Stones of four and a half feet in diameter, driven by six-horse power, ground two hundred and twenty pounds of flour per hour, and did it while remaining cold. The grist is drier, looser, and the hull more thoroughly separated from the kernel than is the case with other stones.

If all this turns out to be correct, it is a valuable discovery, especially when we consider the expensiveness of good blocks of burr.

Counting Cattle.—Every one who has ever tried to count the cows in a herd or drove will remember that it requires some practice to enable one "to keep the count" in even a herd of fifty or sixty, and he therefore learns with astonishment, that, in South America, where there are frequently vast herds containing ten thousand or more cattle, the herdsman can tell if even one out of this great host is missing.

It is well known to the herdsmen that these immense herds of cattle invariably divide themselves into groups of from forty to one hundred animals in each. Of course, in each group—called "tropillas," or little troops—there are some few strongly or peculiarly

marked animals by which the troop to which they belong will be recognized, and as it is known how many animals belong to the "tropilla of the black and gray spotted bull," how many to that of the "small bull with the wide horns," and so on, it is always easy to tell if any are missing from each tropilla.

During a night of storm and darkness, the cattle of each "estancia," or cattle farm, all mingle together, but the next morning they will separate again into the same tropillas as before. As the animals from one tropilla never by chance join themselves to any other, it is evident that each animal must know its own particular friends out of ten thousand others. s.

Forest Leaves for Bedding and

COMPOST. — "I gathered forest leaves last fall," writes a correspondent to the *Vermont Farmer*, "and used them as bedding for stock. I selected a damp, misty day in which to gather them, and found that I could pack a very good load in the wagon. I gathered principally from a part of my woods where the trees were scattering, raked them together in piles, and two of us hauled in and stored ten loads in a day. I had what I thought was an abundance, and I bedded my hogs altogether with them. They are the best thing for this purpose I ever tried. The hogs would root and work them over, mixing them thoroughly with their manure, and the consequence was, the best lot of hog manure I ever had. I also bedded horses and cattle until the leaves were used up. I believe I gained fully ten loads of manure altogether by using ten loads of leaves; not that much in bulk, but in increased value by absorbing the liquids which would have escaped. But another advantage I want to mention. The open woods, cleared of leaves, were raked and scratched over with an iron rake, and red top, blue grass, and orchard grass sown. It happened to catch well, and afforded a good deal of pasture this summer." Upon this, the *Green Mountain Freeman* comments as follows: "We have found it a very easy and rapid way to gather leaves to fasten the hay-rack on the framed sled, where, of course, it will project some distance behind it. Then driving into the woods, we can easily set the sled where the rear end of the hay-rack will rest on or nearly on the ground, where the leaves can be raked in from the ground with no handling in a basket. We gather ours as dry as possible and with plenty of side boards and four end boards, we can draw a heap of them at once."

A Good Whitewash.—Slake, say one peck of lime, and while hot and of the thickness of cream, add a quart of linseed oil and a quarter pound of glue. Let it stand a day before using. Rains will not wash it off, nor will it prove such a nuisance on interior walls as common whitewash. It should, of course, be thinned with water while using, as ordinarily.



MRS. C. FOWLER WELLS, *Proprietor*.

H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK,

APRIL, 1879.

THE WARFARE OF SCIENCE.

THERE is conflict in every department of scientific inquiry. Astronomers, geologists, chemists, physiologists, medics, disagree among themselves, and often carry their differences to the extreme of rancorous misrepresentation. Sometimes we are pained by the hostility of men who in their respective spheres have won the world's respect. Not long since we had the spectacle of two giants in physics, Dr. W. B. Carpenter and Mr. A. R. Wallace, contending about certain phenomena in psychology, and occupying large spaces in periodicals with their counter declarations, arguments, and speculations. For some time past the subject of spontaneous generation has filled a wide place in scientific discussion, and not a little bitterness has been indicated in the expressions of dissentient opinion.

In the important field of medicine the conflict of theory has an established form, by virtue of the definite organization of physicians into schools or classes. One advantage, however, which physicians possess by reason of this class organization, is that they are led to draw closer to one another in support of their several class theories and practice, and people at large are ready to excuse

their bickering and acrimony, believing that the exhibition of such feelings is a natural outcome of class education.

Even in Phrenology there is conflict of opinion among men who have mastered its principles. But we venture the assertion that there is less personal unfriendliness among educated phrenologists than among the members of any other considerable body of scientific observers. It is to the transition or progressive state of science in general that the conflict is mainly due.

Never were men more earnest and devoted in research than now; and as thorough work in any sphere demands the closest application to what may be but a small part of a single subject, results are often obtained which seemingly clash with received opinions. Two or three men may be working in a similar field and arrive at different conclusions, simply because they worked from different points of view, and in different ways. Their conclusions are given to the world without a clear setting forth of their different methods of operating, and we have the spectacle of egotism on both sides, disdaining an appearance of concession. Conflict follows between the adherents of the respective observers. Whereas, probably, a fair consideration of their modes of working would have revealed a consistent relation between their conclusions, and these combined by the skill of one whose mind can grasp the whole subject in its logical relations, would form a priceless addition to the store of scientific truth.

But there is a useful side to all this contention. It exposes fallacy; it sifts out the hollow and unsound. Truth may be obscured amid the din and confusion of the strife, but in time it comes out clearer, brighter, and stronger for the rude treatment it has received.

The foregoing reflections are suggestive of the fact that very frequently truth is assailed by its enemies, who assume the mantle of science for the purpose. Nearly every attack upon Phrenology which has been made during the past twenty years has adopted the line of Sir William Hamilton, whose "anti-phrenological" propositions, when tested by the received physiology of the day, crumble into insignificance. Now and then we find on the pages of a respectable periodical a pretended review or criticism of the phrenological system which occasions us much surprise, because its cursory examination not only discloses an ignorance on the part of the writer with respect to common facts in anatomy and physiology, but also direct misrepresentations of phrenological doctrine. A month or two ago an American monthly, which is regarded in some circles as the representative in this country of advanced science, published an elaborate article decrying our subject in terms of ridicule and pretentious logic. The writer styled himself "Doctor," but in the course of his essentially literary effort he made assertions which the accepted physiology of our decade does not sustain, and many of his most "triumphant" turns of expression are utterly wasted, being based upon views of Phrenology which declare an ignorance of its common details which would be a reproach to a boy of twelve who had given it six weeks' study. We infer from the general tenor of the article that it is merely the work of a literary man who has taken his data from second or third hand sources without giving himself the trouble to prove them. What particularly enters into our surprise concerning this article is that the acute editor of the American monthly should have given a paper so abounding in errors affecting both sides a place. Certainly he could not have atten-

tively examined it before committing it to the printer.

THE LATE DAVID G. GOYDER.

THERE lies on our table a compact volume of six hundred pages, entitled "The Autobiography of a Phrenologist," which was published in 1857, when its author was sixty-one years old. Few books of the autobiographical class equal it in attractiveness. Not only does it bear the marks of conscientious narration, but a vein of sprightly, hopeful buoyancy percolates its length and impresses the details of soberest experience with a charm. The author tells of the people with whom he came in contact and who influenced his conduct; describes in the course of his narrative many eminent persons in literature, science, and the Church, and now and then occupies several pages with a discussion of some topic in philosophy and science which indicates a cultivated yet thoroughly practical intellect, and a mind whose bias did not lie on the side of prejudice and intolerance.

The autobiographer of whom we speak was the Rev. David G. Goyder, who died in the summer of 1876, after a long and useful career as a practical phrenologist and an earnest minister of the Swedenborgian Church. Born in 1796, he was left an orphan at the tender age of nine years. Friends assisted him toward obtaining an education. He adopted in 1822 the life of a clergyman, and as he cast in his lot with a society then of recent establishment in England, his industry and earnestness find employment at different points. The story of "My Battle for Life," as he styles it, shows the kind of hardship and persecution a dissenting minister was subjected to fifty years ago. For many years his religious labors were

performed gratuitously, he meanwhile supporting himself by lecturing, teaching, and the practice of medicine. He obtained his degree of Doctor in Medicine at Edinburgh, where he studied for the purpose. The *Bradford Observer* said of him in an obituary notice: "He was one of the earliest ministers of the 'New Church' (Swedenborgian), having been ordained in 1822; and he was greatly valued by that body both as a writer and preacher. He was known and esteemed, however, beyond the sphere in which he ordinarily worked, notably as a phrenologist, of which science he was an earnest student and an able expositor. . . . Indeed, he was a man of versatile parts and great natural force of character, and labored through a long life for the enlightenment and welfare of his fellow-men."

In our turn, although we assume it to be a special privilege, we are always pleased to speak of men and women who, like Mr. Goyder, by their words and deeds have hown themselves to be true phrenologists.

CLOWNISH JOURNALISM.

THERE is a growing tendency in American newspaper literature, to subordinate fact and incident to purposes of humor and comicality. By some dailies and weeklies in the East and West, a degree of prominence or popularity has been obtained through persistent effort to make fun for their readers, and this fact stimulates other "enterprising" publishers and editors to humorous sallies. A few years ago the Joker's column occupied a retired part of the sheet; now it is set in the fore-front. It has, indeed, come to such a pass, that nearly every "leading" newspaper must have its *funny* man, who makes it his business to scan the horizon of affairs daily for material with which to point his

facetious pen. Nothing is too high or too low for him; nothing too good or too bad, if it can be made available for a joke. He is hired to spin out a certain amount of burlesque, caricature, conundrums, every day or week, and he sometimes feels compelled to resort to subterfuge and misrepresentation to make up the quota. Generally the funny man entertains no malice or hatred in his heart, but it being his business to make fun, he must do it at all hazards. Hence we find him often making some pathetic incident, a deep sorrow even in which a whole community feels a moving sympathy, the subject of burlesque; or he will even dare to caricature some candidate for public respect and honor; or he will set in a ridiculous light some publication whose intrinsic value is self-evident. Like the clown of the circus, he declares to his audience: I am here to amuse you, now laugh at my jokes.

We like fun, in its place. The mind needs the relaxing, refreshing influence of humor at times, but to have absurd, incongruous, silly stuff interjected when grave and sensible matters demand or occupy the attention, is conducive to a superficial habit of thought, and so unfits the mind for the serious concerns of life.

A GLANCE TOWARD WASHINGTON.—

According to the report of the Secretary of the Treasury, the income of the current year will be less than that which was estimated by \$27,000,000, and there is a prospect of early embarrassments in meeting the obligations of Government, which is by no means pleasant to contemplate. We have no plan to propose for the relief of the Secretary, but can scarcely forbear comment on the lack of data or wisdom which somebody has exhibited in the premises.

It is a little remarkable that while this

serious matter of a deficiency in the funds of Government is discussed by the people, our Congressional representatives are debating questions of tariff and cutting down the rates on tobacco and certain other articles which society would be better without, while the rates on certain things of general

use and necessity remain at points which are excessive, considering the times. If the community at large will persist in the use of tobacco and alcoholic beverages, Messrs. Legislators, make it pay handsomely for its indulgence, and thus increase the public revenue.



"He that questioneth much shall learn much"—*Bacon*.

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.

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. Anonymous letters will not be considered.

THE SEVEN WONDERS OF THE WORLD.

—D. B. M.—You are probably a recent subscriber, as we have enumerated the so-called "Seven Wonders" of the world three or four times within a few years. Consultation with any good encyclopedia will give you a description of them. They were: 1. The Pyramids of Egypt; 2. The Pharos, or Light-house of Alexander; 3. The Walls and Hanging-gardens of Babylon; 4. The Temple of Diana at Ephesus; 5. The Statue of Jupiter, by Phidias, at Olympia; 6. The Mausoleum of Artemisia at Halicarnassus; 7. The Colossus of Rhodes.

RHEUMATISM.—G. K. N.—The application of hot water should give you some relief. This can be applied by means of cloths or in India-rubber bags. Manipulations and rubbing should be beneficial. Regulate your diet meanwhile and keep the stomach and bowels in good condition.

CLEANING SKULLS.—I. S. R.—One of the most thorough methods for obtaining a clean cranium is to leave the article for a while in the

vicinity of a large ant-hill. Of course, by removing the scalp carefully the bone is left in a comparatively clean state; exposure to hot air will dry it perhaps sufficiently. Still another method, and a common one with anatomists, is boiling in common lye, or concentrated potash, to be obtained of the grocer, being careful not to leave the bone in too long, lest it should be injured.

INTELLECTUAL DEVELOPMENT OF TEACHERS.—A. M. D.—A good teacher has a rather strong development of the perceptive faculties, and a head broad in the region of the temples. He needs a good Memory, large Human Nature and kindness, with good discernment of the practical relations of the subjects he teaches. Women as a class have less perceptive development than men, so that the upper part of their forehead appears to be prominent. Their impressions are quicker than those of men. Causality is, of course, essential to correct instruction. The teacher must appreciate cause and effect, and so be enabled to present the theoretical principles of the topics in his curriculum clearly and forcibly to impress the mind of the pupil.

MORAL RESPONSIBILITY.—A. S.—We can not think otherwise than that man is morally responsible for his words and acts. The negative view of the question would make man simply an automaton. Applying the argument from consciousness, it seems overwhelmingly demonstrated that man is a responsible agent. We feel within ourselves the power to will and to do. We find in the course of life illustrations of the power and the efficiency of determination. We see men conquering obstacles apparently insurmountable, brushing aside difficulties which at first sight present barriers impassable to progress. Man is endowed with special organs whose every expression points to his responsibility. You are impressed by the sense of obligation

and duty ; you feel bound to do for yourself and for others certain things. If you disregard the promptings of Conscientiousness, you afterward feel the pain of remorse ; something chides you for the act. Take away the sense of moral responsibility from man, and society would become chaotic ; the whole social machine would tumble into ruins. Mutual confidence in business, in every department of life, is based upon the moral sense.

VITATIVENESS AND THE VITAL TEMPERAMENT.—J. M. G.—As a class men possessing a good degree of Vitativeness have also a well-marked Vital temperament. It often happens, however, in our driving era that men become thin in flesh, develop the Motive temperament or the Mental temperament into marked conspicuity, and the Vital seems subordinate, yet on examination they are found to possess strong Vitativeness. With the organ small, people who may have inherited a good share of the Vital temperament are liable to organic derangements, sickness, and disease, and succumb with comparative ease to ailment and trouble.

CAUTIOUSNESS AND SECRETIVENESS IN HANDWRITING.—L. N.—We have not given attention to the particular phase of character which you mention. Most people who have a good deal of writing to do become somewhat indifferent to style or finish. They may when young, and when time hung heavy on their hands, have written clear and neat hands, but in adult life pressure of engagements and duties necessitated a subordination of mere style to the accomplishment of the work urged upon them. We think, however, that as a rule people with large Cautiousness would be more careful in crossing their t's and dotting their i's than those not so endowed. Order, Approbativeness, and some other organs have a good deal to do with one's handwriting. Order, as imposing system, has probably more to do with the specific line of your inquiry than any other of the phrenological faculties.

PETER AND PAUL.—*Question :* Can you give me the origin of the common phrase, "Robbing Peter to pay Paul?"—E. The origin of this saying is traced to the time of Edward VI. of England, when a great part of the estates of the Roman Catholic Church were seized by the king and distributed among favorites and officials. The See of Rome, representing St. Peter, as well as the whole body of the Roman Catholic Church, protested violently against such confiscation. In order to reconcile the people to this kind of robbery, a part of the confiscated lands were appropriated toward the repair of St. Paul's church, London.

CULTIVATION OF ORGANS AGAIN.—O. Y.—In late numbers of the PHRENOLOGICAL we have discussed the subject of the cultivation of the organs you mention, and we can scarcely do better than to refer you to what has been said in them. In general terms you should endeavor to arouse your faculties to activity—to work. Be earnest and persevere in endeavor. Avoid temptations to idleness and sloth. If you have a trade, pursue it vigorously. Whatever you do, do thoroughly.

MENTAL DERANGEMENT.—T. B.—The person you speak of was evidently injured in the brain. We would be pleased to know what part of the head was struck. Have the impression that it was the upper side of the skull, the region of Cautiousness, Conscientiousness, and so on. Possibly the inner bone or table of the skull was fractured by the kick, and exerts some pressure upon the brain, producing the sort of mania described.

LIVER COMPLAINT AND HARD CIDER.—J. W. A.—Hard cider has a rather strong alcoholic principle, which renders it objectionable as a beverage. It would be much better for you to eat subacid fruit liberally. With your torpid, probably congested, liver, you should avoid all greasy articles in your diet.

THE MAGNETIZER.—M.—An effective magnetizer usually possesses a strong physical organization, the mental temperament being slightly in predominance. The mental organs are fairly balanced—those in the crown being strong, giving to the character steadfastness, positiveness, and self-reliance. His perceptive faculties are large and active, enabling him to quickly understand his subject and to adapt his conduct accordingly.

IMPROVEMENT OF LANGUAGE.—W. W. B.—By reading the best authors attentively, so as to impress their contents upon your mind. By memorizing to some extent pieces of special excellence. By commenting upon what you see and read when in company with your friends. You probably read too much. This is not as beneficial as reading too little. A man of learning is not known by his library. Better a few books well conned than a thousand skimmed. "How to Read" furnishes practical hints suited to your case.

CONSTANCY.—A. B. H.—Large Firmness, Conscientiousness, and strong Friendship have much to do toward rendering one's affection as a friend permanent. As a lover and husband or wife, to these large Conjugality should be added, although one can be constant to the relation which has become established by law and custom through the operation of strong moral faculties.



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

SOVEREIGNTY OF BRAIN.—Matter, force and intelligence constitute the sum of the universe, the Trinity which Spinoza said "I choose to call God." Man is a compound of matter, force, and intelligence; an epitome of the universe, in the image of God. Matter without force were dead; force without intelligence were blind. The degree and character of intelligence manifested determines the rank or value of any organization in the scale of being. Intelligence is manifested in two ways—unconscious and conscious. In our own organization, unconscious intelligence presides over the action of the heart, stomach, lungs, and other organs whose functions are what physiologists term involuntary. Conscious intelligence is manifested in the various modes of thought, and through it we control our external actions and relations. Were we not endowed with the power of thought we could have no consciousness of existence. "I think; therefore, I am," said the great French philosopher. We begin to be (as personalities) when we become conscious of existence, and the sum of our consciousness is the measure of our life. The stomach, lungs, etc., being organs of unconscious function, represent the physical nature. The brain, the organ of thought, represents the intellectual, the human. It is therefore superior, sovereign. The head commands, and the body obeys. Nor does the plebeian body ever question the propriety of an order issued by its sovereign, whether it be to wield the dagger of the assassin, run on an errand of mercy, or bow beneath the heaviest cross of toil.

The brain comprises three principal groups of organs, corresponding to three classes of faculties, selfish, intellectual, and moral. These are all intelligent; but the degree and character of this intelligence differ greatly, and, differing, conflict.

The consciousness of the selfish group is manifested chiefly in desire and effort to benefit self. The consciousness of the intellectual group is displayed in a search after knowledge. The consciousness of the moral group is seen in aspirations after the good, the true, and the beautiful. The first give us all our wars, murders, tyrannies, robberies, and crimes of whatever sort, as well as all our physical pleasures. The second, all our literature, art, and science. The third, all our religion, philosophy, justice, liberty, and fraternity.

The relative power of these groups in any given case is determined by their relative size. This being true, we have only to know that the selfish group has ever been, and still is, the largest in the average man, to account rationally for the facts of history and observation that so disgrace our race.

A Mr. Joslin, of Rhode Island, in a lecture before the workingmen of Washington, recently, said labor-saving machinery is supplanting the workingman and starving him. In this he but stated a patent fact; but the remedy he suggests is a law suppressing inventions, and remanding society back to the dark ages—to the slow and toilsome processes still in vogue in China.

Were it the obvious purpose of God that man should remain forever an ignorant clown and toiling serf, this remedy would be legitimate; but man, being commanded to subdue the earth and rule over it, and being endowed with the Godlike power of thought by which the achievement of the absolute autocracy of this world is possible, Mr. Joslin's proposition is unworthy of a moment's consideration.

"Tis the mind that makes the man." The strong-limbed, muscular, but ignorant barbarian of primitive times was but a dim prophecy of true manhood. He was a slave to superstitious fears and physical necessities. He cowered before the forces of nature, and toiled as a galley-slave for a meagre and mean subsistence. The element of manhood inherent within him rebelled against a fate so painful and plebeian, and cudgelled the brain for plans by which to secure a better living at less cost of labor. This discontent and taxing of the brain was continued, and under the activity thus induced, the brain has steadily increased in size and power, and is still increasing. The result is marvelous, both as to magnitude and beneficence. A single brain, once limited to the superintendence of the operations of one pair of hands, may now control machinery representing a thousand pairs of hands, and this machinery is run by steam and wastes not one ounce of muscular force. The unwritten prophecy is about to be fulfilled. Man is rapidly emerging from his apprenticeship to the parent of invention, necessity, into the realm of independence of thought and action. The forces and appetites that have so long enslaved him are to be the instruments of his will and ministers of his pleasure.

There is a current and popular legend, to the purport that it was God's original purpose to keep man in ignorance and support him in idleness, which scheme was spoiled by the perversity of woman, as manifested in tasting forbidden joys, and seeking unlawful knowledge. Then God placed man under the curse of toil, saying to him, "In the sweat of thy face shalt thou eat bread." The legend is true to those who are

able to interpret it, as are all the sacred myths and legends that have come down to us from the venerable past. There was, no doubt, an era when the primitive man leaned like an infant upon the breast of his mother nature, drawing his sole sustenance from the spontaneous fruits of her bosom. From this dream of infancy he at length awoke to the necessities of clothing, and other luxuries which nature had not supplied. To supply these wants involved labor, and the sea of toil was inaugurated. From this hard school of bitter experience the race is to graduate into the era of thought.

The new command is, "Develop your brain and use it in an intelligent manner;" for the time is not distant when there will be no room in this world for him who shall have naught to sell but his muscle; who can do nothing but toil with his hands. It is written upon the walls of the temple of fate, "Become a thinker, or perish." Nor is this a hard doom. To the intellectual alone is life a blessing. The ignorant man begins his career in a cheerless childhood, passes through a tollsome and anxious manhood to a sorrowful old age, sinking at last into a nameless grave.

The only possible, complete remedy for the evils that now afflict society, and of which workmen and philanthropists so justly complain, is to abolish the monopoly of brains by making thought universal. This done, and the monopoly of wealth and power will pass away forever.

T. A. BLAND, M.D.

STUDY OF HUMAN SCIENCE vs. OTHER STUDIES.—Anthropology, or the science of man, has comparatively but few earnest students, and they are much scattered. Those who do study it, and especially that branch of it known as Phrenology, do not receive either the aid or the encouragement commonly given to inquirers after knowledge in other fields of research, *e. g.*, the bug or mushroom kingdom; for whenever anything is discovered in either of these lines, the fact is very likely to be published in nearly all papers. Witness the many recent articles on "Ants." How often are new ideas and discoveries in Phrenology thus widely published? Charitable people often help scientists with their dollars, as well as encouragement, to study the spheres that are so remote as to be utterly invisible to the naked eye—so remote, I take it, as to be quite out of our reach, and of little practical use to us; and though I admit that it is very interesting to study the single and double stars, the planets and their movements, and their chemical elements, all the knowledge of these things which it is possible for us to acquire would not be a hundredth part as valuable to us as to understand the nature of mind, its laws of growth, culture, and development, or the effects

of different kinds of food on mind and body, and what foods are wholesome and what not. Hence, I say, if you will allow me the expression, that Phrenology is "self-made"—it has stood and risen on its own merits. More good would be done, the race would improve faster, and sickness and sin would be less common, if people would study themselves more, even if the simply interesting be therefore somewhat neglected. Plenty of exercise for the intellect at least can be secured in the study of the useful. I would not give up altogether the study of astronomy, insectology, or any other science; I would simply have more students of Human Nature, for we need them more; we need to understand ourselves—the laws of our own minds and bodies—more than the nature of the corona which surrounds the sun or its precise degree of heat, or the precise orbit of some planet imperceptible to the naked eye, or the precise number of varieties of beetles in Texas. There are people earnestly studying these things while they remain in comparative ignorance of the laws governing their own bodies, and suffer in consequence. It would seem self evident that self-knowledge is the most important of all knowledge, and common sense should teach every one that his first need is to understand himself, and that after he has acquired a good practical knowledge of himself, then it is time to study the double stars, beetles, spiders, or anything else he may desire to study.

F. E. ASPINWALL, M.D.

SAY WELL AND DO WELL.

SAY well is good, but do well is better;
Do well seems the spirit, say well is the letter;
Say well is goodly, and helps to please;
But to do well is godly, and gives the world ease;
Say well to silence sometimes is bound,
But do well is free on every ground.

Say well has friends—some here, some there;
But do well is welcome everywhere;
By say well many to God's word cleave,
But for lack of do well they often leave.
If say well and do well were bound in one frame,
Then all were done, all were one, and gotten were gain.—*Selected.*

PERSONAL.

CARDINAL MANNING, the leader of the English Roman Catholics, is one of the most abstemious. It is said that on the few occasions when he goes out to dinner, he not infrequently contents himself with a biscuit and a glass of water—a good example of temperance. He is tall, thin, austere, reserved.

M. S. SULLIVAN, one of the largest farmers of this country, died January 29th, at the age of

seventy-three years. He was a native of Ohio, owning at one time a large body of land near Columbus, and was a member of the first Ohio State Board of Agriculture. Forty years ago he emigrated to Illinois, and became the owner of the celebrated forty-thousand-acre farm, which included nearly the whole of Ford County.

IDA LEWIS, well known for heroism in saving life off Newport, has been appointed keeper of the light-house on the Lime Rocks, in that harbor, at a salary of \$750. Her father was keeper until his recent death.

CAPTAIN PAUL BOYTON, the swimmer, has been illustrating his life-saving dress in the Allegheny River lately. He swam through ice blocks and other winter difficulties, from Oil City to Pittsburgh, being in the water in all about forty-one hours.

ADILE HANUM, a rich and zealous young Mohammedan woman of Bagdad, has shown herself a sort of Turkish Joan of Arc. When the late conflict began, she rode into Mouktar Pasha's camp in Armenia, at the head of fifty-six mounted troopers. Throughout the campaign she was the bravest of the brave, dashing into the thickest of the fray, and animating her followers by her daring to fight like devils; every one of the original fifty-six was killed, captured, or missing, and Adile was herself twice wounded. She won the rank of lieutenant, and was decorated with the order of the Medjidie.

MR. JAMES T. FIELDS lectures on "Fiction." At the Brooklyn Athenæum he alluded in the course of his remarks to Pomeroy, the boy-murderer, thus: "I recently paid a visit to the Pomeroy boy, who was sentenced to be hanged for killing three children, but whose sentence was afterward commuted to imprisonment for life. I asked him if he read much. He said that he did. 'What kind of books do you read?' said I. 'Mostly one kind,' he said—'mostly dime novels.' 'What is the best book that you have read?' I asked. 'Well, I like "Buffalo Bill" best,' he replied. 'It was full of murders and pictures about murders.' 'Well,' I asked, 'how did you feel after reading such a book?' 'Oh,' said he, 'I felt as if I wanted to do the same.'

WILLIAM HOWITT, the eminent author, died March 8d, at Rome, Italy. He was born in 1796 at Heanor, in Derbyshire, England; at twenty-eight he married Mary Botham, and soon after the names of William and Mary Howitt appeared in English literature.

ELIHU BURRITT, known as "the learned blacksmith," died at his residence, New Britain, Conn., March 7th last; he was in his sixty-ninth year. Some account of him will be given in our May number.

WISDOM.

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

To owe is human; to pay up, divine.

THEY who are thoroughly in earnest are sure to be misunderstood.

How can we expect a harvest of thought who have not had a seed-time of character.—THOREAU.

WHAT we have to do in this world is not to make our conditions, but to make the best of them.—RUFUS ELLIS.

BE very careful in your promises, and just in your performances; and remember it is better to do and not promise, than promise and not perform.

WHEN people have resolved to shut their eyes, or to look only on one side, it is of little consequence how good their eyes may be.—ARCHBISHOP WHATELY.

WHEN I see a man with a serene countenance, it looks like a great leisure that he enjoys, but in reality he sails on no summer's sea. This steady sailing comes of a heavy hand on the tiller.—THOREAU.

THEN shall thy still unbroken spirit grow
Strong in its suffering and more tender-wise;
And as the drenched and thunder-shaken skies
Pass into golden sunset, thou shalt know
An end of calm, when evening breezes blow,
And looking on thy life with vision fine,
Shall seek the shadow of a hand divine.

—R. W. GILDER.

A CONTEMPLATIVE life has more the appearance of a life of piety than any other; but it is the divine plan to bring faith into activity and exercise.—CROIL.

MIRTH.

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

A WIT once asked a peasant what part he performed in the great drama of life. "I mind my own business," was the reply.

A LITTLE girl told a worthy divine that she would like to be a minister, so that she could "holler on Sunday."

AN old man who had been badly hurt in a railroad collision, being advised to sue the company for damages, said: "Well, no, not for damages. I've had enough of them; but I'll just sue 'em for repairs."

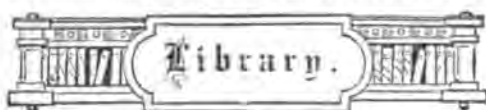
"Is that a type of Reading beauty?" asked the *Transcript*, as one hundred and sixty pounds of female loveliness boarded the morning train at Reading. "Yes," responded Spicer, "that is a piece of solid Reading matter."—*Boston Commercial Bulletin*.

"WHAT news to-day?" said a merchant to his friend, lately. "What news!" responded the other. "Nothing, only things grow better—people are getting on their legs again." "On their legs?" said the first. "I don't see how you can make that out." "Why, yes," replied the other; "folks that used to ride are obliged to walk now; is not that getting on their legs again?"

A GENTLEMAN having sent his man servant to buy some lucifer matches, said to him when he came back, "I hope, John, these are better than the last, which were good for nothing." "Oh, these are excellent," replied John; "I have tried every one of them."

A WEALTHY bank officer, on being appealed to for aid by a needy Irishman, answered, petulantly: "No, no; I can't help. I have fifty such applications as yours every day." "Shure, and ye might have a hundred without costing ye much, if nobody gets more than I do," was the witty response.

THE following is said to be an extract from a letter written to her lover by a Montgomery, Alabama, girl: "For your sake, darling, I have quit using chewing gum; would you have quit gum for me? I would not have quit gum for any other person in the whole world!" It certainly shows good sense on the "chew" question any way.



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 aim 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 HOME DOCTOR: A GUIDE TO HEALTH. By Dr. Bourne, of San Francisco. 16mo, pp. 505. San Francisco News Company.

Dr. Bourne has for many years been before the public of the Pacific Coast as an ardent advocate of hygienic methods in the treatment of disease, and this book is the representative of his experience as a practitioner and observer. The philosophy of water-cure has in him a most earnest

disciple and advocate. In his prescriptions for the treatment of a long list of ailments which make up the contents of his book, water is a very conspicuous element. He writes clearly, simply, authoritatively, and as one who *knows* whereof he writes. In his discussion of fevers he is particularly earnest in advising the application of water, agreeing heartily with the views which have appeared in this magazine touching its virtue in the malarial and yellow fevers. Diet forms a large part of his methods. He believes in farinaceous food and fruit; thinks that flesh meat is altogether unnecessary for health and strength, and is particularly to be eschewed in sickness. One of his personal tests of the nutritive value of unbolted wheatmeal was a pedestrian trip from Portland, Oregon, to San Francisco, which he made in his sixty-sixth year. On this trip he ate Graham crackers and occasionally a little fruit, consuming thirty-nine pounds of the crackers in his thirty-four days' march, and averaging twenty-four and a half miles per day. As the weather when he made this experiment was of the hottest, the thermometer frequently indicating ninety-eight degrees at midday, it would appear very remarkable to most people that he lost but one and a half pounds of his weight. We made a short excursion a few years ago in the hottest part of the summer, walked ninety miles in four days, subsisting chiefly on unleavened wheatmeal biscuit and apples, and on trying our weight were surprised to find that we had gained two pounds. This seemed the more remarkable as when we started we deemed ourself unequal to a fifteen-mile jaunt, because of long sedentary confinement and nervous exhaustion.

In midwifery Dr. Bourne insists that only trained women should act the physician's part, and in that connection makes some statements of a very censorious character concerning the practice of many male "doctors."

The book is a very instructive treatise, notwithstanding the compendious form which was necessarily adopted to cover so wide a field of human disease.

COALS OF FIRE: a Story of a Pauper's Revenge. By M. Alice Sweet. 16mo, pp. 252, cloth. \$1.00. New York: National Temperance Society.

A vivid sketch of what great evil to body and mind is wrought by liquor-drinking. A liquor-seller ejects a miserable liquor-drinker from his bar-room on a tempest-driven night. Raging in delirium, the drunkard goes to his wretched home, and kills his poor, starving wife. Then staggering out into the storm, he in his turn is overcome, and lies down in a snow-drift to die. Two children, relics of the murdered, are left to the care of kind neighbors. Years pass, and one of the children, a boy, becomes a man. He has

suffered much, but boldly looking forward, and using every opportunity for self-improvement, he has grown into position and respect. He visits the place of his birth, the scenes of his childhood. Once he was determined, if ever able, to revenge the death of mother and father upon the man who had made his father a drunkard; but now he goes in charity to him, and by kindness and reasoning wins him to ways of sobriety and honor. The old tavern is converted into a store, and the "damning drop" no longer pollutes its shelves and counters.

HARMONY OF SCIENCE AND THE BIBLE on the Nature of the Soul, and the Doctrine of the Resurrection. By J. H. Kellogg, M.D., Professor of Physics in Battle Creek College. 12mo, pp. 224. Review and Herald Pub. Association, Battle Creek, Mich.

Although the topic of this volume is familiar enough to the general reader, the method of the author possesses several features of freshness. One is the condensation into short paragraphs of ancient and modern opinions and beliefs concerning the origin of the world, the nature of life, and of spirit; also the history of the conflict between science and religion. In the preparation of these Dr. Kellogg shows much care. He enters fairly upon his discussion with the impression that science, the real sort, which is but a form of truth, can not be in conflict with religion, which is another form of truth. "The truths of nature are God's truths just as much as are the truths of inspiration; for God is the author of nature." "The so-called conflict between science and religion has been not really such, but rather an encounter between the blind, bigoted, unreasoning, and unreasonable zeal of religionists, and, too often, the vain, blustering, arrogant assumptions of scientists." Thus the author gives us the key to his position on the question, at the same time administering a strong filip to both of the parties engaged in the strife. Entertaining the view that the soul is mortal, he goes to the phenomena of decay and death in nature, and to Job, Paul, and other writers of the Bible for testimony in that behalf. But believing that provision has been made for the re-establishment of man's personal identity by the Creator in a form adapted to perpetuity, he appeals again to the Bible for authority. Dr. Kellogg writes usually with much clearness and point, but now and then, as in the treatment of the relation of mind to the brain, and the nature of the soul, some obscurity will creep into his reasoning.

DIPHTHERIA: Its Causes, Prevention, and Proper Treatment. By J. H. Kellogg, M.D., Member of the Am. Public Health Association, etc. 12mo, pp. 60. Good Health Publishing Co., Battle Creek, Mich.

Few diseases known to our population in the

northern sections of the country have shown so much virulence during the past ten years as diphtheria. On all sides are seen habiliments of bereavement, of which this destroyer has occasioned the wearing, and from all sides the inquiry is heard: "What shall we do to save ourselves from its attack?" As one response to such inquiry, Dr. Kellogg has prepared this pamphlet, in which he reviews the opinions of medicists with respect to the causes and prevention of the disease, and then, somewhat briefly, we think, considers its treatment, mainly upon the hydropathic basis, advising the use of agents such as chlorine, carbolic acid, etc., for the destruction of the poisonous germs, which conduce to the destruction of the mucous surfaces and the formation of false membranes.

THE PROCEEDINGS AND ADDRESSES OF THE FREE-THINKERS' CONVENTION; held at Watkins, N. Y., August 22d, 23d, 24th, and 25th, 1878. 12mo, cloth, 398 pp. D. M. Bennett, Liberal Pub. Co.

This collection, as it contains the views of the leading minds among free-thinkers on religious subjects, is about as interesting a selection of addresses as could be well gotten up in its peculiar line. Various shades of opinion are illustrated, from Shakerism to that class of Deism which almost loses sight entirely of an overruling Creator. Perhaps the best indication of the character of the book is the mention of a few of the persons who took part in the Convention. There were Elder F. W. Evans, of the well-known Shaker community at Mount Lebanon, N. Y.; Mr. G. A. Lomas, representing another branch of the Shakers; Professor A. L. Rawson, the ethnologist and artist; Dr. T. B. Taylor, W. E. Copeland, Mrs. P. R. Lawrence, Mrs. Mary E. Tillotson, Mrs. Augusta C. Bristol, Mr. G. L. Henderson, Mr. J. M. Peebles, Mr. Toohy, Hon. G. W. Julian, James Parton, Elizur Wright, T. C. Leland, and Mrs. Clara Neyman.

THE YOUNG SCIENTIST: a Practical Journal for Amateurs. New York: Industrial Pub. Co.

We have received a bound copy of the volume for 1878 of this very practical and interesting publication. Its title we find to be by no means a misnomer, as is the case with most of the publications that are professedly edited for the reading of the young and immature. It abounds with instruction on scientific topics. The articles are written in a clear and simple style, aiming to present rudimentary principles in such a way as to attract the youthful mind. Apparatus for experiments in chemistry and natural philosophy is described, which can be prepared or arranged at a trifling expense. For instance, we have two or three articles describing the making of a galvanic battery, which may be

used for many interesting experiments, at a cost of from ten to fifteen cents. Of this we purpose shortly to give a detailed account, with illustrations.

Mr. Finn, the editor, is a gentleman of solid acquirements in science, and his aim appears to be to present most conspicuously its practical side. *The Young Scientist* is published monthly, the subscription price being 50 cents.

PUBLICATIONS RECEIVED.

THE CONSTITUTION, BY-LAWS, AND CHARTER of the Society for the Prevention of Crime. The Second Annual Report, 1878. The progress made by this young Association is conspicuous, especially in certain statutes which have been obtained from the Legislature of New York bearing upon the sale of alcoholic liquors and the conducting of disreputable entertainments. The gentlemen conducting the movement are of the highest standing in society, and their earnestness is proved by what they have accomplished for the moral elevation of New York city.

ANNUAL REPORT OF THE PUBLIC PRINTER, showing the condition of public printing, binding, etc., for the fiscal year ending June 30th, 1878, issued from the Government printing office, at Washington, D. C. An immense deal of paper and ink is consumed in this department, its money value covering half a million of dollars.

INDEX MEDICUS: a Monthly Record of the Current Medical Literature of the World. Compiled under the supervision of Dr. John S. Billings, Surgeon, U. S. A., and Dr. Robert Fletcher, M.R.C.S., England. A very convenient compilation for the use of physicians. Published by F. Leypoldt, of New York. Subscription, three dollars.

COUNTRY HOMES and Farm Advertiser. A classified list of real estate in New England for sale. Mr. G. H. Chapin, the enterprising agent of Boston, is the publisher.

MINUTES OF THE MONTANA CONFERENCE of the M. E. Church. First annual association held at Bozeman, August, 1877; second annual convention held at Virginia City, August, 1878.

NEW YORK SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN. Fourth Annual Report. Issued from the offices of the Society, No. 50 Union Square, N. Y. A strong argument in favor of the continuance of a most useful organization. The Society has done excellent work in rescuing many clever little ones from tyrannical and cruel treatment on the part of those who should have fostered them.

SAMUEL INGERSOLL BRIDGE. A memorial volume, containing a sketch of his life as a man

and as P. G. M. and G. R. and P. G., Instructor of the State Normal School of Wisconsin. Also, an autobiographical sketch of Mattie A. Bridge, and a history of her widowhood and its connection with Odd-Fellowship.

INTEMPERANCE AND CRIME. An Address by Chief-Justice Davis, of the New York Supreme Court. A valuable document in its way, especially as it comes from a gentleman who, until within a very short time, was on the other side. We would have the advocates of ruin read this book. The price is ten cents. Published by the National Temperance Society and Publication House of New York.

MODERATE DRINKING — For and Against — from a Scientific Point of View. By Benjamin W. Richardson, M.D., F.R.S. A strong pamphlet of 48 pages; well adapted, as all Dr. Richardson's pamphlets are, for the reading of the young. Reform is nowhere more earnestly advocated than by this distinguished physician. Price twenty cents. Published by the above.

THE DUTY OF THE CHURCH. By the Rev. Canon Farrar. In which the worthy divine addresses himself to his fellow clergymen for the purpose of stimulating more zeal into church movements against alcoholism. Price ten cents. Published by the above.

BEWARE OF STRONG DRINK: a Temperance Concert Exercise for Sunday-schools, Reform Clubs, Temperance Organizations, etc. By Mrs. E. H. Thompson. Price six cents each, and sixty cents per dozen. Published by the same.

MESSRS. SCRIBNER & Co., New York, are the publishers of Dr. Robinson's admirable Collection of Spiritual Songs, with Music—described in our March number.

"I'M WAITING FOR A LETTER, LOVE." Song and Chorus. Words by Arthur W. French. Music by C. D. Blake. W. A. Pond & Co., New York.

AN OPEN LETTER TO SAMUEL COLGATE, touching the conduct of Anthony Comstock and the N. Y. Society for Suppression of Vice. By D. M. Bennett, New York.

THE ELEVENTH ANNUAL REPORT of the Freedmen's Aid Society of the Methodist Episcopal Church for 1878, is a fair presentation of an earnest endeavor to resolve the great problem of negro education. The statistics given are, as a general thing, favorable to continued work in the field. The enterprise, at any rate, is hopefully sustained.

WIDE AWAKE—an illustrated magazine for young people,—in its current numbers shows no flagging of interest in editor or publisher. The wants of children in the way of literature, are as well met in this publication as in any of the kind known to the public.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 68. 1879.

NUMBER 5.]

May, 1879.

[WHOLE No. 486.]



JULES GRÉVY,

THE NEW PRESIDENT OF FRANCE.

WITH the retirement of Marshal Mac- | French Republic, there departed a remnant
Mahon from the Presidency of the | of imperialism which had strikingly exhib-

ited itself in his opposition to the will of the National Assembly on almost every occasion when that will demanded his acceptance and enforcement of measures tending to assure the perpetuity of the republican policy. The last great stroke which received the legislative sanction, and that by a large majority, the transfer of the control of the army to the Assembly, the Marshal could not, would not, tolerate, and the world had the old spectacle, in a revised form, of an autocrat opposing his single authority to the sentiment of a nation. Reluctantly the old warrior yielded to the pressure, not, however, to confirm the Assembly's vote by affixing his signature to the process which represented it, but to resign the chair of executive authority to one whose opinions and sympathies were in accord with the chosen representatives of the French people. In this change of executives, this practical illustration of the real existence of republican ideas in the warp and woof of French legislation, the world beheld an unheard-of spectacle—a really great revolution in the political career of France, wrought out without bloodshed and without disorder. This in itself, we think, "speaks volumes" for the growth of France in the principle of genuine self-government.

The portrait of M. Grévy, as we have it, is a good study for the phrenologist, physiologist, and physiognomist. Solidity appears to be spread over the whole constitution. Every feature of the face, every outline of the body and head, expresses solidity, strength, staunchness, power, persistency, thoroughness. He should be known for sound health, and for that harmonious balance of character and constitution which enables him to earn success. We can hardly imagine a place among men in which he would not be able to take a prominent, if not a conspicuous, part. If placed on the

deck of a steamer, especially if it were a man-of-war; or at the head of an army, to guide its movements and control its chief actors; if placed among business men where rivalry and honorable competition are earnest and sharp; if placed among thinkers in science or literature, or in legislation, or law, he would fill a good position, command respect, and make his own progress without aid and against opposition. If he were temporarily checked, if he were apparently defeated, he would bide his time and wait calmly for the tide of affairs to turn. He would be found at such a time, if we may use the term, with his armor on, ready to vindicate his position and sustain and enforce his opinions.

A Frenchman may not feel flattered by saying that he has an English face and a Scotch head. That strong chin, firm mouth, and imperious upper lip; that nose, which indicates self-possession, steadiness of purpose, self-confidence, and abiding faith in himself and in truth; that calm and steadfast eye, that sturdy neck, and those broad shoulders mean power, positiveness, courage to face difficulty without the excitability which often conquers men of real ability, by causing them to exhaust their resources unwisely and prematurely.

The reader will observe that the height of the head from the opening of the ear is immense. A head with the elevation in that region is ten times more often met among the English and Scotch, and among the people of North Germany and Russia, than in France; and we are quite certain that our subject carries himself with a well-poised and unflinching stability, which is not a distinguishing trait of French character. The French have dash and enthusiasm, aspiration and ambition, imagination and impetuosity; but here is all the gravity of the Saxon Englishman, with all the

steady and stately strength of the Scotsman. He has quick perception, and inherits intuition from his mother, giving him intelligence and promptness of mental life, that readiness of action which marks the French character; but his strong Firmness and Self-esteem, his high-toned Conscientiousness and large Veneration and Hope qualify him to take a conservative position, where strength of purpose and depth of integrity will brace him up and keep him steady.

He has talent for talking and first-rate memory of facts and affairs; is adapted to understand the combination of matters. Things mixed and confused do not seem to confuse him. He inclines to bring order out of chaos, and to rule elements which are not in harmony. He is adapted to stand between the extremes of excitement and impulse. He will warm up the sluggish; he will modify and temper the impetuous. In short, he is a man who, perhaps more distinctly than any other in the French nation, is adapted to rule the contradictory elements, and, like the hub of the wheel, to hold all the oppugnant parts in such relation to himself and the general good as to make contrariety contribute to unity and strength.

There are few heads and faces in which there are not evidences of weakness in some direction and in some degree; and while we do not recognize in this head and face much of what the world calls brilliancy, we see no mark of weakness. He seems plump and full-orbed, self-poised, efficient, and strong, with a great deal of latent power, adapted to be called forth in emergencies; with that equipose which will always make him master of himself, and generally a complete master of his situation.

M. Grévy was born on the 15th of August, 1813, at Mont St. Vaudrez, in the Jura. Of

good parentage, he received a liberal education, finishing a course at the College of Poligny, and then beginning the study of law in Paris. In the revolutionary excitement of 1830 he was one of the liberals who took arms against Charles X., and was one of the band which seized the Babylone barracks.

Under Louis Philippe this ardent young champion of liberty made himself conspicuous as an advocate for political offenders, especially for the two companions of Barbès in 1839. After the revolution of 1848 he was appointed commissary of the Provisional Government for the Jura, and almost unanimously returned as one of the eight representatives of that department in the Constituent Assembly. Elected vice-president and member of the Justice Committee, he proved himself one of the most able speakers among the democratic deputies, and, although usually giving his ballot with the extreme left, held aloof from the socialists. He advocated warmly the measure by which it was proposed that the President of the Republic should, under the title of President of the Council, be elected by the National Assembly for an indefinite period, but that the appointment should be made revocable at any moment, and dependent upon the vote of a majority in the Chambers. This, he argued, would prevent dictatorial pretensions, into which the head of the Executive might be tempted if directly elected by the people for a fixed term, especially when the choice should fall on a member of a family that had once occupied the throne of France. This measure did not pass; but the political history of France has since proved the soundness of M. Grévy's views. After Louis Napoleon became President, he found in M. Grévy a determined opponent, who, as a member of the Legislative Assembly, energetically protested against the expedition to Rome, and voted against the bills brought forward to restrict public meetings and the suffrage, as well as against any revision of the constitution. When the *coup d'état* of December, 1851, occurred, M. Grévy was among the republican deputies who were confined some time in Mazas. He afterward retired from

active politics, and was elected Bâtonnier of the Order of Advocates in 1868, continuing in private life to be one of the irreconcilables as long as the empire lasted, and strongly opposing the *plébiscitum* in 1870.

In 1871 he was elected President of the National Assembly at Bordeaux, afterward sitting at Versailles, and reappointed every three months till May, 1873, when he resigned a few days before the fall of M. Thiers, and then was succeeded by M. Buffet. After having refused to enter the Senate as a life member nominated by the Assembly, he was at the general election of 1876 again returned as deputy for the Jura, and elected President of the Chambers, discharging his duties with remarkable tact and impartiality, until called upon to succeed Marshal MacMahon in the Presidency.

The message which M. Grévy sent to the Assembly a few days after his occupation of the executive chair is in keeping with his known character and expressive of his political views. The following is a brief extract from the document :

"The National Assembly, in raising me to the Presidency of the Republic, has imposed great duties upon me. I shall apply myself unremittingly to their accomplishment, and shall be happy if, with the co-operation of the Senate and Chamber of Deputies, I do not remain below the level of what France has a right to expect from my efforts and my devotion. Sincerely submissive to the great law of parliamentary government, I shall never enter into conflict with the national will, conveyed through its constitutional organs. In the bills which it will submit to the vote of the Chambers, and in the questions raised by parliamentary initiation, the Government will be guided by the real wants and unmistakable wishes of the country. Inspired by the spirit of progress and appeasement, it will devote particular attention to the maintenance of tranquillity, security, and confidence, which are benefits France most ardently desires and most imperatively needs. In the application of the laws which give to our general policy its character and aim, the Government will be influenced by the spirit wherein those laws were dictated. It will be liberal

and just toward all ; the protector of all legitimate interests, and the resolute defender of the interests of the State. In its solicitude for those great institutions which are the columns of the social edifice, the Government will bestow a large share of attention upon our army, whose honor and interests will be constant objects of its most cherished preoccupation.

"Now that the two great powers of the State are animated by one spirit, which is the same that actuates France, the Government, while taking account of rights acquired and services rendered, will take care that the Republic is served by functionaries who are neither its enemies nor its detractors. It will continue to maintain and develop the good relations which exist between France and foreign powers, and thereby contribute to the consolidation of the general peace. It is by means of this liberal and truly conservative policy that the great powers of the Republic, ever united and animated by one and the same spirit, and proceeding always with wisdom, will cause its natural fruits to be borne by the Government which France, taught by misfortune, has conferred upon herself as the only one that could secure her repose, and usefully labor for the development of her prosperity, strength, and greatness."

M. Grévy differs much from his predecessors in office in the matter of dress, habits, and general demeanor. He dislikes all pretension, show, and class ceremonials. Of really grand appearance and high mental culture, he nevertheless is one of the plainest and most unassuming of Frenchmen. A correspondent of the London *News* furnished that newspaper with a sketch of the new President's *personale*, which contains several features which we deem very interesting in their relation to a man who has so suddenly become one of the marked objects of European politics. The *News* correspondent says :

"M. Grévy is a President who has never worn any other costume but the robes of the advocate and the modest black coat which modern civilization is alleged to have borrowed from the Quakers. He has not even sported the epaulet of a National

Guardsman, though how he came to be exempted from this obligation during his eighteen years' residence in Paris under Louis Philippe's reign, is more than I can say. When acting as Commissaire or Prefect of the Republic of 1848, in the Jura, he would have been entitled to don an embroidered coat and a plumed hat; but he modestly confined himself to a tricolor sash girt round the waist. As President of the National Assembly, and afterward of the Chamber of Deputies, he always discharged his functions in evening dress, including the white tie. He is not decorated. At present, by virtue of his office as Chief of the State, he becomes Grand Master of the Legion of Honor, and must consequently wear the star and broad red ribbon of a Grand Cross; but hitherto that little slip of scarlet ribbon which graces the buttons of so many Frenchmen has not adorned his. Nay, M. Grévy was among the members of the Constituante who voted for the abolition of the Legion of Honor, and more recently he voted for the bill which prohibited members of the Legislature from accepting decorations from the Government.

"M. Grévy is not only the enemy of tinsel on men's coats, he is a man of republican simplicity in all his ways. In his every-day attire, even in Paris, he has always donned

a wide-awake instead of a silk hat; and in summer-time he may generally be seen sauntering about the Boulevards clad all in gray, and crowned with a panama. Though a man of considerable landed property, as estates go in France, he never set up a brougham till he became President of the Chamber, and he has always kept this modest one-horse vehicle (with a coachman out of livery) at Versailles. In Paris he uses cabs and omnibuses, but it must be a very muddy day which compels him to ride at all. The state which hedges a President will probably seem irksome to him, and one may expect to see him cut much of it down. Marshal MacMahon put all the servants of his palaces in the gray and scarlet liveries of his private household. M. Grévy, whose domestics have never worn livery, will, no doubt, clothe his establishment in plain black suits, *d l'Americaine*. He will now have two official residences—one at Versailles, located in the ex-Prefecture, and the other the magnificent Elysée, in Paris. He will also have the run, for the purposes of sport or pleasurable sojourn, of all the old royal and imperial châteaux, Fontainebleau, Compiègne, Pierrefonds. His salary will be £24,000 (\$120,000), with an addition of £2,000 (\$10,000), table money, and £4,000 (\$20,000), for office expenses."

THINGS NEW AND OLD.

OBSERVATIONS CONCERNING "RESPIRATIVENESS."

LE VERRIER, the French astronomer, is said to have in a sense discovered his intra-mercurial planet, Vulcan, by an *a priori* process of reasoning. From certain perturbations of the orbit of Mercury, which could be accounted for on no other hypothesis than the immediate vicinity of another planet, he reached the conclusion, that, although unrecorded in astronomical lore, there actually *was* another world revolving about the sun, yet nearer that great luminary than Mercury itself. And now it is reported that another astronomer has witnessed the transit of an intra-mercurial planet across the disc of the sun, thus verifying the correctness of Le Verrier's hy-

pothesis. If the reasoning faculties may prove themselves so trustworthy in the field of astronomical science, why may they not prove themselves so in the department of phrenological science? For myself I have long watched and noted the interchangeability and interdependence of certain perturbations or disturbances of the alimentive and the respiratory functions of the human organism, and, like Le Verrier, have been led to the conclusion that there is yet another star, unnamed and unknown to the professors of mental philosophy, somewhere in the phrenological heavens. In other words, I claim the discovery of a hitherto unknown organ in the human brain. We

find the reproductive function represented by a brain-organ called "Amativeness;" we also find the alimentive function represented by another organ in the brain called "Alimentiveness." And now, why is not the *respiratory* function equally well-entitled with these others to a representation in the head? On reference to all the busts and symbolical heads in my possession, I find there is no such organ as *Respirativeness* laid down in or on any of them. In the language of Dame Quickly, "This is most intolerable, and not to be endured." I am afraid I shall have to ask the publishers of symbolical heads and the manufacturers of busts to amend their ways a trifle. All that beautiful lot lying between Alimentiveness below and Constructiveness above, with Acquisitiveness in the rear and Tunè in front, is left vacant, neglected, not builded upon.* Very well. I here and now preempt it on behalf of an honest yeoman, and I humbly request the printer of the next symbolical head to give the world notice that the lot has never been really vacant, only that the name and business of the proprietor were not known, but that his business is now thought to be that of president of the respiratory function, and his name Respirativeness. I also meekly demand that every one of the next batch of busts that is made be inscribed in that spot with the same legend, Respirativeness. Meanwhile, until some wiser person than myself shall answer the question why the respiratory function is not equally well-entitled with the amative and alimentive functions to a representation in the head by means of a brain-organ, I shall feel compelled by every principle of ratiocination known to me, to maintain that it is. The only objection conceivable to me might be, "It is not necessary." If this is true, it is enough; it settles the question at once. If such an organ as Respirativeness is not necessary, it does not exist; and by parity of reasoning, if it *is* necessary, *it does exist*. But, if it is necessary to have an organ in the brain for the alimentive function, why is it not equally

necessary to have one for the respiratory? One at a time, gentlemen, don't all speak at once, as though you were crammed to bursting with reasons why. I can see no reason why it is not equally necessary in the one case with the other, and, therefore, no escape from the conclusion, *a priori*, that the respiratory function is presided over by a brain-organ.

The respiratory function is equally a positive, separate, and independent function with any performed anywhere in any part of the system. It is, therefore, equally entitled with any other to a representation among the phrenological organs of the brain. Where should it be located? Guided by the well-known principle that correlation of functions implies juxtaposition of organs, every phrenologist will at once agree, that, if found at all, it will be found in the vicinity of some organ whose function is closely correlated with its own. It should, therefore, be located in the immediate vicinity of the organ, Alimentiveness, being closely correlated in function with that organ. It is not an intellectual, nor a social, nor yet a moral or religious capacity, feeling, or principle; it is a vital process, and its seat is among the great vitalizing centers of the brain in the lower side-head. I assume the blank space between Alimentiveness and Constructiveness, as left in the symbolical head, to be the seat of the organ of Respiration. Two years of observation and reflection have firmly convinced me of the correctness of this assumption.

Magnetic tests applied to that part of the brain affect the respiration. Severe cold or extreme heat applied to that part of the brain affect the respiration. In short, as it exists somewhere in the brain, and as all the rest of the space allotted to the vital-processes is taken up by other well-known organs, it is in the place here indicated and nowhere else.

The following is the result of my observations on the manifestations of Respirativeness: When very large, say size 7 on a scale of 1 to 7, the subject needs to live much in the open air; can not bear confined air; breathes deeply, and enjoys breathing as the epicure does eating; to breathe the air is as much a luxury as a necessity to

* The old diagrams of the organs have a considerable space in that region marked with a * as undetermined. See symbolical head on cover of PHRENOLOGICAL JOURNAL for 1874.—ED.

him ; thanks heaven there is no monopoly of the air ; thinks an abundant supply of bad air better than a limited supply of the best ; dreads suffocation—would rather die any other way. With large Vitativeness, would like to live forever, to forever enjoy the happiness of breathing. Is a gormandizer of air—an atmospheric glutton. With Alimentiveness moderate, thinks more of the air he breathes than of the food he eats. With Alimentiveness equal, will consume and convert into vital force great quantities of food. Will never die of tubercular consumption, but may of acute inflammation of the lungs. From size 4 down to 1, these manifestations are gradually reversed until the subject is scarcely conscious of breathing, and hardly breathes at all, and would much better not try to breathe, has not sufficient vitality to bear the burdens of life, and hardly makes an effort so to do. A breath of air gives him or her a cold ; wants to go where it is warmer in winter ; can not get air enough in the lungs to balance the atmospheric pressure from without, and feels crushed. Often lives to old age, because without sufficient vitality to commit any excesses ; yet works out less vital force in a year than No. 7 in a month or week. Neither the largest nor the smallest size is most favorable to mental activity or high intellectual culture. The largest size accompanies the marked Vital temperament, and is of the earth, earthy. Below medium, can not supply the brain with enough pure blood to maintain clear cerebral activity.

Imperfect correlation of function between the two brain-organs, Alimentiveness and Respirativeness, is the primary cause of many forms of disease—both bodily and mental—that have been heretofore considered mysterious in their origin. Given Respirativeness only 3 or 4 in size, and Alimentiveness 6 or 7, and the subject will consume and convert more food into blood than can be properly oxygenated, owing to the comparatively feeble performance of the respiratory function—and all that train of ills that follows imperfect decarbonization of the blood comes on. Reverse these proportions, and we have the essential conditions of catalepsy, somnambulism, the trance, ecstasies,

visions, and the whole troop of abnormal nervous manifestations. For, strange as it may appear to some, oxygen, taken in excess or out of proportion to the necessity for its presence in the system, is as true a deterrent as alcohol itself, and as capable of giving rise to abnormal conditions of the nervous system. We call the trance an abnormal state, and we know that when the Seer wished to prepare himself for ecstasies and visions—to bring himself into that confused state wherein he should not know whether he was in the body or out of it, his first and most important step was to suspend the alimentive function—in other words, to fast. At the same time the respiratory function was fully performed—he kept on breathing ; probably in all such cases there is for a time an acceleration of respiration.

The point is that the highest degree of abnormality was known in ancient times to be attainable only by first breaking up the correlation of function between the alimentive and respiratory organs. A thorough knowledge of this principle is important, both to the physician and to the phrenologist, to the former to enable him to understand the cause of all that class of pathological phenomena which arise from partial suspension or imperfect relation of these two great functions ; to the latter to enable him to form a correct estimate of those “other conditions” on which vigorous and healthful mentality depends—even more than on mere size or cerebral bulk. Of all those other conditions than brain-bulk, on which brain power depends, I assume that a perfect equation of the alimentive and respirative processes is the most important. No brain, of whatever bulk or of whatever organic quality, will be able to maintain for any considerable length of time clear and vigorous evolutions of thought, high and sustained flights of imagination, such as the creation of the “Paradise Lost,” for instance, or close, consecutive processes of reasoning, that is not accompanied and sustained by a close equation of these vital powers.

There is, therefore, a phrenological necessity, so to term it, for a cranial index to

the respirative capacity. No phrenologist thinks of estimating the alimentive capacity of his subject by reference to the stomach; he judges of that by the cranial indices in the side-head. Neither should he depend solely upon the thorax for his opinion of the respiratory power. He needs a brain-organ to manipulate quite as much in the one case as in the other. Give him both organs to manipulate, and he will be able at a glance or a touch to judge from their relative size whether there is a proper equation of the great vital forces of the system or otherwise; and, without this, no matter how noble the expansion of the cerebral mass, harmony and integrity of the cerebral functions are not possible. And without some more reliable or more available means of estimating the true proportion of the vital forces than a comparison of the thoracic and abdominal areas, there is no perfectly clear and accurate knowledge of the most important of those "other conditions" on which mental capacity so largely depends. Hence, the phrenological necessity of a brain-organ like Respirativeness as a companion to the old, familiar Alimentiveness.

This leads me to the final remark that the grand deficiency of our beautiful system of mental philosophy, which is of Divine origin and natural growth, is as yet its partial failure to show clearly the effect of physiological relations with phrenological conditions in all their variations and combinations. But that it will yet be able to do this, there is no doubt.

There is but little space left for the discovery of new organs, and, perhaps, still less for the amendment of definitions of function. Those grounds have been quite thoroughly gone over—I will not say completely taken up. Every phrenologist knows the name, location, and function of every well-established organ, and has at least a vague general idea of the importance of physiological conditions as factors in the problem of mentality. But there is as yet a prevailing ignorance as to their precise value when brought to practical tests, which has kept mental science to some extent from exactness and from popular favor—more

particularly from special favor with some of the learned, and consigned not a few of its professors to the place of "bump-feelers," merely.

That there should be much more handling of the keys of God's organ—man's organ—without the power to touch the deep and hidden springs of harmony by means of those delicate and skillful combinations which distinguish the touch of the master from the clatter of the rudimentary, is indeed natural and an inevitable part of the history of mental science.

Too much phrenology and too little physiology has been the bane of mental philosophy heretofore. That the brain is the organ of the mind, it is no longer necessary to specially insist upon; it is universally conceded. But the brain, with its dependencies and relations, is the province of the mental philosopher of the future.

That the brain is the special instrument and seat of the soul is in meaning full and true; but that "Character is as Organization," in the broadest and fullest sense of all the terms, is the Golden Rule of mental philosophy and the governing clue to all true, deep, and exhaustive delineation of character by outward signs and symbols.

H. P. SHOVE, M.D.

THE EARTH-SPIRIT.

"So at the whirling loom of time work I,
And the garment of life weave for Doly."

—FAUST.

THE river comes from the mountains
And flows to the mighty sea,
And moved by its calm, strong current,
The mills whirl ceaselessly.

The shuttles hum and clatter,
And, darting to and fro,
Weave, in their constant motion,
The fabric as they go.

So the calm, strong life around us
Moves the busy lives we see,
That bear the woof of duty
Through the warp of eternity.

W. P. A.



THERE'S A FOE TO EVERY GOOD.

THERE'S a foe to every good !
 There's a foe to Hope and Youth ;
 Foes to noble thoughts and acts ;
 Foes to Beauty and to Truth !

Foes to every lofty cause ;
 Foes to brave, chivalric deeds ;
 When a generous work is done,
 There are scattered baneful seeds !

When are spoken loving words,
 Meant to soothe the ills of life ;

Then the foe is ever near,
 Then to sow the seeds of strife !

Honor to the champion brave
 Who the boldest foe will dare !
 Who to guide those lacking zeal,
 Will the brunt of battle bear !

Still more honor to the brave
 Who the wily foe will seek !
 Crushing Evil in the germ ;
 Thus to shield the frail and weak !

GRACE H. HORN

CULTURE.

CULTURE is something above and beyond education. One may be very learned in certain directions, may be an authority in language, science, or art, yet may not have attained true culture. We can conceive of a scholar, a learned man, who shall be coarse, sensual, rough in speech and manner ; in short, a barbarian of the Dr. Johnson type ; but when we speak of a cultured person, we admit no such possibility in our thoughts.

A rich field may be plowed deep, but with furrows crooked and half-turned, unsightly stumps may be scattered here and there, and wild brambles and thistles may flourish in every fence-corner ; yet if the ground be well harrowed and good seed used, a fine and remunerative crop may be grown ; nevertheless none could assert that the land had been well cultivated. Beside this field lies perchance another, less rich and generous in soil, whose owner has removed every stump, weed, and unsightly bush ; it has been carefully drained, the plowing has been exact, smooth, and deep ; then the earth has been enriched and harrowed thoroughly ; the best seed has been sown with the nicest care ; the result is beautiful to the eye, a delight to all who

look upon it ; the grain is of the sweetest quality, though possibly not so greatly in excess of quantity above that grown carelessly, but the chances are that the careful planter will also be the careful gleaner, and that the latter crop will be garnered well, and disposed of to the best possible advantage.

The difference in the management of the two fields illustrates the difference between education simply and thorough culture. The latter perfects, as far as possible, by eradicating everything that the highest standard would condemn, and adding anything that would embellish or please. It has to do with mind and heart, and their outward expression in manners. It has also to do with the spiritual nature and graces, charity, kindness, benevolence, generosity, truth, honor, purity, love ; all these enter into and form a part of its charm—its power.

The attainment of thorough culture is almost impossible to one who has not descended from educated, cultivated ancestry. It is a herculean labor for one who has been reared roughly, coarsely, by uneducated persons, to acquire a smooth, clear articulation, a perfect pronunciation, the polished, graceful manners, and the steady

tact, that belong by nature and birthright to the child of culture. An uncultured person can not speak one sentence, can not even cross the room without betraying, to the expert, about the grade of society in which he was born. It is really wonderful how tenaciously these little peculiarities of speech and manner, that betray the nationality and the rank in life, will cling to one. About the best that can be done is to polish away the great roughnesses by continual grinding on the wheel of persistent striving, by drilling the tones of the voice upon vowel and consonant sounds, practicing over and over

again correct pronunciation, and drilling the body in calisthenics. These two classes of exercises followed day after day, and year after year, with continued mental effort in reading and studying the best books, that is, the kindly, gentle, pure, sweet books, instead of wild, fierce, harsh, passionate books, together with frequenting the best society attainable, and "being in love and charity with all men," will gradually bring man or woman into the outward ranks of culture. Promotion will depend upon the amount of natural susceptibility and the force of continued effort.

AMELIE V. PETIT.

UNCLE JIMMIE, THE CRIPPLE.

CHAPTER III.

JOHN BROWN.

'IN order to make my narrative clear to the children," said Mr. Howard, "it will be necessary for me to detail some portions of my early life, which is already familiar to you, sister and brother. You can neither of you recollect our father, I know; for you, May, were but four years old, and James but two at the time of his death. I, however, was nearly ten, and remember, as though it were yesterday, his pale, cold face and our mother's heart-rending grief. He had been sick but a week. It was one of those malignant fevers which seem to destroy with their touch.

"What can I do alone with these three little ones in this cold, cold world?" cried our mother.

"Can not I help you some?" I said, as I clung to her, half in terror and half in grief.

"I have no one else," she replied. "Why, why has Heaven been so cruel to me?"

"Perhaps father can be one of those ministering spirits," I said, "such as he used to say were watching over us to help us. May be he can come and help you, mother. Don't you remember he said that was the way God took care of everybody?"

"I never could understand what impulse prompted me to say such things to her then, for the only motive of which I was conscious was to comfort her, and as if the

words had been directed by a superior wisdom, she directly caught at the suggestion.

"I can believe that," she said, "and I will try to be patient, and still my rebellious soul, in order that my own faults may not drive his freed and purified spirit away. You, my son, have been a strength and comfort to me so soon."

"From that hour I was my mother's companion and confidant. My father's methodical business habits left his affairs easy of settlement, and at the age of fourteen I had learned to attend to most of the business for her. She taught us herself, and devoted her life to our comfort and education. I recollect she used to talk to me often about my cultivating patience. She said I had a hasty temper which, she feared, would some time get me into trouble. But like too many another boy of that age I thought I knew myself better than she did, and, as I intended no harm, I felt little doubt but that I was strong enough to resist anything in the shape of evil.

"One morning mother was not very well, and she asked me to take the children out for a walk. I took them down to the grove by the common. Other children were playing and quarreling at a distance, but I paid little heed to them until they had come very near us, and a large boy, as large as my-

self, having some kind of a hollow rubber toy in his hand, pressed it between his fingers, and sent a shower of filthy water over the dress and face of a little girl near him. She cried with vexation, and I, without stopping to think that it was not my business, or what I ought to say, if I said anything, called to him that if he did that thing again I would make him sorry for it.

"No sooner had I spoken than he turned the thing upon me, and a stream of fetid water was sent over my face and clothes. I did not stop for an instant, but, as he turned to run, I caught him by the arm, and flung him with all the strength I could master to the ground. In the fall he struck the edge of a granite block upon which some men had just been at work. He cried out with the hurt, and as he raised himself to his feet, I saw that his arm hung powerless by his side. He looked at his arm and then at me, and that look was full of hate, but a second thought changed the expression to one of anguish.

"My mother will starve now," was all he said, but it was enough for me. With those words came the consciousness of what my wicked temper had done. I went up to him and said:

"I will take you home; tell me where you live, and I will work some for your mother until you get well. I shall be glad to do it if I can."

"At first he shrank from me, but at my reference to his mother he took my arm and led the way to his home, May and Jimmie following us:

"Where now stands Mrs. Green's cottage, at that time stood a hovel which this boy called home. On a bed in one corner of a dingy room lay a pale, haggard woman. Upon a stand near were a few flowers and a little fruit, evidently brought by loving hands; for bare walls, and a carpetless floor, and a lack of everything which might render the inmates comfortable, told the story of their abject poverty.

"John! John! what has happened?" she cried in tones of fright and distress.

"I threw the water in this feller's face, and he knocked me down, and I guess I'm

done for; but he says he'll help you, so don't fret, mother."

"My sakes! Oh, dear! what will come next? You must have a doctor, but who will pay him, and who will take care of you, with me here flat on my back, day after day?"

"Then turning to me, she said, 'You've done an awful thing. I guess you've killed my boy, and that'll kill me. You rich folks don't stop for such as us. But then I can't blame you so much. I've been expecting some trouble would come, John was so jealous of the fine clothes and larnin' of other children.'"

"Tell me what doctor to go for," I said, for I saw John was getting very white.

"Dr. Nimms is the one that comes to see me; you'd better fetch him."

"I hurried away, leaving the children at our own door to explain my absence to our mother as best they might. I soon returned with the doctor, who, after carefully examining the patient, said there were severe and alarming injuries other than the broken bone.

"My mother, feeble as she then was, hurried to the spot, and set to work with the grandeur which characterized her nature, to help me carry the obligations I had so unnecessarily brought upon myself. Other physicians were sent for. My mother hired a skilled nurse, and attended to the pecuniary wants of the family. I went on errands, watched with John, waited upon the mother, and gave her every penny of my carefully-hoarded savings. I had a great desire to have money of my own to use as I pleased, and every cent which my mother allowed me, or that I could gather by other means, I had saved, and now was only too thankful I had done so, for never had I seen the need of money as I saw it here.

"Widow Brown had been an invalid two years. She had worked so hard to take care of her little children—for once there were three—that her constitution gave way under the load. Two little girls died, and John was all she had left. She said that during all this sickness and poverty he had been faithful and kind, working diligently.

and generously giving her all he earned; but his own poverty seemed to engender a jealousy of all children more fortunate; and at times an impulse, which appeared to be uncontrollable, would seize him to soil their fine clothes or bring them into disgrace. She had talked and plead with him to break himself from this dangerous habit, and sometimes she thought he had overcome it, but at last the punishment had come.

"‘My poor boy,’ she continued, ‘he really ought to have been a gentleman’s son—he ought to have been born rich, for he hadn’t a stingy hair in his head, and he would have been kind to the poor folks, and he wanted larnin’ and fine clothes so much.’

"‘If he dies,’ she moaned, ‘I shall lose my all. Nobody else in all the world cares for me. He has been so good, so good to me. But how wicked to be thinkin’ so much of myself and he sufferin’ so, but tryin’ to hide it all the time for my sake.’

"Remember, children, that these things occurred in my own life. They are a part of my own experience, and it will be just as easy for similar things to happen in yours, if you do not guard yourselves carefully. I then thought that never again could any provocation arise with force sufficient to impel me to strike, or in any way show anger by physical force. I thought the lesson even much more severe than I needed; but the sequel did not prove the truth of my supposition.

"After a few days John grew rapidly worse. I stayed by him night and day, except as I went home for a little rest.

"One night, as I sat anxiously watching his face, which grew paler each hour, he looked at me with such an expression of yearning desire I shall never forget it, nor can I forget any of the incidents of that black night.

"‘What do you wish, John?’ I asked.

"‘I want you to promise to look after mother sometimes, will you? I don’t expect you to do for her as I did, for I hadn’t got nobody else, and it did me good to see how pleased she looked when I could fetch her a few flowers, or an apple, or an orange, or some such thing. I knew she hadn’t got

anybody else to care for her, and somehow we got so we didn’t care much about other folks; we was contented with each other, only when I got my ugly spells onto me, then she used to cry and scold me; but it didn’t do no good, and it’s too late now. I’m goin’ off somewhere, I don’t know where. I’m dyin’ sure. Poor, poor mother.’

"Here his words choked him; he could say no more for some time; at last he opened his eyes, and I begged him to take courage; that perhaps he would soon be well again.

"‘No, no, Howard,’ he said, ‘I am dyin’ now. I know it; I feel it creepin’ over me; and besides, my father has been here. I saw him as plain as I can see you, and he said, “Don’t fret, John, you’re comin’ to me to-night, and you won’t never have no more pain.” I asked him what would become of mother? He said, “She will be provided for. The angels in heaven do not forget those they love.” Then he faded away from my sight; but I know that I am dyin’.’

"‘John,’ I said, ‘you can not know how sorry I am for what I have done. You may be sure I will not neglect your mother. Indeed I will do everything for her in my power.’

"I thought it would surely kill me if he should die now.

"‘Never mind, Howard,’ he whispered, ‘maybe I’ll be glad to get rid of the hard work, and scoldings, and black feelings I had sometimes. If you’ll only see to mother. Raise me up, quick. Mother, come.’

"I raised him up. The nurse at the same time was consoling and sustaining his mother, for they were both aware that the last hour had come. John never spoke again.

"I can not describe to you—no words can ever tell—what I suffered during those solemn days. No sorrow ever equals that of self-reproach, and that great torture was mine. My mother shared, so far as it was possible, my distress. She, the one being whose memory to me is most sacred, would put her loving arms around my neck, and hold my head upon her breast. She said.

"‘Russel, the inevitable should be borne

with bravery, no matter how severe the trial may be. The next noble thing to abstaining from wrong-doing, is to make the best we can of consequences after the wrong is done, and thus grow strong against its repetition.'

"She took John's mother home, and we all cared for her while she lived, which was not long. The loss of her son she could not get over, and she died with his name last on her lips, in less than three months after his decease."

CHAPTER IV.

MOTHER'S DEATH-BED.

"AFTER the death of John Brown, I became morbid in my conscientious efforts to

trouble, and the pains I have been taking to discipline myself, I am still to be stirred to anger, and that, too, by things which before would only have amused me, then I have lost moral power, instead of gaining it by my efforts.'

"One night after I had gone to bed, I lay thinking about myself and my unhappy condition. The hot tears had wet my pillow, and I felt as though no person had ever before been so thoroughly wretched, when mother came in and sat down beside me. Laying her cheek against mine, she said:

"'Russel, you are spoiling yourself by these vain regrets. You are becoming morbid and censorious. You are continually watching for faults in yourself, and the habit is leading you to watch for the faults



RUSSEL AT THE BED-SIDE OF HIS DYING MOTHER.

do right. I not only tried to regulate all my actions by a strict measure of justice, but I endeavored to check all naturally impulsive action, lest by some careless word I should commit sin. All joy seemed to have become withered within me. I felt no inclination to laugh or play with the children; in fact, I came near settling into a hopeless melancholy without myself being aware of it. The gambols of the children grated on my ear, until I discovered that the very irritability I supposed I was controlling had nearly mastered me. This conviction was very disheartening.

"'If,' I said to myself, 'after all my

of others. Your once noble and cheerful nature is becoming sullen and morose. I know you do not intend such results, and I know that the conviction of having done a great wrong, first led you into this overcritical watchfulness of yourself, but this does not excuse you. You should bear in mind, my son, this truth, that vain regrets are more fruitful of evil than spontaneous error. You are not only gradually poisoning the happiness of your whole future, but you are bringing on unnecessary gloom upon the hitherto happy lives of your brother and sister, and, my dear boy, you are darkening the last days of your only parent.'

"These last words startled me. I roused like one awakened from a deep sleep. I raised up in the bed, and looked at her pinched face.

"Yes; it was true. I had not seen it before, but the dark rings around her sunken eyes, the shriveled features, and the thin bony hand all told the story. I took in the whole truth at once. Our mother was going to die. See was dying now by inches, and I, in my self-absorption, had not seen it.

"At once my old manliness came back.

"'Mother,' I said, 'I know how disagreeable I have been, and how negligent of you, but, oh, dear mother, I have been very, very wretched, and you have brought me out of that awful nightmare. You have given me back my old self. Let me now make amends for my cruel inattention to you. Is it too late? Oh, mother dear, can I not bring you back to yourself, as you have just brought me?'

"'If I see you happy and thoughtful of me and the children,' she replied, 'it will help me much, and give to my anxious heart great peace.'

"I was now thoroughly awakened from my morbid condition. I kissed her sweet face, and bade her good-night, promising if she would get well, she should have nothing of which to complain from my conduct in the future.

"The flush came back to her cheeks and the brightness to her eyes, and for a number of months could be seen on her beautiful countenance the old smile of satisfaction, as she watched us children in our frolics and at our lessons.

"May was a chubby, good-natured little beauty; always happy, and always saying such quaint things which seemed so old. No person ever thought of speaking unkindly to her, for she never did or said anything to provoke it. She would look up into our faces with an expression of such confidence on her own, that the first impulse was to smile or imprint a kiss upon her little cheek, before we answered what she might have asked.

"But Jimmie, darling Jimmie, was our pride. I have thought that human flesh could not be cast in a mold more com-

plete. Form and feature, soul and body, all were radiant and perfect, or at least so they seemed to us who loved him so much. No artist can paint or chisel a more perfectly-formed head or cast of features than are his to-day, and at that time the body was a fit accompaniment for such a crown, while those now sweet, sad, strong eyes then gleamed and danced with innate joy. His soul was full of mirth, and his love of fun was sometimes indulged at the expense of others, yet with such grace and conscious innocence, that he rarely gave offense.

"At length our mother's health began rapidly to fail. I watched her getting weaker and weaker each day with a feeling of helpless pain. I was powerless to do anything more than had already been done, and the last dread hour came all too soon.

"How vividly I recall that wild and stormy night. The wind shrieked and moaned. Rain had been falling all day. The outer, like the inner world, was cold, black, and forbidding.

"Mother kissed May and Jimmie, and bade them go to bed. They did not yet understand her danger, but I understood it well, and I sat for hours holding her hand, as I watched her heavy breathing. She spoke with difficulty; but the few words to which she gave utterance are registered in my heart and on my brain.

"'Russel,' she said, 'I know you will always be the same true-hearted, noble boy, but I warn you against two things—anger and despondency. Never allow yourself to become angry, and never let grief or disappointment make you somber or sullen. You know that you have that within your nature which, unless guarded, may lead to such results as you will always regret.'

"'Remember, my son, that henceforth you are all the father or mother those little helpless ones can know. I leave them entirely in your charge. Upon you depends their future weal or woe. May has the cold world to meet—without a loving mother's watchful and jealous protection. Indeed the world is very false and cruel to erring women. Guard her, and teach her as best you can, that strong, self-reliance which is woman's best defense against

temptation. Love her and protect her for your own peace of mind, for her safety, and for the love of your dying mother.'

"These to me were words of solemn import, and I promised in my soul that I would be faithful to the trust."

"And faithfully you have fulfilled your promise, dear brother," said May, interrupting him.

"I have tried to do so," continued Mr. Howard, "but I was remiss in some things, for want of wisdom.

"When mother had rested for a few moments, she spoke again.

"'Russel,' she said, 'Jimmie is the baby of our house. Oh, how can I leave him?'

"Here her feelings overcame her, and some time elapsed before she could articulate a sound. I bathed her face, and begged her to let me call the nurse; but she shook her head in disapproval, and after a little she commenced speaking again.

"I do not know that I love him better than I do you or May, but he has been the baby of my widowed heart. When my griefs were sharpest, I hugged him closest to my breast. When clouds were darkest, there was ever sunshine beaming upon me from his sweet and loving eyes. It is very hard to leave him motherless. My son, take him to your heart as I have held him to mine. Love him for my sake; watch over him and be tender of him. If guardian angels can come to those they leave behind, I will come and aid you in your work of responsibility. Night and day, through cloud and sunshine, through life and through death, will I be with you, to help you carry earth's heavy load.

"But, oh, my boy! if ever you allow angry passions to get the mastery of your nature, no good angels, either of earth or heaven, can aid you then, for anger repels your best friends. Jimmie is as fair of body and soul as is the sunlight; but an adverse wind would blight his fair frame; he is very frail. I leave him to your care, and hope you may never neglect your trust.'

"I cried aloud in my distress, 'Oh, mother! do you think I can ever neglect any trust you leave with me? Have I not tried to do right?'

"Do not think me hard upon you, my son. Had you not already proven yourself the best of sons and the kindest of brothers, I could not feel like entrusting to you, in preference to all others, these jewels I prize so highly. I know you will make a good man. Your motives are all good, but Jimmie's peculiar disposition will try you sometimes, and it is your quick impulse to resent, which I wish you particularly to guard.'

"Stopping a moment for breath, she continued:

"I have taught you the importance of self-reliance, because nothing else can serve you. When, in hours of doubt and danger, you have used all the implements God has placed within your nature, with which to control your turbulent spirit, you still fail of self-mastery, then ask Heaven to help you, and Heaven will send you aid. But remember, the powers you already have are given you to use, and beware that you have not buried those talents which are the very ones designed to help you in the time of need. Divine wisdom requires the exercise of all our faculties, and we are compelled to use them before a greater supply will be granted. Prayer will exalt your life, make it purer and more spiritual; do not forget that; but at the same time you must not expect God to do for you that which your conscience dictates you should do for yourself; for only in exercise can any of your powers grow strong. As the physical body must exercise all its muscles to be vigorous and healthful, so must the faculties of the mind and the powers of the soul be brought into action, that they may have strength to do their appointed work. A hopeful nature is as a fountain of living water to which all around may come for drink. When you have done wrong, or are suffering from the wrongs of others, do not despond; do not become still and repellant; for this mood casts the cloud of perpetual night upon those with whom you come in contact. Be hopeful even unto death; for then, my son, will you be just verging into life. I have endeavored to teach you these lessons before; but they come before me with so much force at this hour, that I have felt it my duty to repeat them, and hope

you may bring up May and James to understand their importance.'

"She rested her eyes upon the window against which the wild storm was beating.

"I have dearly loved this world I am leaving, I have loved both its sunshine and its storms; but I am closing my eyes upon it all, to open them ere long where sunshine will not fade, nor will the wild storms bring

sorrow; for there, death and partings will have done with me forever. Do not grieve for me, Russel, my first-born treasure; your loss will at least prove a rest for me.

"There! he comes for me, your father and the holy angels with him. Good-bye, my darling boy.'

"These were her last words—our mother was dead."

ELIHU BURRITT.

THE LESSON OF HIS CAREER.

THE death of Elihu Burritt, better known by the appellation, "the learned blacksmith," perhaps, than by his proper name, is suggestive of reflections touching the possible accomplishments of industry and perseverance. Born in New Britain, Conn., December 8, 1811, the youngest of ten children, his father a shoemaker, whose circumstances warranted but few privileges to so large a family, he determined to educate himself in the higher walks of learning, and employed every moment that could be wrested from the duties of his calling and home in study.

A characteristic sketch of him was written by Professor L. N. Fowler, a few years ago, some extracts from which can not but prove interesting to the reader:

"Some men are not so great in their own estimation as they are in that of others. What they have done has been the result of such a gradual preparation, that they are not conscious of their own power, and their deeds have been so long before the world that they have become household names. Some never blow their own trumpet, but keep themselves quite behind the curtain, and present their cause in a modest, yet earnest manner. Such generally succeed in their undertakings, and eventually secure lasting fame if their cause is a worthy one. Those who talk about themselves more than about their cause are sure to fail, and they merit the contempt they have earned. It is easy to be courageous when there is no danger, but cowardly in times of great difficulty. Some spend their time in boasting in a pompous manner what they intend to

do, but never commence the task while others do the work, and let it speak for itself.

"Elihu Burritt is certainly one of the most modest of men I ever knew, and yet he has done an immense amount of good in the world, and has always been actively employed for the benefit of others. He descended from a studious family, all the members of which had a literal thirst for positive knowledge, and many of them have excelled in their knowledge of astronomy, geography, mathematics, and literature, and have devoted themselves to study so far as they have had the means.

"He was poor from his birth, and had to struggle hard to gain any kind of position. He was obliged to learn a trade to support himself, and he chose that of a blacksmith, as being the most suitable to enable him to develop his mechanical genius. His thirst for knowledge was innate, and he worked hard during the day and studied nearly all the night, until his health suffered, and he was obliged to discontinue both for a time. Nothing but poverty prevented him from going abroad for the purpose of devoting himself entirely to the study of mathematics and the foreign languages.

"Fortunately he went to Worcester, Massachusetts, and there found an opportunity to improve himself every way. He obtained a better situation as a laborer, and as soon as his literary tastes were known, he had the great privilege of consulting the excellent library in the town, and there read books on science, literature, and the lan-

guages, that it would have been quite impossible for him to purchase. In order to make the most of his time he mapped out the day, allowing so many hours to work, and so many minutes to each of the various studies he was pursuing. In that way not a minute was lost. He soon became famous for his knowledge, and attracted much attention. About this time he allowed me to

positive knowledge, to study mathematics, metaphysics, philology, the exact sciences, and all truths that can be demonstrated.

"I asked him one day how many dialects and languages he could read. He replied, 'Fifty-two, and I have a partial knowledge of several others; yet, of the two, I am more fond of mathematics.' He has more talent to learn mathematics than the lan-



ELIHU BURRITT.

take a cast of his head, and I began to study the developments of his brain, in order to account for his singular proclivities. His head indicates very prominent tendencies of mind. The frontal lobe is long and strongly marked. The reasoning faculties are full, but the organ of Comparison and all the perceptive faculties are very large—in fact, they are developed almost to a deformity. Their special manifestation has been to give a desire to gain

languages, but his very active Comparison has led him to compare one language with another and another, till he has become a walking vocabulary, and has fairly earned the title he received long ago—that of 'the learned blacksmith.' His leading intellectual faculty is Individuality. This gives him great power of observation, and the desire to acquire all kinds of practical knowledge from the outside world.

"He has his eyes all about him, and nothing escapes his attention. He has gratified his love of observation by traveling on foot from John o' Groat's to Land's End, and scarcely any one has gained more knowledge with reference to the face of the country than he. His Form and Size are very large, and enable him to judge correctly of proportions and configurations, and the adaptation of one part to another. His memory of words in Oriental languages is strengthened by his remembering the forms of the letters and the shape of the characters. Large Weight, Calculation, and Locality, joined to Form and Size, give him a love of mathematics and astronomy, and, as a mechanic, they have enabled him to work by the eye very accurately. The peculiar combination of his Eventuality, Order, Constructiveness, and Comparison, have given him his ability to learn the languages. Any man with his organization, who studies the languages and mathematics with hands blistered by hard work as he has done, will succeed in mastering their principles. But I have never seen another similarly organized in this respect.

"A second feature of his character, that has exerted a powerful influence and has enabled him to succeed in his studies, has come from his Firmness, which has given him perseverance, tenacity of purpose, will-power, and stability of character. To this faculty he is very much indebted, and he has been able to fix his attention to the subject he is investigating with singleness of purpose. The third strong point of his character arises from the influence of his moral brain, particularly his Veneration and Benevolence. A more moral, honest, sincere man I never saw. He is as honest as he is modest, and he is both true and pure in his motives and principles. He has led an unselfish life in every way, and has sacrificed himself and labored for the good of others and the race at large continually. From the time he made his first public effort, he has shown a strong desire to benefit mankind, to improve the moral condition of the young, and elevate the ignorant. To accomplish this end he has written many books and edited many periodicals, has spent

his money as fast as he has acquired it, in advocating moral schemes that were calculated to bless his fellow-men."

Of his publications in book-form, "Sparks from the Anvil" (1848), "Miscellaneous Writings" (1850), "Olive Leaves" (1853), "Thoughts and Things at Home and Abroad" (1854), "A Walk from John o' Groat's to Land's End" (1855), and "Lectures and Speeches" (1869), may be mentioned, but in the department of philology, nothing of importance has come from his pen.

A New York writer says: "There is something in his story similar to that of Hugh Miller. Both were bred to mechanical employments; both attained literary reputation; and both became writers upon topics of controversy. Mr. Burritt's is another added to the names of those men of nature, energy, and irrepressible aspirations, who have pursued knowledge and attained it under early difficulties. The story of such men, as told by themselves, is always interesting. Mr. Burritt was accustomed to say, that, while the machinery of the cotton factory and that of the locomotive had no power to make him think less of his anvil and of his daily labor by the forge, the sight of the press 'printing thoughts' sent him home thoughtful and determined upon the career which he subsequently and creditably followed. He has worked well and wisely. He might have been a mere sound grinder and extractor of roots; but what he has accomplished, has a real practical importance and human interest."

I'LL WAIT.

I'LL wait for the crown in that beautiful land,
Tho' the cross seemeth heavy to bear;
It is given in tender, sweet love by His hand,
In whose grace we must never despair.

We may wander in darkness and gloom for a while,
Yet our Leader is ever anear—
Testing our faith, hope, and trust in His smile,
To return when the clouds disappear.

Our barque in the wild, roaring tempest He'll guide,
And in calm 'twill be sweeter by far
Than to drift on a sunny, nigh motionless tide
With no cloud its full quiet to mar.

Yes, I'll wait; hoping on amid pleasure and pain,
With implicit trust in His love,
That the cross, though heart-straining, a bright crown may gain
In the golden-paved city above.

GRACE GARLAND.

BRAIN AND MIND.

CHAPTER XIII.—*Continued.*

SOURCES OF HUMAN CONDUCT.

LOOKING at human nature from the point of view at which we have now arrived, we are able to obtain a rational view of the springs of human conduct, and to comprehend the true source of a large proportion of the miseries which afflict mankind. If all conduct be right which is in harmony with the dictates of the moral sentiments and enlightened intellect, and all conduct be wrong which is contrary to the bearing and spirit of these higher powers; then, if society be constituted on the principles of justice and benevolence, we may suppose that he who lives habitually under the dominion of these higher powers will derive the greatest advantages from existence, and that he who lives contrary to their dictates will be wanting in the purest and best enjoyments. This, accordingly, we find to be the fact.

Two examples.—Imagine an individual to set out in life, actuated by the conviction that the moral sentiments are naturally supreme, and that they should be the controlling motives of his conduct. He would, in the first place, derive from the mere activity of the higher sentiments a pure and soul-satisfying enjoyment, which no gratification of the selfish faculties can ever confer. He would be an object of the love and confidence of his fellow-men, and on this account would derive from them many personal advantages, as well as the intense gratification which naturally flows from their good-will and esteem. The propensities and inferior sentiments themselves would furnish him with the highest pleasure of which their activity is capable, because sanctioned by pure motives and correct principles.

In the domestic relations such an individual would be capable of inspiring the purest and most devoted affection. How fondly would a wife cling to a husband whose love went out to her with the kind and unselfish devotion which Benevolence inspires; whose active Conscientiousness entirely removed from her the fear of treachery and deceit, and who manifested in his conduct toward her that consideration which results from a due endowment of Conjugality. The children of such an individual would cherish for him sincere respect and fond affection in return for the kindness, the truthfulness, yearning, and justice which he would manifest in his habitual treatment of them. His example also would tend to cultivate in them the same truthfulness, integrity, and benevolence which characterized his own conduct.

In his friendships also, such an individual would manifest a sincerity, a deference to the wishes and peculiarities of his friends, and an unselfish interest in their welfare and happiness, which would bind them to him in the closest bonds. In short, the individual who habitually repressed every manifestation of the propensities and selfish sentiments, not sanctioned by the moral sentiments, would pass through life, receiving—in accordance with the universal law, that “whatsoever a man soweth, that shall he also reap,”—kind, sincere, respectful, and generous treatment from his fellow-men.

On the other hand, let us imagine an individual to set out with no higher idea of life than that it is simply a game, of which the stakes are personal advantage and emolument. The motives

of his conduct springing mainly from the propensities and inferior sentiments, his intercourse with his fellows would be characterized by devotion to his personal interests. He would be selfish in his domestic affections, selfish in his friendships, selfish in his pursuit of wealth, selfish even in his deeds of charity and in his exercises of devotion. Such an individual could not win the love and esteem of his fellows. They would see and feel the inherent egotism of his character, and would look coldly upon him. Even in his deeds of charity, in his exercises of devotion, and in his protestations of friendship and good-will, they would suspect a selfish motive, and would withhold from him that love and that sincere respect and confidence which the pure and disinterested manifestation of the higher sentiments of Justice, Benevolence, and Veneration can only inspire.

If he possessed intellectual penetration, he would recognize the fact that his friendships and all his intercourse with his fellow-men were founded upon an unsubstantial basis, and this would give rise to feelings of distrust and inquietude, and cause him to look upon all men as hollow-hearted and insincere. Such an individual would never experience the deep gratification which flows from possessing the esteem of the virtuous; he would be denied the internal satisfaction which naturally results from pure motives and correct moral principles; and he would naturally become an object of the ill-will and hatred of his fellow-men. Thus would the selfish faculties, by their unregulated activity, defeat the very purposes which they most ardently desired; and the individual would be denied both the pure enjoyment which flows from the activity of the moral sentiments, and the

high advantages which result from the gratification of the selfish faculties themselves. He would pass through life deploring the selfishness and hollow-heartedness of a world whose nobler qualities he was incapable of evoking or appreciating, and he would look back upon his career, when it was finished, and complain that all had been "vanity and vexation of spirit." But the fault would be his own; for as he had sown, so would he also reap; and he would have no good reason to complain if the fruits of his sowing should prove ashes and bitterness to his soul.

CHAPTER XIV.

THE DEVELOPMENT OF PHRENOLOGY.

IF the doctrines unfolded in the previous chapters be true, the most important results will naturally flow from their practical application. In the first place, they furnish a scientific basis for the facts and phenomena of mind, and thus enable an observer to analyze and classify those phenomena, and to deduce a system of principles which shall prove eminently serviceable in mental education, and in the development of character.

Previous to the dawn of anatomical and physiological science, the structure and functions of the human body were unknown. Men suffered countless evils in consequence of this ignorance, through infringement of the laws which govern the physical system. When disease attacked them, they could not tell which organ was affected. They knew little of the nature of the disease, the causes which produced it, or the remedies to be applied for its removal. People of strong religious sentiments

regarded disease as a judgment sent upon them from heaven in consequence of their sins, and to be removed only by prayer, and stricter attention to moral duty. Among many of the heathen nations sickness is regarded still as resulting from the malign influence of an evil spirit, and its removal attempted through sorcery and incantations.

Now, civilized nations no longer suffer from the terrible plagues which once devastated whole lands, because of our greater knowledge of physiology, and our attention to the hygienic conditions essential to the preservation of health. It is true that much suffering is still endured on account of ill-health, even in our most enlightened communities; but it is only because people are willfully ignorant of what they might know, and selfishly disobedient where obedience would prevent or alleviate their sufferings.

The science of Phrenology stands in a similar relation to the mind that the science of Physiology does to the body. It defines the organs of the mind, their locations and functions, and interprets the laws which govern their activity, health, and development. No other system of mental philosophy recognizes the fact that every faculty of the mind has a special organ for its manifestation. Indeed, the most contradictory opinions are held among metaphysicians in regard to these faculties; some attributing to the mind powers and qualities which are denied by others. Some vaguely utter opinions with reference to supposed locations of the intellect and the passions, and some gravely debate as to whether the mind operates through the agency of any material organ. Were the science of Physiology in so uncertain and variable a state as metaphysics, it is obvious that men generally would receive its

teachings with very little confidence. If some physiologists were to assert that assimilation, nutrition, decay, and renovation were original functions of the body, and others were to argue that they were not original powers, but only the results of functions still more primitive; if it were debated among them whether digestion, circulation, secretion, and excretion were or were not bodily functions; if it were asserted that the bodily functions were carried on by the body as a whole, and that there was not the slightest reason for supposing that the body was made up of many separate organs, each possessing a distinct office in the animal economy; it is clear enough to our present intelligence, that so crude a condition in physiology would furnish us no practical and reliable rules for our guidance either in promoting health or in removing disease.

Now it appears to us that the old systems of mental philosophy stand in a similar relation to the mind, its organs and faculties, that this hypothetical condition of the science of Physiology would hold to the bodily organs and functions; and that Phrenology, by discovering the dependence of the mind upon organization, the relations subsisting between the mind and the brain, and between the different faculties of the mind, has given to the science of mind a definiteness and accuracy hitherto unknown, and substituted the certainty of demonstration for the confusion and uncertainty of speculation.

MIND DEPENDENT UPON BODY.

If the brain be the organ of mind, it is reasonable to suppose that the better the health, and the higher the condition of that organ, the more vigorous will be the manifestation of its powers; the

brain being a part of the material system, it is necessarily subject to the same physical laws which govern the other parts of the organism. If any part of it be called into activity the blood is determined toward that part, and the processes of exhaustion, decay, and renovation go on more rapidly. If the exercise be resumed at regular intervals, and not carried too far, the part grows in size, strength, and facility of action. If, however, the exercise be excessive, and the part be not allowed the repose necessary to restore the waste of its activity, it becomes exhausted, disease may supervene, and imbecility or insanity follow as the natural consequence. A knowledge of this law of the brain's activity is very important in education. Ignorance, or inattention with respect to it, has brought weakness, disease, and premature death on many brilliant minds, and defeated the ends which they most ardently desired to attain. It is in accordance with this law of the brain's activity that great grief, severe misfortune, and exalted excitement often produce insanity. The mind brooding continuously on one thing, keeps the material organ constantly on the strain, and the excessive activity thus induced causes it to become exhausted, weakened, and diseased; and then we have a deranged manifestation of its faculty.

The light which Phrenology throws upon the education and training of the young may now be appreciated. By indicating the nature of mind and the elements in its composition; by showing that each of these elements or faculties has an appropriate organ in the brain, which may be excited to activity independently of the rest; by disclosing the laws which govern the exercise of these organs, it provides information of a most valuable and practical character

with respect to mental growth and training.

Some differences noted between Metaphysical views and Phrenology.—In the education of the intellect it has long been known that the exercise of any talent increases its energy and facility of action; but the principle upon which this improvement takes place was not understood before the discoveries of Dr. Gall, and even at the present day it is unknown to the great majority of teachers. The metaphysicians readily concede that musical or mathematical talent may be greatly improved and strengthened by cultivation; but they nowhere treat of a talent for music and computation as original faculties of the mind, nor as depending upon distinct cerebral organs. They treat of perception, conception, memory, judgment, etc., as original powers of the mind; but our philosophy teaches that these are only general modes of mental activity common to many different faculties. The organ of Form, for instance, enables us to perceive the shape of an object; Size, its magnitude; Weight, its density; Color, its hue; Order, the arrangement of its parts; Calculation, their number; and Locality, the place which it occupies. Each of these distinct modes of mental activity may be correctly termed perception. Each of these organs, in like manner, when internally active, may present to the mind ideas corresponding with its function without the visible presence of an object which is naturally adapted to excite it to activity. This mode of action is properly termed conception, and is common to all the intellectual faculties. Memory, also, is a term applicable to nearly every faculty of the intellect, and not itself a distinct power of mind. For it is well known that an individual may have a good memory of faces, but

a poor memory of names; a good memory of colors, but a poor memory of tunes; a good memory of places, but a poor memory of dates; a good memory of facts, but a poor memory of principles or theories. Were memory a separate power of the mind, these phenomena could not occur, for it would then be capable of recalling with equal facility, every class of ideas which had once been a part of the mind's experience.

Now it is clear, if the phrenological theory be the true one, that any rules laid down for the cultivation of perception, conception, memory, etc., as primitive or independent faculties of the mind must be exceedingly partial and indefinite. If a metaphysical professor were to say to his pupil, "Your faculty of perception, or your faculty of conception is weak; in order, therefore, to strengthen it, please give it exercise," the pupil would be at a loss to know where to begin, or how to proceed. But if the phrenological theory of the organs and faculties were explained to him, together with the prin-

ciples which govern their activity, he might enter upon the improvement of his defective mental faculties with intelligence. He might then find, perhaps, that his deficiency in perception was only partial; that while his perception of forms, proportions, or colors might be imperfect, his perception of harmony in music and melody might be excellent. In memory, also, he might find that he could easily recall principles while facts and circumstances would be remembered with difficulty; that while his verbal memory might be good, his memory of the places which he had once visited might be weak; that while being able to recall dates and figures easily, the faces and names of persons would be retained with difficulty. These remarks apply with equal force to many other *original* faculties of the old systems of mental philosophy, and serve to illustrate the partial, unreliable, and impracticable results which flow from an imperfect—because scarcely more than hypothetical—method of mental investigation.

THE TRUE TONE OF BEAUTY IN POETRY.

IT may be observed that many of the most beautiful poems in the English language are pervaded with a general tone of sadness. It seems as if melancholy prevailed as an essential attribute of poesy, and gave tone and sweetness to its themes. Among the finest compositions of remote or modern times, the general spirit of poetic sentiment is dignified and sad. And we find the same principle illustrated in the art of sculpture. The Venus of Melos, properly so called, expresses in her face a feeling of mournful and tender compassion. The poet Gray gave expression in immortal language to a poem which might be compared to this piece of statuary. His "Elegy" was composed as late as the year 1750. It is a masterpiece of exquisite beauty, more lasting than bronze or marble. Almost

exactly one hundred years later Poe's "Raven" was produced. Its numbers and sentiment served to portray sorrow of the most pathetic nature—"Sorrow for the lost Lenore." Here it is shown that sadness is the most legitimate tone of beauty. It has been suggested that the melancholy genius of some poets borders upon madness—as that of Poe, and Byron, or Victor Hugo. Melancholy, however, seems to us a very common peculiarity among the bards. Whittier's "Maud Muller" is full of romantic pathos, and must be acknowledged a beautiful composition. The following couplet is especially familiar—the key-note of the whole poem:

"For of all sad words of tongue and pen,
The saddest are these—'it might have been.'"

The same essential burden of sadness is

to be found in Tennyson's "In Memoriam," "Locksley Hall," and "Enoch Arden." Cowper's hymns and other pieces displayed the melancholy of his nature and the beauty of his style to an extreme degree. Having a delicate constitution, he broke down and was at one time afflicted with melancholic insanity. But this was not necessarily the effect of writing uncheerful poetry.

The late Mr. Bryant was more often mournful than gay, as in those memorable lines, so often quoted :

"The melancholy days are come, the saddest of the year."

"Thanatopsis," the greatest of his verse, combined both sadness and beauty.

Byron's poetry is seldom joyous or mirthful, yet full of nobility and beauty. He was not strictly "a mad, bad, glad, and sad" poet, that wrote :

"Sun of the sleepless ! melancholy star !
Whose tearful beam glows tremulously far."

The dirge, the epitaph, and the lament are varieties of verse in which sadness does not simply give tone, but a black and shadowy border of beauty. Shelley's "Adonais," like Poe's "Raven," refers principally to death. Longfellow's "Psalm of Life" seems almost like a dirge, when he says :

"And our hearts though stout and brave,
Still, like muffled drums are beating
Funeral marches to the grave."

It was Milton who once bade defiance, and exclaimed concerning this element of gloom :

"Hence, loathed melancholy,
Of Cerberus and blackest midnight born."

But the true and legitimate tone of beauty in poetry can never be changed or thrown aside. It is the primary color of all "word-painting."

The titles of many poems which are famous in literature, may serve to demonstrate the relation which exists between sadness and beauty in poetry. I will take the following, as they happen to occur to my mind, for the sake of further elucidation. First, that noted and very sorrowful poem, by Hood, called "The Bridge of Sighs." What figurative language could be more expressive of grief or as beautifully indicate the poem's contents? Take, also, "The De-

serted Village" of Goldsmith. We find that the topic here vividly marks the substance of the poem. Longfellow, again, adopts for his theme, "Haunted Houses," and constructs a most sadly beautiful piece of poetry. "Disappointed Hopes" is a proper title of a passage in Moore's "Lalla Rookh," which contains those well-known lines :

"Oh ! ever thus from childhood's hour,
I've seen my fondest hopes decay ;
I never loved a tree or flower,
But 'twas the first to fade away."

Most of Moore's melodies are composed in much the same strain, as where he says :

"This world is all a fleeting show,
For man's illusion given."

Burns sometimes indulged his fancy with humorous creations, but the following stanza expresses, perhaps, the real value he placed upon the element which we have been considering. It is this :

"Go ! you may call it madness, folly—
You shall not chase my gloom away ;
There's such a charm in melancholy,
I would not if I could be gay."

And likewise it was the graphic pen of that same author which wrote so despondently concerning "Man's inhumanity to man." In reference to all of these quotations, there is one chief and cardinal point to be observed, viz. : that the tone generally adopted is one of sadness, deepening in many instances to a fascinating melancholy. This subject needs no dry, logical summary or conclusion. Those who run may read what Wordsworth epitomized as follows :

"We poets in our youth begin in gladness,
But thereof comes in the end despondency and madness."

An extreme view indeed, but one with which we would suitably close all that is to be said concerning the relation of sadness to the beautiful in poetry.

T. MEREDITH MAXWELL, M.D.

Up, ere the golden moment's gone ;
Work, ere the frost of death thy pulses chill.
Let the brave sword of truth be boldly drawn
And in the name of right walk surely on ;
So shall life's very ill
Bow to the triumph of thy conquering will.

JEAN INGELow.

KNOWLES SHAW,

OF "THE DISCIPLES OF CHRIST."

THE portrait supplied for our purpose indicates a strong, earnest, thorough-going organization. The Motive temperament thoroughly pervaded his constitution—its influence actuated his every thought

it worked actively and easily. The faculties appropriated whatever material was furnished them through the media of the senses, and worked it out into shape for the carrying out of his aims and purposes.



and action. The quality of the organization is fine. Consider the nose, its delicate chiseling; consider also the mouth, its freedom from every imprint of grossness, yet with the stamp of steadfast purpose.

The brain, we think, was not very large; yet being of superior quality, and being incited by the powerful Motive temperament,

The perceptive organs appear to have been thoroughly active, although in point of size, they do not much exceed the reflective, and were, therefore, subordinate to the aims and theories which were projected into his work. We would say, then, that he observed, or rather that he scrutinized, the world around him, to obtain data for

the illustration of his ideas. He was well organized to perform the part of the critic in some special field. His was not the brain which spreads itself over a large area; that takes in at a glance the whole expanse of fact and incident; but was admirably adapted to the investigation of one subject at a time, and that subject would be explored to the bottom.

His judgment of character was evidently excellent. By no means one of your easy-going, urbane, oily sort of gentlemen, he nevertheless pleased people by his directness, by his positiveness, his earnestness, and his sincerity. People who came in contact with him could appreciate him at once, on account of his straightforward earnestness; for they knew that they could depend upon his statements. His words were not ambiguous. Bread, when uttered by him, meant *bread*; and they who asked him for bread did not expect to receive a stone, and would not. The elements in his moral nature, as indicated by the portrait, impress us that he was not afraid to say what he thought on all occasions.

His Firmness seems to have been very strong, and he was by no means deficient in Self-esteem. If physiognomy be true in regard to the relation of the upper lip to self-reliance, this man possessed it in a high degree, and working with his conscientiousness, we could imagine him to say with the apostle, "Let God be true, and every man a liar."

He was, we think, inclined to be orderly and systematic in his affairs, and neat and nice in his morals and language. Such a man may be wanting in what is called a "liberal education," but he will show to the world that culture, that refinement of manner and speech which will impress people with respect.

As a talker, Mr. Shaw was probably not

known for fluency or pleonasm, but rather for straightforwardness, or the endeavor to use just those words which would convey his meaning clearly and definitely; for plainness and directness, for adapting his speech to those with whom he came in contact, or to the purpose which he had in hand.

KNOWLES SHAW was born in Butler Co., Ohio, October 13, 1834, and lost his life by the upsetting of the railway train on which he was traveling from Dallas to McKinney, Texas.

Soon after his birth his parents removed their home to Rush Co., Indiana, where he was brought up with no advantages but such as are common to the people of a new settlement. His education was only such as the country schools of Indiana afforded. Later in life he made some advances in the study of the Greek language under the tuition of Professor Thrasher, now of Butler University, Indianapolis.

In his early manhood, Mr. Shaw's mind became impressed with religious views, which soon became the foundation for the very successful career which has been so sadly and abruptly terminated. In the community where he was brought up, the religious denomination calling themselves "Disciples of Christ," or "Christians," of whom Mr. Alexander Campbell was the most conspicuous leader, had made great progress, and under the influence of their teaching, the subject of our sketch became an earnest and devout convert, and was baptized in one of the small streams in Rush Co. by Elder George Thomas. His whole soul became immediately fired with enthusiasm in the new calling, and he resolved to devote the energies of his nature to the dissemination of the doctrine he had embraced. The sequel bears ample testimony to the wisdom of the decision.

In personal proportions, Mr. Shaw was six feet three inches high and weighed one hundred and sixty pounds. His head was moderate in size, the measurement being what the hatters call seven and one-

eighth. His relatively light weight was doubtless largely due to his very active temperament, which constantly impelled him to the most laborious exertion in every work in which he engaged. His hair, and long, full, flowing beard were brown, and he had rather large and sparkling hazel eyes.

With such an organization and culture, inspired by a strong faith in the divinity of the Christian religion, and in the special plea concerning that religion presented by the people, whose representative and advocate he soon became, Mr. Shaw commenced the life of an evangelist in the year 1858, being then about twenty-four years of age. From this time forward for twenty years he traversed the States of the Union, calling men to the obedience of the Gospel with marvelous success. In cities and towns, as well as in rural districts—among the refined and cultivated, as well as among the rude and unlettered—the magnetic power of his presence and the earnest zeal with which he urged the claims of Christ surmounted all the disadvantages of his early life and brought the people by hundreds and thousands to embrace the faith whose claims he presented. More than eleven thousand persons have enrolled as followers of the Gospel under his ministrations. He knew nothing of discouragements, and seemed to possess the happy faculty of making every circumstance subserve the interests of the work in which he was engaged. In every way that conscientious conviction of truth and duty would permit or demand, he could accommodate himself to the circumstances of the occasion.

In his youth he had become familiar with the science of music, and was quite expert both in its vocal and instrumental uses. In this, as in the preaching of the Gospel, he was also enthusiastic. He was the editor of several of the most popular collections of sacred music in use in the West. Many of the hymns in these collections are of his own composition, and, with the music to which they are set, were written as the exigencies of his ministerial labors seemed to demand.

It was his custom to arouse the ardor of the people in every community where he la-

bored by the use of his fine voice and instrumental accompaniment in sacred song. He sang the Gospel as well as preached it to the people, so that the sympathies of his audience soon came in accord with his own. It has been said that he possessed all the natural and acquired ability for popular influence of Moody and Sankey combined. His custom was, wherever it was practicable, to play the organ, lead the singing, and preach the sermon; and his constant great success, with but little of the sympathy of the popular religious denominations to aid him, plainly indicates the probability, that, if the same powers had been employed in a cause which would have enlisted the religious sympathy of the communities he visited, the extent of his influence would have been manifold greater than it was, and his fame would have been heralded by the secular as well as by the religious press throughout the land.

His eminent social qualities had much to do with his success. He soon made himself at home with men of every station. The merchant in his store, the mechanic in his shop, or the laborer in the field soon found him a genial companion and sympathizer. He would mingle with the people in the common vocations of life—actively engaging with them in their labors—not holding himself aloof because of his ministerial calling. Thus he gained influence in every neighborhood where he held a meeting, and the people thus attracted would attend his ministrations and yield to the influence of his teaching.

As a preacher he was very logical, as well as earnestly persuasive. He was both a reasoner and an exhorter, and being a man of unbounded faith—faith in the providence of God, faith in the Gospel he preached, and of faith in human nature itself—he labored with a confidence of certain success. Some of his sermons were fine specimens of pulpit oratory.

His mental and physical powers of endurance were noteworthy. There were few interruptions; no vacations in his work. When one meeting closed, it was only in time to be at another, to be held immediately. It was in one of these brief intervals, in which the casualty occurred which

closed his career. He had just concluded a series of meetings at Dallas, Texas, having enlisted one hundred and twelve persons in the cause, and was on the train to fill an appointment the next day at McKinney when the cars capsized and he was instantly

killed. His last words, a fitting close to such a life, were: "It is a glorious work to rally men to Christ." These were uttered in conversation with a Methodist preacher, who was sitting by his side when the accident occurred.

SKETCHES OF LIFE AND CHARACTER IN THE SOUTH.

No. III.

I HAVE recently become interested in a family from Michigan, consisting of a widow and her two children, to whom my husband rented a house on our grounds. The mother is a handsome, portly, middle-aged woman, a very light mulatto, good-natured and kindly in disposition, whose language and manner indicate considerable culture. She is a native of Ohio, of course free-born; has lived in Canada, and corresponds with an aged mother and only brother, now living in Australia; had good opportunities when a girl, and is fairly educated. Her story, as she told it to me, is briefly as follows:

About twenty years ago, residing in Cincinnati, a leading belle among people of her class and color, she met and married one Dick Alford, a runaway slave from Kentucky. Dick had belonged to a Madam Alford, a wealthy old lady, whose large farm he managed as her 'head-man.' He was a mulatto of ready intellect and superior executive capacity, with an ingenuity and fertility of resource that made him invaluable on a plantation. His mistress, though very aged and infirm, lived entirely alone among her slaves, whom she loved as if they were her children. Her daughter was married, and had a large family, being a near neighbor; but her husband was of so disagreeable a temper, that he could not at all get along with his gentle, childish old mother-in-law, whose fondness for, and indulgence of, her negroes he constantly denounced and ridiculed as an evidence of dotage. Dick was the old lady's prime favorite. She had raised him from a puling infant, when his mother died; had fed him from her table all his life, and since his fifteenth year he had carried all her keys.

As to her plans and projects, she spoke her mind to him as freely as if he had been her son, and gave him money whenever he asked for it. But one black, threatening shadow loomed up in Dick's pathway. He really loved his old mistress, and might have been content under her gentle rule but for this—his mistress' daughter, Lavinia, was heiress by entail to all the property, and on the old lady's death Dick would fall into the hands of the terrible son-in-law, Ned Lawton, a man of the most domineering temper, and who seemed to have a constitutional spite against negroes; at least, he never opened his mouth to speak to them without cursing, and used the whip sometimes upon their unoffending shoulders as if for pastime. This man had a perfect hatred of Dick, whom he was wont to call, in ridicule, "Granny's lapdog;" nor was he at all chary of threats as to what he intended to do with him whenever old lady Alford should die. "Lapdog Dick" he would sell at once to a "slave driver," for shipment to New Orleans.

Dick and his mistress would often hold counsel as to how they should thwart this common enemy of their peace, but it would always end in the old lady's saying, tearfully, "Dick, you know I would set you free if it were in my power, but my husband's will can't be broken." But desperate straits call for desperate remedies, and finding her end approaching, his mistress deliberately planned, proposed, and required of Dick, that he should take her fleetest horse, which she made a present to him, and fly to the free States. She gave him "free papers," which she had drawn up with her own hands, and made him promise to carry them to an agent of hers, in Williamstown, for signature, which would enable him to

use them in case of pursuit. With these papers in his pocket, and well-mounted, Dick distanced his pursuers (his departure not having become known to Mr. Lawton for two days, he being away from home on a hunt for runaways), and made good his escape into Ohio. He soon found friends and got employment, proving himself trustworthy, ingenious, and hard-working. He had some knowledge of carpentry, blacksmithing and shoemaking, and understood farm-work. So, in six years, he had acquired a sufficient start, as he thought, to enable him to marry; his choice being the pretty mulatto whom we have described, to whom he often said, "He never could bear the thought of making a slave-woman his wife, knowing so well the general immorality of their lives." Dick was very devoted to his young wife, with whom he moved to Michigan, establishing himself at Bay City, at the mouth of Saginaw Bay. Here he built a snug house, and was able after a while to open a small shop. His creditable career, however, was cut short by an attack of cholera-morbus, for which his physician dosed him so heavily with morphine that he sank into a state of stupor which resulted in death. Wife and children, whom he had surrounded with comfort and shielded from hardship, were left with only the house. The widow learned dyeing, and for ten years supported herself and family by cleaning and dyeing gentlemen's clothing, and coloring and shaping-over straw hats. Last spring she was induced by a relative of hers living in the South, to come to this part of the world as a teacher for colored children, the idea being impressed upon her that she could coin money in that capacity. But though she brought excellent recommendations, it was some months before she could even secure a place. After an examination by the Superintendent of Public Instruction, she was given charge of a free school, in what is called the "Bottom Country," a cotton-producing, malarious region. The salary drawn from the county treasury was thirty-five dollars a month for teaching fifty scholars, not one of whom had got beyond the first reader. Out of this she had to clothe and board

herself and two children. This board, in the family of one of the colored trustees of the school, she found decidedly rough—corn hoe-cake, fried fat meat and buttermilk, a dietary very conducive to liver complaint, and fever-and-ague. She, however, poor adventurer in these new golden intellectual fields, kept up her spirits pretty well, till about the last of August her school suddenly underwent a process of disintegration and vanished like a dissolving view, and she learned to her dismay, that school-teaching must be suspended till the cotton-picking season was over. In her confusion at this unexpected array of circumstances, Mrs. Alford was visited by an old black man whose large family of grandchildren had been among her most regular scholars. (Here ensued an experience which illustrates one of the happiest phases in the character of our Southern freedmen—their genuine benevolence, which, singularly enough, some of them possess in combination with outrageous roguishness and immorality). Uncle Jake Blacknell, the aforesaid black man, came to advise Mrs. Alford, "dat under de sarcumstance dere was nuttin fur her to do, 'cept to git a place on some plantation, an' go to pickin' cotton for her libbin'." As an inducement for her to be guided by him, he promised to get her a "night school," and to "stand her security for the rent of a house," he being, as he assured her, a "'sponsible man;" also, he would vouch "to de white folks for her 'spectability." Mrs. Alford agreeing, he did in good faith make all the arrangements for her, being in truth a hard-working, well-to-do old freedman. He took his wagon and team, and himself moved madam-teacher, with all her goods and chattels, to her new abode. He also spent two days working on her house, stopping leaks and cracks, and building her a closet, shelves, and tables. The rent, he had stipulated, she should pay by picking cotton for us. The willing, but inexperienced soul, went to work the following Monday, accompanied by her daughter, the latter slender and fragile, a figure such as one sees every day on city streets—half-bent, Grecian-stoop, gait swinging and af-

fected, whalebone-appendage, enormous style of dress—a common calico made in the extreme of fashion. To see that girl dragging her trail through the meeting cotton rows, and her mother, just the shape of a Chinese female, a good two-hundred-pounder, trying to accommodate her fat sides to the disagreeable stooping posture, was enough to make anybody with the slightest sense of the ludicrous, smile at least. The darkies who had been out picking cotton since daylight showed the whites of their eyes and their farthest-back ivories, when these singular figures appeared in the cotton patch about ten o'clock, having just eaten breakfast. They went at it as awkwardly as if they had been trying to learn the use of pick-axes in the silver mines of Utah. At noon, the fragile Ophelia vowed that her back was broken, and her mother thought her shoulder must be out of joint. When I weighed their cotton, the fruit of their day's labor was thirty-five pounds; whereas, Black Sal and her sister Sooky, had each picked 200 pounds, and "not half tried." It is very common for negro women, with nursing babies, to pick on an average 185 pounds a day, and men from 250 to 300 a day. The price that season was 50 cents per hundred pounds, and board; or 75 cents per hundred, and the picker find his own provisions. There seems to be a species of prestidigitation in the way trained hands gather cotton. They will saunter along between the rows, snatching the cotton out with both hands, right and left, picking it clear of trash or the closely adhering capsules, as if it were the easiest work in the world. One uninitiated can no more keep up with them than a tyro in knitting could keep pace with a machine. And those used to it, think it the nicest, easiest kind of work in the lovely October days, when it hangs out of the bolls, snowy and beautiful.

"A small sphere,
Through which the soft, white fibres peer,
That with their gossamer bands
Unite like love, the sea-divided lands."

But to return to the widow Alford. According to promise, Uncle Jake Blacknell exerted himself "mightily" to get her a

night school, and succeeded at last in securing her fifteen paying scholars, at \$1.50 per month apiece—a small income; but he and the other darkies on the farm made out a living for the strange teacher nobly. Every day they sent her presents—from one came a peck of new sweet potatoes and a mess of turnips; another sent her a bushel of Tennessee crowder peas. Some generous old mammy would totter in to tell all about her "rheumaticks," and bring a couple of fat chickens and a basket of eggs; while those who have cows (and nearly every family keeps one of their own, or a hired cow), supplied her with sweet milk, butter-milk, and butter free of charge.

Old Billy Broadfoot, an African closely resembling a baboon, would get up before day of mornings, while the teacher and her family were comfortably snoozing, and cut them wood enough to last all day, doing it all, as old Jake Blacknell did their hauling, "free gratis fur nuttin."

Indeed, the kind souls could not do too much, and had nothing too precious for "dat yaller lady," whom they regard with a mysterious awe, as one of themselves, yet so far above them, being "edicated," that she belongs quite to another sphere, and yet holding out, by her elevation, delightful possibilities to their own aspiring aims. Her little boy, a bright, buoyant child, whistling at his play, or singing his geography lessons, is the idol of the colored children, who delight to gratify his slightest whim, while "Ophelia" is already the "glass of fashion" and type of style to the colored feminine community.

VIRGINIA DURANT COVINGTON.

SONNET.

OUR hearts have many treasures in their nooks.
The sacred ones are guarded more than gold
By avarice. And common lives enfold
More joy and grief than would seem from their looks.
Grand thoughts oft lurk in paper-covered books.
Who reads his neighbor's heart—he might behold
Why some are loving, and why some are cold
Why one likes what another never brooks.
This nothing views except a lump of clay
That conjures up the gnome of magic lamp.
Some blindly throw the paltry coins away,
And others find on all a genuine stamp.
The many kneel, and, in thick darkness, pray;
The few see dawning of a nobler day.

DR. LA MOILLE.



WELLS FOR SCHOOL-HOUSES.

"THERE are quite a number of the scholars sick now," said a school-boy in my hearing a day or two since.

"I should think there would be," was the reply of his brother, a few years older. "The water in that well is enough to make any one sick."

"Why!" exclaimed an elder sister, "do you drink that water? We never used to taste it when I attended school there. There always used to be dead rats in it."

This little conversation was not intended for my ear, and the children did not know I was "among them takin' notes," but it opened in my mind an entirely new set of ideas.

The school-house well! I had never thought of it. I had made diligent inquiry as to the ability of the teachers, the general character of the pupils, the mode of warming and ventilating the rooms. I had carefully selected my children's studies, had especially guarded against the overtaking of mind or nerves; had supplied the requisite books, the inevitable base-ball and club, and rested fully satisfied that I had performed my whole duty as a parent.

Suddenly, in the midst of my complacency, a well had opened, as it were, at my feet.

Not so much wonder after all that I had forgotten it. Such a thing was entirely unknown in "the good old times" of my own school-days. We went with the bucket—two of the larger boys in winter—us girls, in summer, when none but very little boys

went to school—taking turns, and all eager to take their turn for the change and relaxation it gave.

The school-house well is one of "the modern improvements." If well located and carefully guarded from impurity, it is indeed an improvement. If placed too near the outbuildings, or in any way allowed a chance for contamination, it may become the fruitful source of the "results of over-study," or "mysterious dispensations of Providence."

The number of able articles which have recently appeared in our popular magazines upon the subject of wells and cisterns and their relation, not only to the health of families using them, but also of other families obtaining from them supplies of milk and butter, which have been cooled in or washed by such impure water, indicates a hopeful awakening of the popular mind to this subject. When I have seen a well in the center of the barnyard, with its crowd of thirsty animals eagerly contending for a drink, and noted the huge piles of manure on the hillside just above it, with the hen-house, the piggery, etc., all in close proximity, I have asked myself, "How can that water be a healthful drink for those animals?" Yet I never thought, when I had seen a crowd of eager children gathering around a source of water-supply, "Is that water the best and purest attainable?" unless indeed it was dispensed in a poisonous painted pail. Then I have often risked the displeasure of the teachers by warning

them of the danger, or if it has stood for a length of time absorbing the gases of an impure air—a peril which all do not know, and of which few realize the extent.

When, a few years since, in a time of great drouth, the well of my "own hired house" had failed, and the landlord was obdurate to importunity, a neighbor kindly informed me that her family were using the water from a well at the foot of the hill below the barn, and we were welcome to get all the water we chose from there. So I went myself to examine the locality, and after a view of the adjacent land and its premises, mentally ejaculated, "I'll move first. I don't wonder nearly all of her large family of children have died of typhus fever." I did move, and when I afterward heard that her husband had been ill all winter with a disease which the physicians could neither cure nor understand, and a little grandchild visitor had nearly died of typhus, my thoughts went back to that well "at the foot of the hill below the barn," and I did not regret the earnestness with which I had tried to persuade my former neighbor to desist from using its water.

Yet even then, I did not go to the school-house, and ascertain what quality of water my children were using there. Perhaps it was my confidence in the highly-educated Principal, and his able corps of assistant teachers; perhaps it was because the directors were practical, energetic business men, who might be relied upon to do well whatever was given into their hands to be done.

From whatever cause, the fact still remained—I had never given the least attention to the subject. How many parents have? How large a proportion of our educated parents even know if there is a well attached to the school-house where their children attend? Or if there is, what are its qualities, and what the chances for its contamination? Are the children allowed to run there at all hours of the day, and overheated with play or otherwise, drink large draughts of its water? Do you give your children salt fish, or highly-seasoned food, and then send them forth for hours, to quench the raging thirst thus excited, you

know not where, or with what quality of water?

Or, as in the olden time, do they go long distances at recess to beg a drink of some reluctant, because long-suffering, neighbor? Or, perhaps, because the water has been brought a long distance, are they compelled, or even allowed, to drink that which remains in the school-room, perhaps even overnight? How many know that even the poison from the painted pail in such a case is far less dangerous than the impurity absorbed from the atmosphere of the room?

Another suggestion of minor importance is, that not only their habits of neatness, but even their health may suffer from all using the one dirty, rusty dipper. Canker of the mouth, and even serious throat diseases, may be the result of this practice. If the terribly fatal diphtheria, which has carried death into so many homes, can be communicated by a kiss, why not by a carelessly-used drinking vessel?

The Principal of a High-school in this vicinity, recently surprised some parents and offended others, by absolutely requiring each pupil to be supplied with a drinking-cup, to be kept with their books or baskets, and used by themselves alone. "Altogether too particular!" "Real old-maidish!" "Pretending to be nice!" were terms lavishly bestowed. Still, the children liked the plan, and the nickels which gave each one their own little bright tin cup were well spent.

We are not, of course, discussing the question of the advisability of drinking so much. As physiologists differ so widely upon that point, each one must decide it for himself; but one thing is very certain, school-children drink more or less during every day; some, perhaps, from mere restlessness, others from the intense thirst which the food most parents supply occasions. No one will doubt that the water they drink should be as nearly pure as possible.

MRS. JULIA A. CARNEY.

TRUTH is a ministering principle given by the Creator to inspire man with courage and fortitude in his life-struggle.

WHAT'S IN A THEORY?

In Diet—In Morals—Cook-book Hygiene—Shortening—Fermentation and Decay—Alcoholic Liquors—The Yeast Plant—The Germ Theory of Disease.

AND in the first place what is a theory? The dictionaries give many definitions, and usually the most prominent among them is that a theory is something speculative, not practical. But that is not exactly what I mean, and as there are many other definitions, I may be allowed to take my choice or to frame one out of the others. What I mean by a theory, or the way in which I shall use the word will be to denote our ideas of the relations of things to each other, or of the different parts of a thing to other parts. I would also like to show how our theories or our beliefs affect our practice.

I know it is commonly said that it makes very little difference what a man believes, if his practice is right. But if his theory be wrong and his practice right, our first inference would be that he must be living according to the beliefs of others. He is influenced by their actions and does as they do, and not as he himself believes. But allow me to make some applications and illustrations. As we have been discussing food questions and have often dealt with theories, it is quite in keeping that we should examine what influence theories may have on practice.

IN THE LINE OF DIET.

Suppose, for example, a man may maintain the theory that "what is one man's food is another man's poison," what can you do with such a man? There is no such thing as holding any argument with him about the wholesomeness of food. The words "good" and "bad" lose all their significance as general terms; each man must use them as related to himself alone; he is a law unto himself, and the very foundation of the science of dietetics is taken away. We usually find this supplemented by the theories that "what a man likes, that agrees with him," and what hurts him at one time does him good at another. It is very easy to say that this matters little if he only eats right. Suppose we allow this, we must also

allow the probability that some one else prepares his food for him, for with such ideas he would not be likely to prepare it rightly for himself. That implies right theories in some one. We must also take into account his constant liability to eat wrong because his principles, theories, or beliefs will not keep him from doing so. Indeed, it is a case I have never yet found in man or woman, that his eating was better than his theory, though I have found innumerable individuals whose eating was not so good as their theories. So it has come to be a maxim with me in dietetics, that we must not expect a man's practice to be better than his theories.

IN MORALS.

Nor do I say that this maxim should be confined to dietetics. I remember applying it some years ago to a person who shall be nameless here (and indeed it might be difficult to give her *correct* name), though she is notorious enough everywhere. Her theories were shamelessly immoral and indecent, and flaunted in public, as were the facts of her past life, and yet thousands of decent people listened to her and excused her because it "did not make much difference what her theories were, if she only lived right;" albeit they were obliged to modify the commonly received views of right living to make them include her. Without wishing to judge harshly, I still maintained the correctness of this maxim, and surely enough! when it suited her convenience she carried out her theories in the most public manner. What else could be expected? Her theories had led thousands astray, why should they not lead her astray? In morals, as in dietetics, people seldom live as high as their theories; and it is not reasonable to expect them to live better than their beliefs, unless, as we said before, they are temporarily forced to do so by the higher moral standard of those around them.

COOK-BOOK HYGIENE.

Another thing to be observed is that correct theories are indispensable to the securing of any considerable degree of right ac-

tion. We see this illustrated in many of the cook-books, and in various fragmentary remarks and directions about wholesome food. You are told that certain dishes are unwholesome or difficult of digestion, pork and beans for example. You hear boiled cabbage denounced, as requiring several hours to digest. You are advised specially to avoid fruit-cake and pastry, and one lady who prides herself on her exemption from illness tells you that she never eats any dessert.

Who shall draw order out of such confusion? What harm is there in cabbage? Are not beans a common dish on the most hygienic tables? If fruit is so good out of cake, why should it be so very bad in cake? and are all the articles that are used for dessert unwholesome? Who shall make an Index Expurgatorius and tell us what dishes we may and what we may not eat?

SHORTENING.

Let us see what good a correct theory may do in this difficulty. We will draw the line on "shortening," on cooking fat into fibrous and cereal articles. This does not concern the fat itself, whether it is animal or vegetable, whether it is suet or butter or oleo-margarine, but it concerns the one great fact that fat itself is not soluble by the gastric juice; that when it is cooked into or coated over substances which should be dissolved by the gastric juice, it prevents the action of this solvent upon their particles and thus hinders digestion. This releases the wholesome cabbage, beans, and fruit, and permits us to eat innocent and wholesome things for dessert, provided we do not overeat. It is not a theory which covers everything, but it does affect a great many dishes in cooking, and will preserve for our eating a great variety of excellent articles, which if prepared after the common methods of frying and shortening or other cooking in grease, we can not eat at all in safety. This theory, if true, is like putting a blazing torch into the hands of one who had been blindly groping along with a farthing rush-light, making him able to pursue his way confidently and intelligently. To the cook who is trying to prepare wholesome food, it is a great relief. She has yet to study the

wholesomeness of many fruits and vegetables, but being satisfied that they in themselves are wholesome, this helps her to avoid one of the most common methods of making them unwholesome, and after that she is better able to decide for herself whether the cooked beans, the boiled cabbage, the fruit, and the dessert are wholesome or unwholesome, as well as to prepare various agreeable dishes which are wholesome. But suppose she has adopted the theory that fat is wholesome; that a goodly share should form a part of our daily diet in all climates and at all seasons; that its presence in many dishes (according to taste) is desirable as an appetizer. She will then prepare a variety of dyspepsia-provoking dishes without ever suspecting the cause, or if she inquire at all she will probably be inextricably confused by conflicting evidence as to the wholesomeness of various other articles of diet. This is the result of having an incorrect theory.

There is another subject to which we have frequently referred, in our explorations among the different articles used by the human race for food and drink, and that is the influence of

FERMENTATION AND DECAY.

Most people, at first thought of the subject, would deprecate their presence in food. The spontaneous decision would be that food is at its best when taken at the ripeness of growth or before any taint of decay had made its appearance. Practically, however, as we have seen, this rule is not followed. All things raised with yeast are tainted with decay. Fruit is suffered to lie too long, and vegetables are often past their prime. Meats of various kinds suffer from exposure, and stylish game is "high." We must record, however, that in Philadelphia we recently saw butchered bullocks carried through the streets in muslin—shrouds. Milk, eggs, and butter deteriorate very rapidly, and the most of our sweet oil smells more of age than of olives. Many of our eatables are packed far more nicely in cases than formerly, but our grains when transported in bulk are still subject to very objectionable exposures. Cheese is systematically put through a course of decay until

some of it, like the famous Limberger, "stinks goot." We have not yet revived the decayed-fish sauce which the Romans called garum, but we have our doubly-decayed vinegar; while brandy, the distilled essence of decay, is the favorite appetizer in an endless variety of fashionable dishes.

But all this is a mere bagatelle compared with the floods of decayed damnation that myriads of men are pouring down their throats in all parts of the world. There is scarcely a nation or a tribe but what manipulates decay in some fashion to produce

"ALCOHOLIC LIQUORS."

Yes, this is a dietetic question whether there is any nourishment in alcohol or not. But if any one observes closely how thin the wort is at first, and how completely the little nourishment it contains is decayed out of it, and then how the alcohol is sublimated out of that, he will have very small respect for the strengthening food there is in it. Still, it is often taken with food, and as if it contained nourishment, and in England the rum-sellers are associated under the name of "licensed victuallers," although they sell nothing but drinks. This springs from the fact that formerly this business was usually associated with that of the grocer, and the name has been retained even where the connection has entirely ceased. It is now a Liquor Dealers' Association, pure and simple. But if alcoholic drinks have the character which is claimed for them by their apologists, if they are nutritious or beneficial to the extent of warranting their everyday consumption by all classes of people, the name and the classification are correct.

Here is another illustration of the importance of a theory. There are many thousands of people who justify themselves in their use because they consider them nutritious. They call alcohol "the spirit or strength of the grain," and wine "the essence of the grape." This is frequently owing to their ignorance of the fact that alcohol is always the product of fermentation, or if they are aware of that, they do not recognize the true character of fermentation. Instead of calling it one of the processes of decay and decomposition, and therefore destruc-

tive of nutrition, they call it a product of vegetable life and growth.

The manner in which this has come about is curious enough, and leads us into a realm of theories. Most people have heard about

THE YEAST PLANT,

which promotes decay in sweet liquids and grows in the decaying mass. Exactly how it promotes this decay, the great theorists do not seem to agree; some thinking that the yeast plant takes away a particle of the sugar, and so, of course, destroying it as sugar, and leaving the remainder to get together in the shapes of carbonic acid gas and alcohol, or bringing about the same result by destroying the equilibrium of the constituents of the sugar as if they were shaken. But one of the popular ideas is that yeast is supposed to produce alcohol as a tree produces fruit, instead of leaving it to be formed by chemical action. This seems a small matter which might safely be left to the theorists, but we find it makes a great difference when they come to talk about the value of alcohol. This makes it at once the product of life and growth, a "good creature of God," and therefore suitable for our use instead of leaving it to its own downward course as one of the results of decay and decomposition, and it does make a practical difference in the earnestness and thoroughness with which men of philosophic cast of thought prosecute or promote the prosecution of primary temperance work. They object to our telling the children that hard cider is just decayed apple-juice, though we have found this one of our best arguments; and when coupled with the further truth, that alcohol is always the product of decay, it gives the children one of their best reasons for avoiding the use of cider, that first stepping-stone to so much drunkenness. When they go further and tell us that the ripening of fruit is a sort of fermentation, and then again, that fermentation of cheese is a sort of ripening, we see the power of a wrong theory to confound the simplicity of truth. Where, now, is the plain boundary line beyond which we should not go with regard to things eatable? When are they at their best? and when do they arrive at that condition of decay beyond

which they are no longer eatable? If ripening is fermentation, and decay and decomposition are stages of growth capable of producing wholesome food, then are we driven back to the old helpless generalization, "Eat and drink as you please, but for shame's sake don't get drunk." This latter has the advantage of being a very acceptable theory, for nobody believes in getting drunk. And as nobody begins to drink with that intention, it is of course merely a mistake if he does so, and he is not to blame, and the entire matter is left in that state of uncertainty which permits everybody to do as he pleases, and the rum-seller to tempt him.

This yeast plant, small as it is, and insignificant as it may appear, is not only a pretty large factor of alcohol, which is the agent of more mischief to the human race than any other one thing, but the study of its nature and conditions of growth has led to the development of

THE GERM THEORY OF DISEASE,

which bids fair to revolutionize our ideas, in many respects our hygienic care of ourselves, and possibly the entire methods of medical treatment. This holds that many if not all kinds of disease are propagated by means of seeds or germs, exactly after the fashion of the propagation of plants—the ferns, we will say, whose infinitesimal spores float unperceived in the air. While many people unaccustomed to correct hygienic ideas will direct all their efforts to killing the spores or preventing their propagation, others, and we predict a gradually-increasing number, will turn their attention to the cultivation of vigorous hygienic conditions in themselves, so that these germs of disease can not find in them any favorable conditions for their development.

With the progress of improvement in all directions, we see more and more the necessity for right theories, if we would do effective and permanent work. The science of astronomy made very little progress until we obtained the right theory of the movements of the heavenly bodies and their relations to each other. In the Temperance work much was done in the way of bringing to public attention the evil results of drink, but no firm footing in the way of a remedy

was found until the theory of total abstinence was promulgated. And total abstinence can not be made to prevail until the people are convinced that they as individuals are better off without the drink than with it; that, in spite of their feelings, even a little hurts them every time they take it. And in like manner people will continue to injure themselves by bad eating until they learn the *principles* which should govern them in the selection and preparation of their food; and all these facts demonstrate the importance of correct theories.

JULIA COLMAN.

THE WAY TO RELIEVE DIFFICULTY OF BREATHING.—In cases of difficulty of breathing, the bystanders commonly raise the sufferer to a sitting position and allow the head to bend forward, and by so doing, they increase the difficulty. Dr. B. Howard, in a communication to the Royal Medical and Chirurgical Society, points out that there is "an anatomical remedy against respiratory obstruction." This remedy is very simple, and may be described in one word—position. Raise the chest, and let the head hang back as far as may be. The effect of this position on the respiratory apparatus is described in anatomical detail by Dr. Howard; but under all the words rests the simple fact, "that complete extension backward of the head and neck should be the first and instant measure in threatened or actual apnoea, both as a remedy and as the first step toward success in artificial respiration."

SAGO FRUIT-CAKE.—Scald one cup of Indian or yellow sago with three cups of boiling water, and let it stand half an hour. To this add three cups of rich, tart apple, chopped; one cup of blanched Malaga raisins, the juice and pulp of two lemons, and sugar to the taste—say one cup. Mix intimately, place two inches deep in an earthen pudding-dish, and bake forty minutes, or until the apple is well cooked. Take out, and when quite cold, cut in slices, and these in squares, and serve as cake. It can also be baked in little patty-pans in less time. This will do for a Thanksgiving or Christmas dessert.

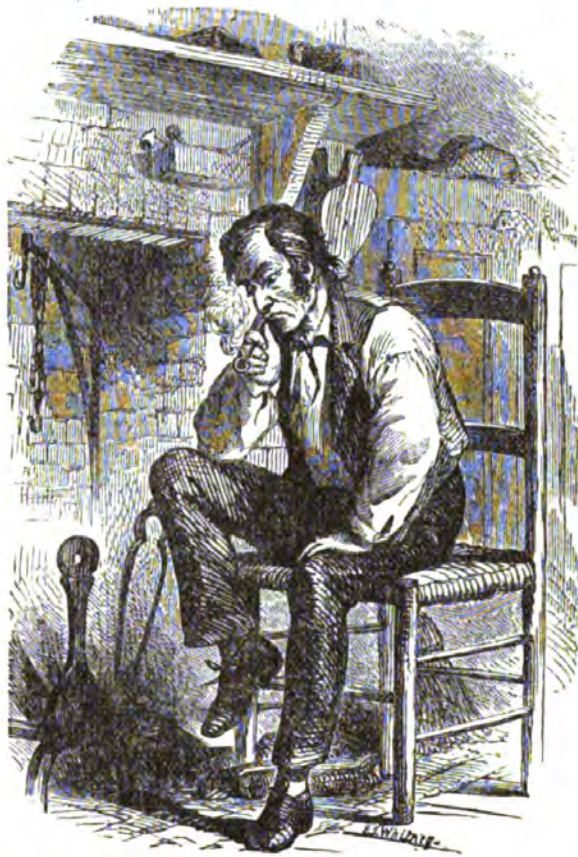
TENDENCIES OF TOBACCO.

Exitus acta probat.

THIS Latin sentiment, which means, the end or result proves the act, was frequently quoted by Washington. We think that its application to some of the common acts or habits of men would be condemnatory. Take, for instance, the habit of using tobacco. Certainly the effects inevitably experienced by the persistent user do not indicate its possession of a beneficial property. Sickness, disease, follow its unnatural stimulation and its subtle poisoning. These unfit the man for the performance of the labor and service which society rightfully expects from him, and ultimately he sinks into the ranks of the great army of wretched incapables that burden society and obstruct the activity of the temperate and industrious.

The young man in the beginning of his cigar practice, sees in it only an aid to pleasant companionship and physical enjoyment; he flouts the idea of moral or physical injury. Point to the wretch whose highest aim is to count one in the circle that haunts yon filthy dram-shop, and tell the youth that not many years ago he who is now a sot only smoked a cigar or two a day, and looked forward to a bright, successful future, and he will flippantly reply, "I'm made of different stuff from that." It is for the sake of good-fellowship that the young man smokes; but ere long he is found in private puffing the cigar for its own sake as a gratification of appetite. But the law of abnormal stimulation does not stop here. In time the cigar is insufficient; wine, brandy, whisky, gin, are resorted to perhaps, in turn, to allay the excitement of a deranged nervous system. How easy the transition from tobacco to alcohol. The young man finds them associated at the gilded bar of the hotel, in the saloon, and good-fellowship is as ready in its proffer to treat in a drink as in a smoke. Some men, to be sure, have used

tobacco for years without becoming drinkers, but they are usually of the taciturn, moody sort who, like the man in the picture, find sufficient companionship in their old pipes. People generally don't like them, so that they are left to themselves, and as they persist in their tobacco, they grow more crusty and grum, the accumulating ills fostered by their habits strengthening their



bitterness of temper. Such men are to be pitied, because of their isolation and approaching wretchedness. While they are able to work, their "temper" is usually excused on account of steadiness and competence as workmen; but when rheumatism or paralysis suspends their industry, a cloud of wretchedness settles down upon them, and they whom charity or ties of family call to their help, do not receive much grateful consideration.

OUR GIRLS.

THEIR IGNORANCE AND OUR CRIMINAL NEGLECT.

HOW very foolish and inconsistent we are ! We teach our girls from their very babyhood that marriage is the one end and aim of their existence. The unkind and contemptible epithet, "old maid," is a term of reproach second only to fallen woman. Our girls are taught substantially that it is better to be the wife of a dissipated debauchee than to be unmarried under any circumstances. Marriage rightly understood and rightly entered upon is the highest, the completest form of existence, and, therefore, it brings happiness unutterable. But better—a thousand times better—little girl, that you go through life alone, earning your bread in the humblest way, than that you yield your young, fresh womanhood, encasing a pure soul, to the foul touch—the contamination of a confirmed profligate. The mistake is in making honor, purity, and integrity subservient instead of essential to marriage—the highest duty and the holiest responsibility which any man or woman can assume.

Our strange inconsistency and absurd folly lie in the fact that while we teach our girls that to be a wife and mother is the chief object of their existence, we allow them to enter upon the tempestuous sea of married life in utter darkness, without chart or compass, in entire ignorance of their course or the dangerous shoals which we know lie directly in their way. Can we wonder that so many thousands are wrecked ?

The laws of marriage broken and trampled upon, whether ignorantly or willfully—for Nature knows no mercy—become each as the sting of a scorpion in the misery that swiftly and surely follows. And yet fathers and mothers allow their children to begin the new life without the remotest knowledge of its duties, its responsibilities, its errors, or its laws.

From the girl's infancy up to maidenhood, all her questions concerning sexual life and the mystery of reproduction of which she has much instinctive knowledge, are flippantly answered or sternly hushed.

All books on the subject are hidden from her. All knowledge is given to her fully and freely, save this knowledge of her own womanhood—the most important of all. Physiology on all the rest of the human system, except this, the most vital and essential to perfect health and the noblest ideal of womanhood, is carefully studied in some of our common schools.

By and by a new era dawns. The child is becoming a woman. New instincts, unknown experiences, wondrous desires, strange deep yearnings fill her heart and thrill her to the innermost depths of her soul. A continued weariness, a constant exhaustion, an inactive listlessness pervade her entire being. Nature requires the whole force of her vitality to work the mighty change. All around her see the revolution in her system and understand its meaning. The girl herself suffers intensely, wondering what the strange feelings mean. She little dreams that the beautiful power of motherhood is being ushered in. In her lonely silence she so longs for a word of sympathy, and vaguely tries to pierce the mystery that surrounds her. Instinct teaches her that in some way it is all related to womanhood. Her mother has repelled all questions and confidences on the subject as often and regularly as asked or given, and the thought of telling her of this phenomena is full of terror. She goes to her schoolmates and asks them for their experience and information. As ignorant as herself, they can only relate their surmises ; their little, but keen observation ; their vague connection of the change with reproduction, and that is all. As to taking care of herself in regard to food, weather, work, or clothing, she knows nothing.

All this her mother could make right by saying to her at the age of twelve years ; "My darling, in a year or two a wonderful change will come over your life. It will affect you physically, and, therefore, mentally. When anything strange comes to you, make a confidant of your mother. I will explain it all to you. It is God's preparation for

motherhood." Could anything be purer or more beautiful?

Many long years ago, my mother in low, earnest, tender tones spoke those words to me—a mere child. I shall never forget them. In an instant I comprehended her, and new reverence and love for her filled my heart. My mother came closer to me in my very soul-life and gained a new hold upon my affections and my confidence. I loved her before; now she was next to God in my childish worship. Oh, mother! To-day, with the sacred duties of womanhood bearing upon me, I thank you for the wisdom and love shown in those words which gave me a *mother* at the crisis of my life. I was safe. I was care-free. I could tell mother, and mother knew.

It is absolutely cruel that children, and especially girls, in whose womanly development there is so much pain, should be enveloped in this cloud of ignorance. The child-woman comes through this stage as best she may—many a girl laying the foundation for years of disease and pain, because, ignorant of the laws of her new existence, she heeds them not. Her food, which should be of the most nourishing and strengthening character to sustain her under the new demand upon her system, is often of the most injurious. Meats, milk, butter, and eggs, vegetables and fruits, plainly but appetizingly cooked, together with whole-wheat bread, constitute the most nutritious diet. But how often a school-girl's bill of fare consists of highly-seasoned viands, tea, coffee, pie, cake, rich pastry, pickles, candy, and—slate-pencils.

As a result, indigestion and constipation follow, and if allowed to fasten themselves upon the now delicate system, many and complicated are the consequent diseases. Every girl, too, ought to be told that at the menstrual period, greater care should be exercised in regard to taking cold. Many a young life has been cut short by the apparently trifling incident of cold bathing or wetting the feet, and many more have suffered the horrors of uterine disease from the same cause.

Again, when this new life is being developed, the work should be lessened; all

straining and heavy lifting avoided, and too violent exercise prohibited. Work and play should be moderate, as excessive fatigue, physical or mental, is injurious in the extreme. Rest and sleep should be very abundant, as is shown by the lack of energy and the wearied inertia of the powers.

But the average American girl at that age, besides the home-duties, the hard, mental study of school-life, is also pushed into society, and late hours and excitement complete the physical strain, and only because our girls have such marvelous vitality and magnificent powers of endurance, do they ever recover from this violence to Nature.

To complete the impediments to her development, her clothing as commonly worn is perhaps the most hurtful that could be invented. The muscles of the abdomen, soon perhaps to be called into action, need free and constant exercise to strengthen them for their new duties. Instead they are bandaged by tight corsets, in which free exercise is absolutely impossible. Even the normal shape is lost by the compression, and the ligaments weakened so much by the pushing downward by the weight of the clothing, that disease, whose agony only its victims can know, becomes almost inevitable.

A well-known writer has thus spoken against the evil of stays: "They impede the circulation of the blood; prevent the development of the bust; retard the functions of the heart; weaken the stomach, the bowels, and the lungs; hinder the free action of the liver, and compress and push downward the internal organs, resulting in female complaints without number." Girls not knowing these laws break them daily. How can we wonder at the vast amount of disease among them. Were woman physically what she should be, the world would be startled by the giant force of her intellectual and moral power. Weak and unsound as she is, her attainments in the last thirty years have been stupendous. In perfect health she would indeed be invincible. A marvel now, she would then be a miracle.

Between the ages of thirteen and eighteen her love-nature awakens and develops. In-

expressible yearnings, indefinable experiences fill her soul. She finds she has a wondrous capacity for loving and being loved. Guided by a wise mother, this love-nature may be developed and trained to grow naturally, slowly, but deeply into the grandeur of womanhood. This intense current of feeling must be taught to flow in its own proper channel, not repressed or retarded by unnatural barriers to social freedom with the other sex, nor unduly stimulated by rich food, idle habits, impure thoughts, evil literature, late hours, and improper associates, but allowed to flow with only Nature's gentle restraints of wisdom and prudence which a mother's experience can surely provide. The love-nature, like the physical, mental, or moral, is not mature at its birth, and like them needs to be developed, trained, educated.

At the age of sixteen, all children feel in the depths of their hearts that a new epoch in their experience is opening. They are living in a strange existence and breathing another atmosphere. The new life pulses in every vein, quivers in every fiber, sends the blood surging and dashing in waves of red from heart to cheek and brow, tingling to the very finger-tips under the touch of love or friendship. It is folly—yes, worse than folly—it is criminal to attempt to stifle this new life. The power once born can not, should not ever again be rendered dormant. This mighty unseen force should not be ignored. If crushed, you crush manhood and womanhood. But crush it you can not, except it be for a time. Like the ungratified appetite for food, the sexual appetite breaks forth in violent vehemence and preys upon its own life in self-abuse or unlawful intercourse, as one starving draws upon his own blood.

Our land would not be flooded with brothels, supported by licentious men, over whose iniquity and shame angels and mothers weep, were this sexual love-nature recognized and developed aright. Oh, mother! you whose very heart has shivered in agony because your "little girl"—she who once nestled on your breast, has been betrayed, and then from sheer necessity has taken to a life of shame—to *you* be-

longs the blame, that ignorant and innocent, yet trusting and emotional, she became an easy prey. Had you warned her of the danger, and at the same time satisfied this desire for society of the other sex in proper methods, your little one had not gone down to a life a thousand times worse than death. The love-nature, which can not be separated from its sexual instincts, for they are indissolubly joined, is right and natural, given by God, and the modesty which shrinks from the reasonable discussion of sexual physiology is false in its nature and fatal in its effects.

In this regard, how false is the education of our youth! While teaching them all other knowledge, we leave this, the most vital and necessary—the knowledge of themselves—obscured in mystery and clouded in shame. None could favor a wider scope in the education of woman than do I. I believe she has the right to follow whatever profession her talents, her fitness indicates—be it theology, law, medicine, art, music, navigation, statesmanship, or whatever other avocation in the world's wide domain of work she cares to pursue. Whatever she *can* do, no human law or custom of sex should prevent her doing. She should have the same freedom of choice and the same educational facilities which her brother demands. But, besides being a woman, she is to become a wife and mother; besides being a man, the boy is to become a husband and father.

Both should be trained, educated, and developed physically, mentally, and morally; not only for manhood and womanhood, but for marriage and parentage. More especially should girls be taught early this knowledge, for to the mother belongs the larger share of influence over the child. Her organization, her health, her temperament, her habits of life, from her own childhood up to the time when her child ceases to draw its life from her breast, affect more or less the very organization, the temperament, the health, and the talents of her children. The girl who at the age of fourteen has not been taught the laws of her own body, of the peculiar care her health at that age demands, and ignorantly makes a mistake.

may thereby not only entail years of suffering upon herself, but her children and her children's children may be blighted by the sad error.

Can there be more responsible duties than those of motherhood, when the very impress of the mother's mind and health, the conditions consequent upon her clothing, her food, her exercise, her work, have their influence in determining and developing not only the health of her child, but its mental and moral caliber, its disposition, its very life, even forecasting its future to the grave and its destiny beyond—before the tiny lungs have expanded in their first breath.

Pre-natal laws and influences are mighty forces for good or evil, and yet our future mothers know almost absolutely nothing even of their existence, much less understand how their mistakes, even in childhood, but especially after having accepted the sacred position of wife and mother, may blight a little life; aye—many, many lives.

I think I am fully substantiated by medical authority, when I say that nine-tenths of the agony which mothers suffer might be

averted if they only knew the laws of their own systems. It is the wail of suffering womanhood coming up in an appalling chorus from thousands of hearts all over our fair land: "If I had only known!" Ah! if you had spent only one-quarter of the time and money in studying the prevention, which have been lavished toward the cure of disease, yourself and children had not been sacrificed.

And yet a false, and, alas! a fatal modesty stills the tongues and closes the mouths in silence of those same mothers, and they calmly allow their daughters to pass through this dangerous crisis of their lives without a word of warning, knowing they must in consequence endure untold agony in maternity which they might save them. Many and many a coffin over which our tears fall thick and fast, while we wonder in doubt and despair why God should so have bereft us, should have written in startling capitals on the silver plate over the pulseless heart, not "The Lord hath given and the Lord hath taken away," but the one word—*Ignorance*.

MADAME CHARLTON EDHOLM.

NOTES IN SCIENCE AND AGRICULTURE.

Phenomena of Friction.—Professor Thurston, of the Stevens Institute, read a paper recently before the American Association for the Advancement of Science, entitled "Friction and its Laws, Determined by Recent Experiments." He quoted the generally accepted law of friction, as stated in the text-books, as follows:

"The resistance offered by friction, where two bodies forced into contact slide one upon the other, is directly proportional to the pressure, and is independent of the area of the rubbing surface, and of the velocity of rubbing."

This law, the professor said, although approximately correct for sliding one upon another, provided no abrasion takes place, is quite incorrect beyond that limit. It is also entirely incorrect as applied to lubricated surfaces. In this case the resistance follows an entirely different law.

Where two rubbing surfaces are lubricated with oil it is obvious that, from their being separated by a thin, fluid film, the resistance to the relative motion is not due entirely, even if at all, to friction of solids, but must be produced by the resistance of fluid to molecular disturbance, since, with good lubrication, the solids are kept apart and out

of contact with each other by an interposed film. It is, therefore, evident that the resistance to motion must follow a law intermediate between that governing the friction of solids and of fluid friction—approaching the latter more closely as the lubrication is more perfect and the separation of the solids is more complete. Under such circumstances, two limits may be noted to the law governing resistance under ordinary circumstances.

1. When the pressure is made excessive, the unguent is forced out, and the solids come in contact, abrasion occurs, producing a sudden and great increase of resistance.

2. When the pressure is diminished a limit is finally reached at which the resistance to motion is due to the viscosity of the unguent, and this is still effective, even when the rubbing parts are relieved of all pressure.

The law of variation of resistance is then that of fluid friction merely. Speaking of friction with varying motions, Professor Ewing had suggested that there probably existed a law of increase of friction with decrease of velocity, which holds good throughout the whole range of velocities down to zero of motion, when the coefficient of friction of motion changes by a continuity of variation into that for starting from rest. The writer,

however, found the change from one condition to the other to occur very suddenly, and at all ordinary speeds, at the instant of coming to rest; and the friction at the instant of stopping is always much below that of starting, although greatly in excess of that for motion at all speeds in ordinary work. A great variety of tables were submitted, illustrating the amount of friction under various conditions. It was shown that the variation of pressure produces a very great change in frictional resistance, as measured by the coefficient. A diagram of a machine devised by the writer was shown, with which it was attempted to secure means of placing the lubricant under precisely the same conditions of actual service at all times, and at the same time to provide facilities for observing its behavior and of obtaining exact data.

Experience in Fruit-Raising.—

Dr. E. W. Sylvester, of Lyons, N. Y., read a paper on "Fruit-growing" at the fair held at Elmira last fall, in which he said he bought his farm of one hundred acres twenty-six years ago and planted out the first year 1,100 fruit trees. During the last ten years the average money received each year exceeds the purchase-money paid for the farm and buildings; or, in other words, the fruit has paid the original cost of the farm ten times over in as many years. Croakers said at first he would never live to eat the fruit of the trees he planted, or, if he did, apples would not be worth over fifty cents a barrel. But he has lived long enough to gather a thousand barrels in a season; to make sales of pears at \$15 and \$18 per barrel and apples at \$4 to \$10 per barrel; the average apple rate for the last twenty years having been \$2.25 per barrel. With labor and other expenses as at present, apples at one dollar per barrel will pay better than most farm products. The export demand for fruit is yearly increasing. Last year 396,000 barrels of apples went abroad, and this year it is likely to exceed half a million. There were 14,318,052 pounds of dried fruit exported, and there was also a million dollars' worth of canned fruit. The doctor fully believes that fruit-growing has paid, does pay, and will pay all the way down to the millennium, and then folks will live on fruit altogether.

The Light of Venus and Mercury.—A singular and most unexpected discovery was made at the near approach of these two planets in September last by Mr. James Nasmyth, an English astronomer. It remains to be seen whether photography or spectrum analysis will some day give us the key to the enigma. The fact was then first distinctly observed that there is a great difference between the degrees of brilliancy emitted by these two planets; and that, while Mercury being much nearer the sun should be more brilliant, just the contrary happens, for Venus shines with the greater lustre. On the 26th and 27th of September these two stars were near enough to be embraced

within the field of the lens at the same time, and Mr. Nasmyth was thus enabled to compare the brilliancy of Venus to polished silver, and that of Mercury to lead or zinc. The reason of this difference, which is theoretically exactly contrary to what we should expect, is at present unexplainable.

Solidified Hydrogen.—By the success which has been obtained in liquefying the gases thus far supposed to be permanent, it appears certain that not only liquefaction, but also solidification has been achieved.

Pictet, in a very recent experiment with hydrogen compressed at 650 atmospheres, found, on opening the stop-cock, that the gas issued with a noise like that of a hot iron bar under water, and it had a steel-blue color. The jet suddenly became intermittent, and then there followed a sort of hail of the solid particles of hydrogen, which fell with violence on the ground and produced a crackling noise. Afterward the stop-cock was closed, and there was evidence that a crystallization of hydrogen took place within the tube; but when the temperature was again raised, the gas issued as a liquid.

M. Dumas, the President of the French Academy of Sciences, accepts these facts as full of confirmation of the theory long ago advanced that hydrogen is a gaseous metal. As water is an oxide of hydrogen, it follows from this that when a person drinks a glass of water, he imbibes a metallic oxide. *Nature*, in mentioning these performances, coupled with them another, which it regards as yet more remarkable from a scientific point of view. M. Pictet has been able to measure, with a very close approach to accuracy, the volume occupied by a given weight of oxygen in the liquid state. This was found to agree with the volume calculated for the solid or liquid gas on theoretic considerations by M. Dumas. By means of two Nicol prisms, M. Pictet observed the jet of liquid oxygen in polarized light, and found strong evidence of the presence of solid particles.

As in the chemical nomenclature the final ending "um" has been adopted for all metals, it is proper to call this metallic hydrogen, "Hydrium," a name which has already been used by the latest authors of German text-books of chemistry, even before hydrogen had been liquefied or solidified.

Profit of Timber Culture.—Sixty years ago, a farmer in Monmouth Co., New Jersey, planted with locust trees several acres of untillable land. The result of that planting, as related in the *Gardener's Monthly*, is a good lesson in rural economy. Years ago the trees first set out were cut down, but the second growth quickly covered the ground, and last year this second growth was cut. This timber was worked into farm-fence posts, garden-fence posts, and fence-stakes—the whole worth about \$2,000—the cost of cutting being offset by the fuel-value of the tops, which were unfit for other uses. One grove, thirty-seven hundredths of an acre in

area, yielded 1,400 "five-hole posts," 105 garden-fence posts, and 200 fence-stakes. At this rate, the product of an acre would be about \$1,500.

Deterioration of the Potato.—Mr. William Hunt said lately before the Connecticut Board of Agriculture that the deterioration of the potato in this country is due to two causes:

"The first is, that, though the best specimens of all other crops are saved for seed, in the case of potatoes the best are sold, the next best used in the family, and the remainder—the refuse, the deformed, the discolored, the immature—are planted, with the expectation that the very worst will produce a full crop of the very best. In such a lot of seed there will be hundreds that bear no resemblance to the original; and, looking over a field planted with such trash, one may find hills in all stages of growth—some ripe, and others that will grow till killed by frost. I have counted twenty varieties on a single acre, of all colors and forms; all the product, originally, of the Early Rose. Now, seed saved again from such a crop will have reached its end, as far as profit is concerned. And, to make the thing still worse, this seed is almost always produced by poor crops in which the habit of unfruitfulness has become constitutional. This latter fact has never received from cultivators the consideration to which it is entitled; for it is of great, very great importance, and no seed should ever be saved from an inferior plant, or from other than a full crop. A growing potato plant, before it has put out any side branches, sets from four to six tubers—generally four. These will be the largest, most perfect in shape, and the best ripened of any in the hill, and will contain more natural vigor than smaller tubers. As soon as the plant puts out side branches more tubers will set, which are connected with these side branches and fed entirely by them; but, as they are of later growth and less vigorous than the parent stem, so the tubers are smaller, weaker, and less mature. As the season advances other side branches are started, less robust and leafy than the last, producing still smaller tubers. These are the ones among which 'sports' are generally found, and from which mongrels are propagated."

Bioplasm, its Nature and Function.—Among the recent discoveries in science, none perhaps will prove of more utility to man than those relating to bioplasm, because they throw light on physiological questions, particularly those concerning the construction and nutrition of the body and the causes of disease. It was formerly supposed that our bodies were alive from top to toe, inside and out; but this is found to be a mistake. Only about one-fifth part is alive; the rest is formed material. Everybody knows that a tree may become so hollow that only a shell is left; yet the tree may grow and mature buds and leaves and fruit.

It is because the outside of the tree—the bark—is alive; the wood is non-living; it is simply formed material. Now the body is not like the tree—alive only on the outside—but the living portions and the formed material exist together in every part, in every tissue, organ, and vessel. A slight abrasion of the cuticle or the rupture of a cell is followed by particles of fluid which were formerly overlooked as of no account. But the microscope has revealed to us that this apparently useless, insignificant ooze is the vital, living part of the body—it is *bioplasm*. This is the mechanic, the skilled artist, that constructs the cells, builds the organs, and, perhaps, under the direction of a higher power, adapts each part to one harmonious whole.

For the last fifteen years, certain English and German physiologists have spent much time with the microscope, watching this little workman. They have seen it forming tissue, muscle, and nerve, changing food into blood, making the secretions; and, as parts of the body became worn and effete, silently disintegrating and utilizing them, or removing the useless parts from the body. The first decided knowledge of bioplasm came by accident (if finding a thing we are searching for can be called accident; is it not rather revelation?), by ascertaining that when a piece of live tissue is immersed in a solution of carmine, the bioplasm is stained and the formed material is not stained. This discovery has enabled observers to find and watch this little workman, while busy in constructing every part of the body. Bioplasm is the builder not only of the body, but of all animals and plants. To it, every organized form, whether animal or vegetable, owes its formation and growth. Bioplasm is a clear, colorless fluid, like thin mucus. Only microscopes of the highest power are of use in studying the substance, for the largest normal masses are not one-thousandth of an inch in diameter; but such microscopes fail to detect in it the least sign of organization. Yet this apparently unorganized substance is the cause of all organization. It is a medium through which dead, inorganic matter becomes living, organized. — *Journal of Chemistry*.

An Arizona Fiber Plant.—According to the *Arizona Sentinel* a plant grows wild in large quantities on the Colorado river bottom which contains fiber of high value. Specimens have been shipped East, and they are said to have excited great interest among the manufacturers of fine fabrics in New York and New Jersey. It is said to be in every way superior to ramie, and dresses up with a finish equal to that of the finest silk. The specimens of the fiber shown at the East, and also sent to Europe, were five and six feet long, and by their beauty, strength, and length, created quite a furore among certain wealthy manufacturers. A botanist has been sent out there and is now traveling on the river gathering specimens for classification, estimating areas covered by the plant

in its natural growth, and examining into the feasibility of its profitable gathering or cultivation for commercial purposes. The Southern Pacific Railroad Company takes an active interest in this matter, and is lending material assistance toward its investigation. The plant forms dense thickets on the river-bottoms, growing to a height of four to seven feet in stalks little larger than a lead pencil. Its roots are very tough and so matted together that it takes at least two yoke of oxen to draw a plow through them.

Vegetable Milk.—Among its exhibits the Venezuelan Government sent to the Paris Exposition several flasks of what is called vegetable milk. These having been carefully analyzed by M. Boussingault, he makes the astonishing statement that this fluid, in its constituent parts, is not only greatly like cow's milk, but in some respects is a decided improvement on that article. It contains fatty matter, sugar, caseine, and phosphates; but the relative proportions of these substances are such that the fluid has all the richness and nutritive qualities of cream. The trees, of which this is the sap, grow upon the sides of mountain chains in Venezuela. The Indians go each morning to the trees nearest to their settlements, and cut in them deep incisions, from which the milk pours out in such quantities, that in an hour or two quite a large vessel is filled with the fluid. This is taken back to the village, and forms a staple article of food for both old and young. It is singular that the rare virtues of this plant have never before been made public; but now that they have been, it will be stranger still if some effort is not made to extend their usefulness. As long as cow's milk can be obtained at every corner grocery for a few cents a quart, it will hardly pay for any one to send to South America for a supply; but if the trees can grow wild in the mountainous parts of the torrid zone, it may be that they are hardy enough to bear transportation to, and transplanting in, colder countries.

Ozone Poisonous.—It is a current opinion that ozone is a healthful principle in the atmosphere, but an inquiring Frenchman gives a different account of it.

M. P. Thénard, in the *Comptes Rendus*, 1877, says that false views prevail among the laity and scientists concerning the action of ozone on the animal economy; for, far from being a remedy, it is one of the most energetic poisons prepared in our laboratories. Especial attention is called to the fact, that, under the influence of ozone, and even when the latter is highly diluted, the blood-cells contract rapidly and change their form. The pulse is retarded so markedly, that, in a guinea-pig, which had a normal pulse-beat of 148, after remaining in an atmosphere containing but little ozone for a quarter of an hour, the pulsations sank to 130. It is possible that ozone may be a means of combating too great an increase of the temperature, but it would be very dangerous to dif-

fuse ozone in the air of an inhabited room, with the false hope of thereby removing the miasm. It is true that our strongest poisons may prove to be the best remedies in suitable cases; but it is first necessary to learn how to use them, in order not to be deceived as to the proper moment of their application and the dose. The author asks further, "Are we indeed certain that ozone exists in the atmosphere?" Its presence is recognized by the aid of a strip of paper, the color of which is more or less changed by contact with the air. But how do we know that this change is not produced by some other matter in the air, which modifies the paper in exactly the same manner as ozone? Wittmann conducted an air current through the flame of a blast lamp, and obtained an air which acted on ozonometric paper in exactly the same manner as ozone. While this air disinfected stagnant water, without giving it an acid reaction, ozone did not disinfect it, and rendered it acid. It is also known that ozone, at a temperature of 200°C., has no stability; while the air modified by Wittmann was exposed to a temperature which softened the glass. The question of the presence of ozone in the atmosphere, as well as of its activity, is not yet settled, and new investigations are necessary for the accurate determination of the facts.

"MOTHER'S FOOL."

"'Tis plain to me," said the farmer's wife,
 "These boys will make their mark in life;
 They never were made to handle a hoe,
 And at once to college they ought to go.
 Yes, John and Henry, 'tis clear to me,
 Great men in this world are sure to be;
 But Tom, he's little above a fool—
 So John and Henry must go to school."

"Now, really, wife," quoth farmer Brown,
 As he sets his mug of cider down,
 "Tom does more work in a day for me
 Than both of his brothers do in three.
 Book learnin' will never plant beans or corn,
 Nor hoe potatoes, sure as you're born—
 Nor mend a rood of broken fence;
 For my part, give me common sense."

But his wife the roost was bound to rule,
 And so "the boys" were sent to school;
 While Tom, of course, was left behind,
 For his mother said he had no mind.

Five years at school the students spent,
 Then each one into business went.
 John learned to play the flute and fiddle,
 And parted his hair (of course) in the middle;
 Though his brother looked rather higher than he
 And hung out his shingle—"H. Brown, M.D."
 Meanwhile, at home, their brother Tom
 Had taken a notion into his head.
 Though he said not a word, but trimmed his trees,
 And hoed his corn and sowed his peas,

But somehow, either by "hook or crook,"
He managed to read full many a book.
Well, the war broke out, and "Captain Tom"
To battle a hundred soldiers led,
And when the enemy's flag went down,
Came marching home as "General Brown."

But he went to work on the farm again,
Planted his corn and sowed his grain,
Repaired the house and broken fence,
And people said he had "common sense."
Now, common sense was rather rare,
And the State House needed a portion there,
So our "family dunce" moved into town,
And people called him "Governor Brown,"
And his brothers that went to the city school,
Came home to live with "mother's fool."

—*Christian at Work.*

Flesh Food and Inebriety.—The theory that the use of alcoholic liquors is closely related to a flesh diet appears to have been corroborated by an English observer, who has been trying the experiment on twenty-seven liquor-drinking persons. A striking instance of reform was shown in the case of a man of sixty, who had been intemperate for thirty five years, and was in the habit of taking a spree about once a week. His constitution was so shattered that he had great difficulty in obtaining insurance on his life. After an attack of delirium tremens, which nearly proved fatal, he was induced to live upon farinaceous food, which, in seven months, entirely removed his desire for liquor, and he became perfectly sober. He lost flesh at the beginning of the experiment, but regained it after two or three months. Among the articles of food mentioned as specially antagonistic to alcohol are lentils, dried beans, haricot beans, and macaroni, all of which should be well boiled and seasoned with plenty of butter or olive oil. Ordinary garden vegetables are said to be conducive of temperance, but much less so than farinaceous diet. The carbonaceous starch contained in macaroni, beans, and oil, seems to render unnecessary, and, therefore, repulsive, the carbon resident in alcohol. This remedy is so very simple that it ought to be tested by men who would break themselves of intemperate habits. The practice of liquor-drinking is a curse to every one who has fallen into it, and to our country; but farinaceous food can not hurt anybody.

Raising Wheat in Drills.—C. E. Thorne gives to the *Farm and Fireside* a brief sketch of results lately obtained in wheat-cultivation:

"An experiment in wheat-cultivation was made on the farm of the Ohio State University during the past season. In a field of thirteen acres, one acre of average quality was sown in drills fourteen inches apart and at the rate of three pecks per acre. The remainder of the field was sown in seven-inch drills, and at the rate of five pecks per acre. The acre sown in fourteen-inch drills was cultivated carefully twice in the spring; first

by a hand-cultivator, drawn by one horse, and next by a long, narrow, "bull-tongue" plow. The ground was left in such condition that it was mellow and clear of weeds at harvest. At that time it was noticed that the cultivated wheat had started out much more than that not cultivated; that the heads were nearly one-third longer, and also that the straw was somewhat worse lodged, while the yield of the cultivated acre was $32\frac{1}{4}$ bushels, against an average of 34 bushels for the whole field; the extra starting and greater length of heads not compensating for the additional number of plants obtained by thicker seeding. In another portion of the field the seed was increased to seven and eight pecks per acre on two plots of one-third acre each. Sown in the ordinary manner in seven-inch drills, the yield for these plots was at the rate of $37\frac{1}{4}$ bushels, against the average above given. The soil of this field was bottom land. Different results might have been obtained on a stiff, upland clay, or under different climatic conditions, for the variations of our soils and seasons are so great, that no one experiment can be expected to establish any fact, and it is only by many repetitions at different times and under different circumstances that we may hope to arrive at conclusions of value.

The Creveling Grape.—This hardy and excellent variety is said to have one objection—the looseness of its bunch; but this is partly removed by the age of the vine, and it appears to do better in some places than in others. In the article on grape-culture in the proceedings of the Montreal Horticultural Society, Mr. Jas. Morgan states that with him it has proved the most productive and remunerative sort. The bunches were large-shouldered, and compact, and in no case straggling. It ripened fully, and readily brought from fifteen to twenty cents per pound in the Montreal market. It requires but slight covering for the winters at that place.

To Make a Hole in Glass.—*New Remedies* describes the following easy method of making a hole in plate glass: Make a circle of clay or cement rather larger than the intended hole; pour some kerosene into the cell thus made, ignite it, place the plate upon a moderately hard support, and, with a stick rather smaller than the hole required and a hammer, strike a rather smart blow. This will leave a rough-edged hole, which may be smoothed with a file. Cold water is said to answer even better than a blow.

A Good Hint.—If you want the strawberry bed that has borne you a good crop one season to bear well the next year, you must work it out thoroughly and manure well as soon as it is through bearing. Don't put it off until the bed is filled with weeds and grass. First plow or spade the ground between the rows, cutting the rows down narrower; then work the rows out well with a fork potato-digger, and scatter in them a good quantity of well-rotted compost, guano, or poudrette. It is a good plan to draw fresh earth in among the plants.—*Fruit Recorder.*



MRS. C. FOWLER WELLS, *Proprietor*.
H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK,
MAY, 1879.

PHRENOLOGY IN LITERATURE.

THE literature of the day, every department of it, from the gravely-toned essay to the lightest quips of humor, contains reflections, allusions, and comparisons drawn from the phrenological system. Take some of the best writers and orators, those whose opinions are current in the mental life of society, and one will find them applying the principles of Spurzheim and Combe to the illustration of their propositions. Emerson, in his beautiful series known as "The Conduct of Life," repeatedly uses the philosophy and terms of Phrenology. James Freeman Clarke, Mr. Beecher, B. C. Taylor, appeal to the formulæ and logic of Phrenology for aid in elucidating their views of character and morals. The Rev. Joseph Cook discusses Conscience and Heredity to his great audiences, bringing into requisition the truths long recognized in the phrenological authors. One of our most sprightly newspaper correspondents, Mrs. Clemmer, owes the accuracy and clearness of her highly esteemed portraits of public men and noted women to her knowledge of Phrenology, and applies its technology with no mincing hand whenever she finds it appropriate.

In a late number of *Scribner's Monthly*, Mr. C. C. Buel describes an old cattle market of New York, and in the course of his detail of the people and scenes which constitute its chief features of interest, thus alludes to a judge of horses whom he met there:

"I can't explain what a real good horse is," said one of the best-natured dealers in the street. "They are as different as men. In buying a horse, you must look first to his head and eyes for signs of intelligence, temper, courage, and honesty. Unless a horse has brains you can't teach him anything, any more than you can a half-witted child. See that tall bay there, a fine-looking animal, fifteen hands high. You can't teach that horse anything. Why? Well, I'll show you a difference in heads! but have a care of his heels. Look at the brute's head—that rounding nose, that tapering forehead, that broad, full place below the eyes. You can't trust him. Kick? Well, I guess so! Put him in a ten-acre lot, where he's got plenty of swing, and he'll kick the horn off the moon."

The world's treatment of man and beast has the tendency to enlarge and intensify bad qualities, if they predominate. This good-natured phrenologist could not refrain from slapping in the face the horse whose character had been so cruelly delineated, while he had nothing but the gentlest caresses for a tall, docile, sleek-limbed sorrel, that pricked her ears forward and looked intelligent enough to understand all that was being said.

"That's an awful good mare," he added. "She's as true as the sun. You can see breadth and fullness between the ears and eyes. You couldn't hire that mare to acc-mean or hurt anybody. The eye should be full, and hazel is a good color. I like a small, thin ear, and want a horse to throw

his ears well forward. Look out for the brute that wants to listen to all the conversation going on behind him. The horse that turns back his ears till they almost meet at the points, take my word for it, is sure to do something wrong. See that straight, elegant face. A horse with a dishing face is cowardly, and a cowardly brute is usually vicious. Then I like a square muzzle with large nostrils, to let in plenty of air to the lungs. For the underside of the head, a good horse should be well cut under the jaw, with jaw-bones broad, and wide apart under the throttle."

One can not help inferring that both horse-man and writer have "looked into" our subject far enough to have obtained a good idea of its application to comparative anatomy.

There are many writers of the Bohemian order who appreciate Phrenology enough to desire now and then to introduce its method into their gossip and speculation, but through ignorance of its philosophy make sad havoc of its principles. We would entreat all such to forbear, and save us and the other advocates of Phrenology the grief and shame of witnessing ignorant abuses and perversions of scientific doctrine. It is in this way that the earnest and competent phrenological teachers are made to suffer much abuse and calumny. In no department of the world's education is the saying, "A little learning is a dangerous thing," more demonstrably true than in Phrenology. No one should presume to apply its principles in the conspicuous walks of literature without having become first well instructed with respect to their nature and practical scope. An hour's skimming of a text-book will not suffice for this. A thorough understanding involves much labored thought in the study, and much observation in the highways of human life.

APPLES DIPHTHERITIC.

A PARAGRAPH has been going the rounds of the press for some months, in which it is stated that a physician somewhere in the universe has come to the conclusion, after much experimenting, and more thought, that the apple has a close relation to diphtheria. On the skin of an apple he finds little fungoid growths which, as he alleges, contain a parasite which is the same or very like that which he has found in the diphtheritic membrane. Hence, he reasons, the numerous cases of diphtheria among children.

Ah, my learned doctor, have you no sympathy for the all-potent affection children cherish for the apple-barrel? Would you crush out so interesting a sentiment from the childish breast? Every family, Doctor, you know, keeps its barrel of apples in a part of the pantry or cellar most accessible to the juvenile fingers, and mother and father and aunt and uncle find many rich occasions of entertainment in the way those childish fingers extract a Baldwin or a Pippin from the barrel, and in the manner of its transfer to the little stomach. Have you no stomach, Doctor, for such entertainment? Must you, raven-like, croak your terrible suggestions of sore throat and swollen fauces, when you behold chubby hands clutching, and little, fat maxillaries munching the luscious pulp? Must the little fellow carry his apple to mamma, aunt, or big sister, and wait with watering tongue and eager eyes for the finishing of the slow process of peeling off the obnoxious fungoid skin? Little do you appreciate, Doctor, in your relentless search for diphtheritic germs, the ecstasy which thrills in the urchin's every member when his sharp little incisors pierce that tough integument. To compel him to wait until his Pippin or Northern Spy has been peeled, and then to

strike his teeth into a mass of spongy, oozy, softness, is to wrest from him far more than half the delight of eating his apple. The resistance of the tough skin is an element in his happiness. Oh, Doctor, have you ever been a frowsy-headed boy? and did your father keep an apple-barrel for your comfort? If so, you would scarcely have that spheroidal fruit wiped when taken from the original package; for you would have experienced the enjoyment of munching it with all its dewy freshness untouched.

But, Doctor, we fear that you have outgrown your tender apple susceptibilities, and that you are far from approving the opinions of your brethren, who have given support to a long circulated statement, that apples are good for the human stomach even to the extent of being medicinal, tending to drive away those bilious humors which sometimes engorge our liver, and weigh down our spirits with a thousand morbid sensations. We had thought, Doctor, that no blue-pill, however faithfully compounded, could equal the apple's resolving and tonic effects, and we have warmly applauded your dissentient brothers for their approval of the apple, even if they did give a medical twist to their utterance in its behalf. But, Doctor, if you persist in your diphtheritic notion, we shall feel almost compelled to drive a nail into the chime of our apple-barrel, and hang a cloth thereon, and particularly enjoin the girl and boy of our household to wipe their apples before consigning them to their alimentary limbo. That girl and that boy must have apples; we insist that the barrel is open from August to May, and as yet the fungoid terror has not revealed itself. Somehow or other we are inclined to think that our children's natural mania for apples has an exorcising effect upon the demon.

A GOOD TURNING.

WE notice lately a change of opinion on the part of sundry representatives of the religious press with respect to the treatment of convicts. Not long since, the policy of kindness, moral training, and religious development, as advocated by a class of social reformers, was sharply criticised and even ridiculed, and its advocates termed visionary and without discernment concerning the purpose and end of penal law and prison discipline. It was claimed that offenders against social and moral order should be punished, *i.e.*, made to suffer for their offenses, and that mere imprisonment did not fill up the measure of true punishment. Now the tide has turned, and opinion leans to the side that criminals are such mainly because of their birth, organization, and lack of training, and that the prison should afford them the means for moral and intellectual development.

About a year ago a prominent denominational paper attempted to hold up to ridicule an article or two we had published on the subject of prison discipline, and characterized our views as weak, namby-pamby, impracticable, and tending to foster the dangerous classes. Within a few weeks that same paper has published two or three sketches in which those views, once in its editorial periscope so obnoxious to order and progress are urged with much warmth.

"It is Christlike to minister to these perishing sinners," one editorial letter has it; and further: "Very sinful they are, but because they are so sinful, so much the more they need our aid. Because they are sinners, they are our brothers, for we are sinners too."

THE PLAGUE IN EUROPE.—Last year it was a general war that was the black cloud on the horizon of European affairs. This year it is an epidemic, which has already made fearful inroads in some parts of South-eastern Russia. The doctors are powerless before it. Virchow asserts that it is no worse than the cholera, but its treatment is yet to be ascertained. Meanwhile, vigorous measures are being set on foot by the nations for a rigid quarantine, to prevent its dissemination.

INSTRUCTION IN PHRENOLOGY.

TEN thousand people are feeling the need of a better knowledge of human nature and human character, and not a few of these are anxious to take instruction in character-reading, at some expense of time and money; while some are resolved to make themselves thoroughly familiar with Phrenology, physiology, and physiognomy, so as to qualify themselves to preach, practice the law, or teach, or work successfully in other fields. It requires years to learn to make properly a wagon, a set of harness, a ship, a house, or to buy and sell goods wisely, or manage any business which involves risk and responsibility. It takes years of study to learn the science of medicine or law. It is not strange, therefore, that few persons understand human character.

In consequence of this need the American Institute of Phrenology was organized, and for the express purpose of teaching human science according to its latest developments and the fullest knowledge that is possessed on the subject. The Institute has annual sessions. That for 1879 will open on the first day of October next and continue for about six weeks. It is desirable that students who expect to enter should be present on or before the day of opening, since no lesson is unimportant. We notice in the progress of a course of instruction, that if a student from any cause is absent, he seems to have "dropped a stitch," and it shows all through the course; there is a blank spot in his knowledge.

The aim is to prepare students for lecturing on Phrenology and physiology, and for practicing mental science as a profession, although one-half of our students attend as a means of general culture, and to fit them the better to perform the duties of their professions and vocations. Over two hundred men and women have received the instruc-

tion of the Institute of Phrenology, and the importance of such an establishment is daily becoming more and more evident. Its managers hoped ere this to have possessed a building specially fitted to carry on their work, but the stringency of the times has been their chief obstacle. The Institute has many earnest friends, and with their help we hope yet to accomplish our object. No training afforded by the ordinary schools approaches that to be had in the Institute, because this science teaches human nature, and every profession has to deal with human character in some way, and he who understands the science of human character can most successfully relate himself to the world in general. As man is one great feature in all worldly affairs, he who understands him best will best fulfill his duty.

Any person who would like to obtain special information in regard to the course of study referred to, may write for a circular of the "American Institute of Phrenology," and address S. R. Wells & Co., 737 Broadway, New York.

"I NOTICE, said the stream, "that you grind beans as well and as cheerfully as fine wheat."

"Certainly," clacked the mill; "what am I for but to grind? and as long as I work, what does it signify to me what the work is? My business is to serve my master, and I am not a whit more useful when I turn out fine flour than when I make the coarsest meal. My honor is not in doing fine work, but in performing any that comes as well as I can."

THE wise man who writeth to newspapers for information for his own behoof, encloseth a postage stamp for reply, and is informed; but the fool discerneth not the value of a governmental adhesive plaster, and remaineth in darkness.—*Exchange*.

Our Mentorship Bureau.

"He that questioneth much, shall learn much."—Bacon.

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.

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. Anonymous letters will not be considered.

MIND COMMUNICATION.—J. W. G.—You ask for the cause of the Impressions which one mind receives from another when a considerable distance may intervene between them. We must confess our inability to answer your question. People talk about "brain waves," "mind force," "psychic force," etc., but they simply invent names without giving any satisfactory elucidation of the process. In fact, we doubt the ability of any man or woman to explain it now, but at some future day we may be able to reach its resolution.

WARTS.—The beginning of the growth of warts is due to obstruction which prevents the free action of the excretory organs. This obstruction produces a thickening of the tissue. The process is somewhat like that observable on trees. Owing to some injury the bark becomes diseased or damaged, and the juice, or sap, by its unnatural exposure to the atmosphere, undergoes a chemical change, and a growth is produced which becomes in time a mass of hardened tissue—a kind of fibrous or cellular tumor in the tree. One frequently sees these growths; their forms are much varied, and by no means conducive to the beauty of the tree. Careful treatment with chromic acid will remove warts.

CONSTRUCTIVENESS.—*Question:* If this organ is located in the temples, why is it that some persons who are very narrow in that region will handle tools with excellent skill; will put up a good house, wagon, buggy, or almost anything else?

Answer: We have yet to see the person, who

will "handle tools with excellent skill," who has not a good development of the organ mentioned. Some persons there are, having a large endowment of Imitation, who can follow a pattern with fair success, but they will show no skill, no knack, no mechanism, in the manipulation of tools. We think that your observation has not been sufficiently careful or extended to warrant the conclusion you have drawn. Adopt the method advised in "Brain and Mind" for estimating development. Sometimes the organ of Constructiveness is higher up than usual, sometimes more forward, and co-ordinating closely with the intellectual faculties. We think that people not well-versed in Phrenology generally look for Constructiveness lower down than its usual situation in the brain.

NASAL DOUCHE.—A. S. T.—Yes. It is safe to use moderately a nasal douche. In connection with the fountain-syringe, it is more gentle in its operation than with the ordinary hand-pressure syringes. We should not advise you to apply any of the advertised inhalents. At the most, a very little salt in the water is permissible.

CASTILE SOAP.—The reason that Castile soap is so extensively advised by physicians, is because of its purity and freedom from alkali. In the manufacture of Castile soap, vegetable oil is used instead of animal fat, and great care is taken to avoid an excess of the soda; only enough being used to take up or neutralize the oil. This soap, therefore, is mild and gentle, and can be used on irritated surfaces or wounds, where common soap would give pain, perhaps occasion injury. The mottled sorts of Castile soap are made by the addition of a small quantity of sulphate of iron—copperas. This copperas in solution is stirred into the soap while in a fluid state. At first the color is bluish, on exposure to the air it changes to a red. This soap was called "Castile," for the reason that it was largely made in the province in Spain so called. The largest amount, however, comes from the south of France, and in Europe this variety of soap is more generally known by the name of Marseilles than Castile.

DIPHTHERIA.—Did you read our short note on this subject in the Annual for 1879? We think that it would give you some valuable hints. In our catalogue is a book that specially discusses this terrible disease; the price of the book is \$1.25.

GIVING UP TOBACCO.—I. L. P.—“I like your views on physiology, and am a strong believer in Phrenology; hence, you know I read the *JOURNAL* with much interest. You say the use of tobacco is a vice. I know it is a disease, to say the least of it. Is there no sure and reliable remedy? Now, I have been using it twenty-five years; have often quit for one, three, six, and at one time eighteen months. My digestion is not good without it. My mind loses whatever brilliancy it may have. I believe I am a Christian gentleman, or at least try to be. The use of tobacco I have not ridden myself of. I can, and have, as before stated, ceased to use it, but in doing so, I become prostrated both in mind and body, so much so that I am totally disqualified for any kind of business. It would be casting serious reflections upon the medical fraternity to say they do not know a remedy for as common a disease as this; or, if they know it, and do not give it to the world of people who have become slaves, and who would rid themselves of their filthy and expensive master, would be equally as grave a charge. If there be a remedy for the tobacco disease, please to tell it to the world. I ask this in the name of humanity.”

Answer: You have been so successful with regard to your other improper habits, it seems to us that you should finally succeed in your efforts to release yourself from the dominion of tobacco. Physicians advise various things as substitutes. We have met with people who chew chamomile flowers as a substitute; but in most cases persons so advised get into the habit of using the substitutes, and do not in the end altogether lose their hankering for the original weed. We advise people of your temperament and long indulgence in tobacco to stop its use gradually. The reason you have failed in your efforts is because you have stopped it all at once. Your system has become diseased, as you say; become thoroughly impregnated with the tobacco poison, and when you break off, the characteristic symptoms of the poison are exhibited. Now, make a programme by which you shall reduce the quantity from week to week, and thus give your system an opportunity to recuperate gradually. Let nature come in by degrees and give her healthful compensation for the lacking stimulus. You might begin by reducing the quantity, say a tenth, and work on that for a week or two weeks; then reduce the quantity which you are then using a tenth, and so go on working it down, and in the course of six months or a year you might be entirely freed from the vice and be cured of the disease.

ORGANS CONTIGUOUS, LARGE AND SMALL.—READING DESTRUCTIVENESS.—E.—In reply to your inquiries, we would say that when one organ is large and the organ immediately adjoining it is small, the difference is shown by

the flatness or lowness of the latter. In extraordinary cases—and they are very seldom met with—a small organ will show a depression because of its contiguity to a very large one. It is not uncommon to find strong Firmness and moderate Veneration, and the difference is palpable. So, too, we sometimes find Firmness prominently indicated, while the organs on each side are moderate. This association gives the head in the region of Firmness a conical appearance.

Your second inquiry is not clear, but we have an impression that you want to know how high the head should rise to indicate a balance between the organs at the base and the organs of the moral sentiments. A head measuring six inches through, just above the ears, will indicate a large and dominant Destructiveness, generally, and such a head—to have a moral region which would offset so much strength in the lower part—should be pretty well filled out in the top-head and crown, and should rise from five to five and a half inches above the opening of the ear by caliper measurement. Of course, there are other organs besides those in the religious domain which tend to offset the influence of Destructiveness. The intellect, particularly the reflective faculties, if large and active, will serve to check the influence of Destructiveness and of the other propensities. I take it that your difficulty with regard to the indication of Destructiveness arises from the fact that the situation of Destructiveness gives it a special advantage in the way of prominence when large. Lying on opposite sides of the head it shows its development doubly. The examiner, however, appreciating this, can draw the proper inference from its development. He would not count the organ twice, but take the reading of one side mainly in his study of its combination and influence.

THE TERM GRATITUDE in a phrenological sense is somewhat comprehensive. Its expression is dependent upon the character of the act. Conscientiousness is probably the chief organ, however, which has to do with the feeling.

TO GET A SITUATION.—I.—The chief requisite is competence. This is a large word; it covers a multitude of qualities and characteristics. If a boy have a fair degree of intelligence, with a bit of education—such as a knowledge of the rudimentary English branches—and fidelity, he will be likely to get along. A writer, with regard to getting a good place, says that he saw a young man in a railway office who was well paid for his work. He did not have a rich father, but sprang from the ranks of the laborer. He obtained his situation and kept it through accuracy. Everything he did was carefully and perfectly done. Each step taken was decisive, and he found himself at the end of a few years in a very lucrative and responsible situation.

REAL ESTATE DEALER. — SUB.—The organization of a good real estate broker is analogous to that of a clever business man. Strong perceptive faculties, a good degree of Constructiveness and Acquisitiveness and Secretiveness, with thoroughness, Courage, Conscientiousness, a knowledge of Human Nature, and "push" in general.

Several ANSWERS must be deferred to the next number.



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

VOICE THE TRUTH.—*Chippewa, March 2, 1879.*—DEAR JOURNAL: Your book premium has arrived, and I am pleased beyond expectation with it. It is a beauty, and very ably written; far surpassing anything of the kind I have ever seen. I shall regard it as a present, and always hold the donor in grateful remembrance. The last number of the JOURNAL also has arrived, richly laden, as usual, with good things. I heartily indorse the language of "Subscriber." As a teacher, the PHRENOLOGICAL has no superior, if, indeed, it has an equal. "It is one of the indispensable of life." But of all the good things contained in your last issue, none made so forcible an impression upon me as the article by Mrs. Willett. I heartily indorse her sentiments. It is high time that this subject was placed before the public in its true light. "Honor to whom honor is due," and censure to whom censure is due. It is no uncommon thing to hear women denounced for their frivolity, their extravagance, and even for their unwillingness to assume the responsibilities of motherhood. But who that is familiar with human nature, and with the condition of modern society (which regards the wife as the legalized mistress of her husband), can for a moment wonder at their unwillingness to become mothers, when the chances are three to one that they will give birth to a physical or mental deformity, which will be a curse to itself and a disgrace to its mother. In defense of men who sin against light, I have nothing to say; and in behalf of others, I can only say that many are so ignorant of woman-kind, and of many things which concern their own physical and moral well-being, that they can hardly be held responsible. Yet nearly all know enough to be better than they are, and their denunciations would be received with better grace if they would first "pluck the beam out of their own eyes," etc. And I opine that if they

would first renovate their own skirts they would find they had very little left to renovate. Though a man myself, I have no sympathy with the man who degrades his wife to the level of a mistress, and himself to the level of a brute. This idea that a man owns the person of his wife; that the wife has no rights which the husband is bound to respect, is a relic of barbarism, and should be tolerated no longer in this free and enlightened America. My sympathies are all with the much-abused, patient, long-suffering women; and I hope to see more such articles as this from the pen of Mrs. Willett. Let not a false sense of modesty restrain any one from expressing themselves on this subject. What can be more modest or chaste than the language of Mrs. W.? God bless the pure and virtuous wives and mothers of our land. May the time soon come when their rights shall be recognized. Reform is the watchword of the day, and what a field for reformation opens before us in the realm of the social relations.

F. A. TOWN.

HOMES ON THE PACIFIC SLOPE.—The subject of "homes in the foot-hills" is not exhausted. We often think, in culling over our experience, that it will never be sufficiently appreciated—these foot-hill lands. There are so many ways to treat this question of populating the foot-hills that one must take some efficient point and elaborate it; then the theme is interminable. Foot-hill lands in this State are practically inexhaustible in fertility; and, where moisture is so much of a desideratum, the extra quantity always incident to the basis of the slopes is important. Then, the constant renewal of the fertilizing elements washed from above renders it peculiarly desirable. In an experience dating back nearly thirty years on the Pacific Coast, one must of necessity learn something of the possibilities of the country for sustaining population and the industries consequent thereupon. As this portion of the world is destined at no distant day to be central in its relation to an advanced "civilization," everything which bears upon development of its resources, latent or otherwise, is of interest. Now that it is becoming generally known that our coast is desirable as a sanitary resort, and as many of those changing residence for health are possessed of but limited means, it is of the utmost import that those looking about for suitable new localities for homes should inform themselves previously.

From the stand-point of the hygienist, the occupations that these foot-hill lands offer, are very attractive. A mixed husbandry is the Shibboleth of the seeker after health. Occupation, and that constant, is one of the necessities of modern advancement—not simply the occupation of the tread-mill, but such a diversity of pursuits as evolves harmonious action of all the

organs. The mountains and their foot-hills, from Puget Sound to San Diego—a coast-line longer than from Maine to Florida—give climatic conditions suited to all possible contingencies.

Los Angeles, California.

F. M. SHAW.

A CONFESSION.—*Editor of the PHRENOLOGICAL JOURNAL:* It has been fifteen years since I became acquainted with Phrenology. Since then I have studied "Constitution of Man," "Combe's System of Phrenology," "How to Read Character," "Wedlock," "Mental Science," "New Physiognomy," "Education Complete," "Hydropathic Encyclopedia," "What to Do and Why," and the *PHRENOLOGICAL JOURNAL*; and now for the "Temperaments," and another year with the *PHRENOLOGICAL*.

By the help of those books and a "Bust," I have acquired a fair proficiency in the art of character-reading, so that many of my superstitious acquaintances affirm that I "receive supernatural aid" in my delineations; but the only aid I have received—supernatural or otherwise—has been from the pages of your publications in conjunction with close personal application and hard study.

In August, 1873, I received a delineation of character from your office, given by Mr. N. Sizer, from ferrotypes, and such was the accuracy of the delineations, that some of my friends were inclined to accuse us of collusion.

What I am now is largely due to that delineation and the teachings of Phrenology.

I would say to any young man: Get a correct delineation of character; subscribe for the *PHRENOLOGICAL JOURNAL*; procure and study the standard works on Phrenology, *follow their teachings*, and though you may not become President, or even Member of Congress, you will have what is better—good health—an essential condition of happiness, and business success—a clear conscience, be beloved and respected by the moral and intelligent, and feared by the crafty and dishonest.

L. D. O.

PERSONAL.

THE REV. THOMAS K. BEECHER, a brother of the Rev. Henry Ward Beecher, is said to be the president of a cremation society at Elmira, N. Y. Why not?

MR. DAVID H. STROTHER, who has long been pleasantly known to the readers of American literature as "Porte Crayon," was on the 3d of March unanimously confirmed as United States Consul-General at the City of Mexico. A worthy appointment.

THE REV. JOHN HENRY NEWMAN, who has just been made a cardinal by Leo XIII., is seventy-eight years of age. He deserved the appointment, and is certainly *old* enough.

Mrs. THOMAS BURNS, of Portland, Me., will be one hundred and fifteen years old April 15th. She is in good health, but keeps her bed most of the time, and is nearly blind. Her Bible shows that she was married at Bristol, Me., in 1734. Her husband has been dead forty-six years.

Mrs. FRANCES H. BURNETT, so popular as a novelist with Americans, is described as possessing a bright face, with a fresh, rosy complexion, good features, and a great deal of light brown hair waving in short curls about her forehead and braided at the back. Her eyes are expressive gray. It is noted, furthermore, that she wears a reception dress of dark blue velvet, brightened by a pink rose at the throat.

It is related that John P. Hale once said to Alexander H. Stephens, alluding to the latter's diminutive size: "Stephens, if you don't look out I will swallow you." "If you do," replied the Georgian, "you will have more brains in your stomach than you ever had in your head." —*N. Y. Evening Post*.

WISDOM.

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

A MAN's character is like a fence—you can not strengthen it by whitewash.

TRUTH, which is only a speculation when it is taught, becomes a revelation when it is lived.
—JAMES FREEMAN CLARKE.

No MAN ever regretted that he was virtuous and honest in his youth, and kept aloof from idle companions.

As a countenance is made beautiful by the soul's shining through it, so the world is beautiful by the shining through it of God.—JACONI.

WHATEVER people may think of you, do that which you believe to be right. Be alike indifferent to censure or praise.—PYTHAGORAS.

It is, after all, the person who stakes the least, who loses most. In the affections this is wholly true. He who risks nothing, loses everything.
—SIMMS.

EACH has its own, the smallest and most humble,
As well as the revered the wide world through;
With every death some loves and hopes do crumble,
Which never strive to build themselves anew.

MAKE no man your idol, for the best man must have faults; and his faults will insensibly become yours, in addition to your own. This is as true in art as in morals.—W. ALLSTON.

EACH heart is glad in the Home-land,
The songs they sing are cheery,
For no one there is touched by care,
And none is ever weary.

How blithely there the voices ring!
How heartily they praise the King!
They know that all the work is done,
The final battle fought and won,
For glory crowns the conquering Son
In the Home-land.

—M. FARMINGHAM.

HUMAN happiness has no perfect security but freedom; freedom none but virtue; virtue none but knowledge; and neither freedom nor virtue has any vigor or immortal hope except in the principles of the Christian faith, and in the sanctions of the Christian religion.

—PRESIDENT QUINCY.

MIRTH.

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

THE man who was carried away by his feelings has returned safe.

HE doubted his ability to climb a fence, but one growl from a dog gave him the necessary confidence, enterprise, and ability.

A CONNECTICUT man recently said: "Lend me a dollar. My wife has left me, and I want to advertise that I am not responsible for her debts."

"I CAN'T sold you some of dat sauerkraut," said a Kentucky Dutchman. "I shust hafe tree barhels, und I keeps dot in case of sickness."

A PAINTER, having turned physician, was asked the reason. "Because," replied he, "my former business exhibited my mistakes in too glaring a manner; therefore I have now chosen one in which they will all be buried!"

PEDESTRIAN (who has dropped half a crown in front of "the blind")—"Why, you confounded humbug, you're not blind!"

Deggar—"Not I, sir! If the card says I am, they have given me a wrong one. I am deaf and dumb."

PEDESTRIAN (to rustic)—"How is it, I wonder? You work hard, live plainly, and get stout; while I—"

Rustic—"No use o' talkin', sir, it lays i' the breed. A toadstool 's a toadstool, and you can't make a mushroom out'n it. Naver."

"THERE is one thing about a farin," said the Granger-looking man, "that isn't improved by consolidation." "And what is that?" asked the

young man. "Post-holes, young man," said the old party, oracularly. "Post-holes, they aint good for nothin' ef ye run 'em together or bunch 'em."

THE following incident happened in one of the public schools of this city:

Teacher—"Define the word 'excavate.'"

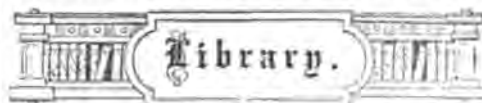
Scholar—"It means to hollow out."

Teacher—"Construct a sentence in which the word is properly used."

Scholar—"The baby excavates when it gets hurt."—*Philadelphia Bulletin*.

A CITIZEN went into a Norwich 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 keep on washing the baby in the coal-scuttle till prices come down."—*Norwich Bulletin*.

A LOVER, who had "gone West" to "make a home" for his "Birdie," wrote to her: "I've got the finest quarter section of land (160 acres) I ever put my foot down on." Birdie wrote back: "Suppose you buy another quarter section, John, so we can have a lawn around your foot!" John "made a home," but Birdie never was the mistress of it.



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.

PRACTICAL INSTRUCTION IN ANIMAL MAGNETISM. By J. P. F. Deleuze. Translated by Thomas C. Hartshorn. Revised edition, with an Appendix of Notes by the translator, with Letters from eminent Physicians and others descriptive of Cases in the United States. 12mo, pp. 524. Cloth, price \$2. Samuel R. Wells & Co., Publishers, New York.

The reader of general literature is aware that during the past two or three years there has been a revival of investigations or discussions touching the nature of mesmerism and animal magnetism. It must not be understood that mesmerism had been suffered to drop out of human recognition altogether, because it did not appear on the surface of literature in a conspicuous way until the outbreak of the controversies which have oc-

occupied no small amount of the attention of such men as W. B. Carpenter and A. R. Wallace, Professor Crookes and others, for a great number of persons in Europe and America were meanwhile quietly applying it in different ways, but mainly to the alleviation of painful ailments and cure of diseases. Now and then some facts would creep out, but their mysterious nature baffled the scientist, and he in his pride was disposed to relegate the whole subject to the domain of ignorance or charlatanry.

When men of acknowledged worth, both as regards moral integrity and shining attainments in science, like Professor Crookes and Mr. Wallace, of England, acknowledge that man possesses a property or quality of wonderful attributes, and spend much time in the attempt to discover its nature and laws, and although failing to reach their end, confess that psychic force is an agent of priceless value to men, it is not strange that other observers should be looking into it, and endeavoring to unravel its mysteries. A great deal is known concerning the processes and utilities of magnetism, but very few practical, serviceable treatises have been published, and this notwithstanding the prevailing curiosity of the public and a large existing demand for information. A careful examination of the extensive volume whose title is given above warrants us in saying that it stands alone among treatises in print as a clear exponent of the practical application of magnetism, written by a French physician of extensive practice and wide knowledge. It is an exceedingly careful and minute account of the modes of procedure to obtain the somnambulistic condition, and for the application of animal magnetism to the treatment of disease. Dr. Delenze's suggestions seem to meet every case that is likely to occur, and all the known phases.

A hint or two as to the plan of dealing with the subject in the arrangement of the book may, perhaps, give the best idea of its nature. In the beginning the author considers the principles of magnetism, and indicates the various processes employed in magnetizing. He next supplies information concerning the auxiliaries by which the force of magnetism may be augmented. Next he treats of somnambulism and the procedure of the somnambulist. Then he discusses the precautions that a patient should take in choosing a magnetizer; further on, the application of magnetism to various diseases and its association with medicine. He does not overlook the dangers of magnetism and how they may be prevented, furnishing suggestions on the method of developing and strengthening the magnetic power in one's self, and what agents would aid in its acquisition. It must be seen by the reader, from this cursory view of the points dwelt upon by the author, that the book

is the result of no little reflection as well as experience. The ample Appendix is valuable statistically, furnishing as it does a number of interesting illustrations and incidents from the experience of American magnetizers and physicians of repute.

LECTURES ON LOCALIZATION IN DISEASES OF THE BRAIN. Delivered at the Faculté de Médecine, Paris, 1875. By F. M. Charcot, Professor in the Faculty of Medicine at Paris, Chief of the Salpêtrière Hospital, Member of the Académie de Médecine, etc. Edited by Bourneville. Translated by Edward P. Fowler, M.D. 8vo, pages 133. New York: William Wood & Co.

Dr. Charcot is one of the physiologists of Europe, who has been among the foremost in observation and experiment relating to nervous diseases in the living subject, especially nervous diseases which have their origin in the brain. Believing that "the encephalon does not represent a homogeneous organ, a unit, but rather an association or confederation, composed of a certain number of diverse organs;" that "to each of these organs belong distinct physiological properties, functions, and faculties," and that "the physiological properties of each one of these parts being known, it becomes possible to deduce therefrom the conditions of a pathological state," he has prosecuted his studies with an earnestness scarcely equaled by any other physiologist of to-day. Having opportunities of the best sort for observation, in his official connection with Salpêtrière and other hospitals, the results he has obtained may be accepted with very little question. Most of his provings of the effects of brain lesions are confirmatory of the views of Ferrier, Hitzig, Jackson, and Tuke. He furnishes two or three interesting cases in which the relation between the phenomena of aphasia and brain lesion is strikingly shown. One, that of a woman named Farn***, observed at Salpêtrière, is noteworthy. She was attacked with aphasia, yet showed no symptoms of paralysis either of motion or sensation, the aphasia being indeed the only symptom. After her death, atrophy of the third frontal convolution (in which the center of the faculty of speech is situated) was the only correspondent lesion revealed by an autopsy.

This work is a valuable contribution to the subject of cerebral diseases, particularly in the department of diagnosis, and should be carefully read by physicians generally. Dr. E. P. Fowler has done his part as a translator with exceeding care; his extended study of brain structure fitting him admirably for the work. As this is the first volume of Dr. Charcot which has been introduced to English readers, notwithstanding the reputation of the French physiologist as a sound and brilliant observer, it will doubtless attract wide attention.

GREEK HERO STORIES. By Barthold George Niebuhr. With Illustrations by Augustus Hoppin. Translated by Benjamin Hoppin. 12mo, pp. 120. Price \$1. New York: Dodd, Mead & Co.

This little book contains stories of several of the most prominent heroes of the Greek mythology, viz: "The Voyage of the Argonauts," "Stories of Hercules," "The Herakleides and Orestes." It seems that these were originally written by Niebuhr for his son Marcus, but their adaptation to children in general resulted in their publication in book form. The son in his later years desired to afford other children the same delight which they had once given him. The three divisions named comprehend some of the most interesting features of the Greek mythology. Mr. Hoppin has caught their spirit in his illustrations. Particularly are the effects striking in the scenes which he depicts of the life of Hercules.

OCEAN WONDERS: A Companion for the Seaside; freely Illustrated from Living Objects. By William E. Damon. 12mo, cloth, pp. 229. Price \$1.50. New York: D. Appleton & Company.

Many people visit the seashore during the summer months, and although they may carry volumes of light literature, most of them weary of their reading because of the flat similarity of most books gotten up for idle hours nowadays, particularly that kind which is called "summer reading." Lolling on the piazzas, strolling on the beach or in the groves, bathing, etc., fill up the time from day to day, but there is usually a consciousness of mispent time in the case of intelligent people, which deteriorates much from their self-contentment. We deem this little book as one well calculated to meet a need on the part of summer excursionists to the sea-coast, for the reason that it supplies reading of a very entertaining sort, and at the same time it is essentially instructive. As the writer says: "Nature throws her choicest treasures at our feet;" but people who are bent upon enjoyment at the watering-places "walk over them disregarding and insensible. Some even of the commonest productions of the sea would well repay careful study." The book is not so large as to repel one who wants to devote the most of his summer vacation to mere physical enjoyment, yet is appreciative of the fact that some mental exercise should accompany physical activities to render the latter thoroughly beneficial. In its sixteen chapters the author has something to say on the nature of actinoids, sea-anemones, corals, house-builders of the sea, and crabs, the octopus or devil-fish, the mollusk, the sea-horse, turtles, barnacles, star-fishes, the echinoids, the jelly-fish, sponges, sea-weeds, etc. The illustrations are numerous and of excellent character. To those who are interested in the keeping of an aquarium, the

book will be found very useful; and some notes given with regard to fresh-water life, add to its comprehensiveness.

"**LIGHT IN DARK PLACES; or, How the Camp's Lived in their Poverty.**"—Many of the readers of the PHRENOLOGICAL JOURNAL in 1877 and 1878 will be pleased to know that this very entertaining story by H. S. Drayton has been published in a neat volume of 275 pages, by Messrs. Claxton, Remsen & Haffelfinger of Philadelphia. The price is but \$1.00, in cloth, and the book may be ordered through this office

PUBLICATIONS RECEIVED.

BURIED MILLIONS. Where do the Gold and Silver Go? No. 7 of the Atlas Series. By Dr. J. V. C. Smith. Price 10 cents. A. S. Barnes & Co., New York.

This is a very interesting, and, in many respects, an instructive essay. Dr. Smith puts into it many of the ways by which quantities of the precious metals are wasted and lost, and hints in regard to the recovery of much that is supposed to be irrecoverable.

JOHN SAUL'S CATALOGUE OF RARE AND BEAUTIFUL PLANTS for the spring of 1879. Washington, D.C.

FOLD IT AWAY.—A burial ode for Bayard Taylor. Poetry by Mrs. S. L. Oberholtzer. Music by J. R. Sweney.

THE AMERICAN BUILDER: A Journal of Industrial Art, continues in its old line, by issuing data of practical use to architects and carpenters. The series of English villas and cottages which have been in course of publication, are in themselves valuable to the joiner.

USEFUL ARTS: A Journal of American Industry. A new solicitor for the patronage of mechanics, particularly iron and wood-workers. Mr. J. A. Whitney is editor.

THE NORTH AMERICAN REVIEW for April contains seasonable matter; especially in the articles entitled: "The Public Schools of England," "German Socialism in America," "Census for 1880." That on "The Public Schools of England" is by the well-known Thomas Hughes.

CHURCH'S MUSICAL VISITOR: An Independent Journal of Music, with which is incorporated Root's Song Messenger.

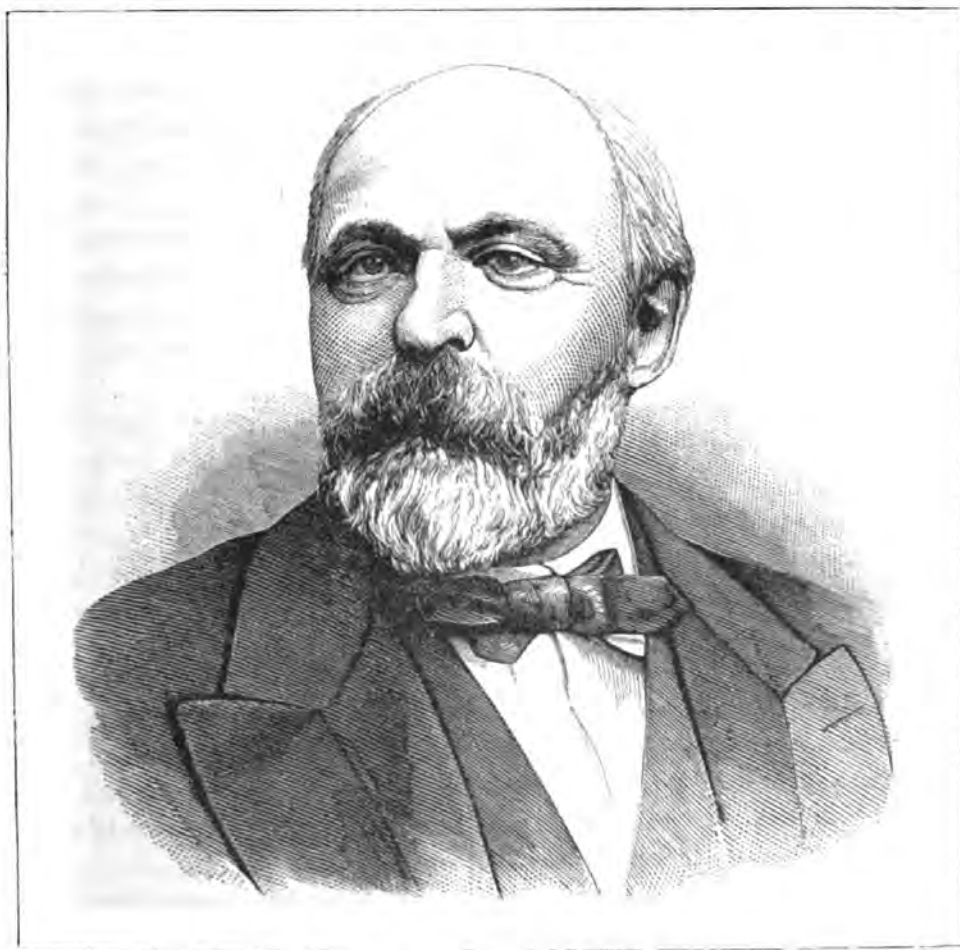
LIPPINCOTT'S MAGAZINE, of which current numbers have been promptly received, shows improvement still in its features of illustration. We do not know that it will be competent to rival the New York illustrated monthlies in the work of the pencil and graver, but its literature, we think, is quite apace with theirs.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 68. 1879.

NUMBER 6.

June, 1879.

[WHOLE No. 487]



BENJAMIN F. PRESCOTT,

GOVERNOR OF NEW HAMPSHIRE.

THIS portrait indicates solidity of constitution and character, health, power, force, courage, persistency, and a self-poised independence. He has inherited abundant vitality from the mother, from whom also he gets his general build, especially the

features and the expression of face. We judge him to be of long-lived stock, and of a hardy race on both sides.

He has always been willing to work his way in the world ; has tried to help himself, to defend his rights, strive for freedom, and work for success. He has an intuitive cast of intellect, which enables him to form opinions from appearances promptly, and with great accuracy. He combines facts and principles, and makes inferences with a quickness that surprises himself, and especially other people. If he were on the bench as a judge, he would read the merits of the case so quickly, that the counsel would think he had jumped to his conclusion without proper investigation or meditation. And he would do the same thing in business. If he were an extemporaneous speaker, it would not be wise for his opponent to interpose questions and criticisms, for his mind would "bite back" as quickly as a steel-trap does when ruthlessly trodden upon.

His is not a mind that plods, although we have said that he is a great worker ; his mind seems to glance ahead and inspect the facts and see what is coming, or ought to come, and he prepares himself for it. As a business man he would take into account a great many particulars and details, and would be able to do the proper work of every man and boy in the place, and to take hold and show how it ought to be done.

He is organized for a self-made man ; is one that could have started at the age of twelve and worked his way up successfully and unaided into professional or business pursuits. He has an excellent memory of everything that he comes in contact with, whether people, business, literature, science, or general affairs. He would make a vigorous editor, and carry in his mind the laws, the political campaigns, the history of men,

and thus be able to speak from memory, not necessarily from a book. As an editor he could be locked into an empty room, with a ream of paper, a box of pens, and a quart of ink ; he would edit the paper, and criticise men and measures of the present and the past, in such a way as to show that he was well-informed, and he would rarely make a mistake as to any important fact in regard to men or measures.

As a lawyer he would be an able advocate, and especially an able manager of a case in court. As a legislator, he would make a good speaker or presiding officer. He has courage enough to be just, and sufficient memory to make rulings promptly, and would seldom have his decisions appealed from successfully. As a merchant or manufacturer, he would hold his business in his mind and memory, and be master of every department.

He is a great critic of character, studies motive, and knows how much men will bear, and how they may be treated to secure the best results. He organizes everything by rule ; everything that he touches seems to be self-adjusted, comes into place as well-drilled soldiers do in the evolutions of the field.

He is capable of succeeding in the sciences, and would have done well as an engineer, decidedly well as a physician and surgeon, especially in the departments of chemistry and pathology.

He has marked force of character ; his courage "keys him up," while his severity gives him executiveness, and enables him to cut his way through difficulty, though he may have to meet organized opposition. He seems to have Cautiousness rather large, which keeps him on the alert for danger and difficulty, and leads him to provide for emergencies which may arise.

He sympathizes strongly with those who

are in trouble, and when he undertakes to help a friend, he does some service; it is like adding a sturdy horse to a weary team to help pull the load up a steep hill. His effort *tells*.

We judge him to be a very strong party man. He has firmness enough to plant himself in his positions with decision, and courage enough to push forth in the face of opposition. He has the signs of social impulse, though the back-head, where the social organs are located, is not presented by the likeness.

He has respect for age, and sacred subjects, but is more influenced by sympathy and kindly feeling, than by conscientious considerations; he sometimes will do himself injustice in his desire to help those whose cause he espouses. If he were a merchant, he would trust the poor, and if dishonest and tricky people sought to evade payment of their just dues, he would push them sharply, and, it may be, spend enough in making the collection, to pay the amount collected. He is a man of fine tastes in respect to truth, criticism, language, and manner; but we judge him not to be poetical in his line of thought.

BENJAMIN F. PRESCOTT was born in Epping, Rockingham Co., N. H., where he now resides, on the 26th of February, 1833. His father was a farmer, in moderate circumstances, and the subject of this sketch, his only child, worked upon the farm like other boys in the neighborhood, attending the district school about six months in the year. At the age of fourteen his father determined to give him a liberal education, and sent him to Blanchard Academy in Pembroke, N. H., where he remained during a portion of 1847 and 1848. In 1850 he entered Phillips Academy at Exeter, N. H., and remained there until 1853, when he entered the Sophomore class in Dartmouth College. He graduated from this institution in 1856.

He taught one school during his college course, and two schools in his native town in the fall and winter after his graduation. In February, 1857, he entered as a student of law, the office of Messrs. H. A. & A. H. Bellows, in Concord, N. H., and was admitted to the bar after remaining with that firm for three years. He commenced the practice of his profession in that city, but soon relinquished it, having been invited to become one of the editors of the *Independent Democrat*, a noted anti-slavery and Republican paper published in Concord. Under the second administration of President Lincoln he was appointed a special agent of the United States Treasury Department for New England. His duties in this position were to supervise and to report upon the custom-houses, lighthouses, sub-treasury, and revenue collectors. This post he held until the administration of Andrew Johnson, when he was removed because he did not and would not approve the course of the President. He was re-appointed under the administration of President Grant, but remained only a few months in consequence of a re-organization of the service. His acts and reports always received the hearty approval of the Central Department. In 1872 he was elected Secretary of State for New Hampshire, and was re-elected in 1873, '75, and '76. In March, 1877, he was elected by a large majority Governor of New Hampshire over his Democratic competitor, and was re-elected to the same position March, 1878; as the term of office is but one year, he will retire on the first Thursday of June, 1879.

During his student career at Phillips Academy and Dartmouth, his record stood "high as a scholar" and society man. He is Vice-President of the Antiquarian and Historical Societies of New Hampshire, and a Fellow of the Royal Historical Society of Great Britain. He was selected in 1874 to serve as a trustee to the College of Agriculture and the Mechanic Arts, and in 1878 he was unanimously elected a trustee of Dartmouth College. In politics he takes a lively interest, having served fifteen years as Secretary of the Republican State Committee, and as Secretary of the College of

Electors of Presidents Lincoln, Grant, and Hayes. During his administration as Governor he has been called upon frequently to attend celebrations, fairs, and public gatherings of all sorts, and has generally responded to invitations to address them, and always spoken to the acceptance of the people. He takes a lively interest in all matters looking toward the development of the State or country, and has a reputation for not avoiding any responsibility. He has always taken an active interest in agriculture, and will no doubt pursue that interest when he retires from the gubernatorial chair. Although a practical farmer, he does not relinquish his taste for literature and art. He has undertaken a work which has proved of great interest to his State and several institutions in New Hampshire. Since 1872 he has collected a gallery of choice paintings and marble busts for Phillips Academy, making nearly forty; has made a complete collection of the Governors of New Hampshire since the Revolutionary war, and many other prominent citizens of the State. The life of Governor Prescott has been a busy one, yet amid its cares and the pressure of business he finds time to exercise his sympathies and taste. Personally Mr. Prescott is a man of good morals, popular, practical, genial, generous, and an obliging neighbor; there is not one particle of snobbery in his composition, and he is devotedly attached to his paternal home and family.

At the centennial celebration of the battle of Bennington, (Vermont), August 16, 1877, Governor Prescott was present with a large detachment of the New Hampshire militia, and participated in the exercises of the occasion. In response to a call by Hon. E. J. Phelps, presiding officer of that day, the Governor responded most patriotically as follows:

Mr. President and fellow-citizens of the United States:

I thank you for the complimentary manner in which you have introduced me, and for the generous allusion you have made to New Hampshire. After the masterly oration to which we have just listened, by the

eminent scholar and polished orator selected by Vermont from my own State, in which he has so fully and so justly recounted the heroic deeds of our citizens, it might seem appropriate for me to remain a silent listener to the words of these eminent men who have gathered here, from every section of the country, to participate in the re-consecration of this battle-ground. But I can not remain wholly silent, lest, so remaining, I appear false to the trust committed to me by my fellow-citizens, on an occasion when the heroic acts of our fathers are being celebrated in speech and song and military display. I rejoice that the Chief Magistrate of the nation is here, with his Cabinet, to witness the enthusiastic loyalty of our people.

We have come, Mr. President, a long journey to join with Vermont and Massachusetts in this great demonstration, commemorative of one of the most decisive battles of the Revolutionary war, in which it fell to the lot of New Hampshire to bear a conspicuous part. How well she bore herself one hundred years ago to-day, on yonder fields, has been eloquently set forth by your distinguished orator. Vermont had her heroes on that memorable day. Massachusetts, as usual, was at the front, to ward off and stay the progress of a common foe to the colonies, and then—I do not say now—a foe to popular liberty everywhere. It was New Hampshire's good fortune to be fully represented then, and I feel sure the cause did not suffer at her hands.

It has never happened that the soil of New Hampshire has been stained in battle by the blood of her own citizens, or of her countrymen, but it has been freely shed on other fields, to establish and maintain this precious inheritance. Without invidious comparison, I will venture the assertion that no one of the colonies, in proportion to its population and resources, furnished more or braver or truer men in the Revolutionary war than did New Hampshire. I can not, I will not attempt to recount all their deeds. At Bunker Hill, under the same gallant leader, John Stark, who successfully led our citizen soldiery on yonder fields, the New Hampshire troops outnumbered by far all other troops engaged; and the same is true of the

fields we are now re-dedicating. They were present at Trenton, and unflinchingly opened the fight; they served with distinguished valor at Princeton; under the immediate command of Henry Dearborn they were the first to lead off and engage the enemy at Saratoga; they were present at the surrender of Burgoyne; they were at Hubbardston and Newport and Monmouth; they stood together at Yorktown when their great work had been accomplished, and the sceptre of George the Third faded from their soil; and they were permitted, through their patriotic devotion and sacrifices, to see the great struggle culminate in the permanent establishment of a free and independent nation.

You delight to honor your Allens, your Chittendens, your Warners, your Fays, and hosts of others, as you ought, whose names we heard on yesterday—while we hold in perpetual remembrance and honor, our Stark, our Scammel, our Poor, our Sullivan, our Cilley, our Dearborn, our Whipple, our McClary, our Reeds, Meshech Weare, Matthew Thornton, Josiah Bartlett—all patriots—and John Langdon, who pledged all he had to pay the expenses of his friend Stark on this expedition. When a cause is supported by such material there can be no failure.

It is well to allude to the distant past, but I can not forget the near. In 1812 we had our McNeil and our Miller, and in 1848 our soldiers did gallant service in Mexico. In the late war of the rebellion, the New Hampshire troops, inheriting the valor of their fathers, upon one hundred and fifty battle-fields fought to maintain our Union; and from Bull Run to Appomattox Court-House they were found on almost every sanguinary field.

New Hampshire is represented here to-day by our soldiers and our citizens, who have come hither to join with you in this peaceful commemoration of an event of great historic importance. Gatherings like these are of infinite value. They keep alive the memories of the past, and inspire the people with renewed patriotism and a stronger love for our common country.

This certainly is a beautiful scene—this vast concourse of people, gathering on this

spot, so charming and picturesque, to swear anew, over the dust of our patriot dead, their devotion to our beloved country; and, sir, so long as you hold this dust, New Hampshire will, in the future as in the past, be ready with you to defend it, that it may repose quietly under the protection of the same free government that has guarded it so well for one hundred years.

Mr. President, I may be allowed one word further. Vermont, through his Excellency the Governor, extended a cordial invitation to New Hampshire to be present and participate in these festivities. That she heartily accepted the invitation, this vast concourse proves. It only remains for me to thank you in her behalf for your abounding courtesies, and for your manifold kindnesses and attention to her numerous representatives here to-day.

THE TALLEST TREES.—The largest trees in circumference and the grandest ever discovered are those known as the Big Trees of California, the *Sequoia Gigantea*. But they are not the tallest. The highest *Sequoia* now standing is in the Calaveras Grove, 50 miles from Stockton, and measures 327 feet. It is altogether probable that among the fallen trees in California forests there were those which reached greater height, and it has been shown that some of them had a height of 400 feet. In Gippsland, Victoria, there are some extraordinary specimens of *Eucalyptus*, and on a bank of a river a fallen tree was measured, showing a total length, from roots to top, of 435 feet. The crest of this tree was broken off, but the trunk at the fracture was nine feet in circumference, and the height of the tree when growing was estimated at more than 500 feet. The tree, however, was dead. Near Fernshaw, in the Dandenong district, Victoria, has been discovered a specimen of *Eucalyptus amygdalestia*, or almond-leaf gum, standing alive, which measures 380 feet from the ground to the first branch and 450 feet to the topmost twig! Its girth is, however, only eighty feet, which is less than that of many *Sequoias*, but it is probably the tallest living tree in the world.

"THE OLD PHRENOLOGY AND THE NEW."—A REPLY.

[THIS article was prepared for publication in the *Popular Science Monthly*, in reply to an article with the same title which was copied by the *P. S. M.* from an English magazine, and published in its late February number. As the editor of the *P. S. M.* declined to give the "other side" a hearing, and returned the article, its author sent it to us, in the hope that through our columns his exposition of the weakness of the attack upon the "Old Phrenology" might meet the eyes of many readers of the *Popular Science Monthly*.—ED. "P. J."]

AN article with the above title, which appeared in the *Popular Science Monthly* for February, has attracted my attention, and as I find it to contain expressions which seem scarcely warranted by the science of our day, I ask the privilege of occupying a little space with something in the form of a reply.

In reviewing Dr. Wilson's criticism on Phrenology, I would take only so much space in your magazine as may be necessary to show the falsity of his statements, and the weakness and inconsistency of much of his reasoning. He admits that the brain is the organ of the mind, but would lead his readers to think its size has nothing to do with mental power. He misrepresents when he says: "The phrenological doctrine of the disposition of the faculties must be held to include the idea that the larger the brain the better *specialized* should be the mental qualities of the individual; the greater the amount of brain substance forming the good and bad qualities, and regions of the phrenologist, the more *active* should be the mental organization. Now, it is a patent fact that this rule tells strongly against the phrenological assumption."

What he means by "better specialized," is left for him to explain. Mental *activity* and mental *power* are two very different things. No phrenologist claims that mental activity is dependent simply upon the size of the brain, or that size alone is the criterion of activity; and if Dr. Wilson had consulted some of the standard phrenological literature before writing his article, it is probable he would have seen this difference

elucidated. However, the largest organs in any given head are usually the most active. We suppose the Doctor meant to convey the idea that mental *power* bears no relation to cerebral volume. If that is not his meaning, then he makes no point in the above quotation. He need not go to phrenological works at this late day to find the statement that mental power is dependent upon quantity or volume of brain substance, *other things being equal*, such as quality of organization, temperament, health, etc.; but by consulting almost any of the late text-books on physiology, he will see the same general principle laid down. Even in the department styled "Popular Science Miscellany," of the same number of the magazine in which his article appears, will be seen testimony to the same effect. Dr. Flint, in his "Human Physiology," says: "It may be stated as a general principle that in the different races of men the cerebrum is developed in proportion to their intellectual power; and in different individuals of the same race the same general rule obtains." It would be a waste of time and space, and trying to the patience of those who have any practical knowledge of the matter, to continue quotations and proofs that mental power is related to the volume of the organ on which it depends, just as any other property of life is; and, other things being equal, is proportioned to the size of the organ on which it depends; and as Dr. Wilson says, "Below thirty ounces the human brain becomes idiotic in character," he as much as acknowledges the fact.

He objects to Phrenology because it points out definite portions of the brain as presiding over special functions, and says: "Were the deductions of Phrenology true, or were its claims to be regarded as a science founded on definite grounds, mind could no longer be regarded as a mystery, since it would be within the power of the phrenologist to assert that, when swayed by emotions of one kind or another, he could declare which part of the brain was affected. This declaration logically follows upon that

which maintains the localization of faculties in different parts of the brain; but it is a conclusion at the same time from which physiology simply retires in outspoken disdain, as representing us with an empirical explanation of mysteries to which the furthest science has as yet failed to attain." Yet he gives us on another page the location of a "speech-center;" says the cerebellum co-ordinates muscular movements, and that Prof. Ferrier has discovered the centers which govern many of the common movements of life. Does physiology "retire in outspoken disdain" in respect to this? In a vein of sarcasm he writes: "When vainglory besets us we must hold, if we are phrenologists, that there is a molecular stirrage and activity of brain particles beneath a certain bump of 'Self-esteem' situated above and in *front* (*sic*) of the ear." If he imagines that by such sarcasm (?) Phrenology is to be annihilated, let him apply it to his "speech-center," and the other alleged centers, and they must fare the same. Is it any particular pleasure to him to have mind deemed a matter of mystery, that he objects to localizing definite centers in the brain as the organs of special mental faculties? If so, had he not better relinquish altogether the idea that the brain is at all the organ of the mind, because in so considering it he is reducing to pretty narrow limits the space from which mind derives its origin?

He further objects to Phrenology on the ground that the anatomist can not see the organs which the phrenologists claim exist in the brain, and the location of which they represent on their busts and charts; and seems to think that if the brain be a congeries of organs, those organs should have such clearly-defined outlines as would enable the eye of the observer to distinguish one from the other. But he as much as begs the question when he speaks of his "new Phrenology," and makes mention of a "speech-center," of centers for certain movements, etc., for he can not point out organized boundary lines of these centers in the brain substance. Moreover, does not every anatomist know that he can not distinguish a sensory nerve from a motor, ex-

cept by its function, its appearance furnishing no clue?—the microscope even not enabling us to distinguish one sort from the other. The same holds true in reference to the cerebral organs. It is probably impossible to show in the brain itself their exact boundaries, but it is, nevertheless, true that the organ of Destructiveness is different in form from that of Causality, and so on. If, however, the several parts of the brain did all appear alike to the eye, would that necessarily imply that they differed not in function? If so, what would become of Dr. Wilson's "speech-center," etc.? The phrenologist doesn't claim that the outlines of organs represented in his chart correspond to lines standing out in bold relief on either the surface of the skull or in the brain itself; and Dr. Wilson is the only person of whom I ever heard that has supposed such to be the case. The phrenologist simply means to convey the idea that that portion of the brain lying immediately under a given locality is devoted to the function indicated; and does not say whether the portion of brain referred to is of round, square, oblong, or any other particular shape. Nor is it really necessary to know this to be able to judge of the size of the organ in question. Can the Doctor tell the shape of his "speech-center?" The truth is, he can not give its exact location, according to the physiologists; can only approximate to it.

He also considers the frontal sinuses as another insurmountable obstacle in the phrenologist's way when estimating the size of certain organs, and says the elephant's brain is placed not within a foot or so of the most skillful phrenological digits. What has estimating the size of an elephant's phrenological organs to do with that of human phrenology? We can estimate the size of our sun. But, alas for such capabilities! There are heavenly bodies whose size it is impossible for us to estimate, because of space or other obstacles preventing. He says the organ of Destructiveness in the feline race is covered by a mass of jaw-muscles. The organ of Destructiveness is situated *behind* the mass of jaw-muscles. He again shows his ignorance of

Phrenology when he speaks of the organ of Self-esteem as being located above and in *front* of the ears. In making a cross-section of the human skull, half an inch above the upper border of the eye-cavity, he says we cut through, among other organs, that of "Form," which organ in fact is situated on the supra-orbital plate on either side of the crista galli, altogether below the line of section spoken of. Although the frontal sinuses are something of an obstacle in the way of determining the size of a few of the perceptive organs in the adult, they do not constitute a perfect barrier, for they do not appear until several years after birth, and during those years the size of the organs in that region can be estimated, and their locality determined; and in adult life the phrenologist can tell their degree of development with considerable accuracy by constitutional signs, and there is not so great a liability to mistake as some might suppose. By referring to Drs. Gall and Spurzheim's works, as well as to many others on Phrenology, the reader will find this matter discussed at length.

After a little observation anybody can detect the presence of the orbital process, which Dr. Wilson calls the organ of Calculation, and make due allowance for the same in estimating the development of that portion of the brain beneath and a little back of it, which constitutes the organ of Calculation.

Again, his assertion that cerebral substance situated on the supra-orbital plate, and which constitutes the organ of Language, has nothing to do with the position of the eye, is only a gratuitous statement, not founded on fact, as he who will take the trouble to ascertain the influence of inclosed viscera on their surrounding walls may know.

Dr. Wilson speaks of phrenologists who have never seen a brain, and says: "Unless, therefore, one may logically maintain that total ignorance of the brain-pan is compatible with an accurate understanding of its contents and mysteries, the successful practice of Phrenology must be shown to depend on other data and other circumstances than are supplied by anatomy and

physiology—these sciences admittedly supplying the foundation of all that is or can be known regarding the brain, its conformation, structure, and functions."

It is an unfortunate circumstance if many who pretend to be phrenologists have not had opportunities of handling the brain itself (of which Dr. Wilson is not in a condition to determine); but since the proportionate development of its several regions and minuter parts is indicated by the conformation of the cranium itself, practical experience in estimating development by this latter is really all that is necessary in judging of cerebral development, and consequently of phrenological, or mind-characteristics; just as the breathing capacity, other things being equal, is judged by the volume of the lungs, and estimated by the size of the chest; and it is not by an inspection of the anatomical structure of the lungs themselves, in a state of health, that their functional power is arrived at. Nevertheless, an acquaintance with the general and minute anatomy of the lungs is desirable, whether it be obtained from books or personal observation. The same principle holds true in regard to the brain. But it is more difficult to estimate the proportionate development of the several regions of the brain by an examination of the organ itself than by an examination of the cranium, because of the softness of the texture of the former, and its tendency to a change of form when removed from its position in the skull.

Dr. Wilson says: "It is the latter band—the corpus callosum—which brings the halves of the brain into relation with one another, and which thus serves to produce identity and correlation of action between its various parts."

Now, Dr. Spurzheim, in his "Anatomy of the Brain," mentions a case in which the corpus callosum was split throughout its entire length, and yet the individual manifested his intellectual and affective faculties; and he also quotes a similar case from Reil; and Dr. Carpenter, in his work on Physiology, gives similar cases; indeed physiologists in general now admit that "identity and correlation of action," as Dr. Wilson terms it,

between the parts of the brain does not depend upon the presence of the corpus callosum; moreover, this part does not exist in birds.

Dr. Wilson says: "The spinal cord which, as every one knows, runs through the spine, being merely a continuation of the main axis of the nervous centers, of which the brain is the chief." If he means here that the spinal cord is simply a continuation of the brain itself, he mistakes, for though it is connected with the brain it is no more a continuation of it than the aorta is a continuation of the heart. It is true that in most animals the spinal cord, besides having an independent function of its own, is the agent of the brain; but there are animals that have a spinal cord, but have no brain, as there have been human beings born without a brain proper, yet possessed of a spinal cord. The spinal cord is not developed from the brain, nor the brain from the spinal cord; just as the arteries are not developed from the heart, or the heart from the arteries.

Dr. Wilson says in one place that the phrenologists estimate character by the development of the white matter (which he seems to think has little to do with mind, compared with the gray matter), because this, according to him, determines the form of the head, while in another place he says they take no account of the internal parts of the brain (the situation of the white matter), and in still another, "To whom (the phrenologist) the mere brain surface (the situation of the gray matter) is the brain itself." The truth is, the phrenologist confines the organs in the brain, which produce mind, to neither the surface nor the center; but he regards both the white and the gray matter necessary to the proper function of an organ; and although physiological works speak of the gray matter alone as being the organ of the mind, it becomes them to demonstrate such to be the fact; and even the truth of the statement that intellectual power depends upon the amount of the gray matter rather than upon that of the white (so commonly spoken of in physiological works, and probably because of authors copying from one book to

another rather than investigating each for himself) needs further proof; though whether it be true or not, does not affect Phrenology, as after having considered the size of the cerebral organs the general constitution indicates their activity.

Dr. Wilson considers it impossible for the phrenologist to determine the size of the cerebral organs, but tries to refute Phrenology by giving the results of measurements made by Mr. Stone and others, wherein the size of many organs is given with much pretended definiteness.

How, I should like to know, did Mr. Stone determine the size of those organs? If the reader wishes to know more about the discussion for and against Phrenology in those days, let him refer to the literature on the subject, and he will not consider Phrenology as having received a death-blow. Bare statements of the kind mentioned in Dr. Wilson's article amount to nothing, and we have not space here to review them.

The Dr. says further: "The memory of sounds and words forms the basis of our speech. 'The memory of words is only the memory of certain articulations'—and those parts of the brain which regulate articulation are also the memory centers for speech, or the result of articulation. Thus, when the speech-center is disorganized, not merely the power of articulation disappears, but also the memory of words."

Here he again shows his ignorance of physiology. Prof. Dalton, in his work on "Human Physiology," speaking of amnesic aphasia, says: "The patient can not say what he wishes, because he can not recollect the word he wants. For the same reason he is incapable of writing it. But if the word which he requires be spoken to him he can repeat it immediately, though in a few seconds it has again escaped him." Now, here we see the power of articulation is not dependent upon the integrity of the speech-center which remembers words, for this latter may be impaired so that the memory of words disappears, whereas the power of articulation is still retained. The power of articulation depends upon the integrity of the vocal organs, and the nerves supplying them, and exists in animals that

do not possess language or the "speech-center;" and in human beings who possess a speech-center this may preserve its integrity and manifest itself in the way of writing, while the power of articulation is lost, whether due to imperfect vocal organs or disease of the nervous apparatus regulating the vocal organs.

He tells us that the function of the cerebellum is that of muscular co-ordination. To discuss this subject here would require too much space; in a medical thesis, which I may publish, I have reviewed at considerable length the experiments and other evidence in favor of this view of the function of the cerebellum, as well as other disputed points on the function of the nervous system, and I have arrived at the

conclusion that, like many other deductions made from cutting and slicing living tissue, this has no foundation in truth. The experiments themselves contradict each other so much that one who will take the time and has patience to investigate for himself the literature on the subject, will become so disgusted with the fruitlessness of such methods that he will be willing to study Nature, and observe her normal manifestations if he desires true knowledge.

The object of this reply is simply to prevent those who may have read Dr. Wilson's paper from allowing themselves to become prejudiced against a science as important as any, but understood and appreciated least.

R. C. SHULTZ.

University Medical College, New York.

THE GONGORA MACRANTHA.

AMONG the singular flowers of the Orchid family, the *Gongora Macrantha* may be ranked as one of the most remarkable. It belongs to the genus *Coryanthes*, of which there are many species, but this

a congenial home, and in its hospitable climate grew and flourished and produced three flowers rarely perfect, and unlike in their shape and appearance anything which had been seen before, even in the luxuriant



GONGORA MACRANTHA.

one Hooker believes to be exceedingly rare. The figure is taken from a flower sent to him, and a single plant was planted in the Botanical Garden of Trinidad, that fair Eden of the world, where all beautiful things find

flora of the tropics. So strange was its structure that visitors to the gardens supposed that it was artificially made, and could scarcely be brought to believe that it was a production of nature. There is another

er species, the *Gongora Speciosa*, which very nearly resembles it, but the flower is much smaller, and is wanting in the singular folds or *plicæ* which are seen at the base of the lip or hood, resembling the overlapping pieces of a helmet. Indeed, it will be remarked that the whole blossom has a general resemblance to a helmet.

This rare plant may be cultivated after the manner of other orchids, in the stove-heat of a hot-house, and we think few persons possessed of valuable collections of orchidaceous plants would wish to be without it,

few days, but notwithstanding this, are well worth the time and care they may cost.

It is greatly to be desired that the value of orchids, as additions to the beauty and fragrance of exotic collections, should be more fully realized, and the ease of their culture more fully understood. Many persons having only a very small conservatory can indulge in the luxury of their possession, for there are many choice specimens which do not require the "stove," and may be raised successfully where any green-house plant would thrive. But it must be remem-



ADANSONIA DIGITATA.

after once having seen even its pictured form. It is epiphytal, and needs, therefore, to be either suspended in a small pot filled with sphagnum moss, under which some broken potsherds have been placed, or to be bound upon a piece of wood, with the moss surrounding its roots, to keep them moist, secured by a little fine wire. Pear-wood or oak is thought best for this purpose. It should be suspended in the air and kept continually warm and moist until after its time of blooming. The flowers, like most terrestrial things of rare beauty, last but a

bered that they are all tropical, and accustomed to the hot, moist atmosphere of forests which form their natural *habitat*.

While I am talking of tropical plants let me describe to you one which is as far as possible removed from the orchids, particularly from the aerial tribe of which I have been speaking, and yet it is equally remarkable: it is the *Adansonia digitata*, or monkey bread of Africa. It was named for its distinguished discoverer. It is also called Sour Goura, or Lalo plant, by the natives. The form of its flowers will be seen in the

engraving, marked by its broad tube filled with stamens, and its long and graceful style terminating in the star-shaped stigma. The fruit is thick, woody, and closed, and contains a soft pulp. But it is the form and properties of the tree itself which most attract our attention, being unlike any other known to naturalists. It rises to the height of twelve or fifteen feet before it throws out a single branch; it then sends out branches horizontally seventy-five or seventy-eight feet in length, which being too weak to sustain themselves, droop to the earth, concealing entirely the bole of the tree, which grows to an enormous size,

being from seventy-five to seventy-eight feet in diameter. The wood is soft, and is subject to a disease which softens all the hard parts and causes their decay. The negroes make a most singular use of the trunk: they hollow it out into burial chambers, and reserve them for the entombment of criminals and those denied the usual rites of sepulture. The most startling calculations have been made as to the age to which it grows. Adanson believed one on the north coast of Africa to be 5,000 years old, and Humboldt calls it "the oldest organic monument of our planet."

MRS. C. S. NOURSE.



THE WORLD'S WORK FOR WOMEN.

Intellectual Work—Influence of Health—An Illustration—Drudgery—Improvement of Time—"If I should get Married"—The Best Dowry.

THERE are hosts of young women, now looking out upon the troubled sea of public opinion and action, questioning what part they shall take in the world's work. It is true there are innumerable young men doing the same thing, but their range of choice is wider and clearer. They can do well if they undertake only to follow in the path where other men have gone before them. But with many women at the present time it seems to be almost a necessity to strike out into some path not commonly trod by other feminine feet, where they will have few, if any, precedents by which to determine their course of action. There are so many strange and absurd things said about "women's rights" and women's duties to the world, to their families, and to themselves, that we would like to whisper just a few common-sense words in their ears, as they stand debating and deciding.

INTELLECTUAL WORK.

And first of all, dear girls, do not allow yourselves to get the notion, from anything you hear or read, that women are to be made queens of, and to have good situations and sinecures for the mere asking. Women's best demand at the present time is to have intelligent, remunerative work, which is often the most absorbing and self-denying kind of work. If they are not willing to prepare themselves for this, they may as well drudge on as they have been doing. Muscle and sinew have hitherto largely controlled the prices in the world of work, and it is partly because women as a class have not been able to compete with these, that the prices of their labor have been so low. But now, when brain-work and skilled work, not requiring muscular strength, are beginning to command the prices that are their due, comes woman's opportunity for fair competition. It is true that we are told that women have not the brain, nor the patience, nor the application requisite to fit them for such work; to all

of which the only convincing refutation is the doing of it. There is no other fitting answer to the alleged incapacity of women, and it behooves each of us to give this as best we can.

INFLUENCE OF HEALTH.

But here comes up at once, to a large proportion of our young women, the practical difficulty of insufficient health. With women no less than with men the question of success often turns upon the physical ability to endure the strain of constant attention. Women can vie with men in patience and diligence and economy, but in the matter of health they suffer some serious drawbacks. It is true that when the absences of male and female clerks are compared, the latter are found, taking all causes together, to be absent less frequently than the former; but the causes of absence among the women are more frequently on the score of health. If, therefore, the health of the women could be improved in the average, they would stand a better chance of preference. This is by no means impossible. We know of lady clerks who through a long series of years have never lost a day on account of illness. It would be an easy matter to increase health in most cases by a more careful attention to diet, exercise, ventilation, early hours, and proper dressing. A little time devoted to the study of physiology and hygiene in these respects would be to most women a good business investment. They may think they do not need it, but that is an old fallacy. Every person who owns a body should understand its structure, and know how to take care of it, if he or she expects to keep it in good running order. And it is far less expensive to keep it in order, than it is to restore it to health after it becomes diseased.

AN ILLUSTRATION.

Very often this question of health is the chief consideration at the very start. I well recollect one case of a young lady not long out of school. Of a thoughtful and really well-cultivated mind, and a devout heart, she looked out upon the moral and mental wants of the world with a great longing to do something toward meeting

them; in short, to do her part of the world's work intelligently. She was neither an enthusiast nor an empty theorizer. She saw many things waiting to be done, and she was ready to do them, but her health would not warrant their undertaking. Every week or two she was prostrate with a blinding headache for two or three days. Her eyes were weak, and other complaints were not wanting. It was no unusual case, but ill-health is always serious, and this stood in the way of every undertaking.

A friend pointed out to her two or three ways in which she was plainly violating some of the simplest rules of health—tight dressing, lack of outdoor exercise, late hours, concentrated food, fast eating, and—would she be willing to give up tea? It happened that she was really in earnest, and willing to try anything that had the promise of health, even to studying physiology and hygiene. She followed the hints given scrupulously. In less than three weeks her headaches disappeared; and gradually vigor filled her veins and colored her cheek, and gave elasticity to her movements. Within a few months she had filled up her days with remunerative work, and was devoting some of her evenings to temperance work among the young, enjoying it all and planning larger things for the future. And all this was in a little country town of small opportunities and no brilliant promise.

DRUDGERY.

Girls in the country are apt to consider their lot especially hard, but it is mostly because they think there are so much better chances elsewhere. If they complain of drudgery there, it is usually worse in the city—a drudgery that does not permit its victims even to read the papers or to write about it. The complaints which we see in the "home departments" even of the city papers are written in the country almost without exception. It is hardly worth the while to change location to escape drudgery. Let the change come as the result of a definite call for your work. Make your mark so broad where you are, that others may see it and want your services. Doing well the duty that lies nearest you

will put you on a higher plane, whence you can see what next is to be done. Reflect carefully as well as prayerfully on your relations to those around you. If it has not already been remembered for you, remember for yourself, that your time is your own after you are of age, though nothing is higher or more ennobling than to give your services to your parents, if they need them, whether they appreciate them or not.

Never be idle nor do useless work, because you can not get the kind, or the amount of remuneration you wish or think you deserve. If it falls to your lot to do a great deal of such unintellectual work as you call drudgery, while you should be careful not to let it ruin your health, do not be impatient with it. Indeed, its effect upon your health will depend largely upon the spirit with which you take it. Very often it is an excellent discipline. There is much of it to be done in the world; almost every employment has more or less of it; take it, make the best of it, and be thankful if it does not fully engross your attention. There are very many kinds of work which leave the thoughts comparatively free, and if while employed about them you learn to control your thoughts and discipline them, you may gain not only much mental discipline, but actual information.

IMPROVEMENT OF TIME.

Knitting and reading can easily be performed at the same time. There are some notably intellectual ladies who have practiced this from mere childhood. Some I have known who could sew and read at the same time. This is not easy with the sewing-machine, but reading is not unfrequently done while churning or washing dishes. If men can profitably follow literary pursuits at the forge and the plow (and Elihu Burritt is not the only one who has demonstrated the feasibility of this), we may well remind our readers that women's pursuits are usually still more favorable to such experiments. I have known school-girls to commit chapters, psalms, and poems while putting their rooms in order, or engaged in sweeping and dusting. The usual difficulty with us is that we do not try to control our thoughts,

or we spend our time in talking instead of thinking and studying. I am not now speaking so much the thoughts of women who have the entire management of household affairs (for these involve an immense amount of detail which requires thought), but rather to the work of the girl still under the mother's superintending care. This is the time when habits are formed, and habits of thought once wrongly formed are exceedingly difficult to correct. But let a girl form habits of connected thought and profitable study while at her work, and its benefits will follow her through life.

If you have decided what part of the world's work you will try to do, make all your spare moments tell in that direction. If you decide to study medicine, your health studies will greatly help you in that. This is a pursuit in which women can be very useful; but do not decide upon it unless your taste calls in that direction. Consult some other person, of sound judgment; but in the main rely upon God and your own endeavors. Learn to judge of your own abilities, and never consent to take up any pursuit for which you find, after careful consideration, you have no special fitness or inclination. If you do not see the way open to any particular pursuit, be patient, continue your self-improvement, watch your opportunities, and you will succeed at last. A lady once prepared herself to teach, not so much from choice as a matter of course, but finding the profession crowded to excess, she determined to become a proof-reader. She spent her leisure hours for some time in type-setting, as a practical preparation for that business, and eventually procured the position she sought, and filled it well.

Whatever you undertake to do, be sure that you will find difficulties, and all the more, if the path you tread is new to women; but beware of supposing that all the difficulties spring from that cause. Men often have difficulties in getting situations; indeed, I think they are more often absolutely out of work than women, or rather that the latter are more successful in finding something to do, or more willing to take up with what they do find. Never suffer your

self to be discouraged and down-hearted. Make a little extra effort to keep up your health habits at such times. Such bravery pays well. With industry, economy, and perseverance you will be almost certain to win your aim in the long run.

"IF I SHOULD GET MARRIED."

"And if after all this effort, I should get married, what would it amount to?"

I do not know that I ought to have put this question into the mouth of one of my patient and thoughtful readers, but if you did not ask it, some one else might, and I will tell you what to answer. All this discipline will make you ten times more the woman for *any* of the practical purposes of life that you would be without it. We can triumphantly answer even those who claim that maternity and domesticity are woman's highest callings, that she needs the very best practical training and development to fit her for their highest exercise. The result is direct, constant, and evident, and no false delicacy should induce us to overlook it, or fail to emphasize it. Highly-cultured women make good mothers. Women of good business capacity have well-ordered households. For a time results may be equivocal. Women long trained to a belief that housework is small work (mostly because it is sneered at and underrated by the lordly judges of the world's work), may neglect it for the pursuit of something that is rated higher; but the reaction is sure to come, and what is now styled "women's work," will yet take a more honored place in the world's pursuits and be treated with more consideration.

I had once, as an electric flash, a premonition of this when at a lecture on "women's rights." I was sitting beside a woman usually absorbed in wifely and motherly duties; and she turned around to me after the picture was fully drawn, with the exclamation, "But who then will take care of the men?" Is the shoe on the wrong foot after all? We have been long taught that the men were taking care of us. The truth is, that the men have mistaken, when they have underrated and underpaid women's work. I suspect that nothing will set matters right but a general stirring up and readjustment of the whole matter.

So far from this business training of yours being thrown away, it will increase your chances of a happy marriage. Worthy men will know better how to appreciate you, and it will give you a better opportunity of knowing them and learning their true character. This is not intended as the suggestion of a new method for getting a husband. The young woman who deliberately sets out on such an errand is beyond the reach of our advice. Much as may have been said about the right of woman to do the courting, the true woman never will do it. I think it very rare indeed that any woman really cares for a man who has not sought to awaken such a sentiment in her heart, and, conversely, any such effort on her part is repugnant to him. This natural law affords another strong reason for endeavoring to help women out of the silly situation of waiting in idleness for some man to take a fancy to her.

In nine cases out of ten, good business habits will be

THE BEST DOWRY

you can bring. If your husband has his fortune to make, you can help him directly very much at first, when help tells the most on his future success. If he dies, your business habits will not come amiss whether he leaves property or not. But it is objected, that the wear and tear of business, as now conducted, is too much for women. We reply, it is also too much for men. It is killing off its thousands of husbands and fathers every year, and the very fact of their having so many idle hands to support largely increases the burden and adds to the anxiety. It would greatly ameliorate the really pitiable condition of business men if the idle women would do something toward supporting themselves; while very possibly the presence of women might modify to some extent the reckless, exhausting, and, as we believe, unnecessary hurry of business pursuits. Very certain we are that there would be less drinking in business hours if these tipplers had to transact business with women of stern morality.

I know that men frequently object to this with the plea that they prefer to support their wives and daughters without work.

This is a mistaken tenderness. I should have no objections to saving women from overwork, and men too for that matter, and I believe that in the "good time coming" that will be accomplished. But men ought to remember that women need work of some kind for their physical and mental development, and they have a right to it. It affords a good exemplification of how little men know of women's needs, when they put their young wives into boarding-houses, while they go out to work harder than ever because they have a wife to support. She may be happy in her new love, in spite of her surroundings, but not nearly so happy as she would be in a home of her own, however small, or if she could share his labors, or have some remunerative pursuit of her own, with the result that he would have more leisure to spend with her. In many cases the business which she followed before marriage would still gratefully take the

place of the useless work devised in such endless variety to sponge up the time of unemployed women, bringing in no money, developing no energies, training no worthy faculties, but becoming a prolific source of nervous exhaustion and of expense. In all this we leave untouched the moral influence of boarding-house gossip and flirtations. Of the superlative advantages of a home we will speak in another article.

Women are naturally industrious. They need something to do. And though it may be true that they are eventually to be the crowning glory of this lower world, the special cultivators of the graces, there are many of them very far from it now. They are, to a great extent, doing the world's drudgery, and that at half price, and killing themselves while doing it. But their only way out of this condition is through intelligent, earnest industry, and a diligent cultivation of health.

JULIA COLMAN.

MRS. LYDIA FOLGER FOWLER.

IN connection with the affairs of Phrenology, the name of Fowler has a peculiarly interesting significance wherever the principles of physio-mental science have been disseminated. In America, and England especially, is this name well known, for the simple reason that several members of the Fowler family were among the first in America to welcome the new and beneficent doctrine of Gall and Spurzheim, and for nearly a half-century they have labored assiduously and indefatigably in teaching them. On this account whatever of fortune or misfortune occurs to one of these eminent propagators of human science finds a great circle of interested and sympathetic witnesses.

In a late number, notice was given of the death of Mrs. Lydia F. Fowler, the wife of Prof. L. N. Fowler, of London, England, and as data concerning her life have been supplied for the purpose, we are enabled to give our readers a sketch of one whose

entire career has been a busy and useful one. The phrenological notes on her character were made before her marriage to Prof. Fowler, at Nantucket, April 2, 1844, and in many respects they have the tone of prophecy, so fully has the phrenologist's estimate been confirmed in the current of her life.

This lady has a brain of full size, and a physical organization well adapted to its exercise. The relationship existing between the body and the brain is more perfect than in many. The one is always ready to serve and adapt itself to the other. It is easy for her to use her body in conformity with the wishes and dictates of the different faculties. Her mind also sympathizes with the various conditions of the body, and suffers and enjoys therewith. When any element of the mind or function of the body is called into vigorous action, all the other faculties and functions are employed as helpmates to accomplish the object desired; consequently what she does by a first effort can not be bettered by a second. When she is happy

she is perfectly so, and the reverse is equally true. Her power and desire to act are equal.

Her mind is very susceptible to impressions, and were it not well balanced and fortified, she would be too easily led away

nature's book, and to enjoy her smiles, however simple and retired.

Her phrenological developments are mostly full, large, or very large; few are average and none are below a medium size, either judging from the general standard, or from



MRS. LYDIA FOLGER FOWLER.

or biased by the excitement of the moment. She is constantly taking lessons. She learns something from everything she sees, hears, or reads. She observes and obeys the language of nature; nothing is forced or strained out of its natural course. She is purely a child of nature, and loves to learn from

the standard of her own developments. She has several strong traits of character. The strongest elements of her mind are of a moral nature and have a controlling influence. Her next strongest are the social and intellectual faculties. The selfish feelings are fully developed, yet inferior to the other

elements of her mind. Most of her faculties being full or large, much uniformity and consistency of mental action and consciousness result. She is seldom carried away by impulse or the excitement of the moment. Her sins are the result of ignorance, for she is always conscious of what she is doing or going to do. When she departs from a medium course, it is gradual, and by a constant application of the mind in that direction.

Her social and domestic nature is strongly developed. She loves her friends earnestly ; is liable to think too much of those she loves, and can not enjoy herself without mate or companion. She loves to confide in and rely upon the object of her affections. She has strong parental feelings ; is fond of the young and tender, and well adapted to the care of children. She is fond of home and one place to live in, yet can change her residence if the occasion require it, and can adapt herself to new places and associations. She has the ability to apply her mind and center her thoughts and feelings on the investigation of the subject under consideration, and the necessary patience to attend to the details of an investigation, to the summing up and completing of it. She has the disposition to defend and maintain her rights ; sufficient energy and force of character for all ordinary purposes ; and she possesses fortitude and ability to sustain herself in times of difficulty and danger. If necessary she could have strong resentments and decided dislikes. She is also resolute and executive whenever the occasion requires ; does not stop at trifles or multiplied difficulties when she has an object to accomplish, but nerves and prepares herself for the task. She generally accomplishes whatever she undertakes. She has almost perfect command over her temper and any irritability of mind she may possess. Combativeness and Destructiveness, although strong, are well controlled by more elevated qualities of mind. Her desire for nutrition is rather strongly developed, and has its full influence on her character. She is cautious, mindful of danger, and careful as to consequences ; looks ahead and thinks before she acts or speaks, and always knows what she is going to do before she begins.

She does everything with both eyes open, and seldom makes a mistake. She invariably arrives at the same conclusion when thinking on the same subject ; seldom breaks or loses anything ; looks on all sides of a subject before committing herself, and acts with regard to more results than one. Although cautious and deliberative in making up her mind, yet she is firm, decided, and persevering ; can be relied upon, seldom deviating from the course she at first decided to pursue. She may conform to others for the time being, but her mind and general character remain the same. She is exceedingly sensitive with regard to her character and the opinion of others ; is ambitious in a high degree ; and studiously avoids exposing unpleasant qualities of mind. She is affable and agreeable, polite and easy in her manners, and anxious to entertain company. She is dignified, and never lets herself down or manifests a want of self-respect.

Her moral faculties are strongly developed, and have a distinct influence by way of controlling and modifying the action of the other faculties. The individual influence of each moral attribute is not so apparent as the combined influence of the whole. Her sense of justice, and her regard for truth, duty, and moral obligation, have a constant influence upon her mind. She has rather strong feelings of hope and anticipation, and is much encouraged and stimulated with ideas of future success. She has a vivid consciousness of the higher or spiritual influences, and of the doings of Providence. She enjoys herself alone, and delights to allow her mind to dwell upon subjects entirely disconnected with matter or sense. She is evidently fond of fiction, as also of the wonderful and uncommon. She would enjoy the writings of Scott and Bunyan more than many. Her imagination is rather strong, though not particularly vivid ; but it has an elevating and moral, rather than a dissipating tendency. She is also fond of contemplating the grand, vast, sublime, and comprehensive, both in nature and art, oratory and composition. She is ingenious, and has the talent to make, construct, and put things together. She can also contrive, plan, imitate, and work after a pattern.

Her intellectual faculties are fully and quite evenly developed, and have a distinct influence. She is disposed to avail herself of every means within her reach to gratify and improve her mind; is quite fond of general reading, but is more anxious to acquire definite and practical knowledge, and to acquaint herself with fundamental principles, than merely to read for dissipation. She not only learns from books, but from observation and experience. She has a decided preference for experimental philosophy, and for the philosophy of mind. She is also fond of natural history, and is equally interested in investigating and developing first principles, and becoming acquainted with them in the abstract, or applying them in their various ways. She is uniformly neat, though not fastidiously so. Her perception of the laws of gravity, of colors, numbers, and melody are but average qualities of mind, and require careful training; their influence would be more or less apparent, according as circumstances favored their action, or the contrary. She has a distinct idea of places, location, direction, and the relative position of objects. She is very fond of natural scenery in all its rudeness and extravagance, and has a desire to become acquainted with the natural denizens of the earth, with the soil and its productions, the climate and its effects on the human constitution. She is always inquiring into the mutual relation and adaptation of things. She has a passion for history, and wishes to be acquainted with the news and doings of the day. She has a clear and original mind, readily comprehends complicated subjects, and is in the habit of doing her own thinking. Many subjects appear plain to her mind when others fail to comprehend them. She has strong powers of association, and makes nice distinctions with regard to the qualities and relations of things. She has a critical turn of mind, with sagacity, intuition, and perception of hidden motives, and her desire to become acquainted with recondite springs of action, and her disposition to form a like or dislike at first sight, are full qualities of mind, and rather apparent in the character.

LYDIA FOLGER FOWLER, who died at her residence, No. 62 St. Augustine's Road, Camden Square, London, on the 26th of January last, was born in the island of Nantucket, Mass., in 1823. She was a daughter of Gideon Folger, and directly related, on her father's side, to the mother of Benjamin Franklin, and possessed many mental characteristics which appeared in that distinguished man, as inherited through his mother.

Miss Folger was an ardent student, and after a course of training somewhat more comprehensive than was customary for young ladies in her day, decided to pursue the study of medicine, and for this purpose attended lectures at a medical college then existing in Rochester, N. Y., where she succeeded in taking the degree. Mrs. Clemence S. Lozier, of New York; Mrs. R. B. Gleason, of the Elmira Water-Cure; and Mrs. Dolly, of Pennsylvania, each ranking high in her sphere as a physician, were students in medicine at Rochester at that time. Soon after completing her course of study there, she was appointed Professor of Obstetrics in the same school. Subsequently, she practiced and lectured in her profession in New York several years. Besides her professional duties, she assisted her husband in his labors as a phrenological lecturer and author; she also prepared a small treatise on astronomy for the use of children, which is now out of print, thus curiously showing a mathematical bent peculiar to the Folgers, from which side of his family Benjamin Franklin inherited his. An uncle of Mrs. Fowler, Walter Folger, was in his time a prominent American astronomer, and indicated remarkable inventive talent by making a telescope equal at least to that of Herschel, and also an astronomical clock devised to exhibit all the solar, lunar, and planetary changes for ninety-nine years.

Mrs. Fowler's sympathies, as she grew older, influenced her pursuits, and gave her mind more and more a direction to concrete rather than to abstract studies. In company with her husband and others related to the phrenological business which had been established in New York as early as 1835, she traveled extensively in the United States

and Canada, availing herself of opportunities to lecture on physiology and temperance, being always of the latter a most earnest supporter. At one time, she traveled through the State of Indiana with a lady friend, lecturing every night on temperance. About this time she published her first tale; it was entitled, "Nora, the Lost and Redeemed," and was brought out as a serial in a Milwaukee paper. Subsequently this story was published in England. In 1860 Mrs. Fowler accompanied her husband and Mr. S. R. Wells on their professional visit to England, and soon after their arrival took a trip to Italy with the Rev. Dr. J. R. Newman and Mrs. Newman. On her way back she spent the winter in Paris, attending lectures. Subsequently she spent some time as a hospital attendant in London, having for three months, charge of the obstetrical department; then she traveled with Prof. Fowler through England, Ireland and Scotland lecturing on the laws of life, physical culture, moral duty, and social reform. A number of her lectures were published in a volume under the title of "The Pet in the Household," and were designed as a guide for the use of parents in the physical and mental training of children. Another book which she published about the same time is, "Woman and her Destiny"—a work addressed especially to woman.

Prof. Fowler having decided to settle in London, took an office in Fleet Street, where he has since conducted his professional work, assisted, as usual, by his wife until within a few weeks of her death. The routine of professional work was from time to time broken by trips to the continent, and by a journey to the East, when Greece, Turkey, Egypt, and Palestine were visited. Mrs. Fowler threw herself with ardor into the labors to which she had devoted herself. She had always an abundance of literary and other work of her own on hand. Among her relations to what may be called popular life, was her connection with the "Woman's British Temperance Society" as its honorary secretary. The variety of her engagements and the earnestness with which she pursued them, had much to do with her death; it may be said that she wore herself

out. The last effort of her pen was a temperance tale which she finished just before the attack which resulted in her death. In her earlier life she was given to poetizing, and shortly after going to England published a volume under the title of "Heart Melodies." Mrs. Fowler was widely known and highly esteemed in England for her professional abilities and moral worth.

SWEEPS.

You've heard of sweeps? "Yes, yes," you say,

"Those elfs of grime and song,
We've seen them too, gay imps of dark,
Wind up the chimneys long."

I, too, have memories of them,
But will not now relate
How, when I was a white-haired child,
They scattered soot and prate.

I mean sweeps of another grade,
Sweeps of the present age.
"Dear creeping babies," now you say,
"Who flee the nursing age,

"And quite impatient for life's chase,
Await not strength of limb,
But on all-fours investigate
Youth's first encircling rim."

No, no, you're very dull indeed—
"The knights of hose and broom!
We've surely solved your riddle now,
Yes, they take much street room."

You have not solved it, yet I own
You shall not guess it more;
Whene'er I wish to speak again
I'll term define before.

The sweeps are sweeps! you have it now:
Their mops and brooms are trails.
They gather up in streets and parks
Dust, burs, and grime and nails.

"You'd best be careful; your own skirts
Are not so clear and clean!"
You're right—and yet I think, my friends,
Dame Fashion's rule is mean.

Why, if the ladies must be sweeps,
Is not some half-moon whisk
Attached to every silken train,
For motion slow or brisk?

A patent combination tilt
Would make the trail complete;
We could at ease collect the filth
For ash-men on the street.

To Beauty's reign I ne'er object,
In fact, I bow to it;
But I like use with ornament
Whenever it will fit.

Of sweeps as sweeps I do approve.
Pray don't misunderstand,
And I would have each lady's train
By this new patent spanned.

Then might we purify the streets,
Yet never be unclean;
Reap benefactors' benefits
While moving on serene.

S. L. O.

UNCLE JIMMIE, THE CRIPPLE.

CHAPTER V.

UNCLE GEORGE WILSON.

"A ROUND our mother's dying bed had gathered our little household; and with us was Uncle George Wilson, mother's Quaker brother. Nurse had brought in the children when she saw the end was near. May stood trembling beside me, her little cold hand in mine, and her face as white as the night-gown she had on. Jimmie was in my arms with his face hid in my bosom, and I felt as though the weight of years had suddenly fallen upon me, when she breathed her last.

"A sweet smile crept over her face as the body became cold and stiff. I thought surely mother has had a look into heaven, for nothing less could lend a smile like that.

"How I longed to be alone, if only for a few brief moments, to give unrestrained vent to my grief. But Jimmie clung to me as in very despair; his frame trembling, and his flesh quivering. He was but a babe in physical endurance, but almost like a man in wisdom. He comprehended the scene as well as I, though I was seventeen years of age, and he was but nine.

"Few boys love their mothers as I loved mine; for few boys ever had such a mother. Her sweet self-sustained nature entered into all my boyish feelings. She shared all my hopes and fears, all my griefs and joys. She so held my confidence, that I felt I had no secret from her searching eye, and I desired to have none. Yet she never sought to draw from me anything I felt reluctant about imparting. She had, somehow, so wrought her life into mine, that confidence was always implied, if not spoken; while her entire sympathy with me in all my earnest thoughts, led me to love her almost to worship. She possessed a brilliant mind, clear judgment; in fact, she was my ideal of human goodness. Could I have kept ever before me her lessons of wisdom, my life might have been spared long years of regret, and brother James a life of pain.

"On that dark night—for all the world then seemed darkened to me—I promised

myself that these two little, helpless, trembling babes entrusted to my care should never know grief if I could prevent it. I prayed for help, and firmly believed that Heaven would so guide and sustain me, that I should never break the promise. All too soon I lost sight of the great lesson in my mother's advice—that prayer would elevate and purify my life; but that I must not expect Heaven to do for me that which, for my own strength and growth, it was absolutely essential I should do for myself. I forgot that, by stilling my own spirit, and waiting for the light within me to set my compass right, I should gather to myself peace and resignation.

"I persuaded the two little ones to lie down for a while, nurse sitting beside them, and I went out into the wild night. The cry of the winds sounded to my turbulent soul like the wail of restless spirits. I felt as though the soul of the storm was talking to mine, and an irresistible impulse to shriek out my pent-up agony as the winds were shrieking the agonies of the powers of darkness, took possession of me. I gave one long, wild cry:

"'Mother! mother! come back to me!' and I fell prostrate beneath the old oak on the lawn.

"Nurse heard my cry, and Uncle George came out and gently lifted me, and helped me to the house. He laid his loving hand upon my head, and by the peculiar magnetism of his touch I became calm and fell into a brief sleep.

"I had not slept, and had scarcely eaten, for several days, and anxiety had worn fearful inroads into my strength. After sleeping I was somewhat refreshed, and Uncle George spoke so kindly and quietly to me that I soon regained my wonted energy and self-control, and was enabled to carry the children through those days of sorrow as tenderly as I would to-day the little ones who call me father.

"Uncle George remained with us for sev-

eral weeks. He has since told me that he dared not risk my tendency to melancholy, by leaving me alone with the servants and children. His ever pleasant smile served, more than anything else could have done, to remove the gloom that rested upon us.

"It is our duty," he said, "to glean all the happiness we can from our surroundings; for the happier we are, the happier we make those around us, and in seeking the good of others we are always seeking our own highest good. Our internal resources for happiness are far greater than we imagine, until we begin to draw upon them, then we find they are like ever-flowing fountains. Pleasure, genuine pleasure, is so innocent, and we are so well adapted to give as well as receive it, that there can be no question about the wisdom of our accepting it as a part of God's legacy to human existence.

"When persons are genuinely happy they seldom commit sin; for there is no genuine, unalloyed happiness except in connection with the feeling of conscious rectitude and purity of purpose.

"Any happiness which we can gather while we retain this consciousness, is justifiable, and not only justifiable, but is our duty to cultivate and obtain. Then peace, sweet peace, will be ours even in affliction."

"Under the soothing balm of his calm exterior and happy spirit, I grew internally strong and more self-reliant than I had ever been before. The children looked up to me with confidence and love, and a greater degree of happiness was enjoyed by us than I had ever supposed possible in this world with mother out of it.

"Uncle George engaged an excellent woman to come and live with us, and teach us all at home.

"Good Mrs. Strong was a born Quakeress, though not one by profession, and we all learned to love her. Gradually the care of the children was assumed by her, and in a measure relinquished by me. Uncle George advised this course. He said I should be better fitted to perform my duty toward them in the future, and that I could neither be just to them or myself except by

relaxing somewhat the mental strain with which their care oppressed me."

CHAPTER VI.

"APRIL FOOL!"

"THE years sped on; I studied no more under Mrs. Strong, but she still taught the children and supplied the place of mother to us as well as any one could. I found that business needed much of my attention, and private lessons from Professor Jones kept my time mostly occupied. Certain hours each day, however, I devoted to May and Jimmie, and these I endeavored to make as cheerful as possible; I joined in their games and merry-making, for Jimmie's old love of fun had returned and his mirth and repartee were the life of the house. Antics and tricks, which would have seemed rough in another, came gracefully from him. Nothing amused him more than some unexpected personal discomfiture to May or myself, in case we received no injury. Our chagrin amused him, and, as anything of that kind, when perpetrated upon himself, only pleased him, he seemed to have no conception that another could be annoyed by it.

"I, on the contrary, was irritated by any sudden trip to my feet, or anything which disarranged my clothing. In fact, I could receive, undisturbed, verbal abuse or annoyance, but physical disturbances angered me. I tried to persuade Jimmie to understand me in this, but the more I expostulated, the more ludicrous it seemed to him.

One morning, as I stepped upon the stones on the lawn, an icy spot which I had not observed rendered my footing insecure, and I slipped and fell my length upon the ground. My clothes and hands were soiled, and I growled petulantly. Jimmie, who was standing in the doorway, laughed immoderately. This served to annoy me still more, and I rebuked him harshly. He tried to draw his dimpled mouth into a demure look, but it would not stay, and my irritability provoked a still more convulsive laugh from the child. Ashamed of my rage, I hurried to my room and remained there until I could command myself. I know this was a very small thing.

to get vexed about, nevertheless it is generally very small things over which both men and boys lose their temper.

"When I came down to breakfast, Jimmie looked at me distrustfully at first, but seeing that my anger was gone, he could not refrain from describing the scene to May and Mrs. Strong. This he did in the most graphic manner, his fancy supplying such embellishments as rendered the description supremely ludicrous. I could no longer refrain from joining in the laugh with the rest.

"I refer to this incident as illustrative of scenes which were frequently occurring, and which were often originated by Jimmie's device. May enjoyed the fun, and as, during study hours, James was the most industrious of students and faithful of pupils, Mrs. Strong was pleased with his relaxation and mirthfulness at other times, knowing, as we all did, that nothing would induce him intentionally to injure another. Malice never, either then or since, has held any place in his nature. He was unselfish and self-sacrificing beyond other children of his years, and he bore, with uncomplaining self-control, all personal griefs or discomfitures.

"Could you, boys, see him as he then was, with the beauty and grace which characterized him, and with the joy which seemed breathing through his whole being, you would look upon him as upon some superior child—a model, after which you might well strive to copy."

At this stage of the story, Mr. Howard seemed to have forgotten that Uncle Jimmie was present, and only became conscious of the fact by the voice of the cripple, appealing to him to desist from praise so extravagant.

"You say too much, my brother," said he; "your love for me magnifies the good you may have remembered in me. My physical frame perhaps may have been all you describe it; it seems so to me at least, as in retrospect I contrast my present repellant and distorted frame, with that lithe and upright figure of 'the long ago'; but go on, I will not interrupt you again."

"The foolish custom of playing tricks upon each other upon the first day of April,

then, as now, obtained through this section of country. It was the great day of days for Jimmie's merry-making. He studied out projects by which he might 'fool' each member of the household. Peals of laughter might be heard from garret to kitchen, with, occasionally, suppressed mutterings from the servants, about the pranks of that mischievous boy. This too, you know, was the anniversary of Jimmie's birthday, and on those occasions he had license to turn the house upside down. It was the events of his thirteenth birthday which changed the whole current of his life, and the heavy shadow from which, has ever since rested upon mine.

"He was up early on the morning of that eventful day, and the first sound I heard was laughter from the cook in the kitchen, and imprecations from Mike in the yard, accompanied with threats that he would pay off the young one before night. Mike was a great smoker, and his habit was to light the tobacco in his pipe before going to the stables in the morning.

"Jimmie had procured a small quantity of *asafoetida*, powdered and mixed it in Mike's tobacco, which lay on a shelf with his pipe. Mike filled his pipe and lighted it and took two or three whiffs at it, before he began to catch the pungent taste and odor of the gum.

"'Kate!' he cried to the cook, 'you've been spilling some o' your garlic or some other nasty stuff into my tobacco. I don't know what you have ag'inst me that you should be playing off your tricks on me.'

"At the same time he spit and blustered and swore between his teeth.

"'And me is it you're accusin' of putting garlic into your tobacco? As if I had me time to throw away fooling with the likes of yez. You've been and got some bad tobacco, I suppose, and faith, you're blaming me for it.'

"'Smell of it thin yourself;' said Mike, 'if you think it's nothing but bad tobacco.'

"And he proceeded to puff a quantity of smoke under her nose.

"'Och! may the Lord save us! it's that *asafoetida* the doctor left for Mrs. Strong when she was sick. Shure it is the same

smell, ye'd think ye could niver get your nose smellin' right ag'in with the stuff!

"Jimmie was watching from the next room, and when he thought they were both fooled enough to satisfy him, he cried out, 'April fool, Mike.'

"Mike loved the boy, and tried to smother his chagrin, but he went off muttering:

"I'll pay off the youngster before night; he's too smart, too smart intirely.'

"Kate laughed in one continuous peal. To think that Mike, who thought himself so astute and so dignified, should be caught with 'that filthy stuff by the cute little boy,' pleased her very much.

"When breakfast was had in the kitchen Mike told her she need not laugh, her turn would come next. She need not think Master Jimmie would forget her, and surely she was not forgotten.

"Kate was a woman of perhaps thirty years, and having a great abhorrence of matrimony. It was well known in the house that Mike had tried many times to change her notion of such matters, and to persuade her to become Mrs. Mike McCrea, but he made no progress. Kate was invulnerable, and Mike had, at last, given up in despair.

"Jimmie had written in large letters on a strip of white paper the following words:

"I have made up my mind to be Katie McCrea.'

"This paper he had carefully pinned to the back of her dress in such a way that every time her back was turned toward any one he could read:

"I have made up my mind to be Katie McCrea.'

"She was sitting at the table when Mike came in and seated himself.

"And how did you like your nice tobaccy?' said Kate.

"Niver mind the tobaccy,' said Mike, 'jist wait and see what the boy'll be after playing on yourself. If he can't turn the laugh on ye, I'll do it meself.'

"And it's yourself is it that'll be playing a game on me? and it's not the likes of yez, Mike McCrea, that can do that shure.'

"Jimmie was standing near the kitchen door, watching for the time when Katie should turn her back toward Mike, but she

seemed to have no occasion to get up, and Jimmie found he must invent some excuse for sending her from the table.

"Katie,' said he, 'is not your kettle burning on the stove?'

"Katie jumped up and started for the stove, exclaiming:

"And I don't know what I'll say to meself if I am that careless, to lave me kettle dry, to burn and smoke up the tay water.'

"Before her soliloquy was done, Mike had read the words aloud:

"I've made up my mind to be Katie McCrea.'

"Faith! that's what makes you forgit your kettle, is it? You're going to be Katie McCrea at last. Well, better late than niver, then. I'll pardon your laughing at me now, I will.'

"Katie turned and looked at Mike, wondering what had come over him.

"Mike McCrea, have you lost your senses this morning, or did your blessed mother never lave you any?'

"Mike was overjoyed. He laughed and shook up and down in his chair. His self-satisfaction was too big for words.

"Just then nurse came in and saw the paper on Katie's back, and she, too, found the joke too good to refrain from giving expression to her appreciation of it, for every one in the house knew that Katie would sooner starve than marry Mike.

"Well, well! Katie!' she exclaimed, 'so you have changed your mind at last and have decided to marry Mike, have you? Well, you might have a worse man than he, and there's many a worse name than Katie McCrea.'

"And shure now, Miss Terril,' cried Katie in vexation, 'I did not think you would be making game of me, and worst of all, to be tazen me about that spalpeen that didn't know his tobaccy this morning from the bad smelling asafœtida that Mrs. Strong took for medicine; and shure the odor of it was so bad that she shut her eyes and held her nose to get it down her throat.'

"Poor Katie's annoyance was amusing in the extreme, especially to Mike, whose vanity was flattered a little, notwithstanding he knew Katie was vexed by the affair.

His continued mirth and Miss Terril's remarks, provoked protestations numerous, if not elegant, from Kate.

"'April fool,' cried Jimmie, and he scampered off up-stairs, entirely satisfied with his morning's operations in the kitchen.

"As we gathered around the breakfast-table, May came in, moving with great dignity, as was the little maiden's habit. Upon the back of her dress was fastened a well-executed sketch of a peacock, dressed in the style of a fashionable young lady; the spread tail representing the train of her dress, and the upturned head bearing a resemblance to a human face. Under it was written: 'Miss May Howard, the belle of the season.'

"May's peculiar manner was then so in keeping with the idea of a little vanity, that the fitness of the picture was instantly perceived, and good Mrs. Strong was the first to manifest her mirth; I tried to look grave, and suggested to Jimmie that such caricatures were not the right thing exactly for a young gentleman like himself, nor were they kindly in spirit. May's consternation, however, to find herself the center of observation, comment, and mirth, with the uncontrolled laughter of Mrs. Strong, overpowered my sober intentions, and I was compelled to laugh with the rest.

"'Look at the back of your dress in the glass, sister May,' said Jimmie, 'see if you think it is all right.'

"She, supposing that there was something wrong with her dress which had caused the merriment, went to the mirror and discovered the source of the disturbance.

"'April fool, May,' said the delighted boy.

"May enjoyed the fun; no sooner had she read the paper than her merry laugh sounded as loud as the rest.

"We were now all on the alert expecting some trick to be played upon ourselves, but breakfast passed off with no further interruption. James seemed to have had his fill of fun for the time. May was soon planning how she should retaliate upon him, but his shrewdness evaded all efforts made in that direction.

"That day Uncle George came for May

to spend a few weeks at his home. Before they started, Jimmie managed to drop a letter—addressed to Uncle—near him, on the carpet. Uncle George perceiving it, picked it up, and directly broke the seal, thinking it might be some letter he had put into his pocket, and had carelessly forgotten to read. He supposed he had drawn it from his pocket with his handkerchief. Upon opening it, he found the figure of a Quaker gentleman—a very good likeness of himself; but the dress so enlarged and caricatured, that it rendered the picture absurd and ludicrous. Under it were the words: 'April fool, Uncle George.'

"The old gentleman's eyes twinkled as he looked around for 'the little artist,' as he called him.

"Jimmie stood back at some distance, leaning carelessly against a table; his eyes sparkled with glee, his cheeks were flushed, and the little dimples were playing around his beautiful mouth like variations to the glad music of his innocent spirit.

"I shall never forget that picture. His dark curls carelessly thrown back from his face, and his little symmetrical frame weaving gently with each passing thought.

"Could I have died at that hour, how complete might have been the glory of his life—and how great a remorse might have been spared me!"

Mr. Howard's listeners looked in astonishment at the utterance of such words—all save Uncle Jimmie; his face was hidden in his hands, while tears were trickling through his fingers. His low, sweet voice broke the momentary stillness:

"My good, my more than good brother, please do not open the old wounds afresh by thus unjustly criminating yourself."

"I will proceed to the end," said Mr. Howard, "but James, you know I am now opening afresh, wounds caused by the most unrelenting tyrant, man ever meets, viz.: his own accusing conscience."

THERE is many a gem in the path of life
Which we pass in our idle pleasure,
That is richer far than the jewel'd crown,
Or the miser's boarded treasure.

HOUSE ALTERATION.—A SUGGESTION OR TWO.

THE tendency on the part of house-architects and builders within the past five or six years has been toward a reproduction of the style known as the Queen Anne, or the old-fashioned English cottage. Sometimes it is expedient to alter an old

take of converting an old house into something so entirely out of keeping with its general plan, that they find the expense amounting to even more than that for which a new and better structure could have been erected upon open ground. Most of the



VIEW BEFORE ALTERATION.

building in imitation of the style in vogue; but generally American cottages which have been built within twenty-five years do not admit of the extensive changes which are required by the Queen Anne style, except at great expense. Many owners make a mis-

modern houses built in rural neighborhoods during the past ten or twelve years, have shown a clumsiness of construction, and a lack of convenience for housekeeping so conspicuously, that it is surprising that men of good practical judgment in business di-

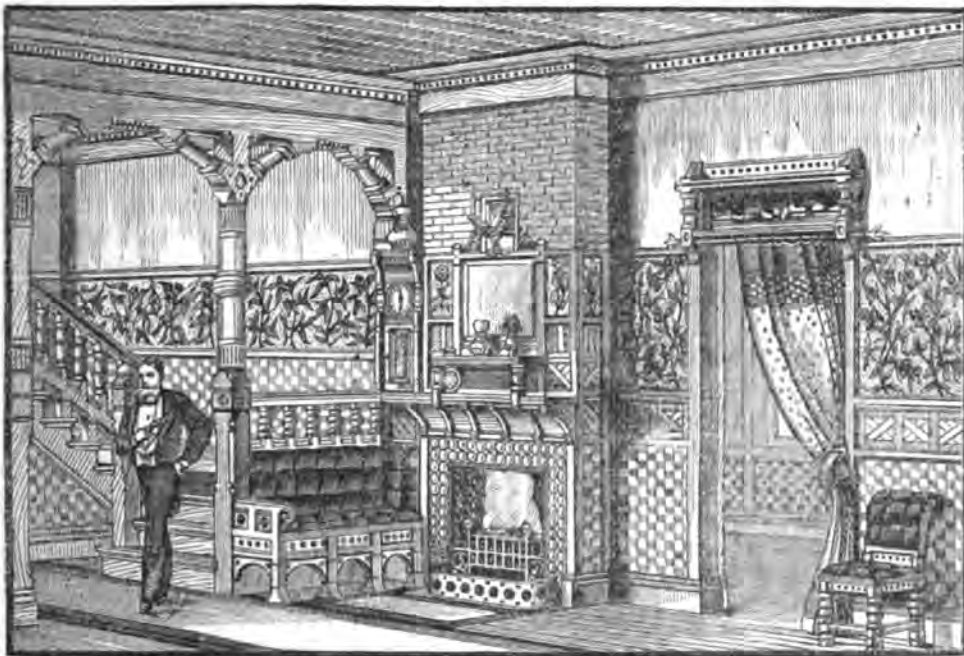


VIEW AFTER ALTERATION.

rections should have permitted themselves to be so humbugged by the fanciful architect and the "skin" carpenter.

The old-fashioned, square, unadorned, "unpiazzaed" country house offers a marked contrast to the fancy, elaborately-molded, corniced, windowed, French-roofed construction so many times multiplied in the new sections of our towns. To sober reflection the former commends itself more than the latter by its solidity and air of comfort. The judicious architect, who appreciates real convenience, in looking upon the old country home may readily suggest a few

is one convenient feature in the arrangement of such a house, to wit: the rooms are usually large, and people who have had much experience in housekeeping are quite willing to put up with other inconveniences of plan if the rooms are ample in dimensions. Most of our fancy houses inclose many rooms, but they are many at the expense of size. We have inspected costly mansions of recent erection, and found within them kitchens scarcely larger than our mother's old cupboard. A very limited knowledge in domestic matters would impress one with the idea that the kitchen



HALL AFTER ALTERATIONS.

changes here and there, which will convert the square and unesthetic exterior into an agreeable building. Such an architect we deem Mr. Woollet to be, and his recent book entitled, "Old Homes Made New," published by Messrs. Bicknell and Comstock, of New York, is highly suggestive in the line which we have just ventured a few thoughts. From that work our illustrations are taken.

Fig. 1 represents an old building very like many of those familiar to us in suburban villages, and one which is quite easily modified both externally and internally. There

should be as ample as any room in the house; that the housekeeper needs space there especially for her operations, and if any room ought to be large enough to "swing a cat in," should that contingency ever occur, the kitchen should be.

The next illustration is a view of the building after alteration, and if the reader will carefully examine it he will be surprised to find how few changes have been made, and yet, with a marked result, the whole aspect having been changed; the blankness of the first has given place to the neat and agreeable variety of finish, and that with-

out the least approach to extravagance. He will observe that the changes have been brought about mainly by the building of a short wing on one side of the old front, extending it so as to form a gable on the roof; then on one end a simple balcony has been placed, while below a piazza runs across the first story. The building has become more homelike and attractive, and has lost nothing of its apparent staunchness and durability.

Our third illustration is an interior view of a hall, and is merely a suggestion for the consideration of those who are inclined to adopt the style now coming in vogue. In the original house the stairway was narrow and inclosed. This has been removed, and a new staircase in hard wood introduced, with fireplace and settle at the foot of the same, and at the end of the settle the old hall-clock. The upper portion of this fireplace has the brick-work exposed, the lower portion being encased for mirror, etc.; and above the mirror a small sconce-mirror. As will be noticed, the entrances to the principal rooms from this hall are without doors; a curtain of heavy material, hung from a rod with rings, forms the means of shutting off the view from the hall when desirable. The end of the main hallway is marked and divided from the staircase by a Newell column bracketed each way.

D.

UNAPPRECIATED.—It may be, friend, you are a very good sort of a man, judged by the commercial standard, by the standard of the club, and even by the standard of the church. We don't doubt but that you are a pretty good sort of a man, measured by your own standard; but——I hope the compositor will place a long dash after that word but, for there was a great deal of thinking that came after it. What was I thinking about? Your wife, perhaps; your mother; your sister, or any one whose kindness and courtesy and affection ministers to you, and you don't appreciate the ministry.

The unappreciated ones, who love us and serve us; I am thinking of them. And as

I think, faces come out of the air in front of me, and stand out to sight as if they were living faces. There is the face of a mother—a worn face; a face that is wrinkled as years and labor and troubles wrinkle a face; eyes that show a growing dimness as they gaze at me; hands no longer plump; fingers no longer rounded; hair half gray and half brown. The face of a woman that has done work—hard work; work for many; done it for sixty years—done it faithfully, lovingly, heroically, but has never been appreciated for doing it.

Another face? Certainly. Whose? Your wife's. Not old nor young—forty, perhaps. The face of a woman that does everything from love; of a woman who has been busy all the day long that your house might be a home for you; a woman you left without a kiss this morning, and whom you forgot to greet as you came in to-night. And yet there were your slippers by your chair, the evening paper on the table; the table spread for tea—everything clean, orderly, homelike. And you scarcely greeted her! Brute? Pretty near it. What do you think?—*Golden Rule*.

AN EMPEROR OVERCOMING HIS ENEMIES.—A Chinese Emperor once heard that his enemies had raised an insurrection in one of the distant provinces. "Come, my friends," said he to those about him, "follow me, and I promise you that we shall destroy our enemies." He marched forward, and the rebels submitted on his approach. All now thought that he would take the most signal revenge. Instead of this, however, they were surprised to see the captives treated with mildness and humanity. "What!" cried one of his officers, "is this the way in which you fulfill your promise? Your royal word was given that your enemies should be destroyed, and behold, you have pardoned them all, and even shown special favor to some of them!"

"I promised," replied the Emperor, with a generous air, "to destroy my *enemies*. This I have done. For see, they are enemies no longer; I have made them my friends."

"THE SEARCH AFTER THE IDEAL."

"The shades of night were falling fast,
As through an Alpine village passed
A youth who bore 'mid snow and ice
A banner with the strange device—
Excelsior."

LONGFELLOW.

"Here is thy Ideal; work it out therefrom; and working, believe, live, and be free."

CARLYLE'S "Sartor Resartus."

WHAT a glorious spectacle is the onward march of our faculties, as they go forward in pursuit of the Ideal. To the rhythm of their tread the soul pours out its divinest strains, and as a leader the sweet persuasive Imagination goes first. If the desire to attain is but an indication of the power to attain, the perfection to which man may arrive can never be fully known; at best it can but be guessed at. The fields are boundless to which Imagination leads us, and the ocean to which it points stretches away before our sight, and fades in Infinity.

How meaningless and useless appears the life of a person who leads an every-day, plodding, take-what-may-come sort of existence, compared with that of one who has risen from the dreams of his boyhood; and in possession of his Ideal, stands and looks up with conscious manliness to the blue vault above him, studded with stars that whisper ever of hope, and of a future "bright beyond a mortal's telling."

But I suppose we very much resemble the trees that grow around us. Some are content to bend their heads so low as to reach the dull pool that spreads itself at their feet, casting back their shadows into their faces as if in impatient scorn; while others raise themselves majestically, stretching their heads upward to meet the sunbeams in their descent upon our earth. Man would be a poor tame creature were he never to aspire to something higher and brighter and purer than he has already possessed himself of; well saith the poet:

"Unless above himself he can
Erect himself, how mean a thing is man."

I reckon that when a young man is possessed of an Ideal, he has the key of the gateway leading to the perfection possible

to himself. The formation of this Ideal, and how, when it is closely approached by the aspiring soul, it gathers to itself fresh beauty and strength, and floats away again into the distance, still to beckon on its pursuer and to prompt him to greater strivings and endeavors, is in itself a study of interest.

A youth with an artist's soul may be wandering by the side of a murmuring river. In his dreamy, half-trancelike state he looks listlessly around him upon the beauties God has scattered with profusion on his right hand and on his left. The mighty hills speak of power, the blue sky of love, and the hush of nature of a peace which should possess the spirit. He may have been a stranger to ambition before; no great desire may have come upon him as a new revelation of what could be; but now, as he continues wandering along, or throws himself to rest upon the mossy bank, there creeps over him a vague prophecy of some distant attainment. The spring that is to move his future life has been set in motion. An artist's life appears to him abundant of promise. Ah, to be a transcriber of nature's beauties, to convey to the canvas with light-some touch the joyous smile of the Great Creator, as seen in a cloudless summer's day; or to paint with a master-hand the majesty of His frown, appearing in the storm at night, when the grim dark clouds chase each other through the sky, as if hastening from the sight of His face, "terrible to behold in anger," and the waves upon the beach that lash each other into foam.

Oh! to go out and commune with nature in her sunshine and her shade, in her smiles and in her tears! Everything else seems trite and commonplace. And the artist that he would be, how he would drive from his life the weaknesses that beset the great; how he would attain to a style of execution, that in its purity and simplicity would speak to the universal mind! And through all the daily occupations of his life he would look upon the face of his Divine Master and be at rest. Ah, glorious Ideal, sweet child of

the imagination, let it go before thee in all things, youthful artist.

We should endeavor to keep the youthful minds over which we may have charge in a healthy atmosphere of thoughts and wishes.

"Murmur soft music to their dreams,
That pure and unpolluted run,
Like to the new-born crystal streams
Under the bright enamoured sun."

It is from preconceived ideas that the Ideal is formed; what is pleasing to the mind is gathered up and stored away in the recesses of the memory, to be used at the creation of the Ideal. Let a boy read for the first time Plutarch with his lives of Cimon, Lycurgus, Alexander, Demosthenes, Phocion, and Marcellus, and he will be roused to a deep admiration of the conduct of these heroes; his Ideal will have added to itself a fresh, healthy element.

How well I now remember the modifications and reconstructions my Ideal underwent before it assumed its first determinate. The reading of Isaak Walton's "Complete Angler" gave me an affection for the followers of the gentle craft and the haunts of the glittering trout. Kirke White taught me to love the harvest moon, and Charles Lamb, with his meek, lovable nature, showed me how nearly an author can be allied to his productions, and how he can draw to himself the hearts of his readers.

I suppose lovers in their sweet seasons think sometimes of the charming little Ideal Tennyson has given us in the "Gardener's Daughter;" of course they never dream there is the least truth in Spenser's couplet:

"Of honey and of gall in love there is store;
The honey is much, but the gall is more."

Is not this desire of man to attain to something above himself, or rather, to merge his own being into that of a higher, the greatest prompting to soul-worship?

If what is written be true, that it takes all mankind to make one man, then is history to us most invaluable. Through its records we draw out to the light the distinguishing trait in the character of each of its worthies. Of one and the other

"We mark the virtue and we shun the vice,"

and the perfection gathered, bit by bit,

from all, is formed by our imagination into one whole, to which life and existence is given, and it becomes to us the Ideal. And from the Bible, the richest of all histories, we glean for our Idealism that which is nowhere else to be found in such fullness and freshness.

Well may Carlyle say, "The Hebrew Bible—is it not before all things true, as no other book ever was or will be?" When we turn from other books to this one, it is as if we had left our few old dusty Dutch paintings in the valley below, and were gazing from the hill-top on the glories of the rising sun. Here we are greeted by the old patriarch Abraham, with his great earnest faith, and by David, who carried the love of his God from the shepherd's fold to the throne of the king. His poetry alone would show him

'An opulent soul,
Dropt in our path like a great cup of gold.'

But quoting "cup of gold" leads us to think of Joseph in Egypt; and speaking of David as a poet, we are brought to that other Bible poem—the book of Job; the dignity and scope of which leads one insensibly to compare it with the "Prometheus of Æschylus" and the "Norse Edda." But others meet us in the Bible, heroes of meekness, steadfastness, faithfulness, and patience; Moses is there with his curious Egyptian lore, and Solomon with his envied wisdom, and Paul with all the powers of his mighty reasoning. As poets wander in the woodlands to chant their rhymes to the music of the nightingale's song, we wander through the pages of the Bible to tune our lives to the measures of its sacred harmony.

It is not often we care to remember that the Ideal is born of the actual; that the images of beauty flitting across our path borrow their hues many a time from things commonplace and lowly. Carlyle, however, seems determined that we shall not be forgetful on this score, and he tells us: 'In this poor, miserable, hampered, despicable, actual, wherein thou even now standest, here or nowhere is thy Ideal; the Ideal is in thyself; thy condition is but the stuff thou art to shape that same Ideal out of; what matters whether such stuff be of this sort or that, so the form thou give it be

heroic—be poetic. Oh, thou that pinest in the imprisonment of the actual, and criest bitterly to the gods for a kingdom wherein to rule and create, know this of a truth; the thing thou seekest is already with thee, 'here or nowhere,' couldst thou only see." But whilst we admire the gorgeousness of the butterfly's wings, need we remember that this same thing of beauty and sunshine lay once in embryo in a worm that could not move, but with its face in the dust?

I have hinted at the modifications the Ideal undergoes. A new element may repeatedly be added to it, making it more and more perfect. Albertus Magnus, the reputed necromancer, is said to have erected for magical purposes an entire man of brass, putting together his limbs under various

constellations, the doing of which occupied him thirty years. I doubt not the Ideal of my reader will be very different thirty years hence. But to it, as it exists in the present, give your energy and your faith. It may have a certain amount of crudeness and frivolity about it, especially when viewed by an unsympathetic outsider, and you yourself living in the years to come, may smile to look back upon it. But, nevertheless, it is an Ideal, something higher and better than yourself, and as encouragement to follow it, read this from one of our master-minds: "I have always contended that obedience was the way to gain light, and that it mattered not where a man began, so that he began on what came to hand, and in faith."

J. ROGERS REES.

THE HARPIST AND THE PRINCESS.

A YOUNG man mounted on a noble steed paused upon the summit of a rocky ridge. His eye swept a vast stretch of country nearly surrounded by the rugged outlines of mountain ranges: to the west, an expanse of water; a broad, stately river flows by the city at his feet; at the right a castle stands out boldly from the dark foliage that hides its foundations. The last is the youth's destination, and to it he eagerly turns. At a glance it is seen that he is no ordinary person; the rich velvet costume betokens wealth, the fair brow and sparkling eyes indicate the promise of a noble mind; but the whole face is sadly marred by the lack of firmness about the lips. He is a prince, son of a king, and heir-apparent to a crown. With him are a few attendants, persons of his own age, who are watchful of the slightest indication of their master's wishes. Is it a wonder the prince is spoiled? The courtiers, aware of his probable succession to the throne, and anxious to be in favor, find it to their advantage to laud his accomplishments and compliment his manly beauty. The king, busied with the affairs of State, seldom has time to consider his mental progress; and his tutors have been careful not to advocate too close application to study, knowing their royal pupil would not enjoy such an idea. The natural result

of such training is a proud, vain boy, full of life, ambition, and confidence; but his naturally kind heart and amiable disposition endeared him to the people.

One day an old harpist came to the king's palace, and sang of a beautiful land in the far East, where dwelt a maiden whom all loved, and none could secure, because her father was resolved that her lover should be a man of learning and of a noble heart. The prince sat by the open casement, looking out with a listless air, but the song riveting his attention. He thought, why should not he secure this lovely lady? Might not he be the destined lover? He was a king's son and without an equal in the land; he would journey to the East, and if the harpist's description prove correct he would sue for the lady's hand. The next morning he started, and toward evening of the seventh day obtained his first glimpse of the beautiful maiden's home. For a moment he stopped, then hastened toward the grim old castle. As he approached, his glance fell on a window where the maiden herself stood looking down; the prince was filled with admiration for the vision of loveliness, and as the princess retreated from view, the lover blew his bugle. He was immediately ushered into the king's presence. His majesty graciously welcomed

the visitor, and replied to his statement in the following words:

"Prince, we are honored by the occasion of your royal highness' coming. My daughter has many suitors. All these about me desire her hand; but I am resolved to bestow her on a man of learning, and not on one who depends entirely upon his title and rank for a position in the world. I will cheerfully present the lady to your highness if you are found to meet these requirements."

All confident of success, the prince was far from being appalled by the king's singular freak; he looked upon his rivals with perfect unconcern; and with his mind full of the beauty of which he had obtained one hasty glimpse, he impatiently awaited the morrow, when the trial of mental strength would decide the maiden's fate. But woe to the dreams of ambitious youth! He was weighed in the balance—and found wanting. Then his eyes were opened, and he saw the flattery of his companions, and the treachery of his instructors. His proud spirit was touched, and he retraced his steps full of indignation. He had been spared one infliction, however: none of the rival suitors had satisfied the king; all had been rejected. Immediately upon arriving at his father's palace, the prince devoted himself to study, losing all interest in minor court affairs, and seldom joining the courtiers in their pleasures. All marveled at the change; not a few tried to dissuade him from his purpose. "Your highness is becoming pale; we fear such a severe course of study will undermine our prince's health." Another said, "Is there not some other lady as fair as this? Thou couldst have any maiden in the land; why then go to a foreign country, and kneel at the feet of a surly old king?" One even hired an old harpist to sing the charms of a neighboring princess.

All in vain. The prince paid no heed to the courtiers, and at the end of three years again started for the land of the East. Before it was with a light heart and buoyant spirit; now it was with calmer feelings. He did not dare to hope for success. Might not the prize be already won? The old king welcomed him with hearty good-will; no

suitor had yet obtained the princess; and the prince again awaited the day of trial, this time with more fear and less confidence. And the lady—how was it with her? She, too, waited in suspense.

The next day toward evening the father placed the daughter's hand in that of the young prince. "My daughter," he said, "has not only secured the husband of her choice and my choice, but this prince has received benefit from his endeavors to secure her hand. A proud, self-satisfied person will not make a good king. I am now certain that the people of your land will have a worthy sovereign."

Thus the struggle was closed. The young man had not only received his bride, but had learned to distinguish the flattery of the foolish from the counsel of the wise. But I would warn you. The courtiers of the king still live; beware lest they deceive you when you start for the land of the East to find the princess whose name is Wisdom.

L. E. WARREN.

ACCORDING to Sir William Gull, Queen Victoria's physician, and of course eminent in his profession, it is better, in case of fatigue from overwork, to eat raisins than to resort to alcohol. In his testimony before the Lords' Commission in London, a few months ago, he affirmed "that instead of flying to alcohol, as many people do when exhausted, they might very well drink water, or they might very well take food; and they would be very much better without the alcohol." He added, as to the form of food he himself resorts to, "in case of fatigue from overwork, I would say that if I am thus fatigued, my food is very simple; *I eat the raisins instead of taking the wine.* For thirty years I have had large experience in this practice. I have recommended it to my personal friends. It is a limited experience, but I believe it is a very good and true experience." This is valuable testimony; we know of none better from medical sources, and we commend it to the thoughtful consideration of all those who are in the habit of resorting to "a little wine for thy stomach's sake, and thine often infirmities."



THE PHYSICALLY UNFORTUNATE.

PERSONS of robust constitution and good nerve-endurance frequently know little of the numerous disadvantages those of more delicate organization suffer. There are people, and I regret to say they are many, on the active stage of life who pursue, as best they may, their various avocations, but are never well. They have no special or organic disease, nothing but general debility, sluggish circulation, weak digestion, and incompetent nervous systems. They are persistent and lucrative patients; going often from one celebrated physician to another, in the vain hope of receiving from medicine what nature failed to give them, a physically sound constitution. The doctors in turn, knowing from whence their sustenance comes, listen indulgently, encourage soothingly, and administer moderately. Well is it for these unfortunates if they always come under the care of brain-gifted and conscientious physicians. Sympathy is their daily and greatest requirement.

The stronger portion of the community frequently grow impatient with the weaklings, and consider because they are able to partake moderately of nourishment and exercise that they are morbid complainers, hypochondriacs. Sometimes they doubtless are full of useless repinings, which, overflowing, disturb the peace of those about them.

Where they have meagre opportunities for growth and development, being naturally unfit and disinclined for labor, they probably become mentally or morally incapaci-

tated, and growing morose and reckless from lack of occupation, are dishonest leeches in society; sucking other men's blood, appropriating that to which they are not rightfully entitled, until the institutions for the rescue and support of the incompetent and monomaniacs take them in charge, and their insignificant lives ebb out in our alms-houses, asylums, and prisons.

But there are heroes among the physically unfortunate! men and women of angelic temper and of untiring mental endurance, who are schooled to suffering, who pursue life's ordinary labor, and accomplish by slight or tact where their strength fails. They who are so thoroughly habituated to pain and fatigue that they would be actually affrighted to be divested of all ailments, just as I was startled the other day, when calling on a friend who had twin babes with sore mouths. The new mother was alone with them. As she could not well attend to both, I immediately appropriated the one crying in the cradle, but they screamed on in concert, in spite of our continual efforts to appease. In the course of an hour I had grown so accustomed to the conversational accompaniment that, when the children suddenly stilled at the same time, I exclaimed to my friend, under the impulse of momentary wonderment, "Why, Belle, what's the matter?"

Thus would these heroes among the unfortunates pause and query if their long-borne burden of pain were lifted.

These physical inabilities are often a birthright inheritance; at others, the souvenir of early and severe sickness, or misdirected remedies used therefor.

These afflicted unfortunates, by the employment of proper care, exercise, and diet, can frequently better their condition, and sometimes with years, outgrow or overcome the blemishes. That they are increasing in numbers among us we can scarcely deny. We do not improve physically as a nation, according to our mental development. Too often the burden of weakness is passed down from generation to generation, and the suffering never dies out.

Inasmuch as the debilitated are never wholly accountable for their lack of strength, and came not of their own volition to an undesirable existence; as we are all more depending and sensitive in feebleness than in health, it behooves us to be ever kindly and tender in our treatment of them, unreservedly loving and encouraging; lightening in all possible ways their constant sense of weariness; and to labor, each in our own sphere, as unremittingly to improve and elevate the standard of our physical unfortunates as do our able journalists who are devoting their lives and talents to that great purpose. MRS. S. L. OBERHOLTZER.

TRAUMATIC TETANUS.

FROM PERSONAL EXPERIENCE.

THERE is so little real knowledge of this most formidable affection, and the prescribed modes of treatment prove so unsatisfactory in their results, that the practitioner is liable to yield to the irresistibly depressing influence of unsuccessful experiment, and conclude that his efforts must look only to palliation, not cure. To smooth the pathway to the grave is all that the resources of the medical art are expected to avail. It is now my firm conviction that such a position is not the true one. When the physician assumes that all is done that can be done, when the patient is helped to die easy, he becomes a dangerous adviser.

I am also convinced that the practice of meeting the alarming symptoms of this disorder with opiates, and other disease-producing and death-inducing agencies, renders the case hopeless of cure.

What this tetanus is, I do not pretend to say. I stand awe-struck before the reminiscence of an experience, which is here presented to the profession as a matter of medical interest, and to the people with the hope of giving information as regards, in particular, the incipient stages of this disease, so that correct remedial measures may be applied early, and thus avert the dreadful paroxysms which follow its onset. In March, 1871. I stepped upon a nail which pierced my right foot just at the side of the

hollow, making a wound perhaps an inch in depth. The nail was immediately removed, my foot placed in warm water; the pain was inconsiderable, and I looked for no unpleasant results. But as the day moved on a *weighty* sense of something very hard to bear, but less defined than pain, prompted to repetition of the hot foot-bath. At night my sleep was undisturbed, but on awaking next morning an extreme languor came over me. I could scarcely arouse myself; and on looking out of the window, I wondered why people walked and moved about so briskly—I was so weary. My appetite was good, pulse at about the normal standard. During that day the sense of weariness increased, and a strange, apprehensive feeling crept over me. I frequently resorted to the hot foot-bath, scarcely knowing why, for there was no local pain in the foot. That night my sleep was troubled and morning found me unrefreshed, and I felt as though under the influence of a subtle poison—was drowsy at times during the day, but aroused from that with increased weariness, and could not rest. The third night, at bedtime, I ordered a full hot bath of five minutes, and a thorough rubbing to follow. My sleep was much disturbed; I was restless, grated my teeth, and moaned. On the morning of the fourth day very sharp pains darted through my head and back

and limbs ; a decided increase and aggravation of symptoms, with the same languid, half-effort for relief. This night I prescribed for myself the warm half pack, and remained in it till early morning. I slept and forgot my weary self, but on the fifth day I was almost uncontrollably restless. Added to the sharp pains of the previous day, was a desire to move continually from one room to another. I walked all over the house many times. On going up-stairs, I was obliged to sit down and rest frequently ; my breath was short, and pain in the chest very severe. I ordered hot fomentations to the liver and chest, and this gave relief for an hour or so, when the pains returned, and I had the hot applications repeated. This, the fifth night, the deeply poisoned feeling or stupor, as if from inhalation of some noxious vapor, was so oppressive as to prevent sleep. With the approach of the sixth day, the whole system seemed alive to pain and restlessness. I felt compelled to walk, but that very prompting to motion brought only aggravation of the pain, which was most distressing.

Finding myself unable to prescribe measures at all likely to prove available, medical assistance was called. At that time I was not aware what my condition required, nor from knowledge of the symptoms of tetanus gathered from the books, did I decide this to be my affliction ; so little is said of its incipency or preliminary stage. But in a few hours there was no mistaking the diagnosis. A general spasm took place, accompanied with such suffering as mortal pen can never depict. The mind was clear and the senses acute much beyond their normal standard. It seemed as though the nerves were played upon by some terrible force which rasped and tortured them in every imaginable way. At times it was as though the spirit were struggling to leave the body, but was prevented by something which delighted to inflict the most exquisite torture, far beyond anything physical. The stiffening jaws closed with a motion quicker than thought. The diaphragm held firmly, all the muscles of the chest cramped, the head drawn back and the body fairly lifted from the bed by the awfully rigid muscles.

The brain and spinal cord seemed twisted and intertwined as with little hot wires ; the abdomen and lungs held tightly by the resistance of the diaphragm, and the inability to swallow produced a sensation as of a hand grasping the throat. These, together with the feeling of being pulled to pieces by the stretching of the stiffened muscles, led me to excitedly exclaim whenever speech was possible, "Come, *do* come, they are pulling me, *they are pulling me.*" It seemed as though a great giant were at my head, and with hands of red-hot iron he was pressing my brain, while at my feet another giant was pulling me away, and at every muscle and nerve and fiber of my body was a wicked little imp pinching me and twirling sharp, burning wires. All the secretions seemed poisonous exhalations from the lungs, and skin extremely offensive as in putrid fever ; a cold sweat accompanying the paroxysms, was of such unpleasant odor as to render very frequent change of clothing necessary. At no time was there complete cessation of the spasm.

I will here refer to a letter from my physician, Dr. Glass, of Hannibal, Missouri, which gives account of the treatment pursued :

"DR. FAIRCHILD:—Of the case of Traumatic Tetanus presented in your own person, allow me to say that it was the first which I had been called upon to treat during my practice of over thirty years, and I stood upon isolated ground as regards remedial measures. The books gave poor comfort, for after prescribing a most formidable array of drugs, they each and all were declared to be ineffectual. The doctors who kindly offered counsel were at a wretched loss to know what *to do*, and tetanus was given up as incurable ; and I believe it is beyond the range of drug medication, as usually prescribed. The first thing I did on finding you in the spasm was to probe deeply the wound, rather to cut a deep and wide gash at the point where the nail entered, and plunge in this open wound a stick of caustic potash.

"My reasons for doing so were these : that the thick tissues of the foot closed so firmly on the deep small wound as not to allow

the decaying matter, infinitesimal though it might be, to pass out; like the poison from a dissecting wound it pervades the whole system. The next and most pressing indication to be answered was relaxation. How could this be done. Doubtless the vapor bath, or full warm bath, or general fomentation would have answered; but the least motion or change of the bed-clothes produced aggravation of the spasm; so I resorted to what in my days of drug practice I found an efficient help to answer such indications—lobelia.

"I made a weak decoction of lobelia seed, administered it as enema and did not suffer it to pass off. In this way relaxation was induced so far that the application of fomentations to the spine, to the chest, and abdomen could be given with great benefit. Rubbing was entirely desisted from, it increasing so painfully the spasm. Hot fomentations to the spine were especially grateful and beneficial. Your pulse varied but little from the normal standard. The spasm was never at one time completely conquered, but controlled. About the tenth day, symptoms were decidedly more pleasing, so far as regarded the spasms, but the beginning of your terrible suffering from spinal irritation may be dated at this time.

"I have, as you know, been repeatedly asked for a plan of treatment to be pursued in such cases. I would, first, *probe deeply the wound and apply caustic*, as soon as the wound is made. I believe I have saved from tetanus several cases since by resorting to this method. If called after the spasm sets in, probe and cauterize, and answer indications as they present themselves, but *never give opiates*."

My convalescence was most distressing. The whole nervous system seemed, as a physician expressed it, "raw," or as though the nerves were on the outside, and without protection. I felt as though everything were acting upon me. I, a prey to all my surroundings, could resist nothing. At sight of a pen, envelope, book, or even torn piece of newspaper, I became quite distracted. For many, many months I could neither read nor write. Anything suggestive of number, as mention of the time of day, date of

the month, or the sight of a dish of rice on the table, or spoons in the spoon-holder, a plate of crackers, etc., would bring on such fearful paroxysms as would lead to hours of suffering. Sound produced like unpleasant results. On hearing the bells of the town ring, I always caught up a pillow and pressed it tightly over the top of my head. I felt as though the undulations of sound caused like waves in my tender brain; it was agonizing. So exhausted was I nervously, that a thought was tiresome. Poems, hymns, passages of Scripture, long before committed to memory, seemed like entities—right near, yet I could not utter half a sentence; but there was a peculiar feeling that they were somewhere in the memory, and it was comforting—just as we sometimes *feel* the presence of a friend, though we may not have the assurance of sight.

I am thus minute in giving the history of my convalescence, because it may bring to others, as it does to me, an added conviction of the importance of avoiding in nervous derangements, *everything that tends to exhaustion*. I longed for an "applied power" that the physiological processes of the system might be favored, *independent* of will power; and after, and while basking in the sun, reveling in pure fresh air, and in food that was of the best, I resorted as a prominent measure to "remedial motion," and in this found a power which controlled pathological manifestations, and brought about at last a state of abundant health and vigor.

In conclusion, let me say that I would not omit to mention the very important element in the management of *all* nervous disorders, namely, *rest*. They are diseases of exhaustion, and while passive motion is indicated, rest, rest, *rest* is the prayer—most importunate of the whole system.

M. AUGUSTA FAIRCHILD, M.D.

HEADACHE AND REST.—Dr. Day says, in a late lecture: "Whatever be the plan of treatment decided upon, rest is the first principle to inculcate in every severe headache. Rest, which the busy man and the anxious mother can not obtain so long as they can manage to keep about, is one of

the first remedies for every headache, and we should never cease to enforce it. The brain, when excited, as much needs quiet and repose as a fractured limb or an inflamed eye, and it is obvious that in the changes of shortening the seizure and arresting the pain will depend on our power to have this carried out effectually. It is a practical lesson to be kept steadily in view, that there may lurk behind a simple head-

ache some lesion of unknown magnitude which may remain stationary if quietude can be maintained. There is a point worth attending to in the treatment of all headaches. See that the head is elevated at night, and the pillow hard; for, if it be soft, the head sinks into it and becomes hot, which, with some people, is enough to provoke an attack in the morning, if sleep has been long and heavy."

MEDICAL QUACKERY.

UNLESS medical science have intelligible and true principles upon which to base and regulate its practice, it is perfectly impossible for it to have many rational therapeutic processes. Unless there is an intelligent comprehension of the nature of disease and the relation between dead and living matter, medical practice will abound in conjecture and empiricism.

In addition to these requirements of a rational medical science and art, there will be a demand for a correct recognition of what materials are and what are not compatible with the normal condition of the fluids, structures, and functions of the living system. The generally received doctrine or belief among the members of the medical profession, as well as the laity, that drugs or medicines have inherent healing or curative virtues when applied to the living system in disease, is at the foundation of almost every form of medical deception and imposture. So long as this error prevails, charlatanism will prosper. The healing power proper resides in the living organism; it is the same force that keeps us well or preserves our health; it does not reside in anything outside of the living system. It is just as absurd to attempt to maintain that medicines heal or cure the sick, as it would be to affirm that the appliances essential to the treatment of a broken arm heal or cure the broken bone. Certainly, certain materials and appliances may be of service or absolutely necessary to promote the curative or healing process. Surely, those that are essential and necessary to the preservation of health must be of

use and service in the restoration of health. Drugs, however, are, without a doubt, incompatible with the normal condition of the fluids, tissues, and functions of the living system. They can not act upon the living system, as many suppose; but the living system acts upon them. The living is active and the dead is passive in their relation between dead and living matter. Certainly, this doctrine accords with reason and experience. Food does not act upon the stomach, but the stomach acts upon the food; caustic or blistering materials do not act upon the skin, but the skin acts upon them; for no blister is caused when these materials are applied to the skin of the dead body. So we might refer to numerous facts that go to substantiate this statement or law. We know of none that furnishes evidence against this view. The principle just set forth does not, necessarily, entirely discard the use of drugs or medicines in the treatment and management of disease.

As curative agents proper, their use can not be justified, because they are abnormal and anti-vital substances. When by their use they supply certain conditions that are essential and conducive to the establishment of the normal condition of the system in disease, then they are justifiable. In some instances they are useful on account of their destructive and controlling effects upon the system. In incurable diseases their temporary effects often justify their use. Anesthetics, disinfectants, escharotics, anti-parasites, anthelmintics, and antidotes, as they are called, are useful in relation to the living system under certain

conditions and circumstances. From these considerations, drugs are never admissible as curative agents proper, and are never used as true remedial agents. Certainly, drugs or medicines should never be used in relation to the living system, except under the supervision and direction of a competent physician. Persons who accord with these views, and are in a measure familiar with the principles and laws of health, will never use them under any other circumstances. The constant and incessant use of medicines, or the habit of continual drugging by the profession as well as by the people, is open to the severest criticism, if not to absolute condemnation. True remedial measures consist in the proper management of air, light, temperature, exercise, rest, water, food, bathing, movements, electricity, magnetism, and surgical appliances. The idea or doctrine that considers disease to be an entity or something to be destroyed or poisoned out of existence, is a medical error that is conducive to the prosperity and perpetuation of every form of the quack business. Disease is not an entity, but a vital process, an abnormal vital action, a remedial process—a process to be regulated and directed, and not destroyed or subdued. But this remedial process or effort must not be confounded with curative result. Remedial action or effort may or may not be curative, according to circumstances. It is only an action or effort that tends to recover the normal condition, and this process may fail or succeed. If the conditions and circumstances are favorable the organism will recover. If not, it is the business of the physician to make them so if he or she can.

A candid writer, Dr. C. Kidd, admits and says in regard to medical deception and impostures: "Our chiefest hopes at present exist in the outer educated public. It is a sad, but humiliating confession." It is well known that they who profit by abuses and errors seldom voluntarily correct and expose them. As it is with us, it is for the pecuniary interest of physicians to have sickness general in a community. A very healthy community does not contribute much to the financial prosperity of its physicians, unless it is made of as much pecu-

niary interest to the physicians to keep the people well as it is to get them well when sick. Sylvester Graham observes in the preface of his work on the "Science of Human Life," that—"It is certain, without a well-educated medical profession, of *high moral tone*, society can not prosper; and it is equally certain that such a profession will be most accurately estimated, where society is most intelligent in regard to the proper qualifications of such a profession; and, therefore, the certain means of destroying every species of medical empiricism and imposture, and of securing the highest confidence in a responsible profession, is to *enlighten the people in regard to the knowledge of the laws of Life and Health.*" Surely, there is scarcely anything that could be done that would prove so fatal to the patronage of quacks and patent medicines as the general diffusion of the knowledge that relates to the principles of life and health. But many people still demand these so-called doctors and their medicines, and so long as they demand them they will have them. The most effective plan, in truth the only sure method to reduce the supply of quacks and their medicines, is to diminish the demand. If some plan or measures were put in operation that it would be of some pecuniary interest to the physician to keep the people well, as well as it is to get them well when sick, there would, undoubtedly, be less of pretension and imposture within as well as without the ranks of recognized physicians.

Let medical writers and instructors teach the true nature of disease, the proper use and sphere of drug medicines, and the true relation between living and dead matter, and the chief corner-stone of every species of medical quackery and imposture will be broken down. With such forces in operation medical charlatanism would decline, and the more gigantic and grosser forms would die a natural death.

A community enlightened in regard to the laws and conditions of health, intelligent in regard to the fundamental principles of the healing art, and the proper qualifications of the medical man or woman will give the highest confidence to the well-

educated and qualified physician of high moral tone. Such a community would not only cease to patronize patent-medicine makers and venders, but would stamp with its moral disapprobation all forms of medical error, deception, and dishonesty.

Advertisements that relate to medication are, for the most part, tinctured with quackery. Some condemn them altogether. Some medical schools prohibit them in their code, yet allow them a place in their journals. They are all objectionable in so far as they abound in exaggeration and falsehood. The *real* truth that relates to medication as well as to anything else can not be too widely disseminated. In this matter there is but one legitimate method of proceeding: let the physicians cure their patients—*such patients* will be their best advertisements; let them publish their system as well as specialty of practice without pretension or falsehood; let them not puff their methods and establishments with exaggerated stuff in regard to location, means, skill, and wonderful cures as baits for the fanciful invalid.

The Philadelphia *Sunday Times* lately made the following pertinent remarks in regard to "Patent Medicine Advertisements," which might serve as a hint and rebuke to other newspapers and periodicals that give so much space to this worthless trash: "An impudent New York quack asked us

to advertise his nostrum, and take out the bill in medicine, warranted to cure *everything*, which liberal proposition was respectfully declined, for several reasons, the principal of which is that we do not need any such stuff, and could not and would not recommend it or sell it to our friends and acquaintances, and lastly, because we honestly believe that nine-tenths of such nostrums are humbugs and swindles—got up to cheat the sick out of their money, without giving an equivalent, or, what is worse, ruining healthy people, by inducing them to gorge their stomachs with such truck, under the pretense of preventing disease." It surely is the duty of every one, so far as it is possible, to detect and expose delusion and error. And we believe it to be the duty of the true physician to protect the people, as far as his or her ability extends, from not only patent-medicine makers and venders and voracious and dishonest quacks who prey upon their pockets and their health, but also from false medical doctrines or views that necessarily imply a ruinous and pernicious practice; and it is for the purpose of such an exposition and benefit to our common humanity that the foregoing considerations have been presented. We have only aimed to set forth briefly the more prominent facts and more important truths that relate to this subject.

J. G. STAIR, M.D.

PIETY versus HEALTH.

"MRS. GRAY took her husband's loss with wonderful submission," said Mrs. Allen to her friend, Mrs. Finch. "It is beautiful to see such Christian fortitude."

"Mrs. Gray enjoys very good health," replied Mrs. Finch, sentimentally.

"Of course she does; but what of that? what has that to do with obedience to God's will?"

"A great deal; I fancy almost everything in Mrs. Gray's case. She is full of energy: she feels herself able to meet the world; indeed I am not sure but she longs to express the fullness of her nature in some untried way."

"Then do you mean to say that she does not regret her husband's death?"

"By no means. She is left alone, and she feels the solitude. But she stands erect in her own strength; she is conscious of power; her vitality puts her in true magnetic relations with the sources of life; she may grieve, but she can not give up; she is too strong."

"Well, I thought it was all the grace of God."

"Good health is the grace of God, as far as it goes. But we must not mistake the sufficiency of vital force for genuine faith in God, and reliance on His power. In that

case, we are apt to give too much credit to certain persons like Mrs. Gray, and too little to certain others, like Mrs. Williams."

"Mrs. Williams! She is as weak as Mrs. Gray is strong."

"And yet, I do not doubt that she recognizes God's providence quite as fully as Mrs. Gray; and I think that she tries more earnestly to submit to His guidance. Believe me, we are unjust to the sorrows of a woman like Mrs. Williams. She had no reserve strength, and so the loss of her husband left her weak as a vine that has been torn from its support. We criticise her, and leave her alone in her solitude, though she has great need of our help; we praise Mrs. Gray, and seek her society and talk about her piety and her faith, when if she were to lose her health, and the courage that comes therefrom, she might sink far below the level of many whom we now call weak."

"If piety and health are synonymous, it stands us in hand to keep ourselves as well as possible."

"I did not say that they were synonymous;

but we can not be too careful to keep ourselves *en rapport* with God's laws as written in our bodies. By a perfect eye we see the physical world perfectly; through the harmony of health we discern the true spiritual relations; or if not intellectually discerning them, we come into such true conditions that we feel as safe as a child that holds its father's hand; and this sense of safety, this freedom from care or fear, is the essence of strength."

"But how is it when sick persons are happy and strong?"

"Ah, that is when the soul triumphs over the body; when it is strong enough to rise above its limitations; when the will is vitalized by union with the divine will. There is a condition, very rare, we all know, when the spirit is in harmony, through its constant companionship with the spiritual realm. Then it sings, though in a sick body, as a bird might sing in a snare, its fright assuaged by hearing the sweet notes of its companions, and knowing that it would soon be set free to join them."

MRS. M. F. BUTTS.

WHAT COMES OF IT.

YOUNG man, if you wish to make yourself obnoxious to a large proportion of the genteel, and to a still larger proportion of the sensible people; if you want to contract a habit that makes necessary separate accommodations for you in cars or on boats, where your offense may not smell in the nostrils of respectable people; which makes them drop out of the atmosphere of your smoke-stack, or swing around the mephitic pools you leave at intervals in your wake—a habit which turns you out of the parlor and drawing-room into the club-house, bar-room, or into the streets—from the society of refined ladies into a lower order of social intercourse; which fills your system with a poison so offensive that the breath you exhale, and the insensible perspiration you cast off, vitiates the air for rods about you, and makes you a walking nuisance from which delicate nostrils turn away in disgust—then begin early the use of tobacco.

The young patron of the cigarette may not realize this, but the *reality will come* when the subtle influence of habit has degenerated, as most certainly it must, into a slavish bondage from which there is little hope of release.

It is a habit which (in common with alcohol) has its regular and inevitably retrograding scale,

from the highly perfumed cigarette to the foul-fumed, loathsome old pipe; from the pink flush of health with its fresh aura, down through the various stages of selfish habit and conduct, to the brown, withered, decrepid, prematurely old man with his pipe and tobacco-pouch (unless



How it Looks.

nature, unable to longer tolerate the abomination, arrest the course by paralysis of the heart).

Do you want to proclaim your love with words steeped in the essence of tobacco? Do you want to take to the altar a habit which will im-

pose upon your wife the burden of its filthy surroundings—make your presence a repugnance, and perpetual reproach for her sacrifice? Will you live in a habit that will eat away your substance while the little family growing up about you plead in vain for better subsistence—that will make you hug your own appetites while those depending upon you are neglected? Then begin early to smoke and chew tobacco, for this almost of necessity follows its use. But if you could not make a wife of one who had

formed this habit, then have the pride and manhood to offer your heart and companionship untainted by this vile insult to health and decency, that she may not have to accept your proffer under a painful protest from her whole delicate nature. If you would not have this great canker worm fasten itself upon the lives of your children, don't invite it by your example; don't stamp it into their organic appetites by steeping your own body in the distilled juices of this defiling and paralyzing poison. E. W. A.

NOTES IN SCIENCE AND AGRICULTURE.

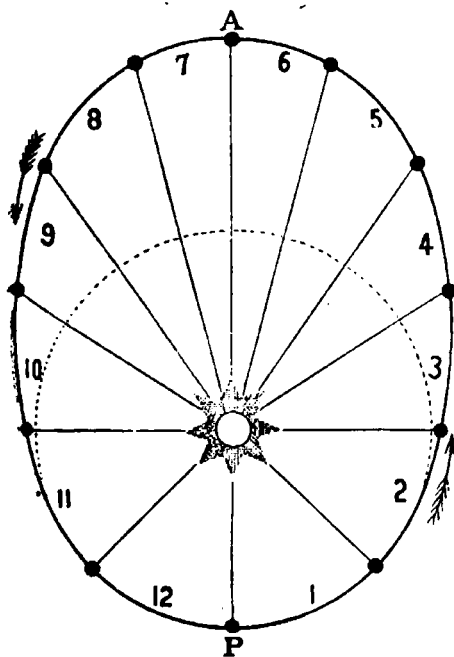
The Orbit of the Earth.—"A body moving in space, and acted upon by *two forces only*, equal in quantity and opposite in direction, *can not describe an ellipse.*"

This is a proposition of Mr. James McCarroll, of this city, who argues, that, in view of it, the centripetal and centrifugal forces, hitherto regarded as the sole agents concerned in shaping the course of the earth round the sun, are insufficient to account for the elliptical form of that course; and that, consequently, we must look for a third force, that is variable in quantity, and bring it to

ly, and which throughout one-half of the orbit of the latter, supplements the centripetal force, and throughout the other the centrifugal force—the greatest amount of magnetic attraction being at the point where the earth enters its perihelion, and the maximum of repulsion occurring at the point where it leaves it, where, combining with the centrifugal force, it, for the time being, overpowers the centripetal, and compels it to describe a larger arc; thus elongating the circle, so to speak, that would have resulted from the action of the centripetal and centrifugal forces only. The annexed diagram will illustrate more fully the ideas of Mr. McCarroll on this interesting subject.

Here we have the earth—the black dots—represented as performing its journey round the sun, which is in the center of a circle, indicated by the dotted line, that would, as alleged, have been described by the earth, had it been acted upon by the centripetal and centrifugal forces only. The figures, 1, 2, 3, etc., denote the twelve spaces or the unequal segments of the ellipse, through one of which the earth passes each month of the year. P. indicates the earth's perihelion, or nearest approach to the sun, and A. its aphelion, or greatest distance from that luminary. The arrows show the direction of its course, and the lines centering on the sun, the radius and the direction of the centripetal force. When the earth reaches the point of the ascending arrow, it has become so highly magnetized or electrified that a maximum of repulsion taking place, supplements the centrifugal force and compels the centripetal to describe a larger arc. When the earth reaches its aphelion it has become negative, and travels at its slowest, as the magnetic repulsion of the sun has ceased, and the centripetal and centrifugal forces are at their weakest. When it passes this point, however, the magnetic attraction of the sun begins to act again, and, supplementing the centripetal force the earth approaches its perihelion with accelerated speed, the maximum of magnetic attraction being felt at the point where it just enters it.

This proposition seems to accord with Kepler's Second Law, in relation to the radius vector of a planet, although, to meet it, the position of the sun might have to be altered



bear also upon the formation of the ecliptic, before we can account satisfactorily for the present shape of the latter. In fact, he asserts positively that the action of three forces, one of which is *variable*, is indispensable to the formation of the great ellipse of the ecliptic; and this third and variable force, he asserts to be in the magnetism of the sun, which attracts and repels the earth alternately.

slightly in the lower of the foci of the ellipse; but so slightly, that the difference would be theoretical only. We have not paid sufficient attention to this matter to venture any decided opinion upon it; although we regard it worthy of careful investigation on the part of those who make such subjects a study; and the more so, as Mr. McCarroll seems to have already attracted wide-spread attention in relation to his solution of the mysteries of the gyroscope, and to his "New Law of Motion." Under any circumstances, however, we are inclined to concur in his opinion, that it requires *three forces* to describe the orbit of the earth, which is elliptical.

Drug Adulteration.—Dr. Squibb, of Brooklyn, at a recent society meeting, gave some interesting statistics as to his experiments on the purity of cream-tartar, in which he had found samples as offered for sale to vary from 10 to 92 per cent. of pure cream tartar, the adulterations consisting of tartrate of lime and terra alba. He also told how one could go to stores in New York, where he would be taken into a room in which a sample table is set with different grades of terra alba. One, you are told, will make a beautiful, bright cream tartar, another a dull one, and so on, from one end of the table to the other, each having a particular use.—*Med. and Surg. Report.*

This sort of fraud extends all through the drug trade; the most costly articles being the most subject to adulteration. Frequent complaints are met with from physicians that they can not depend upon the character of the medicine which they prescribe.

An Investigation in Heredity.—At the last session of the National Association, in this city, October 8th, Prof. Alpheus Hyatt, Custodian of the Boston Society of Natural History, announced that the Massachusetts Board of Health had undertaken to investigate the laws of heredity, and was about to make extensive circular inquiries in that department of research. One idea is to trace in direct and indirect lines all hereditary personal peculiarities: large size of nose, peculiar shape of ears, and features of that sort. It is thought that by sending out blanks in this country and abroad, many replies will be received. These blanks provide for a collection of statistics upon which can be based an investigation of the laws governing the inheritance of pathological conditions, abnormal characteristics, and any marked family peculiarities. It is also desired to determine the age at which these conditions appeared in ancestor or parent, and the age at which they became perceptible in the descendants or children. Some characteristics remain unchanged in their mode of appearance through many generations, while others vary constantly, sometimes with a periodicity which implies some regularly recurring cause, and sometimes with a very confusing irregularity. It has been observed that normal or abnormal characteristics show a decided tendency to appear in descendants at an

earlier age than that at which they first showed themselves in the ancestor or parent. If the answers are sufficiently numerous, the results when tabulated ought to be of value also in the history and classification of hereditary diseases. The Board will furnish these blanks to all who will use them, and they are to be returned to Prof. Hyatt.

Petroleum as Fuel.—The announcement is made that a new contrivance for using petroleum as fuel has been successfully tested. The test was made recently at the Brooklyn Navy Yard in the presence of naval officers and other scientific gentlemen. The fuel, which consists of a mixture of petroleum and coal-tar, is supplied through a pipe, and is atomized by coming in contact with a current of superheated steam. In this way the necessary amount of oxygen is obtained, and the result is said to be a heat far more intense than any blast furnace fed with coal can supply. With this heat it is said that pig iron can be melted in ten minutes instead of two hours, as is done with coal, and the time for melting glass can be reduced from sixteen hours to two. The inventor will at once introduce his apparatus into some of the furnaces at Pittsburgh, in Pennsylvania, where its practical value can be ascertained beyond dispute. If it succeeds it will furnish a new use for petroleum, which is now almost a drug in the market, and will set the coal-producers to thinking about something better than a fragile combination to keep up their prices.

Smoking Seed Corn.—An intelligent farmer, who is a very close observer and a very successful corn farmer, says that he always smokes his seed corn. After selecting the seed, he hangs it in his smoke-house and smokes it well. Sometimes the corn is quite black. The result of this treatment is that the corn is not liable to rot before it sprouts, and insects do not disturb it. Where he uses smoked corn there is no necessity of replanting. He has tested this experiment for a number of years, and has always been successful. Last year he ran out of smoked corn while planting one field, and used a small quantity of corn that was not smoked. On the portion where the unsmoked corn was he was compelled to replant the greater part.

Lead - Poisoning.—The dangerous character of lead compounds is shown by the fact, that, in the years from 1838 to 1847, no fewer than 3,142 patients suffering from lead colic were admitted into the hospitals of Paris, although there were during that period only two white-lead and red-lead works in the city. Of these patients 112 died. When lead pipes become incrustated with sulphide of lead, they may be cleaned in this way: Allow a hot, concentrated solution of sulphide of sodium to flow through the pipes for ten or fifteen minutes. The inside of the pipes will then appear as if coated with a gray glaze, and water may then be passed through them free of any lead.



MRS. C. FOWLER WELLS, *Proprietor.*

H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
JUNE, 1879.

THE CONSCIENTIOUS PHRENOLOGIST.

EVERY profession has its false as well as its conscientious workers. We hear frequently of the doings of men calling themselves phrenologists who would be a disgrace to any calling, and it is but natural that they reflect not a little dishonor upon a most beneficent calling in the opinion of those who are conversant with the principles of phrenological science, and are influenced by the criticism of the prejudiced.

The conscientious phrenologist is modest; he arrogates to himself no high position; he does not pre-empt the respect of society; he feels that his responsibilities are large; that he must work with care, even with anxiety. Standing in the relation of a counselor to the public in matters relating to mentality, a missionary character has been forced upon him; for in his earnestness he can not help appearing as a teacher of morals. His whole vocation bears upon the amelioration of man's physical and mental economy, and it naturally gravitates toward moral reform. No one understands better than he the nature of individual and social improvement; and no one discerns more clearly the capability of men for growth in every element of their intel-

lectual and moral natures. So he can not help urging those who come under his observation, to cultivate habits conducive to purity and refinement, and to live in a higher moral atmosphere than has been their wont. Now, to fill up the measure of this calling as a missionary, the phrenologist must be not only conscientiously earnest, but also extensively learned, and possess a wide experience. One who has been in the field for several years, recently said in a letter to the editor, that he stood appalled at the greatness of the subject which he had chosen as his profession. Such a man can be trusted because of his appreciation of the magnitude of his work, and the obligations it imposes. But lest the modest student should be led to hesitate and doubt his capability for entering upon such a vocation, we would say that in no department of life does experience accumulate so fast and prove so healthful as in practical Phrenology. With as much training in his pursuit as the average student of medicine or law possesses when he enters upon his, the young phrenologist, although beginning, as he should, in an humble way, finds himself performing the services of a teacher of morality, temperance, and hygiene quite unconsciously, and ere long experiences a certain sense of growing power and of self-reliance. His materials stand all around him ready for study, each replete with suggestion, and every step forward in experience is accompanied with glimpses of truth, and revelations which place in a clear light what previously appeared mysterious or confused.

PROFESSIONAL INDEFINITENESS.

IN the proceedings of the Chicago Medical Society, at its regular meeting, March 24th last, Dr. B. R. Brower read a paper on traumatic insanity, in the course of which

he alluded to three cases. One was that of an army officer who, before receiving the injury, "a scalp wound, with possibly a slight injury to the skull, from which he apparently recovered," was noted for his kindness, temperance, and affection; afterward, his disposition changed, and he became suspicious, vindictive, and brutal, as well as intemperate. When intoxicated he beat his wife and children. The second case was that of an Irishman of middle age, considered kind and peaceable. During the war his head was injured, "involving the skull in a depression." Afterward he indicated marked changes of disposition; became estranged from most of his old friends, was generally suspicious of those around him; had hallucinations with regard to evil spirits. One night he woke out of his sleep and shot his wife, and then shot himself. He recovered and was tried for murder. Subsequently he cut his throat while in prison and died.

The third case was that of a man who also killed his wife. Previously to the murder, he had acted in such a way as to be deemed insane, and was subsequently sent to the asylum. In this case the reporter says: "The insanity was clearly traceable to an injury of the head received years before, which was followed slowly by, first, headache; then, inattention to business; then, by other more positive symptoms of insanity."

These and other cases which we frequently meet with in medical publications, are exceedingly interesting to us as phrenologists; but they fail to meet our requirements because of their indefiniteness with respect to the location of the injury. We can infer from the mental phenomena as to what may be the region of the brain impaired; but this would be merely a deduction in the opinion of most intelligent peo-

ple of a speculative complexion. If surgeons and medical observers would only be explicit in reporting their cases, and take some pains to describe accurately the region of disease or injury where the brain is involved, it would be doing science generally a service. Not long ago, as the reader will remember, an account was published in the *PHRENOLOGICAL* of a case of traumatic insanity, the subject of which was restored by an operation performed at the importunity of his wife. The man had been confined in an asylum for more than fifteen years, and during all that time he was subjected to fits of violent mania. His wife, as it would seem, believed in the principles of Phrenology, and finally prevailed upon the superintendent of the asylum to have her husband's head trepanned at the place where he had received the injury, although the wound had long years before healed over, and not even a scar remained. It was found that the inner plate of the skull had been depressed and exerted pressure on the brain beneath. The projecting part was removed and the wound closed. Immediately after, the maniac recovered his reason.

It is evident to us that many cases of traumatic insanity would be cured, or much relieved, by similar treatment. Physicians know that what may appear, externally, to be a slight injury to the cranium, may involve serious trouble internally. It were better that the experiment were made, even if only a slight possibility of cure were discerned, than that the lunatic should remain in his derangement indefinitely. Surgeons nowadays perform very wonderful operations on the trunk and limbs, and it frequently happens that an operation upon the trunk involves much more danger than one upon the cranium; yet it is customary, unless the wound to the head be in the nature of a compound depressed fracture, not to attempt to remove the bone, or raise it.

THE FREEDMAN'S HEGIRA.

THE country has become much agitated over a movement on the part of the freedmen of the South, which has been in operation for fully three years, and threatens consequences of a very disastrous character to certain parts, if not to the whole South. Last summer a friend residing in Mississippi said, in the course of a letter, that the negroes of her neighborhood were rapidly leaving for some unknown "promised land" in the West, and that it was very difficult to procure help to harvest the crops. Up to that time the migration had been so moderate that it excited little remark, but within the past six months it has indicated the character of a wide-spread organization or mania. The chief objective point seems to be Kansas, and already the population of that State has been augmented by several thousands of the refugees.

The press of the country has discussed this remarkable phenomenon from all points

of view, so that it is unnecessary for us to venture a theory with respect to its origin. It is almost superfluous to say that we regret it in consideration of the injury which must result to the physical resources of the Southern States, from the withdrawal of so great a part of its working material. Doubtless the Southern people are beginning to realize very seriously the value of the negro's labor, and the wisdom of stemming the tide of his migration by a course of liberality and munificence. The negro is capricious, but at the same time he is generous and forgiving to excess. He loves the old home with a fervor not often found in the white, and treatment which conduces to excite his home sentiment will rarely fail to alter his declared intention to leave the place of his birth and dearest associations. If the freedman think that he has been grievously wronged, let his white neighbor give him assurances of kind and humane treatment, and we doubt not the flow Westward will soon be arrested.



"He that questioneth much, shall learn much."—Bacon.

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 FAILS 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.

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. Anonymous letters will not be considered.

BRAIN STIMULUS. — HEAD SCRATCHING.—*Question:* Why does a man scratch his head when in deep study? This query has been

propounded here, but it seems that no one can answer it. Thinking that you would be more likely to answer it correctly than any one else I know of, I have concluded to write you.—Z.T.R."

Answer: An irritation of any part of the body when in health stimulates the nervous action, more blood as a result is drawn to that part, and there is a more general activity set us. There is a special sympathy between the nerves of the surface and those of the organs situated beneath. When a man is thinking deeply, the activity of the brain-organs often produces an unconscious movement of the hand to the head, and the habit is easily formed of rubbing the head. An inflammation of the brain is treated partly or entirely with cool or soothing applications to the region affected. These applications operate upon the substance of the brain, chiefly by reflection through the vaso-motor nerves.

COLORADO.—*Question*: "From what is the name "Colorado" derived?"

Answer: This State, so remarkable for its scenery and geology, derives its name from the diversity of colors its hills and rocks exhibit. They have their contrasts of white, pink, and blue, while the unchanging verdure of the gnarled and white-fringed pines offers its pleasant relief. The upper ranges of the mountains, with their snowy peaks, are sometimes silver in tone. At other times the snow is a pink, fading, as the sun sets, into a gray and violet and white. Most of the views of Colorado scenery given us by fine artists do not exaggerate their gorgeousness.

WISDOM-TEETH.—*Question*: "Does it affect the intellect of a person to receive wisdom teeth, and at what age is it proper to receive them, and do you get them on both sides of the mouth at once, or first on one side and then the other?"

Answer: Wisdom-teeth generally show themselves when the time comes; and we think that they do have some relation to the intellect. People talk about having their eye-teeth cut, but the wisdom-teeth do not sprout until long after the eye-teeth have grown; and if one did not show some grains of sense at seventeen or eighteen or twenty years of age, it is not likely that the growth of the wisdom-teeth would help him much. These teeth have a way of coming in somewhat irregularly, and in some people they occasion many unpleasant sensations; as there are four of these teeth, one may be considerably exercised in mind for three or four years before they are all out of the gum. Take care of your teeth in general; their preservation itself will indicate a fair amount of intellectual sagacity.

SIT OR SET.—*Question*: Which of these terms is right as applied to hens? *Answer*: We can *set* a hen on a nest, but it is quite impossible to *sit* her. She must do that herself; just as nobody can *sit* us on a chair. A man can *set* a basin on a wash-bench, and he can *sit* on a dog's tail, but there may be consequences which would render it unpleasant to do the latter. A hen, when *sitting* on a nest has probably a different object in view than we have when *sitting* on a chair; but so far as the mere posture is concerned, there is great similarity.

YELLOW FEVER.—R. C. S.—The extreme methods of treatment introduced by the early hydropathists are not generally in vogue now, and intelligent physicians of all schools are coming to an agreement with regard to the great efficacy of water applications. In the treatment of yellow fever, we believe water to be a most useful agent. One who understands its application can produce really wonderful results. We are not able to explain the nature of

yellow fever, and our examination of the subject, as discussed in the medical publications, has not brought us to any definite conclusion. Indeed the late committee on the yellow fever in the South did not succeed in reaching a satisfactory determination concerning the nature of yellow fever—its origin, progress, etc. There were wide differences of opinion among the gentlemen who assisted at the conference; and what was finally reported appears to have been in many respects contrary to the views of those who had the most experience in its observation and treatment, they, however, being the minority. We think that yellow fever is similar to other biliary disorders, but more intense and rapid in its operation. In fine, it seems to us to be a typhoidal state suddenly induced.

LOCATION OF LANGUAGE.—I wish to find a little fault with your Text-book and Chart. Perhaps I may be wrong, but I am going to speak about it anyway. What I am going to say is about the faculty of Language. I think the organ is laid down in the wrong place. The people with what is called the observing eye are the most eloquent speakers. People with what are called full, or the large sac under the eye, are more apt to be very particular to put in every word than those with the sac smaller, and especially where the organ of Continuity is strong. I really think that the organ of Language is misplaced.

H. D.

Answer: Were it not that the physiologists outside the sphere of Phrenology have multiplied facts bearing upon the location of Language, and confirming the phrenological theory, we would be inclined to give your query more serious attention. You will find by consulting the works of Ferrier, Dalton, Flint, and others, that the location of the nerve-center in the brain for Language is established, and its development must produce the indication on which the estimate of the phrenologist is based. You say that persons with a full or large sac under the eye are more particular while talking to put in every word. By that you mean that they possess greater fluency and greater flow of words. That is just the claim of the phrenologist. Your remark in regard to the most eloquent speakers, we take it, means that eloquence comes of their clearness and precision in statement. It does not follow that because a man is fluent that he is eloquent; on the contrary, many who are noted for brevity, are also noted for eloquence. It is clearness in the presentation of one's meaning that constitutes true oratory. Some of the most eloquent men who have lived—Webster, for instance—were not remarkable for the mere copiousness of their vocabulary. They used plain, simple, every-day words, so that their meaning was understood by every one in their audience, and hence their influence. We do not see that

your views are, on the whole, contrary to the claims of the books.

PHONOGRAPHIC TEXT-BOOKS.—E. W. S.

—We do not think that the revised edition of Mr. Munson's Complete Phonographer is such an improvement on the former edition as to warrant your throwing aside the old for the new. In his new edition Mr. Munson's aim was to include what are deemed to be recent improvements in the practical exercise of the reporter's art. The edition of '68 is sufficient for the purposes of short-hand writing. But if one wish to keep pace with progress, he should make use of all the improvements.

TEMPERAMENT IN MARRIAGE.—Would

it be well for a man of dark complexion, hair and eyes, to marry a woman of light complexion, light hair, and blue eyes, and round, full face; the man an American, and the woman of foreign parentage?

Answer: The temperamental relations, as far as they are described by you, are favorable. It would be well, however, to inquire into the character of the stock or descent of both sides. Our book on the "Temperaments" has the whole subject set forth in a clear and practical manner.

Several ANSWERS must be deferred to the next number.



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

PHRENOLOGICAL EXPERIENCE.—A writer in the Warren (R. I.) *Gazette* thus discourses:

"The first phrenological work which we ever read was by the well-known Scotch writer, George Combe, published long ago, ere the demonstrations of the science had arrived at anything like their present accuracy. The book had probably been in the world for some years before we saw it, but the subject had for us a bewitching freshness. It gave us something to think of. The heads of our acquaintances assumed a novel value to us.

"Meanwhile, Phrenology came up for discussion in all social gatherings; for it was comparatively new; and the mind, in dwelling upon it, felt a fascination akin to that which must have been experienced by Columbus when he first explored the Bahamas. We had not then fallen entirely out of the habit of church-going; and the shapes

of those multitudinous heads that rose above the pew-backs in front of us, remain to-day impressed on our memory. Some of the good people who came up the aisle, or sat or stood before us, had no hair; and their "bumps" were left high and dry, like rocks at low water. It was an opportunity that we appreciated. How many characters of bald-headed people we carried home with us! Some had large Causality and Comparison, and in their exhortations gave reasons for the faith that was in them; some had immense Veneration, and were devotional without asking questions; some had bulging Combativeness, and almost challenged the 'arch enemy' to show himself if he dared! some, at Benevolence, had a great rise, like a wave, and what they said was winning and heart-felt.

"We never knew a person, at any time or place, to belie his head; for if he pretended to great feeling when he really had none, or to great goodness when he was evil, there would always remain a something in his general appearance which bespoke him insincere. His Secretiveness and Imitation would not be quite wide enough to cover his moral deficiencies."

EXPERIENCE IN HYGIENE AT HOME.—

A correspondent of Green county, Wisconsin, writes: "Twenty years ago I was taking the *Water-Cure Journal*; took it six or twelve months; sewed a number of them together, and have them yet. At about that time I purchased the 'Water-Cure Manual,' by Joel Shew. I then thought that the water-cure system was a common-sense doctrine, and think so yet. I was then forty-six years old, had a wife that was a good rich cook; we had a large family, and I had a great abundance of outdoor work, so that I could eat a great amount of good stuff with apparent comfort. But I began to think the great error of my life had been *eating too much rich food*. Many times in our home treatment of disease we have referred to the works just alluded to for counsel, and have never failed when making a fair trial. At my present age, sixty-six, I intend to learn more, and practice it. Let me give you a case of malpractice, as I call it. A son in our family, twelve or fourteen years of age, was troubled with stoppage at the bowels, and the physician who was called in doctored him daily for nearly one week, the patient continually growing worse. I took the matter in hand by asking the doctor if he ever gave injections. He said, yes, sometimes. I then asked him how it would answer to give the boy some. He said they would not hurt him. The experiment was tried; about fourteen minutes afterward there was a discharge, which so much relieved him that he went to sleep, and enjoyed a good night's rest, and commenced to recover from that time.

D. S."

THOUGHTS ON THE TRINITY.—No one is free from error. "If we say we have no error, we deceive ourselves, and the truth is not in us." Do not criticise the translation, for it is true. We are all errorists. There are no teachers of error but are also teachers of precious truths. Unmixed error does not exist among men, neither does unmixed truth exist among them. God blesses us only through the truth. His "truth is our shield and buckler." Relying on it, we are perfectly safe. If we are undone, it will be through error.

The doctrine of the Trinity, as often taught, has a great deal of absurdity and nonsense in it—a great deal that is calculated to make unbelievers. We might as well try to believe that two and two make six, as to believe some trinitarian nonsense which some have termed orthodox. Yet, however inexplicably absurd it may be—however contrary to Scripture and common sense, some would condemn us to worse than purgatory if we do not blindly believe. I say blindly, for it would be impossible to believe it otherwise than blindly. No difference what God may say, there are those who expect us blindly to hold to the traditions of the elders. I do not know of teachings that are more absurd than those of some who regard themselves as standards of orthodoxy. But I believe all trinitarians hold this grand, glorious, soul-saving doctrine, that we have in Christ a divine Saviour—one who is "able to save to the uttermost." By His influence, men are raised from the depths of degradation and sin to newness of life. They are made new creatures. Christless systems of theology are powerless for good. They do not rescue gems from the gutters. They do not make the Satanlike Godlike. We need—yes, we must have, just such a Saviour as the Bible proclaims.

So certain as the Bible is true and God is a trinity, so also man is a trinity. Man was made in the image and likeness of God.—Gen. i. 26. As God is, so was the new-made man, except that the One is infinite and the other is finite. I refer to man as he was before his fall, and as he will be after his restitution. One of the shortest definitions of God is, that He is an infinite man; and of man, that he is a finite god. The one has the same attributes as the other. Infinity makes the difference between them.

That man is a trinity is clearly taught in 1 Thess. v. 23, and many other passages of Scripture. "And the very God of peace sanctify you wholly; and I pray God your whole spirit and soul and body be preserved blameless to the coming of our Lord Jesus Christ." Whether any of our trinitarian friends have three persons, and but one essence, I leave to them to determine. I do not speak for them. I do not say how defective they may be, but I have a body, a

soul, and a spirit—a *soma*, a *psuche*, and *pneuma*—three essences; but I have but one person.

1. I "teach that each subsistence has a peculiarity incommunicable to the others."

2. I "assert that each subsistence, with the others, is a man."

If we had a body and a soul, but not a spirit, we would not be men; we would only be mere animals—not allied to the highest intelligences of the universe. We would not be like God and angels, but merely like the beasts which perish. If we had a body and a spirit, but not a soul (*psuche*), we would be anomalies in the universe—unlike anything which God has made or ever will make. If we had a soul and spirit, but not a body, we would not be perfect men, but such as the dead in Christ are—in an anomalous condition. The perfect union of the Father, Son, and Holy Spirit constitutes Him the perfect, glorious God whom we adore. The perfect union of body, soul, and spirit on earth constitutes a man—nothing else will.

Take any other view of our manhood, and there are many passages of Scripture which are inexplicable. Take this view of man, and it is in harmony with facts of science; take this view of the trinity of the Godhead, and it is no harder to be understood than the trinity of the manhood, or the duality of the mere animal, and it throws light on many passages of the Word of God. While the trinity of the Godhead is a doctrine which is coeval with Christianity, "The three persons in the Godhead was not formally stated in the Church for nearly three hundred years after our Lord's ascension." Indeed, if we deny the trinity of the Godhead and of the manhood, it is impossible to explain some of the teachings of the Old Testament.

We have bodies, and, therefore, are allied to the animal and vegetable kingdoms; therefore, we are corporeal. We have souls—Hebrew, *nephish*; Greek, *psuche*; Latin, *anima*—and, therefore, we are allied to the animal, and we ourselves are animals. We are soul-beings, or beings possessed of a soul. To say of anything that it is an animal, is to say that it is possessed of an *anima*, or soul.

That every animal has a *nephish*, *psuche*, *anima*, or soul, is evident from a great many passages of the original of God's Word, from Gen. i. 20, 21, 24, 30, to Rev. viii. 8, 9. Like the English word, soul, the original word is frequently used for the entire man. See the original of Matt. xvi. 25, 26; Mark viii. 35-37; Luke ix. 9-24; 1 Peter iii. 20; and a great many other passages in the Old and New Testaments. In the Bible the soul is never said to be immortal, but the opposite is said. The wicked dead are never called *psuchai*, but they are called *pneumata*. The righteous dead are never called *pneumata*,

but they are called *psuchai*. Therefore, the first death of the one must be different from that of the other. It seems that in the first death the *psuche* of the wicked dies, but that of the righteous does not. The wicked dead, like Satan, are mere spirits; but the righteous dead are more than spirits. Only their bodies die. The *pneuma* we have in common with all the higher intelligences of the universe. We occupy a much higher place in creation than anything which is merely animal—which has merely an *anima* and a body.

J. B.

Philadelphia.

PERSONAL.

MISS A. V. PETIT, author of "How to Read," is stopping in Washington, studying law under the direction of Mrs. Lockwood, and corresponding with several newspapers.

MR. HENRY G. HANCHETT lately appeared before a large audience in New York City, and challenged its criticism of his performance of several compositions by such authors as Bach, Beethoven, Chopin, Liszt, and Schumann. His execution was remarkably fine, and well deserved the warm applause it received, and entitled him at once to rank with our best pianists. Mr. Hanchett is an American, has received his musical education almost entirely from American instructors, principal among whom is Prof. A. J. Goodrich, and has never been abroad even to "finish." Mr. Hanchett's forte is the expression of the delicate and tender shades of a composer; in the rendering of Chopin and Beethoven he appears at home. As a home-bred American pianist, as well as for his merit, he deserves the generous consideration of the American public.

VICTOR HUGO celebrated his seventy-eighth birthday by a little dinner in the Café Riche in Paris, to which he was invited by a few old friends. The old poet appeared to be in robust health, and spoke with his usual vigor and point.

MR. ANDREW D. WHITE, who succeeded the late Bayard Taylor as United States Minister to Germany, was born in Homer, N. Y., in 1832. He was graduated from Yale College in 1853. Four years later he was made a professor in Michigan University. Resigning that position in 1862, on account of ill health, he came back to New York, and was twice elected to the State Senate. In 1866 he was made President of Cornell University, a position which he still holds. In 1871 he was one of the commissioners sent by the President to investigate Santo Domingo. He is the author of several works, and possesses a considerable estate.

MR. G. P. LATHROP, the author, has bought

the Wayside estate at Concord, Mass., formerly the home of Nathaniel Hawthorne. It passed out of the hands of the heirs some ten years ago, but the house and its surroundings have remained unchanged, and by the recent sale they have come back to one branch of the novelist's family.

A DAUGHTER of Charles Dickens has just met a terrible death in Australia, having been thrown from a carriage and fatally injured.

MADAME ELIZABETH BONAPARTE, formerly Miss Patterson, wife of Jerome Bonaparte, brother of Napoleon, died at Baltimore, Md., on the 4th of April, aged ninety-four years. Her estate, valued at \$1,000,000, is left mainly to her grandsons, Col. Jerome Bonaparte and Charles Joseph Bonaparte.

BARON ROTHSCHILD is said to hold a mortgage on the whole of Palestine as security for his loan of 200,000,000 francs to the Turkish Government. Perhaps default in its payment will lead to that Restoration of the Jewish people which is a part of Biblical prophecy!

GENERAL JOHN A. DIX died April 21st, in his eighty-first year. His life had been a varied and useful one, especially in a public way. He entered the army when a lad and served thirteen years. He had been Mayor of this city, Governor of New York, United States Senator, a member of the Cabinet, Assistant United States Treasurer, not to speak of many smaller public trusts. He was generally successful in public position, commanding an unusual degree of confidence in the purity of his purposes. His favorite pursuit was literature, and he presented the remarkable spectacle of a man whose early life was spent in camps, but the pleasure of whose age was reading the Latin classics.

WISDOM.

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

THE cheapest way to live is to breathe.

PEARLS.—One crime is everything; two nothing.—DELUZY.

OUR wealth is often a snare to ourselves, and always a temptation to others.—LACON.

LOGIC is the essence of truth, and truth is the most powerful tyrant; but then, tyrants hate the truth.—KOZLAY.

IT is not advisable to go out of doors without anything on your head, nor into company without anything in it.

A PASSIONATE man should be regarded with the same caution as a loaded blunderbuss, which may accidentally go off and do us an injury.

I THINK the first virtue is to restrain the tongue; he approaches nearest to the gods who knows how to be silent even though he be in the right. —CATO.

WARM your body by healthful exercise, not by cowering over a stove. Warm your spirit by performing independently noble deeds, not by ignobly seeking the sympathy of your fellows, who are no better than yourself. —THOREAU.

THEY who are fullen lowest remember the heights of virtue, honor, and peace, whose shining they once beheld, and whose pinnacle they once almost touched. And are we not all in some sense and some degree fallen? —GEORGE PUTNAM.

HAPPY, ye sons of busy life,
Who, equal to the bustling life,
No other view regard!
E'en when the wished end's denied,
Yet while the busy means are plied,
They bring their own reward.

—ROBERT BURNS.

STRIVE, strive, my soul, to be innocent; yes, beneficent. Does any man wound thee, not only forgive, but work into thy thought intelligence of the kind, of pain, that thou mayest never inflict it on another spirit. Then its work is done; it will never search thy whole nature again. Oh, love much, and be forgiven! —MARGARET FULLER OSSOLI.

MIRTH.

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

A LADY, joking about her nose, said: "I had nothing to do in shaping it. It was a birthday present."

THE proprietor of a bone-factory announces that persons leaving their bones with him can have them ground at short notice. —*New Orleans Picayune*.

A GERMAN waiter at a hotel said to a boarder: "Of you see vot you don't vant, yoost shpeak out."

"WHAT kind of an angle is that?" asked the professor. "An obtuse angle." "No, sir. It is a good deal more acute than you are."

CONTENTMENT is the name of an island off the Norwalk coast. Its population consists of three families, each being engaged in a lawsuit with the others.

A LITTLE boy came to his mother recently and said: "Mamma, I should think that if I was made of dust, I would get muddy inside when I drink."

A CERTAIN lawyer was compelled to apologize to the court. With stately dignity he rose in his place and said: "Your Honor is right, and I am wrong, as your Honor generally is!" There was a dazed look in the judge's eye, and he hardly knew whether to feel happy, or fine the lawyer for contempt of court.

A PACKAGE in a basket was left on the doorstep of a cautious Newport woman, who having no desire to adopt a foundling, took the basket to the police station, and there found that it contained a twenty-pound turkey.

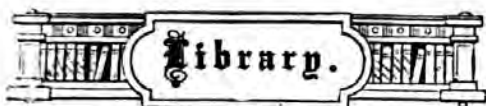
A YOUNG Scotchman at Alderhot fell sick, and was sent to the hospital. A bath was ordered. It was brought into the chamber where the invalid lay; he looked at it hard, and for some time, then he threw up his hands and bawled: "Oh, doctor! doctor! I canna drink a' that!"

OVER a bridge at Athens, Ga., is the following: "Any person driving over this bridge at a faster pace than a walk shall, if a white person, be fined five dollars; if a negro, receive twenty-five lashes—half the penalty to be bestowed upon the informer." It is to be hoped that the penalty is always impartially divided.

A FARMER required a number of reapers; several presented themselves, and all were engaged, with one exception. The poor man thus omitted, said: "Master, won't you hire me?" "No," said the farmer. "Why not?" "Because you are too little." "Too little!" exclaimed Paddy. "Does your honor reap your corn at the top?" What could the farmer do but roar with laughter, and send the little man to join his comrades in the field?

A LITTLE girl in the infant class of a Sunday-school thoroughly appreciated the difference between being good from choice and from necessity. At the close of the school one day, the teacher remarked, "Beckie, dear, you have been a very good little girl to-day." "Yes'm, I couldn't help being good, I got a 'tiff neck," the youthful Beckie replied with perfect seriousness.

DR. M—, an eminent Church-of-Scotland divine, lately visited the Paris Exhibition. Shortly after his arrival in the gay metropolis, an Irishman came running up to him on the street, crying: "Och, blessings on ye, Dr. M—! How are yez?" "I'm very well," replied the doctor, rather dryly. "And when did yez come to Paris?" "Last week. But how do you come to know me?" "Give me a shilling, and I'll tell yez." The doctor, curious to know how the fellow found his name out, gave him the shilling, and was answered by the Irishman: "Sure, then, I saw your name on your umbrella."



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.

JOAN THE MAID, DELIVERER OF FRANCE AND ENGLAND: A story of the Fifteenth Century, done into modern English, by the author of "Chronicles of the Schonberg-Cotta Family." 12mo, pp. 357, cloth. Price \$1.50.

The author of the "Schonberg-Cotta Family" has been so long before the public that it would be absurd for one now to attempt to define her place in the republic of letters. Whenever her name is announced in connection with a new book, we at once expect a tale founded upon incidents of the long ago, in which religious conflict bore conspicuous part. Mediæval story has always proved attractive to us moderns; its heroic elements come so close in their relation to our modern growth that we can not help sharing in their personality.

The tale of "Joan the Maid," or Joan of Arc, as the historians term her, is here rehearsed through lips of English belongings. "Percival," who is the chief spokesman, tells of the strife between France and England, and how his brother and he went with the armies of his country to press her claims to continental territory, and obsequence. He gives us in pathetic language impressive pictures of the horrors of war as he proceeds with his narrative, and in his character of a soldier points some of the details of the investment of Orleans. He has much to say concerning the demeanor of the "maid" in her communications with the commander of the besieging host; and for the sake of the romantic elements of the book we forgive him for the idealism which pervades his description of her appearance, and his recital of her sayings. So Percival goes on to tell of Joan's successes in battle to the great chagrin and rage of the English, and how she was taken prisoner, and most inhumanly treated, and at last burned at the stake—merely because she had been victorious when leading the French.

THE FAIRY LAND OF SCIENCE. By Arabella B. Buckley, author of "A Short History of Natural Science," "Botanical Tables for Young Students," etc. Illustrated. 12mo, pp. 244. Price, cloth, \$1.50. New York: D. Appleton & Company.

This pleasant exposition of some of the more important truths of general science, is made up from ten lectures which were delivered by the author before a large audience, principally children, at a favorite resort in New York City. As the lectures were designed for the entertainment and instruction of children, the book into which they have been converted is intended also for children. It is well calculated to interest the juvenile mind in scientific observation, because Miss Buckley has not only selected topics for illustration and analysis which encounter us in every-day life, but she has the enviable faculty of making philosophy clear to minds of limited scope, and evidently understands and loves children. She tells of the sunbeams and their work, of the atmosphere, of the nature of water, its forms and marvelous capabilities; how flowers are born and grow, how coal is formed, and of the life and service of the busy bee. Sixty or more excellent illustrations add their attraction to the book; such "fairy stories," and none are more wonderful than those supplied by nature, we may commend to children, young and old.

AIDS TO FAMILY GOVERNMENT; or, From the Cradle to the School, according to Froebel. By Bertha Meyer. Translated from the second German edition by M. L. Holbrook, M.D. To which has been added an Essay on the Rights of Children, and the True Principles of Family Government. By Herbert Spencer. 12mo, cloth, pp. 208. Price \$1.00. New York: M. L. Holbrook & Co.

The independent tone and useful counsel of Mrs. Meyer's book have won for it so much favor among the German people, that Dr. Holbrook has thought it worthy the labor of a translation into English, and an introduction to the American public. Treatises for the use of parents and teachers are numerous with us; but a new and well-digested manual, founded upon the already well-tried principles of Froebel, is far from superfluous.

Minute directions are given with respect to the treatment of a young infant which do not differ in essential respects from those of the most approved hygienic methods in use here. It is well said that "'Badly fed' is the term popularly applied, and correctly, to a child suffering with rickets. With crooked legs, protruding abdomen, great head, and pale and wasted features, it is indeed an object of pity. The nourishment begins with the sucking-bag and with the sour and carelessly-prepared bottle, followed by the chewing of black bread and potatoes at a time when more nourishing food should give strength and durability to the tender bones and muscles."

The translator has shown much care and ability in his work; were not his tastes and professional sympathies similar to those of the author,

he could scarcely have shown as much fidelity in his rendering. Herbert Spencer's didactical essay on the "Rights of Children" is added as an accompaniment to "Family Government;" and Dr. Holbrook has also a "Hundred Hints."

FIREBRANDS: A Temperance Tale. By Julia McNair Wright. Author of "A Strange Sea-Story," "Nothing to Drink," etc. 16mo. pp. 357, cloth. Price \$1. New York: National Temperance Society and Publication House.

A picturesque and epigrammatic introduction, entitled "Arcadia," greets the reader, who, in its course, is brought into contact with so many variations of character, that he is impressed that the author has laid out a rather broad foundation in the very start. The sharp contrast of motive and sentiment in the cases of Hiram Beck, storekeeper, and Uncle Nebby North, gardener, is well brought out, and the way in which Uncle Nebby disciplined his orphan-charge, Tom, for sundry manifestations of in-born disposition, is touched with a vein of humor. Tom is the center figure of the book; how he was brought up, educated, and made his way for himself by teaching school; how he inherited a small fortune unexpectedly, which turned his head, and in his desire to become rich and influential he commenced manufacturing beer. The results of his pernicious business upon the home of his youth, and upon himself and family, are graphically described with no straining or exaggeration. The end of it all is, ashes and death, the "firebrands" occasioned by the introduction of alcoholism into a neighborhood once quiet and peaceful.

THE AMATEUR'S HANDBOOK of Practical Information for the Workshop and the Laboratory. Second edition, greatly enlarged. Price 15 cts. New York: Industrial Publication Company.

This little book is a very valuable collection of recipes for the householder and the mechanic. It contains clear and appropriate directions for such processes as bronzing, lacquering, polishing, soldering, brazing, hardening steel, tempering tools, cutting and working glass, varnishing, silversmithing, gilding, preparing skins, making alloys, signal lights, colored fires for tableaux, cements, etc. As it was prepared under scientific direction, the owner of such a book could depend upon its accuracy, which is not the case with the ordinary publications which go by the name of "Ready Advisers," etc.

PUBLICATIONS RECEIVED.

ANNUAL REPORT OF THE ASTOR LIBRARY for the Thirteenth Year, by which we are apprised that a very considerable addition has been made to the magnificent collection in Lafayette Place. Among this addition are six very rare and rich manuscripts presented by Mr. Astor; a twenty-volume folio of Rymer's "Fœ-

dera," the gift of Mr. O'Connor, and other old works. The number of accessions during the year aggregate 5,800. The number of readers has increased, there having been 60,346 in 1878.

AN ETYMOLOGICAL DICTIONARY OF THE SCOTTISH LANGUAGE, illustrating the words in their different significance by examples from modern and ancient writers. A new edition, carefully revised and completed by John Longmuir, A.M., LL.D. Published at Paisley. By Alexander Gardner. Prospectus.

POTTER'S AMERICAN MONTHLY. An Illustrated Magazine of History, Literature, Science, and Art. Philadelphia. We notice improvement in the late numbers of this magazine; an evidence, we take it, of public appreciation.

ESTABLECIMIENTO MIXTO de Articulos de Licitos como el Situado en la Calle de Ricala o Muralla. Numero 80. Entre Villegad y Cerrada del Cristo Apartado de Correo. Numero 620. Habana.

MONTHLY WEATHER REVIEW for March is unusually full of data, especially with reference to storms, many of which were very severe, particularly on the Atlantic coast.

REGISTER OF THE LEHIGH UNIVERSITY for the year 1878-79. With the plan of Organization and Course of Instruction. A very complete description of a well-endowed and well-furnished institution.

REPORT OF THE PENNSYLVANIA HOSPITAL for the Insane for the year 1878. By Thomas S. Kirkbride, M.D., Physician-in-Chief, and Superintendent.

PHILADELPHIA, 1879. A rather elaborate pamphlet, containing statistics of value to the social economist. We note a fine steel engraving of the Hospital buildings.

INFLUENCE OF TOBACCO. The Editor's Observation for Thirty Years, from the *Scalpel*. People who are Blood and Nerve Starved, also from the *Scalpel*. Edited by E. H. Dixon, M.D. It would be well for people given to exhausting habits, especially those of tobacco-using and liquor-drinking, to read this pamphlet. The veteran, plain-spoken doctor is a reformer.

MELBOURNE INTERNATIONAL EXHIBITION for 1880. A pamphlet announcing to the world the fact that Australia will have her display of manufactures and products next year. The programme is an extended one, and in itself an intimation of the rapid growth of a country whose resources are marvelous.

NEW PREPARATIONS: A Medical Journal devoted to New Therapeutical Agents. W. Brodie, M.D., publisher. This publication in the drug interest is a Detroit undertaking.

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. LXIX. OLD SERIES—VOL. XX. NEW SERIES.

JULY TO DECEMBER, 1879.

H. S. DRAYTON, A.M., AND N. SIZER, EDITORS.

NEW YORK:

S. R. WELLS & CO., PUBLISHERS, 737 BROADWAY.

1879.



"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 perfectionnera 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, 1879.

A.

Anniversary Stuffing.....	51
Answers to Correspondents.....	53, 104, 161, 275, 325
Alcoholism Treated Phrenologically.....	67
American Novelist.....	61, 130, 197
Animal Magnetism as a Curative Agent.....	127
A Family Physician, or the Guide.....	148
About Children's Exercise.....	162
Application of Phrenology.....	191
Above and Below.....	258
Apples Every Year.....	318

B.

Bad Temper.....	15
Brain and Mind.....	25, 72, 123, 192, 225
Rathings, Hints on.....	45
Book Notices.....	59, 112, 170, 224, 281
Blush? Do Animals.....	61
Blotches on Our Civilization.....	102
Brain, Injury of the.....	134
Blonde and Brunette Soldiers.....	140
Beautiful Harvest—Poetry.....	140
Boy All Over.....	146
Bumps Not Looked For.....	176
Breaking a Child's Will.....	190
Brain Growth.....	215
Butterfly, The.....	250
Boyhood's Memory, A.....	301
Bean, Product of a.....	318
Blood in Diagnosis.....	318

C.

Children, Teasing.....	29
Curvatures of the Spine.....	41
Church Sociable.....	42
Consumption and Climate.....	47
Class, The Great Subject.....	53
Correspondents, Answers to.....	53, 104, 161, 218, 217, 325
Christianity, Future of.....	56
Cereus, Night-Blooming.....	80
Clark, Rev. Alexander, Death of.....	122
Cheerfulness, Cultivating.....	157
Chaestine Cox, Murderer of Mrs. Hull.....	202
Class, Final Words.....	217
Cotton Worm, Loss by.....	263
Cousins, Marriage of.....	276
Color Sense, The.....	291
Carey, Henry C.....	302
Comparative Value of Food.....	312
Causes of Sudden Death.....	316
Cave Wonder in Arizona.....	317
Conscience.....	326
Children and Flesh Diet.....	325
Cookery, Unwholesome.....	326

D.

Drifting with the Tide.....	33
Diet, Pitman on.....	44
Disease of Drugs in Medical Practice.....	51
Dayton, Henry S.....	141
Drinking at Meals.....	266
Distance of Stars.....	167

E.

Epidemic, The Late Southern.....	48
European Travel.....	159
Experiments in Magnetism.....	200
Education of Individual Talents.....	206
Elevation of the Individual.....	298
Earth Cure, The.....	314

F.

Fire-Files.....	11
Florentine Orphanage.....	36
Formation of Character.....	44
Farming East and West.....	46
Facial Peculiarities.....	97
Frozen to Death—Poetry.....	163
Flamingo's Nest.....	244
Faith, Vow of.....	289
Food, Comparative Value of.....	312
Forest Consumption.....	317
Further Showings from French Sources.....	322

G.

Garrison, Wm. Lloyd, Death of.....	61
Good Enough for Home.....	79
Giving Up Liquor in Old Age.....	93
German Type of Head.....	189
Grace and Self-Help.....	278
Gas Machine, A Wonderful.....	319
Good Fence, A.....	319
Grafting Grape-Vines.....	319
Galvanic Battery, Home-Made.....	319
Glucose.....	327

H.

Home, Making a.....	16
Health Reform and a Colony.....	108
Harris, Daniel.....	171
House Cleaning.....	209
How Not to Govern.....	217
Hall, Dr. John.....	327
Havergal, Frances R.....	251
Health in Honduras.....	263
Hart, Henry A., M.D.....	305
Heart, Action of the.....	313
Human Sponges.....	321

I.

Injury of the Brain.....	134
International Prison Reform.....	136, 192
Intelligent Labor.....	150
Italian Girl's Prank.....	249
Individual, Elevation of.....	283
In the Van.....	297
Iron and Glue in Street Dust.....	317
Ink, To Remove from Carpets.....	318
Immortality and Immorality.....	326

K.

Kiddle, Henry.....	263
--------------------	-----

L.

Lockwood, Mrs. Belva A., Lawyer.....	20
Letters from the South.....	43
Labor and the Criminal.....	49
Library—Book Notices.....	59, 112, 170, 224, 251, 330
Love of Young.....	144
Leaf of European Travel.....	159
Longevity in Different Occupations.....	207
Look at the Real Causes.....	274
Lunatics, Some Very Common.....	322

M.

Making a Home.....	16
Meats and Poisons.....	55
Mirth.....	58, 111, 169, 223, 280, 330
Mental Science in China.....	69
Magnetism, Animal.....	127
Monarchs or Subjects.....	269

Meats Cooked by Cold.....	267
Mildew of Walls.....	268
Memory Strengthened by Practice.....	300
Matrimonial Question.....	325
Mushrooms and Toadstools.....	325

N.

New Art Product.....	30
Night-Blooming Cereus.....	80
Novelist, American.....	61, 130
North-east Passage.....	103
Nervo-Mental Force.....	109
New Lyceum.....	331
Nurse Girls.....	315

O.

Old Ruin—Poetry.....	10
Old Men in Our Day.....	50
Our Daily Reckoning—Poetry.....	147
Original Races of Europe.....	161
Observations on Fevers in America.....	167
Only to Think—Poetry.....	314
Old and New Style of Dating.....	219
Organs, Location of.....	326
Our Work.....	327

P.

Philosophy of Reaction.....	38
Pitman, Isaac, on Diet.....	44
Propelling Organs East and West.....	55
Personal.....	57, 279, 329
Phrenologist, A Very Young—Poetry.....	84
Petroleum, Origin of.....	98
Phrenology Not a Proof of Fatalism.....	109
Phrenology and Metaphysics.....	118
Phrenology Applied.....	119
Prison Reform.....	186, 193
Pure Cistern Water, and How.....	154
Planetary Conjunctions.....	155
Phrenology, Practical Value of it.....	164
Phrenology in Theology.....	166
Precocious Children.....	167
Phrenology in the Newspapers.....	17
Phrenological Examination, for What?.....	179
Price of Brains: Vanderbilt.....	189
Plain Talk for Young Men.....	211
Poultry Keeping.....	263
Phrenology in Scotland.....	273
"Positions, Unwarrantable".....	310
Popular Inanity.....	323
Physiognomical Signs.....	326

Q.

Quinces, Soil for.....	269
------------------------	-----

R.

Reaction, Philosophy of.....	38
Revolutionary School Teacher.....	83
Rice in Japan, How they Cook.....	298
Refinement.....	273
Real Causes, Look at the.....	274
Revival of Business.....	275
Rainbow, Town at end of.....	298
Rate, To get rid of.....	319
Reader, To the.....	320

S.

Stanley, Arthur Penrhyn.....	5
Summer—Poetry.....	11
Spine, Curvatures of the.....	40

CONTENTS.

Science and Agriculture, Notes on.....	46, 98, 154, 267, 317	The Innocent Sleep—Poetry.....	16	Vegetarianism, A Study in.....	49
Self-Sacrifice, Two Kinds of.....	77	Teasing Children.....	29	Velocity of Sound.....	155
Stage Driver's Story.....	85	"Take a Drink".....	44	"Vow of Faith, The".....	289
Seven Wise Men of Greece.....	106	The Great Subject—Class.....	52		
Some of My Notions.....	106	Thwing, Edward Payson.....	70	W.	
Summer-storm Song.....	168	Then 1839, Now 1879, When 1919.....	156	Women as Clerks under Govern-	
Something to Avoid.....	212	The Spirit.....	158	ment.....	9
Soldier Bound.....	216	Terrible Warning.....	206	What is a Poem?.....	88
Smith, Dr. J. V. C., Death of.....	222	The Difference.....	210	What They Say.....	55, 106, 163, 221, 277, 327
Studies in Entomology.....	245	Tea which Americans Drink.....	213	Wisdom.....	58, 111, 169, 223, 280, 329
Short Words.....	245	Teeth of Children, Decaying.....	220	What Shall We Drink?.....	90
Savings, and Who First Said		Thompson, Joseph P., D. D.,		What is Mind?.....	101
Them.....	260	Death of.....	247	White, Andrew D., of Cornell	
Superiority of Mind over Matter.....	262	Tobacco, Traffic in.....	269	University.....	115
Stammering, Causes of.....	264	Thinking to a Point.....	277	What in Religion Science Must	
Soldiers in the United States.....	275	True Government.....	278	Recognize.....	163
Sweating on One Side Only.....	276	Town at the end of the Rainbow.....	298	Women of Italy.....	208
Snake's Motion.....	277	Tea, A Horse Killed by.....	318	Woman's Troubles—Josephine	
Social Life in France and Ger-				Jackson.....	221, 278
many.....	304	U.		Weeping Sophora.....	229
Skimmias, The.....	303	Uncle Jimmie, the Cripple.....	31	What Came of It.....	279
Sudden Death, Causes of.....	316	Ugly, but Good.....	37	Water, Hard and Soft.....	317
Special Instruction.....	324	Utility of Phrenology.....	187		
		"Unwarrantable Positions".....	310	Y.	
T.				Young Lady's Opinion.....	166
Temperature vs. "Respirative-		V.		Yellow Fever Country.....	265
ness".....	13	Very Young Phrenologist.....	84		

ILLUSTRATIONS.

Apple Weevil.....	244	Fire-Flies, Lampyrus.....	11	Phrenologist, A Very Young.....	84
Brain, Human.....	126	Glow-Worm.....	12	Stanley, A. P., Dean of West-	
Brain, Monkey.....	123	Garrison, Wm. Lloyd.....	61	minster.....	5
Brain Development by Fibers.....	177	Harris, Daniel.....	171	Spine, Curvatures of the.....	40, 41, 42
Boyhood's Memory, A.....	301	Hall, Rev. Dr. John.....	227	Skimmia Japonica.....	303
Cucajo.....	12	Hart, Henry A.....	305	"Fragrans.....	303
Chinese Phrenologist.....	69	Kiddle, Henry.....	283	Thwing, Edward Payson.....	71
Chinese Doctor.....	69	Lockwood, Mrs. B. A., Lawyer.....	20	Thompson, J. P., D. D.....	247
Cereus, Night-Blooming.....	80	Lady-Bird.....	242	Wells, S. R., Medallion.....	30
Clark, Rev. Alexander, D. D.....	122	Monkey's Brain.....		White, Andrew D.....	115
Cox, Chastine.....	202	Microgaster Glomeratus.....	243	Wheat Midge.....	241
Cuto Worm.....	243	Night-Blooming Cereus.....	80	Wheat Moth.....	242
Drayton, Henry S.....	141	Old Ruin.....	19	Weeping Sophora.....	259

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 69. 1879.

NUMBER 1.]

July, 1879.

[WHOLE No. 488.]



ARTHUR PENRHYN STANLEY,

DEAN OF WESTMINSTER.

EARLY in the fall of last year a distinguished prelate of the Church of England landed in New York, made a rapid tour, and returned to his home. It was Arthur Penrhyn Stanley, Dean of Westminster. Well known in the Christian world for his

earnest piety, broad charity, in which there appears scarcely a trace of denominational asceticism, and for high literary culture, the cordial welcome which this gentleman received at his landing and wherever his footsteps led, was a foregone conclusion.

Of medium height and habit, Dean Stanley is not one of those who when in a crowd impress a stranger at the first glance; but to the physiognomist his face offers a study of unusual attraction. The delicacy of their chiselling imparts to his features, as a whole, an appearance of smallness which escapes us when we analyze them separately. His eyes and forehead are remarkably fine, impressing one with the idea of cultured taste and definiteness. In the pulpit, arrayed in the robes of his profession, his appearance is striking; forehead, eyes, and the fine silvery hair being seen to their best advantage. The general expression of his face and head is that of refinement, susceptibility, and self-possession, with a kind of interior intensity which makes him wonderfully in earnest and very sincere. The face indicates harmony of bodily conditions. There is a full degree of respiratory power which keeps the brain in a clear and healthy condition; a fair digestive capacity which sustains the health; a harmonious circulation which renders him less liable to illness than most men. His brain does not become congested by rush of blood every time he is excited by fear or solicitude, chagrin or enthusiasm. Even at the last the heart will be likely to maintain its action when the other forces have ceased. While many men are liable to a spasmodic action of the heart, and to its sudden stoppage, inducing asphyxia and instant death when the system seems to be in a good condition of health and vigor, this gentleman is not likely to be affected in that way, but, on the contrary, will show peculiar self-possession, clearness

and calmness of thought and purpose in the most trying circumstances. We judge that it has been a peculiarity of his from childhood not to lose his mental equilibrium under embarrassing relations. Whoever else may be confused and stultified by fear, anxiety, or sudden calamity, he will carry himself coolly.

He is a clear, strong, far-reaching thinker, and a great critic. The upper part of his forehead, which represents Comparison, and power of analysis, and also Causality, or the power of logical grasp and combination, is largely developed. The reader will observe the fullness and squareness of the outer corners of the upper part of the forehead; these indicate Mirthfulness, the sense of wit, the recognition of the absurd and facetious. The fullness of the temples upward and outward from the eye is considerable, showing mechanical and inventive talent, the ability to comprehend mixed combinations, multifold interests, and puzzling relations. That which would confuse most men seems clear to him. Although there may be a thousand threads in his loom, the weaver appreciates all without confusion; and in the affairs of life, where many interests are blended or opposed, many minds become embarrassed in dwelling upon them, but the subject before us will see everything as distinctly, and apprehend the combination as the weaver does that of his machine.

There seems to be also rather strong Acquisitiveness, which gives the sense of value and economy in the administration of practical affairs. He has strong Cautiousness, which impresses his mind with a forelooking quality, and a good degree of Combativeness, which prompts him to energetic action, heroic effort, and aids him in making advances in the way of reform, and in keeping pace with improvement in the

moral and physical departments of human life. He sees the twilight of coming events, and is ready to welcome new ideas and to accept necessary changes. He seems, indeed, to be ready for them before they come.

His power to read character is wonderful, and gives him unusual ability to mold and manage people. If we may say it, he reads mankind as the musician does the musical score, and, like the latter, knows how to produce the effects he would. He is remarkable for Agreeableness, for his tact in finding the smooth side of those who are generally considered irascible and unbearable.

His Benevolence and Veneration are strongly indicated. He recognizes the good there is in men and treats them considerately; and while he looks for perfection, so far as it can be manifested, he tolerates or makes allowance for the unfortunate and unfavorable conditions which are associated with humanity. For this reason he makes more friends among poor people and those who are not commonly well received than almost any other man in his sphere of action. The poor, ignorant, and weak are not afraid to look him in the face and tell him their wants, and even their faults; so that while he is the equal, intellectually and morally, of strong men and cultivated thinkers, he is approachable to the commonest.

He was born at Alderly, Cheshire, on the 13th of December, 1815. His father, Dr. Edward Stanley, was rector of Alderly for thirty-two years, and attained to the preferment of a bishop. His early training received its chief impulse at Rugby school under the influence of the memorable Dr. Arnold, of whom he became the biographer. From Rugby he passed to Oxford University, where he was graduated and appointed

tutor, in which relation he remained twelve years. In 1851 he was appointed Canon of Canterbury, and a few years later Regius Professor of Ecclesiastical History at Oxford. This chair he kept from 1856 to 1864, when he was made Dean of Westminster. During the twenty years of his tutor life, he was both a student and an observer, and had associations with learned men, which served to develop his mind and promote the accumulation of that rich store of knowledge which appears so conspicuously in his many published works.

As Dean of Westminster he has been conspicuous in English life not only, but in the Christian world at large. Few men in the ecclesiastical office have borne themselves with so much dignity, and with so much advantage to the religious institutions with which they were connected. Prior to his elevation to the Deanery he had published his "Life and Correspondence of Thomas Arnold," in 1844; in 1847 appeared "Sermons and Essays on the Apostolic Age;" in 1855, "Epistle of St. Paul to the Corinthians, with Critical Notes, etc.;" "Sinai and Palestine in connection with their History." Other works deserving of mention are: "Lectures on the History of the Jewish Church," part first in '62, part second in '65, part third in '76; "Historical Memoirs of Westminster," 1867; "Essays on the Church and State," 1870; "Lectures on the History of the Church of Scotland," 1872. In 1874 he was elected Lord Rector of the University of St. Andrews.

By the very titles of his publications it would be seen that Dean Stanley is a "true son of the Church," though not of a Church of an exclusive order. He is disposed to identify himself with the Christian body at large. An American writer very properly characterizes him as not merely a divine, or a scholar, or an author, but a man of the age, exquisitely sensitive to poetry and art, and keenly alive to the charm which there is about ancient places and venerable institutions. Yet he is not a monk or a recluse; he is not so in love with scholarly seclusion that he is content to live within the shadow of an ancient cloister, hearing only an occasional foot-fall in the basement of the court,

and not listening to the roar without of the London streets, which tells of the mighty tide of life that is pouring through the Rome of the modern world. He loves knowledge, his library, his books, and the society of scholars, but he wants to mingle also with the great living world that rolls and dashes in the ocean outside of cathedral walls.

That the world without the borders of his own loved England is something to him is indicated by his visit to America, and by the deep interest which he exhibited in the affairs of our people while here, and the frequent allusion which he makes to his experiences in America. Two or three prominent English journals have even twitted him on having been so much influenced by his American visit as to adopt some of our mannerisms of speech.

Two years or so ago Lady Augusta, his wife, died, a lady well known and highly esteemed in England for her many virtues and charities. She had been one of the Queen's maids of honor, and was most tenderly loved by her husband.

This sketch would be incomplete without some glimpse of the Dean's manner as a speaker, for its refined purity illuminates the thought and the phraseology in which the thought is framed. Shortly before his departure from New York to return to England he preached in Grace Church a memorable discourse on the relations of the spiritual and physical in man, in the course of which occurred passages whose philosophy is closely accordant with the teachings of the science advocated by this magazine. Some of these passages were the following:

"The spiritual part of man has constantly advanced, while the outward physical man has, on the whole, remained the same. The intellectual part has advanced immensely. The civilized man is far above the savage, and the Greeks and Romans were far above the Asiatic. Our happiness, our dignity, our welfare do not hinge upon what our ancestors were a thousand years ago; not on the high gifts of intellectuality and genius, which after all are gifts and ornaments of ourselves; not on any of these things, wonderful as they are, and greatly as they contribute to happiness. It is on

our moral nature, on what we are, on what we do, on what we admire, on what we love, and on what we hate. The soul that sinneth, it shall die; but he who doeth what is lawful and right shall surely live. The moral nature of man will outlast all the convulsions of life, and will, we humbly trust, outlast time itself. There is something greater than the resurrection of the dead, and that is the immortality of the soul. There is something greater than the immortality of the soul—the ever-living, vivifying, and quickening power of the Spirit.

"In our own being there are two or three or five separate characters fighting for separate mastery. We see it in the character of David; we see it in the flex and reflex of the better mind of Peter; we see it in the distraction and discussion in the mind of Paul; we see it in the long history of Christendom; we see it in the old Adam lying within the folds of the newly-created Adam, and the old Adam striving to keep its own against the new Christian Adam.

"It is this doctrine of the superior character of the spiritual man above his physical friend, which, as it is our safeguard against the materialism of the scientific lecture-room, is also our best safeguard against materialism of the altar and the sacristy. When for a thousand years the Christian Church believed that the eternal weal or woe of human beings depended upon the immersion of the human body in a bath or a basin of water; when the regeneration of nations in the Middle Ages, and even in the seventeenth century, was supposed to depend upon the preservation of the dead bones or the fragments of wood, these were all so many attempts to sink the spiritual in the material. . . .

"To sum up the sense and substance of all that I have been saying: If there be any place on earth where the thought of such a conflict between mind and matter where the hope of the triumph of the spiritual over the material is discovered, it may be in this great city. When we look back to the very small beginnings—the Dutch settlement gathered around its humble church and fortress on the green point of

land between the two inclosing rivers—its humble palisades defending the little flock within from the incursions of the Indian tribes; and then look at the illimitable extension of this Babylon of the West, this endless traffic and thoroughfare of the world, its tramways, over which a more than Babylonian whirl and stir roll above our heads; we well may feel how the human intellect has wrought out of these mean conditions, a destiny which, one hundred years ago, could not have been conceived. We see how a new creation has been formed within the lifetime almost of a single generation. Accident, no doubt, has had her share in this, but the mind and will of man have done much more. Then arises with increasing strength the question whether that higher spirit of man of which we have been speaking has also borne its part; whether in the midst of this great Babylon there are signs of the Jerusalem which is above.

"The traveler who has come from over the sea and returns to his home in the small island where his duty lies, feels his own conception of the endless capacity of his race increase; but he also asks himself whether there has been and will be here, or in his own country, a corresponding increase of that faith, without which wealth and fame, and the vast extent of territory, are as the dust in the balance. Extent of business is not of necessity greatness, nor is the vast, indomitable will and inexhaustible perseverance of this, progress. Sometimes, as we think of the long and checkered history of my native land, and sometimes also as we think of the checkered history of this nation, there comes to our mind a recollection of those lines of the lyrical poet of England:

"New times, new chimes,
New arts, new men;
But still the same old earth, old crimes."

"But there is the better voice of the Christian poet who, thinking only of the duties and actions of daily life, applies them also to Christian life:

"New perils past, new sins forgiven,
New thoughts of God, new hopes of Heaven;
New treasures still of countless price,
God will provide for sacrifice."

"When we think of the generosity of individuals, of the kindness and purity of the domestic hearth; when we think of the higher virtues of the Anglo-Saxon race, whether on this side of the ocean or the other, our hearts refuse to be disquieted. We remember the proud motto of the State of New York, into which the great poet of America has thrown a yet loftier meaning—'Excelsior.' Yes, higher, and yet higher, must and shall the spiritual and moral effort be made, to keep pace with its material splendors, and not to be led captive at their chariot wheels. More strenuous, and yet more strenuous, must be the struggle if it is to reach to the summit of the material destiny of this new world. Human courage must rise to the needs of human adversity; or according to the noble saying of the American General whom both sides in the late conflict delighted to honor, 'Human virtue must rise to the need of human temptation and of human corruption.'"

WOMEN AS CLERKS UNDER GOVERNMENT.—The employment of female clerks in the Government offices in Washington has become an established thing, and, as it would seem, purely on merit. At the present time there are employed in the departments 1,300 women, at salaries ranging from \$900 to \$1,800. But one receives this highest amount, though many receive from \$1,200 to \$1,400. Few of them resign, and few leave their places to marry and settle into domestic life. The greatest experts in counting money and detecting counterfeits are among the lady employes. The appointment of women to these places was first made by Secretary Chase in 1862, and the highest salary paid was \$600. Their usefulness and aptness for the work being demonstrated, they have steadily increased in numbers, and have been able to command wages approximating the salaries of men who formerly occupied these places. Few of the many ill things prophesied as the results of such an innovation have occurred, and the heads of departments would seriously object to making any change now. It is a gratification to see new fields of usefulness opening up to the women of the land, more especially when they prove themselves so fully competent, as in the departments at Washington.



THE OLD RUIN.

As down the aisles of life we wander,
Now here, now there, our glances fleet bestowing,
Perchance they fall upon some building hoary
Whose crumbling walls reveal an ancient glory,
Whose splintered piers with ivy garlands grow-
ing
Scenes of the past vividly conjure.

Falleth a spell 'mid the desolation,
Cometh a charm that bids us pause, reflect ;
And listless we gaze upon the tall arches,
Count o'er the cost, the slow and weary
marches
That one by one did those carved blocks erect—
For Pride's caprice or God's exaltation.

Rose the grand pile to crown Ambition,
Haughty in gilded state, compelling abject toil ?
Or towered its columns 'mid joyous acclama-
tion,

While workmen plied the tool in cheerful
combination ?
Whate'er the aim, the ages brought their foil,
And Neglect her fruit, demolition !

Sadness is ours, ruin surveying,
Clearly the spirit the pictured lesson reads ;
Whate'er man's handiwork, 'twill molder and
decay,
And in the years' procession at last fade away.
While cloud to sunshine, alternately succeeds,
Time's relentless tooth will be preying.

Yet there's beauty our sadness to chide—
Beauty o'er all those walls shattered and rifted !
Life, too, from crevice in pillar and cornice—
Soft, curling vines, tinted moss, wavy grasses !
Delight fills the soul no more dejected—
Beauty and Life eternal abide.

H. S. D.

SUMMER.

THE pen of Summer, diamond-tipped,
 Has busy been day after day,
 As one by one the hours have slipped
 Their beads upon Time's rosary.
 A few more days will tell them all—
 Her last sweet song will soon be penned ;
 As Summer verges close to Fall,
 The book is verging toward The End.

Such beauteous songs of flowers and birds,
 Of leafy woods and babbling brooks,
 As she has fashioned in quaint words,
 In this her choicest of all books !
 Her choicest of all books, I say,
 Because no Summer gone before
 Has been so prized day after day
 My heart was fain to live it o'er.

The truest poet Nature is ;
 Hour after hour her skillful pen
 Thrills us to that ecstatic bliss
 We never find in songs of men.
 Bound in the sky's own gold and blue,
 Each song a song of perfectness—
 Year after year a volume new
 Is issued from her busy press.

This slipping now the Summer's grasp,
 With rhyme and rhythm is so sweet,
 It only needs the golden clasp
 Of Autumn-time to be complete.

HELEN A. MANVILLE.

La Crosse, Wis.

FIRE-FLIES.

THE LAMPYRIS—GLOW-WORM—CUCAJO.

THE midsummer evening is the carnival of insect enjoyment. If we may judge by the ear, there is general activity among the races of winged creatures, that appear as soon as the sun is down, and become more and more numerous as the darkness deepens and the air moistens with dew. Among the most beautiful of insects are the moths, with their delicate tints and exquisitely finished markings of amber and gold, and yet they hide from the daylight and are only seen by the accident of approach to artificial light. Yet light seems to have an irresistible attraction for them, and perhaps it is for their entertainment partly, that the shadows of the night are illuminated by those tiny winged stars, the fire-flies. In our temperate climate we enjoy seeing the bright sparks flitting through the dusk among the trees and flowers, and count them among the charms of summer-time, but we know little of the beauty of the fire-fly until it is seen in tropic climates among the orange groves, and rose gardens of the West Indies, where the larger kinds are found in their greatest perfection.

The tiny insect which frequents our gardens and sparkles about our parks on warm damp evenings, is the most common species in North America. It belongs to the genus

Lampyrus, as do also the glow-worms of Europe. Both have been widely celebrated in poetry, and little wonder, since they present so striking an appearance and afford such scope for poetical description. Every one is aware that even these tiny creatures emit quite a strong light, a fact of which we are



LAMPYRIS.

hardly conscious when they float in the dusk of the evening, but if one be venturesome enough to go within the shaded parlor, we become sensible that the light is stronger than it appeared without. This fact pre-

persuades us to believe the rather astonishing statements made with regard to the fire-flies of South America, which are the most brilliant in the world, and will doubtless have sonnets written upon them, when the literature of the West and South shall advance as far as the richness and splendor of nature shall lead.

In Europe, scarce a flower, however hum-



GLOW-WORM.

ble, but has its poet, nay, its poets, and the humble daisy has been sung by every English bard, but in the tropics there is a wealth of nature not fully comprehended by the naturalist and which no poet yet has known. It may be a matter of surprise to some that I have mentioned the glow-worm among the fire-flies, but it is true that it belongs to the same genus as the fire-fly, and the word worm applies only to the female, who is doomed to a continual inferiority to her mate, by the want of wings, while he soars at will; but it is she that sheds the beautiful lustre so celebrated by English authors, the light of her lord being comparatively inconspicuous; indeed, it is also true that with the fire-flies, the most brilliant effulgence is shed by the female, who does not fly, but keeps quite still and contents herself with shining. Shakespeare makes Titania bid her fairy servitors

"Steal from the humble bees
And for night tapers crop their waxen thighs,
And light them at the fiery glow-worm's eyes."

Unfortunately for the reputation of Shakespeare for truth to nature, the glow-worm's eyes are not brilliant, and Dr. Johnson has

not hesitated to censure the passage on that account. In the *Lampyris*, the light is upon the ventral surface. He is more correct in another mention of the same insect:

"The glow-worm shows the matin to be near,
And gins to pale his ineffectual fire."

Tom Moore seems to have been acquainted with the fact that the female possessed the most brilliant fire, when he speaks of the light:

"The glow-worm hangs out to allure
Her mate to her green bower at night."

The light is a pale greenish white, but at times assumes a tint almost ruddy. The South American fire-fly, or as it is called in the West Indies, the *Cucajo*, (pronounced as though the j was a y) is not attractive in appearance when seen in portrait, as may be discovered by examining the drawing which I have given, but it possesses the double attraction of two lights.

At each side of the thorax (or upper division of the body of the insect) are seen two circular tubercles, of a yellow color, which emit a clear radiance, having a green tinge and strong enough to make a distinct shadow upon the wall, if any object be inter-



CUCAJO.

posed, while from the lower part of the abdomen shines a red light, which glows in flying like a lighted coal when blown upon. These curious creatures belong to the

"sharded beetles," having honey-wing cases, and a compact and oval-shaped body. They are extremely fond, like all their race, of sweets and feed chiefly upon sugar-cane. They are collected in Cuba and put into small wooden cages, and sold as we are accustomed to see birds offered for sale; an abundant supply of sugar-cane cut into small bits being provided for their support. A friend of mine returning from Havana in the spring purchased and brought with her a cage of these little creatures, and during the voyage became extremely fond of her strange pets. As they proceeded North the weather became cool, and the insects suffered from it extremely, often becoming quite torpid, so that she would have to warm them to life between the palms of her hands. By great care she succeeded in getting them safe to New York, from whence she returned to her home in Washington City. Here the weather was quite mild and her pets thrived for a while very well. She would often entertain us by putting them all upon the floor in the evening, when they would immediately form in procession and march across the carpet to the darkest corner. On one occasion, however, one of them improved the opportunity offered by an open window, and spread-

ing his wings, mounted up and sailed out into the dusky evening air, attracting many wondering eyes, but the little creature probably perished before morning in the chill dew. The Cuban ladies inclose them in fine gauze and wear them among their raven tresses as ornaments, and they are sometimes placed under glass for the purpose of giving light.

The abdominal light is subject apparently to the will of the insect, as it is often made suddenly to disappear. In flying, the light is greatly intensified. There are a great variety of theories among naturalists about the nature of the light, but the most tenable is that the carbonic acid gas given off by the fatty matter of which the luminous substance is composed, is consumed by slow combustion in coming in contact with the oxygen inhaled through the trachea. There are very many varieties of the genus *Elater* in South America, but our limits will not admit even their enumeration. A singular mechanical arrangement of the parts enables them, when fallen upon the back, to spring suddenly into the air, and so recover their normal position. This fact has given to the whole race the name of spring beetles.

TEMPERATURE *versus* "RESPIRATIVENESS."

UNDER the heading of "Things New and Old: Observations concerning Respirativeness," in the *PHRENOLOGICAL JOURNAL* for May, Dr. H. P. Shove argues that there must be a brain-organ to preside over respiration, and claims to have discovered its location between Tune and Acquisitiveness. If the editor and reader please, I will offer a few thoughts as a reply to the article.

Dr. Shove says that it was "by an *a priori* process of reasoning" that Le Verrier, the French astronomer, came to the conclusion that there must be an intra-mercurial planet, and that by a similar process of reasoning he (Dr. Shove) has concluded upon "Respirativeness," which he says presides over respiration. According to his own statement, however, it was not *a priori*,

but *a posteriori* reasoning, *i. e.*, reasoning from effect to cause, rather than from cause to effect, by which Le Verrier reached his conclusion. But will Dr. Shove be so kind as to name or explain some of the "perturbations or disturbances of the alimentive and respiratory functions," which prove the existence and location of "Respirativeness" as the perturbations of Mercury did the existence and approximate location of Vulcan? Digestion and respiration may influence each other, but does this fact have any bearing on the existence and location of "Respirativeness"? I think not.

Dr. Shove maintains, in substance, that Alimentiveness is the brain-organ of digestion, and that respiration, being a closely allied function, should also have a brain-organ to preside over it. But before he

reasons from the position that any vital function is presided over by a brain-organ, he should first prove that position, which I think he will find it difficult. I do not consider Alimentiveness in any sense the brain-organ of digestion; nor do I think it presides over digestion as he says "Respirativeness" does over respiration. I do not understand that Alimentiveness is the source of anything more than the sense of hunger and thirst, and the disposition to take food and drink. The function of Alimentiveness is performed consciously, and only while awake. We never feel hungry or eat unconsciously, but digestion and respiration and all other purely vital functions are performed unconsciously and involuntarily during sleep the same as when awake. If breathing were presided over by the mind as eating is, we should have to remain awake in order to continue breathing; but as breathing and the other vital functions are presided over by the organic nervous system, these functions are performed while the mind is asleep the same as when awake. Hence "Respirativeness," as described by Dr. Shove, is not the counterpart of Alimentiveness; and hence, too, the analogous reasoning by which he arrived at his opinion that it exists, and is located near Alimentiveness, has nothing to rest upon.

He also says, in speaking of the brain, that, "as all the rest of the space allotted to the vital processes is taken up by other well-known organs, it is in the place here indicated and nowhere else," meaning between Tune and Acquisitiveness. Will he please name and give the location of some of the "well-known organs" that preside over "vital processes"? Will he point out a single brain-organ whose function is exercised unconsciously, and during sleep, as are respiration, digestion, and other vital functions? Though I have studied Phrenology nearly ten years, I have not yet heard of any such organs.

I think it is clear that Alimentiveness is not the brain-organ of digestion. Where, then, is its organ, and that of circulation, perspiration, secretion of bile, and pancreatic juice, etc., etc.? Until it is proved that there is at least one part of the brain which

presides over some vital function, why conclude that there is certainly an organ that presides over respiration?

Dr. Shove does not tell his readers what *sort* of "magnetic tests" he refers to as affecting respiration when applied to that part of the brain in which he supposes "Respirativeness" to be located. By mesmerism respiration may be affected without touching any part of the body. The heat and cold tests he speaks of, I think prove nothing but that man possesses a sense of temperature. Cold water applied to the feet affects the respiration, but does that prove that the "center" of respiration is in the feet?

That respiration can be somewhat modified for the purposes of speech, etc., and also temporarily increased or diminished at will, are facts; but they do not indicate a brain-organ that presides over respiration, for we *must* breathe whether we will or not. In this matter of partial mental control of breathing, Mother Nature manifested her economy by making one breath answer the double purpose of speech and hæmatisis, or aeration of the blood. This mental control of respiration is effected through nerves of voluntary motion which extend from the brain to the muscles used in respiration; but respiration is ordinarily controlled or presided over by the organic nervous system, and not the brain. I can not see the first reason for believing that there is such an organ as the supposed "Respirativeness."

Instead of an organ to preside over respiration, I am of the opinion that forward of Alimentiveness, and below the location referred to by Dr. Shove, there is an organ for temperature, and my reasons for entertaining this opinion are the following:

1. Temperature is an inherent quality or attribute of all matter; and as Phrenology has pointed out organs for knowing all other qualities and conditions of matter, it is reasonable to infer that there should be an organ for temperature also. The organ of Temperature should be related to the nerves of feeling as Color is to the nerves of vision, and Tune to the nerves of hearing.

2. It is essential to life and health that our bodies maintain a nearly uniform tem-

perature. Had we no sense of temperature, we should be constantly liable to become fatally chilled or overheated, just as we should be liable to starve had we no sense of hunger and thirst.

3. We do take cognizance of the temperature of our bodies and their different parts, and that of the air and whatever else comes in contact with any part of the body, which is proof of a mental recognition of temperature; and a mental recognition is proof that some part of the brain is devoted to the faculty or power by which such recognition is made. Hence I regard it as certain that there is a brain-organ for temperature.

4. The sense of temperature is somewhat allied to both Alimentiveness and the perceptive faculties; for, as Alimentiveness takes cognizance of the needs of the system in regard to food and drink, so Temperature observes the needs of the system in regard to heat and cold; and as the perceptive faculties observe other qualities and conditions of matter, so Temperature takes cognizance of the temperature of matter; the only difference in the latter case being that the latter's knowledge comes mainly through feeling rather than sight. Hence the organ of Temperature should not be far removed from either Alimentiveness or the perceptive faculties. I consider it a pure feeling, however, and not an intellectual faculty.

5. Fibers of the nerves of feeling have been traced to this part of the brain.

6. During the years—nearly eight—that I have maintained the opinion that this part of the brain is the organ of Temperature, I have made many phrenological examinations, generally describing this faculty or quality also; and after describing it according to the fullness of this part of the brain, it has been my custom to ask the person if this part of the description was correct, stating that this organ is not fully established; and I am not aware that any description was materially wrong.

I have uniformly found that, general sensitiveness of the system being taken into the account, the fuller this part of the brain, the more sensitive was the person in regard to changes of temperature. Those having it

large were walking thermometers: highly sensitive to change of temperature; took great pains to keep the temperature of their own persons normal, and were much annoyed when it departed therefrom, etc. Though I have examined none having the organ *very* small, those having it average or moderate were proportionally less sensitive to changes of temperature than those having this part of the brain fuller, and were as likely to neglect the needs of the system in regard to temperature as those having rather deficient Alimentiveness were in regard to food and drink.

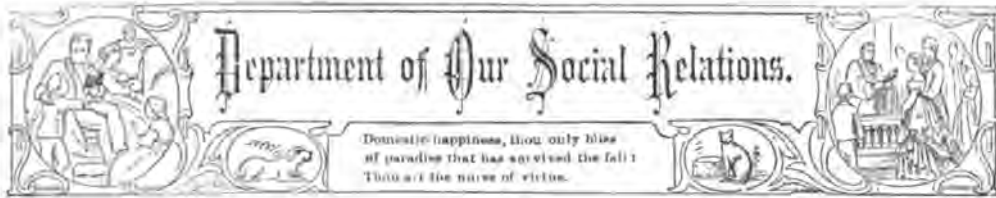
When I wrote the article on "An Organ for Temperature," which appeared in the PHRENOLOGICAL JOURNAL for Nov., 1875, I was not aware that anything had been written on this part of the brain except the short article on "An Organ for Heat," which was published in the PHRENOLOGICAL JOURNAL for Nov., 1871, and which was quoted in an editorial article in the PHRENOLOGICAL JOURNAL for Nov., 1875. It was from this article on "An Organ for Heat" that, if I mistake not, I obtained my first ideas on the subject. "Credit to whom credit is due."

I suggest that a thermometer, or the word Temperature, with an interrogation point at the right of it, be placed forward of Alimentiveness in the symbolical heads, or phrenological maps, that the attention of phrenologists and others may be more generally called to this part of the brain.

F. E. ASPINWALL, M.D.

Loudonville, N. Y.

BAD TEMPER.—Bad temper is a crime, and, like other crimes, is ordained in the course of nature to meet, sooner or later, its merited reward. Other vile passions may have some points of extenuation, the pleasure, for example, which may attend their indulgence, but ill-nature—that is, a fretful, fault-finding spirit, in its origin, action, and end, has no extenuating quality; and, in the application of the old principle, "with what measure ye mete, it shall be measured to you again," will find a most pitiable end.



THE INNOCENT SLEEP.

[A child two years old was lost in the woods near Port Jervis, and for three days the woods were scoured in unavailing search for him. He was unconscious when found, in a den of rattlesnakes, four of which were killed before he could be rescued. He had undressed for the night, and his clothing was under his head.]

Local Paper, June, 1875.

Two small feet across the sill
Wandered forth, the great trees under—
Two small hands that pluck their fill
Of buttercups, and eyes of wonder,
Following with bewildered will
Fire-flies, now here, now yonder.

Underneath the little foot
Toads and lizards glide away :
Sharded beetle, speckled newt
O'er his white feet careless stray,
And the young child's hand is put
On the serpent in its play.

From the dead branch hoots the owl—
Skims the bat athwart the shade,
Stealthy creatures round him prowl,
And he greets them not afraid—
Does not wonder at the howl
Borne from out the rocky glade ;

For the child is brave and strong,
Used to waterfall and hill,
And his curls the whole day long
From the sunshine take their fill—

Used to hear the darkling song
Of the lonely whippoorwill.

Little one in piteous plight
Does not even breathe a sigh
At the coming on of night,
And the great rocks looming high—
But he creeps beneath their height,
There to lay his garments by.

Pillows soft the pretty head
Fearless in that fearful den ;
Slumbers on his rocky bed
Where the serpents from the fen,
By a wondrous instinct led,
Lose their venom-touch, as when

Mary with the Christ-child came,
And the head of evil bruised—
Taking out the sting and blame
To the wretched and abused—
Wiping out the guilt and shame
By a new love interfused.

Oh ! thou child without a fear—
Sacred creature of the earth !
Greater thou than any seer,
By the instincts at thy birth ;
By thine innocence so near
God's dear hand who led thee forth.

ELIZABETH OAKES SMITH.

MAKING A HOME.

THE home is both the bud and the blossom of civilization. By their homes we judge of the real character of any people. Here are the things which most surely indicate individual disposition and taste as well as national character and tendency. The home is also the most precious place, at least among all English-speaking peoples. The most beautiful things are made for the home, for the purpose of adorning and beautifying it, and if there may be some seeming exception in the articles of personal adornment, yet these are kept in

the home and mostly worn there. This is the place where we keep all our treasures, excepting those so costly as to require putting away in dark vaults for safe keeping. Costly houses may be reared for business ; fine finishings and furnishings can be found in steamers, hotels, banks, and other public offices, but these are either poor imitations of the home, with rarely its perfect neatness and grace of finish, or they exist for the sake of the home. In nine cases out of ten the business man plods on through all his weary complications that he may support a

home. It is the vision of the home that cheers the day-laborer at his tasks ; it is the center and jewel of the farmstead, without which the latter seems like a body without a soul.

The home may also be called the highest expression of art. There are other individual things which, like fine paintings or pieces of sculpture, are more generally recognized as the works of art and called so ; but even these most frequently find their ultimate place in the home as parts of its adornments. The finishing and furnishing of our homes enlist a very large share, certainly a very great variety of the skilled work of civilized countries—the marble mantels, the rich frescoes, the elaborate bronze hardwaré, the polished woods, the fine hangings, the velvety carpets, the elegant draperies, and the costly cabinet-work—these are each but the headings of long lists of artistic designs which combine in ever-varying forms according to individual taste. Into this the family settles down, as the individual does into his clothing. Here they bring their beautiful things, their treasures ; here they establish places for what they like so well or need so much that they must always have it near them.

Admitted, then, that the home is the highest work of art in a civilized community, who is the artist ? We hear about men making homes for themselves, but what kind of homes do they make ? Go to California, nay, the women are there now ; go to Arizona, to Colorado, to the Black Hills ; stay ! You have only to peep into the room of almost any man who takes care of himself if you wish to know what sort of homes men make. True, some of these homes are quite presentable ; but are they, the best of them, in their appointments and keeping, the highest models of the civilized home ? Contrast that with the dainty appointments and keeping of the majority of the homes of most women who care and provide for themselves. Of course, in a complete home, occupied by a complete family, there should be both the masculine and the feminine elements ; but whose taste is it that prevails in the furnishing and the keeping of the house ? Will it, as a rule, be nicely furnished if the

woman have not the taste to select and adjust ? It is true the man usually provides the means for its furnishing and its sustenance, and if this is what is intended by the expression, we will so understand it ; but after all it is the woman who is really the artist ; she plans and molds and puts her impress upon it. True, she is often guided by his wishes in many particulars, but the home when it is made is the expression of her taste and thought far more than his. She puts herself into it, and everything therein is largely molded by her presence.

Nor is it always true that the husband furnishes the home. It is a good old Yankee fashion, not yet quite out of date, which set the maiden at work in the midst of her teens to make up bedding and carpets and curtains and table linen for the home of the future, perhaps even before a husband was seriously thought of as an actual existence.

The rule of influence holds the same. Perhaps a little earlier, but not more surely, did the Yankee maiden of the past, who furnished her new home throughout, impress upon it her own personality than does the maiden of to-day who marries without a bed, a blanket, or a bureau. She may have East-lake furniture and the services of professional upholsterers ; she may even take possession of a house ready furnished, of which she never has heard before ; but if she becomes its mistress, she will set her mark on it ; the house will bear her imprint rather than that of her husband ; the housekeeping will resemble that of her mother more than it does that of his mother. It gives one a curious feeling to go through the house of a sister or a niece, whom you may not have met before since she was married, and see the impress upon all the home arrangements, reminding you of what you have seen in the homes of her mother or her grandmother in the days of your childhood. It is like tracing the family likeness of form and feature through which the souls of kindred shine out and mold the physique.

All this was not necessary to show the thoughtful reader that really woman makes the home, but it may suggest that she does much by unconscious influence, by putting herself into it. The very knowledge of this

fact, however, ought to suggest the preparation that she should give herself, in order to become the fitting artist for so noble and exquisite a work of art as the modern home. For any other artistic pursuit she would give herself long preparatory studies, while for no other is the preparation required so varied and so exacting. She needs some knowledge of painting and sculpture to educate her eye to the selection of harmony in color and grace in form. She needs the study of architecture to secure convenience of arrangement, access of sunlight, and proper ventilation. Further, she needs to understand the rules which govern the selection of wholesome food and its preparation, or all the beauties and comforts of the house will be turned into gall and wormwood. Indeed, there is scarcely an art or a science but what is brought into tribute to produce this crowning work of art, a civilized home; and very few, indeed, of which the knowledge would not be useful to the accomplished artist.

What, then, shall we say of women who have it in their power to work at such an art of arts and yet turn away from it with envy toward her sisters who are permitted to pursue only one or two branches of art? They are like the editor of an influential paper, who might say to the petty lecturer: "It is very nice for you to travel around the country and be made much of, while I am shut up here in this office and scarcely anybody says a word about me." But while they who ignore the power of the press are few, we fear that they who ignore the power of the home are many.

"Oh, it is the old story," says one of the self-styled progressive women; "stay at home in womanly seclusion and work out your own views through the expressions of husbands and sons. Let them represent you by their votes."

We protest that it is not that we are saying. But let us ask, what is the highest aim of earthly endeavor? It is the perfecting of individual character. And the home is the place where this sort of work is done, if it be done anywhere. Character-making requires a workshop, a studio, peculiarly devised and furnished. That studio is the

home, and the artist is woman. I am dealing in no tropes nor figures; this is plain matter of fact. Why is it doubted? Because the facts are so broad and high our narrow-contracted vision can hardly take them in; because this truth is so grand and glorious that our eyes are dazzled by it? No, says one, it is because we are overworked and overburdened now, and we have no time and no heart for these grand generalizations. Nay, my sister, it is because you fail to see the truth and adjust yourself to it. You are careful and troubled about many things, but you lose sight of this one true aim, and so things go wrong and you are overwhelmed. It is care and wrong-doing that hurts and tires more than actual labor. More than this, it is partly because the labor is despised and performed as drudgery that it wearies and exhausts as it does.

Moreover, there are cases in which the very existence of these right ideas would relieve and distribute labor so as to render it more endurable. Suppose the mother, the home-maker, should have in view the proper molding of the characters of her daughters rather than tricking them out with music, embroidery, white hands, delicate figures, and (miscalled) elegant leisure. She herself would endeavor to be the model woman she wished them to copy. They would share all her labors, they would be disciplined by industry, educated by care and responsibility, strengthened by labor, made healthy by exercise, while she would share their more truly elegant and more highly appreciated leisure. Eventually they would relieve her of care, and in their time would become thoughtful, enterprising, independent women and model home-makers, and they would be a source of strength and blessing.

So, too, in the case of boys. It is a positive injury to boys to sit by and see their mother overwhelmed with work which they might help her do, and especially if that burden makes her peevish and irritable. Boys should be taught self-help far more than they are, taking care of their own rooms, cleaning and mending their own clothes, and sewing on buttons. It would be a positive advantage to all our boys if

they were taught at least the rudiments of all sorts of housework. They would not only be prepared in many an emergency of their future lives to make themselves more comfortable, to do a turn for wife or mother at times when her very life might depend upon a little help; but their own characters would be far better developed, especially in all the tender considerations becoming to husbands and sons. Is it not desirable that men should be educated to make good husbands as well as women to make good wives?

"But all this requires work, and we are worked to death as it is." Nay, dear woman, but your work would change its character. It would lose the killing aspect of drudgery. You would see how every stitch of home-work went into the character of loved ones. The ever-recurring, much-complained-of "drudgery," even of washing dishes, would cease. Where would be the brightness, the cheeriness, the culture of the family repast without the clear glass, the clean china, the burnished cutlery? Even the suds of the wash-tub ceases to drown the delight in the spotless napery. What would our homes be without these educators of self-respect? What mother for the sake of saving dish-washing would see every one dip his spoon or plunge his fork into one dish, or dab his knife into the once piece of butter? What careful home-maker neglects the influence of clean bedding and well-swept rooms on the habits of her children? or neglecting, does not have cause to regret whether she knows it or not? Even the effect of clean clothing is not all for the outside world. And what mother and home-maker but would find all her toil lightened and sweetened, if she but considered the direct influence of every one of these little things in forming the characters of her children? If we let the feeling of drudgery in such work cut into our lives and waste our spirits, whose fault is it? And then the cookery! How many a poor woman hates the cook-stove almost as she would an infernal machine! She feels as if it were scorching out of her life almost everything fresh and beautiful; and perhaps she is not far from right, if we take into account the

blighting effects of all the indigestible dishes she prepares by its aid; but if so, the fault is her own. There is not really an article in her house which she can make more serviceable for the health and happiness of her family.

This, however, is not done by ministering to selfishness and appetite, but by making wholesome food attractive and agreeable. Proper food is the largest ingredient in the health and happiness of children, in the safe habits of youth, and in the strength and endurance of manhood. It is the very material of which they are built up. There is no better safeguard she can throw around every member of her household. Does she realize her power? Such thoughts as these ought to strengthen her hands, brighten her thoughts, lighten her toil, season her dishes, and make all her labors very precious. Many things now tiresome would be so no longer, and nothing should be indifferent. Many things might be put aside as unnecessary; much of the routine labor may be paid for; but the eye and thought and heart of the home-maker should be in it or inspire it all.

It may be that few will listen to all this now. It may be that woman will wander out of the home and seek elsewhere her hold upon the secret springs of power, since it is for these she is ever seeking, but she will come back to it ultimately. She will recognize character-making as the great object in this life and the next; and home as the place where most of it must be done, and herself as the one who can best do it; and she will settle down to her task intelligently and with great contentment.

JULIA COLMAN.

A BEAUTIFUL incident in the life of President Lincoln illustrates the law of kindness. Walking one day with his secretary, he stopped at a little shrub and looked into it; then stooped, and put his hand down through the twigs and leaves, as if to take something out. His secretary said to him:

"What do you find there, Mr. Lincoln?"

"Why," said he, "here is a little bird fallen from its nest, and I am trying to put it back again."

MRS. BELVA A. LOCKWOOD,

THE WASHINGTON WOMAN-LAWYER.

WE have never seen the original of the picture before us, nor are we informed as to the size of the head or the weight and height of the person ; but from the harmony of development in the face, the relative proportion between the face and head, and with as much as we can see of the shoulders, we

If she were to play the piano, her style would be known as spirited and strong. If she were to dance, her energy and emphatic earnestness would be seen more than the smoothness and grace of motion which distinguish some. In other words, there is more of the oak than the willow in her.



judge that she is a little above the medium size ; and from the organization, so far as it presents itself, we infer that the temperament and quality of the constitution are of a very fine and high-toned order. From the fineness we infer a high degree of susceptibility. In the use of the term high-toned we mean that there is strength, intensity, spirit, clearness, and grip to the mind and character. Every physical effort which she puts forth has in it decision and emphasis.

Her style of speaking is mandatory and positive. She speaks as if she were convinced of the truth of what she asserts. There is a right-onward tendency to her expression ; a quality which gives power and imparts to her mode of thinking and expression a directness and positiveness. This quality of organization would make her remarkably effective in any kind of physical effort to which she might devote herself. If we were to imagine her a teacher, we

should expect that she would have clearness of thought, a definite vigor in her presentation of truth, and the power to simplify her knowledge so that pupils of common capacity would see the points clearly. If she were conversing with older and ripened persons, she would still be clear, but there would be a logical outreach which would command respect, a logical force which would carry and surround all the facts of her subject. While she doesn't ask any person to accept her mere dictum, she still feels under obligation to express her thoughts so clearly that the common understanding can appreciate it; yet she does not put forth her ideas persuasively or suggestively; they are uttered as absolute truths. In argument she often assumes the interrogative form; and if her listeners will follow her, they will find the questions will begin to pinch and compel conclusions such as she aims to produce.

She is sharp in her analysis of subjects, clear in her criticisms, full of facts and illustrations; is orderly and systematic in her style of thought, and in her mode of presenting ideas. She is ingenious, capable of forming combinations of thought as well as manifesting skill in mechanism; combinations of ideas, correlations of thought, which at first seem unadapted, will be found under her treatment to coördinate, coalesce, and combine to produce a result.

She reads strangers well; rarely fails in her understanding of them; thus she can present her ideas and wishes in such a way as to make them acceptable. She seldom makes blunders in communicating with people, readily seeing their salient force of character, and how their minds can be most easily and successfully reached and controlled. Though it is less her natural tendency to persuade, though she rarely flatters or is obsequious, or appears subservient, she nevertheless presents her

claims to consideration in such a way that they will meet the peculiar state of mind of the one addressed, and she therefore soon becomes master of the situation and of the result she seeks.

She may be smooth in her style, but somehow she will seem to address each person in the direct way to produce results sought for, and there will be at all times in her address a spirit of command. People feel almost compelled to do as she wishes them to; and if they do not agree with her views, they apologize for dissenting, for they dissent suggestively and not in a mandatory way. Instead of saying, "I join issue with you," and doing it in direct terms, they will be more inclined to ask if there are no other lights in which the case can be viewed which would modify the conclusions.

She is very ambitious, very firm and determined. She has energy, courage, fortitude, and force; has natural capacity for financial management, and if she were to devote herself to manufacturing or commercial business, wherein certain methods and processes were to be pursued, or investments to be extended, she would show business capacity. She would excel as an elocutionist, as a dramatist, as a teacher, as an artist, and do decidedly well in the sciences which belong to the medical profession. If she had devoted herself to medicine instead of to law, she would have reached a prominent place as a teacher in a medical college, or as a public teacher of the laws of physiology and hygiene. We see no hindrance in her mental constitution to her success in legal learning and the practice of that profession. She has a head which understands justice, and doubtless appreciates legislation and judicial administration. If she could have fair opportunity at the bar, we see nothing to prevent her attaining to eminence.

Her temperament has been sharpened, and perhaps made unduly susceptible by the novelty of her position and the necessary struggle to maintain her place. Otherwise she seems to have a well-balanced organization, with a good basis for health, vigor, success, and long life. She has evidently inherited pretty largely from her father's constitution, physically and mentally, and has more than a common share of independence, force, and spirit. If she were provoked, she would be able to use language that would have in it sarcasm and reproof, wit, criticism, and severity; and while she would not descend to the level of scolding those against whom she was addressing her censure and powers of repartee, they would doubtless feel the keenness of her utterance and regard it as sufficiently severe.

MRS. LOCKWOOD, whose maiden name was Bennett, was born at Royalton, N. Y., October, 1830. Having received a common school education, she commenced teaching at the early age of fourteen. At eighteen, she married Mr. McNall, who died in a few years, leaving his widow with one daughter, Laura, who is now a young lady, a story and letter writer of fine ability.

Mrs. McNall, after her husband's death, attended the academy at Gosport, N. Y., a few months, then entered Genesee Wesleyan Seminary in the autumn of 1854. The following autumn she entered Genesee College, at Lima, N. Y. In June, 1857, she was graduated with honor, receiving her diploma and the degree of B.S. She was immediately elected principal of Lockport Union School. This position she filled four years, when she took charge of the Gainesville Female Seminary. She continued teaching there and at Owego until 1866, when she removed to Washington, D. C., and opened a school. In 1868 she married Dr. Lockwood, closed her school soon after, and commenced the study of law.

In the winter of 1870 Mrs. Lockwood applied for admission to the Law School of Co-

lumbia College at Washington; but she was informed by the President, that the trustees thought her presence in the classes "would distract the attention of the young men;" and she was refused admittance. In the following spring Mrs. Lockwood was admitted to the National University Law School, from which she was graduated in May, 1873, receiving the degree of Bachelor of Laws. She had previously taken the degree of M.A. from the University of Syracuse. In 1870 Mrs. L. petitioned Congress for a Prohibitory Liquor Law for the District of Columbia, accompanying her petition with seven hundred names. In the summer of 1873 she traveled through the South working zealously for the election of Horace Greeley.

In the autumn of 1873 Mrs. Lockwood was admitted to the bar of the Supreme Court of the District of Columbia, and immediately commenced the practice of law. In 1874 she visited Texas professionally, and was admitted to the United States Court for the Western District. In the midst of these labors she was called to mourn her infant daughter, who passed from earth July, 1876, and in less than a year her husband followed the child.

In October, 1878, Mrs. L. applied for admission to the bar of the Circuit Court of Prince George's County, Maryland, and was refused, although she had been allowed previously to file a civil suit in the Federal Court of Baltimore County, involving fifty thousand dollars. Mrs. Lockwood has worked faithfully to open the bar of the Court of Claims and the United States Supreme Court to women. For this purpose she prepared a bill, which was introduced in Congress, passed during the last session, and, as its first beneficiary, was soon after admitted to practice before the highest Court of our land. On this account she has been the recipient of congratulatory letters from many of the first men and women of this and foreign countries.

Mrs. Lockwood is wonderfully active temperamentally, and a great worker; indeed, her capacity for work seems almost unlimited. Last fall she went out one day with two young men of her family upon an ex-

-cursion, and the entire party walked thirty-two miles. The following day, Sunday, Mrs. L. attended church as usual. It is this great physical strength, united with untiring perseverance, ready wit, and an indomitable will that has led this remarkable woman up the steep heights from obscurity to fame.

In person Mrs. Lockwood is above medium height, firm in figure, has a clear, open countenance, with iron gray hair rolled back from the face, somewhat in the Martha Washington style. Her ordinary dress is a short walking-suit of dark broadcloth, with coat-sacque of the same material, and soft black felt hat, all serviceable and substantial. At her throat she wears a unique pin made of a branch of white spar, from the Hot Springs of Arkansas; attached to this is a gold thimble, a gift which she says "could only be used by herself as an ornament." Mrs. Dundore, a widow-lady, assists Mrs. Lockwood in office work, while her daughter adds to her literary accomplishments, housekeeping duties.

At the Eleventh Annual Convention of the Woman Suffrage Association, which was held in Washington, D. C., January 9th last, shortly before the passage of the bill which allows women to practice in the Supreme Court, Mrs. Lockwood made an address, of which the following is an extract:

"What is liberty but the right as well as the power to think, to reason, to decide, to act? What is liberty but the cultivation of the powers, physical, mental, and moral, implanted in the human being by Divine beneficence, and the proper use of those cultivated powers? What is it to be created in the image of God, except it be that spiritual creation that lifts man above the animal, implants in him the consciousness of a higher existence and gives the inspiration and the aspiration for something more and something higher than a mere existence. Was woman thus created? Has she a distinct individuality? Is she a person, a taxpayer, a freeholder, a citizen? Have we come far enough out of the old heathen idea to admit that she has a soul? The civil law, supposed to be the most perfect production of man's reasoning, starts out with the

presumption that for all of the purposes of acquiring and disposing of property; of suing and being sued; of contracting and being contracted with, that she is not. That the wife is merged in her husband; subject to his dictation, dependent upon his bounty, but, as experience shows, controlled by his caprice. This state of subjection has engendered discontent in proportion as woman has become enlightened. Necessity, from time immemorial, with a stern but unerring hand, has been a reviser and a codifier of the laws of nations. Custom, one of the most prolific sources of the Common Law, has its origin in public opinion, and makes its advances in the line of progress just as rapidly as the public mind is prepared to receive it. Substantial progress in the liberties of a people have usually been purchased with blood, but always with labor and determination, with watchfulness and zeal; with union and an intelligent understanding of the objects to be gained. The women of this country must be educated to meet this great and momentous question of their political equality, and thoroughly qualified to fill not only positions of trust, but the new avenues of labor open to them; and sufficiently assertive to choose those professions best suited to their talents. Women will succeed in business when they acquire business habits and business tact.

"The history of the past thirty years has demonstrated something of what women may do. Not only are the seminaries and colleges open to her, but she is the principal or the professor in many instances; while the common school is almost wholly under her charge. Nearly an entire revolution in three decades. The molding of the mind of the rising generation is in the hands of woman. Let us battle down the doors of the temples of knowledge, sacred to masculine genius only, as Napoleon did the monasteries of Europe, and inspire the mind of the youth with sentiments of justice and equality.

"The number of women authors, editors, and newspaper writers could be counted on your fingers when the noble women who inaugurated this reform conceived the idea of woman's emancipation and of opening to

her new fields of labor. Now the literary world is full of women. They edit books, papers, magazines, act as correspondents everywhere, and as phonographic reporters and telegraphic operators. They have become a power behind the throne that moves the world. It is only a remnant of the same old heathen superstition that would to-day exclude woman from the college and the pulpit, medical school and the forum, that formerly denied to her a soul, burned the widow at the stake, and consigned the surplusage of babies to the waters of the Ganges. 'That nian who denies to me any rights that he arrogates to himself is just so much more a heathen than I am.'

"To-day, woman has forced her way into the medical schools, and the woman physician has become a necessity in the homes of the rich and the cultured. They can tell you the struggles, the rebuffs, the heart-burnings, but the victory has been won and another waymark in the progress of liberal thought marked. The woman postmistress, school commissioner, and notary public are but the incipency of women holding office in this country, and the stepping-stones to more extended power. Woman herself must disprove the idea of her incapacity; but proficiency comes only of study and experience. Labor, and labor only, is the key to success.

"Thirty years ago no church door was open to a woman evangelist or preacher, but to-day prejudice is giving way to the march of a liberal public opinion, and our association numbers among her membership eloquent and honored women preachers. If God had intended woman's sphere to be bounded by the hearthstone, would He not have created her like the birds of the air, with instinct only? The possession of a power carries with it the inherent right to use that power. Let the girl be taught, like the boy, that she is to make her own way in the world, and her married life will cease to be one of incapacity and unthrift, and her education practical and useful.

"In the matter of the law, the last formidable rubicon, it seems to me, for woman to pass before the ballot is reached, the goal is well-nigh won. The States are relaxing their rigor and admitting women to the bar

on an equality with men, so that now we can count Illinois, Michigan, Minnesota, Missouri, Wisconsin, North Carolina, Ohio, California, Wyoming, Utah, and the District of Columbia as favoring this advancement. The report twice made by the Senate Judiciary Committee that no farther legislation is necessary to admit women to the bar of the United States Supreme Court, is a very important admission. But we do not intend, however, that so important a question shall rest without positive and special legislation, but hope to be able to secure the passage of the bill now pending on the Senate calendar, which passed the House by a two-thirds majority. Law is a study which most intimately concerns the vital interests of every citizen of this Government, regulates his moral and social status, involves his pecuniary interests, and threatens or conserves his civil liberty. Hitherto, every approach by woman to the forum held sacred to masculine genius only, has been met with repulse and derision, and the keen shafts of wit have dug the grave of every feminine mind that has dared to express a legal opinion. The very protection that has been given to woman and brought down to us like the Old English Common Law as a birthright; the Feudal System, which made right and might synonymous terms; the Feudal Tenures, which declared that the ability to hold land meant the ability to bear arms, has virtually made woman a slave, and custom has forged her chains. To-day the onward march of liberal ideas is overturning the old Blackstonian idea that a man and his wife are one, and that one the man. A jurisprudence based upon a Christian theology must keep pace with the liberal reform of that theology. If the law is too intricate and abstruse for the capacity of the female mind, had not the law itself better be simplified and brought down to the capacity of the common mind? and the growing tendency in the several States to make equity pleading the rule of the forum enlarged upon rather than that one-half of our citizens should be shut out from a knowledge of, and a participation in, that which so intimately concerns their temporal well-being. The Bible speaks of women.

learned in the law. Rome had her women lawyers, and England her women Chancellors. Shakespeare created Portia from his fertile brain, and the progressive spirit of the American woman has penetrated into the Courts of the States. It is the beginning of an era that must revolutionize the

old Common Law in its spirit and in its application. Elizabeth Cady Stanton, Susan B. Anthony, Matilda Joslyn Gage, and their coadjutors have lighted a beacon whose effulgence will broaden and deepen to light the weary traveler long after they are slumbering in their graves."

BRAIN AND MIND.

CHAPTER XIV.—*Continued.*

APPLIED IN THE EDUCATION OF CHILDREN.

TURNING our attention to the propensities and sentiments, we find that our philosophy furnishes equally precise and practical information in regard to the training of the disposition and the development of character. Many fond parents refrain from correcting their children in the early period of their existence under the impression that they are too young to appreciate moral training, and that when they become older, their intellects will enable them to distinguish between good and bad conduct; and that then they may be addressed, and a reform effected, through the reason. But our philosophy teaches that while the intellect may exert a reforming, because enlightening, influence over the conduct, its power to do so depends in general upon its size as compared with that of the propensities and sentiments. Phrenology refers the violent temper, the stubborn, willful, and perverse disposition, the tendency to deceitfulness, etc., to the primitive faculties of the mind, and these to the original organs of the brain, and shows that in order to modify the disposition, the material organs on which it depends must be reached, and our influence exerted directly on them, either to restrain the bad or to call forth the good, in accordance with the laws of their organization.

What these laws are may be easily

apprehended. Every mental organ is naturally related to a certain class of objects which, when presented to it, excite it to activity, and by this activity it grows in strength and facility of action, just as a muscle grows in size and power by exercise. Thus, danger and objects of terror are the natural stimulants of Cautiousness; praise, of Approbativeness; opposition, of Combativeness; food, of Alimentiveness, etc. Now, Alimentiveness, Combativeness, and Destructiveness come into activity almost at the beginning of the child's existence, while Cautiousness, Approbativeness, and Firmness may be very influential elements in the disposition long before the intellect has been sufficiently developed to enable it to judge wisely in regard to conduct. "Let it not be forgotten," writes Spurzheim, "that from the earliest age, the feelings as well as the intellectual faculties may be educated, and that young children show no less difference in their characters than in their talents. They are patient or obstinate, indolent or lively, timid or courageous, attached to, or careless about others," etc.*

If, therefore, parents allow the propensities of their children unrestrained activity during their infancy under the belief that when they are older, they

* "Education Founded on the Nature of Man." By J. G. SPURZHEIM.

may be reasoned out of their evil tendencies, they commit as great a folly as would the husbandman who should allow weeds to grow up among his corn, under the impression that when it was well grown, it would better bear their eradication. The weeds smother the corn and obstruct its growth from the very beginning, and the longer they are allowed to grow, the more difficult becomes their extermination.

Three Methods Indicated.—In the training of the propensities of children three methods may be pursued: first, physical restraint; second, a withdrawal from them of their natural stimulants; and third, their arraignment before the intellect and moral sentiments, as the powers naturally adapted to exercise authority over them. Alimentiveness is naturally the first propensity which comes into activity. It responds to the body's need of nourishments, and when instructed and unperverted, is a reliable guide as to the kind and amount of food necessary for the maintenance of the physical system; but this organ, in accordance with the laws of hereditary descent, which govern every part of the body, is most surely liable to be transmitted from parents to children with an excessive degree of energy, so that in the very commencement of the child's existence it may give a desire for a much greater amount of food than is necessary to supply the needs of the system. Unless this desire be restrained within reasonable bounds, it is clear that it will be likely to work much injury to the health of the child by imposing on the stomach an excess of work, and clogging the system with a superabundance of food-material. The organ itself increases in size and vigor by unrestrained indulgence, and thus becomes more and more a source

of evil and unhappiness to its possessor. Many parents are so ignorant in regard to proper methods of training, and so biased in their judgments through a foolish fondness inspired by the unregulated activity of Parental Love, that they not only allow their children unrestrained indulgence of the appetite, but even make it a means of securing their obedience. They quickly perceive what a powerful influence it gives them over their children, and it is appealed to on every occasion as a chief means of discipline. A sugar-plum, a stick of candy, or a piece of cake is with such persons the current payment for obedience, and thus the gratification of an inferior propensity is trained to hold the high place of a motive to conduct, which should be occupied only by the moral sentiments.

Furious Anger arises from the unrestrained activity of Combativeness and Destructiveness, while Self-esteem and Firmness are the sources of a willful and stubborn disposition. If a child be allowed uncontrolled liberty of action, and is permitted to have its own way and to carry its point in the face of opposition, these organs may acquire a fearful ascendancy in its disposition, manifesting themselves in a pettish, willful, and headstrong temper, and in an impatience of restraint which is the occasion of the most violent and ungovernable passion. Some children, from a larger original endowment of the organs on which these characteristics depend, are naturally prone to a high temper, and an obstinate, headstrong disposition. These must be treated with special care. All manifestation of passion in dealing with them should be avoided; for it is a law of the mental organs that they are excited to activity by the manifestation in their presence of the same characteristics which it is

their function to manifest. A proud and haughty manner exercised toward an individual naturally excites his pride in return. Stubbornness in one individual calls up the same trait in another, as is abundantly illustrated in the common affairs of life, where we see men contending over trivial matters, actuated by no other principle but a determination not to yield a single point so long as their opponents refuse to do the same, and engaging in expensive litigations in which the stake at issue is unimportant compared with the expense of gaining it. A balky horse is a good illustration of this disposition. Whipping and harsh treatment only make him the more stubborn, while kindness will often render him tractable and obedient.

In dealing with a headstrong and passionate child, the parent should be gentle, firm, and self-possessed. His manner toward it should result from the dictates of the intellect and the moral sentiments. The manifestation toward it of these higher faculties will naturally excite to activity the corresponding organs in the child; while the absence of passion and unreasoning obstinacy in the parent's conduct offers no excitement to the inferior faculties of the child. Such treatment will be conducive to that true mental development in which the intellect and moral sentiments exercise the authority which rightly belongs to them over the other powers.

Bribes and Threats Improper.—Cautiousness and Approbativeness are often developed to a prejudicial extent through wrong training. The element of fear is generally one of the most influential among the mental traits of young children, and on this account is frequently made use of as a means of discipline. Ignorant nurses and serv-

ants, as well as ignorant or injudicious parents, are prone to make use of the easiest means of governing children. They purchase obedience by bribing the appetite or by bestowing upon the child extravagant praise, or by exciting its fear through threats of terrible punishments. It is too often the practice to frighten children by absurd hobgoblin stories. Thus the organs which are already over-developed, and should have their activity repressed, are stimulated to further excesses of activity. Cautiousness is perhaps more frequently abused in this way than any other faculty. From inexperience and undeveloped reason, children are exceedingly credulous. They readily believe the most absurd stories of goblins and witches; and threats to shut them up in the dark, where they will see raw heads and bloody bones; or to cut off their ears, or to call the rats or a big dog to devour them, will excite terror in their minds in proportion to the degree in which the organ of Cautiousness is developed. A severe strain is thus often produced on the nervous sensibilities of children which is exceedingly prejudicial to their physical health, and sometimes proves the cause of morbid nervous conditions and even of insanity.

Praise.—A child whose Approbativeness is largely developed, will be very sensitive to praise and to blame. This faculty, indeed, is seldom deficient in children, and is frequently rendered excessively active by injudicious praise. A child is often flattered by its parents through over-fondness. It is flattered by visitors to please the parents, as well as to gratify the child. Whatever "smart" thing it says or does is rehearsed in its presence, and its improprieties are even excused on the score of its age or the discovery in them of

some element of supposed talent. Under such constant stimulation, the love of praise soon comes to be the chief motive of the child's conduct, and unless the intellect and moral sentiments are powerful enough to rise above this false training, vanity and a vulgar love of display and ostentation will be likely to cling to the child through life. With the votaries of fashion Approbativeness is generally the controlling organ. We do not find them asking whether or not a given line of conduct is consistent with good sense, or kind, just, and honorable, but what does society think of it? What will people say? And whatever will win the favor or attention of others as vain and frivolous as themselves will be adopted and acted upon, though it may be in plain contradiction to the dictates of intellect and moral sentiment.

Moral Training Essential.—It is of the highest importance also, in the training of children, that the moral sentiments be called into habitual activity, that they may be accustomed to exercise over the propensities and inferior sentiments the authority which rightly belongs to them. It is not enough to say to a child, Do this, or Do not do that, but the reasons why it should do this or should not do that ought to be explained to it in so simple a manner that its own intellect may perceive the wisdom of the command, and its own Conscientiousness be led to decide on the right and the wrong in the matter. If a parent wishes his child to grow up with a kind and benevolent disposition, he must not rest content with the mere precepts which enjoin good-will and charity to men; he must accustom his child to the actual performance of self-denying acts and deeds of kindness and benevolence. The excuse, "Too much trouble," or "I haven't time," is a

wretched plea on the part of a parent who is negligent in this most important branch of child-training, and the waywardness of many a boy or girl of good original endowment may be traced directly to the negligence which was sought to be palliated by such a plea. A well-known American kindergarten-teacher says, appreciatively: "One needs always to remember that discipline is only to be the assistant of the true educator, and not the principal motive. When one commands, as has been said before, it must be done quietly, but decidedly, and take care not to resort to the two favorite methods of rewards and threats, both of which presuppose the possibility of disobedience, and are therefore not decided enough, and are defective also in so far as they are simply external motives of actions. The individuality of each child must also be brought into consideration, as well as their physical constitution and disabilities. The most difficult of all things during the first years of the child's life, is the task of awakening and preserving the germs of goodness in his heart. At this tender age these germs may be led into two opposite directions; according to the influencing circumstances they may become virtues or vices. Thus timidity may grow to be modesty or abjectness; fear may grow to be prudence or cowardice; the natural roguishness or foolhardiness of children may develop into energy, executiveness, or cruelty and rudeness. It requires as much decision, tact, and watchfulness to stem the flow of any capacity or tendency in the direction of vice, as it requires care and trouble to fan the tiny little flame of the natural disposition in the direction of virtue."*

Necessity of Example.—The music-teacher never expects to make his pupil

* Mrs. L. Pollock, "Kindergarten Lecture."

an expert performer by mere precept; however thorough his instruction, the pupil will fail of excellence unless her fingers are trained by persistent practice to touch the keys with facility and exactness. So in the culture or growth of character, we must go back to the original mental organs and excite them to activity by the actual practice of those virtues which we desire to develop, if we would obtain permanent and useful results. In the accomplishment of this purpose it should be remembered also that example will exert a powerful influence. It will be of little use for a parent to inculcate the precepts of truth-

fulness, justice, kindness, honor, and discretion, if his own actions belie his teachings. He must not only preach, but practice what he preaches, else his children will lose confidence in his precepts and despise his authority. Children are very quick to notice any neglect of duty or inconsistency between precept and practice on the part of their parents, and many children are taught the manners of cunning and duplicity by fathers or mothers who lay down laws for their little ones and give little heed to observing their spirit themselves. * * * * *

(Continued.)

TEASING CHILDREN.

TEASING is at best a doubtful amusement; but when sensitive childhood is made the object of it, it degenerates into cruelty. Yet there are some very good people who indulge in this outrage against the innocent and helpless. We know people who never miss an opportunity to torment a child. It seems impossible for them to come near one without making it miserable. They can not be at their ease, unless the child is suffering from their heartlessness. As a consequence, children soon learn to hate as well as fear them, and no wonder. It is true that these people would shrink from inflicting needless bodily pain on any little one; but they never think of the keener torture which their senseless teasing inflicts on the sensitive child. They would tell you that they do nothing which should give pain; that they are only in fun, and the child ought to know it. When they threaten to swallow a child, they don't mean to do it, of course; but the child is irritated or frightened all the same. Do they know how very real all such things are to a child, particularly to one that has never been hardened to such cruelty? They may mean nothing by their silly threats, but the child that has learned to rely implicitly on what its parents say—and all children should learn this—will accept as truths what its tormentors mean merely as lies invented for

its annoyance. It is true that the child will in time learn to doubt the truthfulness of those who thus abuse it; but while it learns to distrust the false, it also learns to distrust the true. A child can not be expected to exercise discrimination; and you, sir, who give it its first lessons in falsehood, are to blame for much subsequent distrust of things that ought to be believed.

Childhood should be a period of joyous innocence. It is no time for doubts or misgivings. They come soon enough with the entrance of the youth upon the scenes of busy, practical, anxious struggle for self-maintenance. Then, good friends, you who thoughtlessly mar that innocent enjoyment and implicit trust which characterize the uncorrupted child, stop to think what you are doing. You are committing a grave offense. You are ruining the temper of one whose mind is yet so plastic as to yield to every touch. You are darkening the days of one whose life should yet be all sunshine. You are inflicting the keenest of pains on one whose innocence should shield it from the tortures even of barbarians. You are poisoning the morals of one that is yet too young to resist your evil influences. You are doing a wrong for which you can never atone, a wrong whose evil effects may follow that child to the grave.

E. T. BUSH.

A NEW ART PRODUCT.

MANY times, since the death of Mr. Samuel R. Wells, inquiry has been made with reference to a bust or life-size portrait which could serve as a fitting memorial of him in the estimation of his friends and the old readers of the PHRENOLOGICAL JOURNAL. The preparation of such a work has been kept in view, but it is only within a few weeks that success has been attained to anything like a degree of satisfaction.

The accompanying illustration is a *fac-simile* reduction of a medallion portrait, life-size, wrought in a composition recently in-

with regard to the material of which this medallion is made. It is a composition of which clay and lava are leading ingredients, hence its name, "Patent Lava Cement." Other substances worked into it contribute to give it the qualities of lightness, toughness, and indestructibility, for which it is particularly remarkable. On the side of economy it can compete even with plaster of Paris for all the purposes to which that material is applied, while it is even more easily worked. In the processes of art, the new lava cement is more available because of its greater



vented, and particularly adapted to statuary purposes. This portrait of Mr. Wells, which the reader who knew him in life will recognize at once, was executed by photograph from the medallion, and strikingly indicates the fidelity of the latter to the features and expression of the esteemed original. The medallion itself is in *alto* or high relief, the features being brought out prominently and characteristically, so that the effect is vivid and striking at first sight.

A word or two will not be amiss here

plasticity; it can be molded into thin, sheetlike forms with ease, and whether molded or cast is dense and coherent, resisting severe usage or violence without injury. It sustains no damage on exposure to fire, which alone is a very important property.

The medallion portrait is about 19 by 16 inches, executed in imitation of bronze, either of the light or dark color, and is appropriate as a decoration of the home as well as a souvenir of friendship.

UNCLE JIMMIE, THE CRIPPLE.

CHAPTER VII.

THE THORN-BUSH.

"AFTER the departure of Uncle George and May, Jimmie's merriment rested for a while. At dinner, however, it was evident, by the flickering and sparkling lights in his eyes, that something more was pending. When dinner was partially finished, a plate of hot cakes was brought in. They were nicely browned, and we were all tempted with their inviting flavor. We prepared them with butter and sugar and commenced to cut them, when lo! they refused to be cut. At first we thought they were only a little tough, but soon we discovered they were made of cloth covered with batter and then fried to resemble cakes. Jimmie's mirth was now uncontrollable.

"April fool, April fool! Mrs. Strong and Russel; I caught you both that time, did I not?"

"Mrs. Strong, half amused, half vexed, cried out:

"Oh, you young rogue, you should be compelled to go without your dinner."

"Yes, and breakfast too," I said quite provoked. Indeed, I was getting very tired of his fooling, but the boy was entirely oblivious to anything but his own entire satisfaction at the success of his schemes. He laughed until tears ran down his cheeks, and his musical convulsive giggle was too infectious for us to remain unaffected by it, and soon we found ourselves laughing as immoderately as the child.

"This I supposed would be the end, and I congratulated him upon having passed this birthday anniversary in a manner so in accordance with his wishes.

"I had previously engaged to spend the evening with some friends a few miles distant, and I told Jimmie I should probably be out unusually late, and he was not to sit up for me.

"He put his sweet mouth up to kiss me good-night, as was his habit; then twining his arms around my neck, he said:

"Russel, you must not get angry with

the fooling—you won't, will you? You know it makes grand fun for me."

"I am not angry, am I?" I replied, "and the day is nearly gone now, so you have nothing to fear from me."

"Well, you must not be angry anyhow, for that spoils the fun, and you know there is no harm in it."

"No, no," I said, "I am not angry in the least, so you go to bed and dream of the gay time you have had to-day."

"I started off, and did not get back until midnight.

"During the evening several circumstances had occurred to annoy me exceedingly, and I rode home in a very uncomfortable state of mind. A young lady whose good opinion I valued very much, had slighted me in such a manner, and for such an object, that I was angered with her, with myself, and every one else. She had preferred the company of a young coxcomb, whose vain, flippant manners were disgusting to me. My self-love was wounded at being rated second to such a dandy, and I was vexed that my own judgment had so misguided me in my choice of a lady friend.

"Nothing wounds the vanity of a young man like finding his own estimate of himself superior to the estimate others have put upon him, and in just this condition I found myself on that memorable evening, and to make it seem to me more aggravating still, there was not enough of the affront to permit of my showing any resentment. Had I manifested any mortification or anger, it would have subjected me to the ridicule of those who had wounded me. I, therefore, swallowed my chagrin as best I could; but it smouldered within me unextinguished. The longer I thought of the matter the more enraged I grew.

"For some weeks we had been planning a ride out to the plains, and a picnic in the grove; I had talked over the arrangements several times with the lady referred to, and

supposed that she considered herself already engaged to drive out with me. To my great surprise I heard her accept an invitation to the excursion—from the silly fop I so much despised. Like a foolish boy as I was, I would not accept the testimony of my own senses.

“ ‘Miss Lane,’ I said, ‘I have understood all the while that you were going out to the plains with me ; I hope I am not mistaken ?’

“ ‘I am much obliged to you, Mr. Howard,’ she replied, ‘but you really understood quite too much ; I have already promised to accompany Mr. Glenning.’

“ ‘It was my mistake then, of course,’ I said, ‘and I hope you may enjoy the day exceedingly.’

“ ‘I shall, undoubtedly,’ she answered.

“ Now she knew perfectly well that I did not mistake. She had suggested several little projects by which, together, we might add to the pleasure of the day.

“ Glenning’s conceit was beyond endurance, and he had not wit enough to hide his exultation.

“ I thought the matter over and over again, as I drove homeward, and the more I thought, the more indignant I grew.

“ The lamp was burning in our room as I entered it. Jimmie’s fair face lay upon the pillow ; his eyelids quivered, and the lines of his face were too tremulous for sleep. He was evidently feigning it, but I was too much absorbed in my own thoughts to heed him.

“ In my abstraction I forgot to put out the light, but I turned down the covering, and with a half bound, jumped into bed. No sooner had I touched it than, with an oath—the last one that ever passed my lips—I sprang upon the floor, then throwing back the clothing which covered Jimmie, I gave the half-laughing, half-frightened child a kick which sent him to the floor, his back striking against the edge of a trunk.

“ He had plucked a part of a thorn-bush, and placed it beneath the sheet where I was to lay ; and had I lain down in my ordinary manner, the pricking would not have been severe, but throwing myself down as quickly as I did, the thorns pierced the sheet and went directly into my flesh. Had I not been already angered, and entirely off my proper

mental balance, I should not have become so enraged ; but it needed only this in addition to my previous discomfort to render me, for the time, furious.

“ Jimmie gave a sharp quick cry.

“ ‘Oh, Russel, you have hurt me so,’ he said.

“ ‘I only hope I have,’ I replied ; ‘you have carried on your pranks, unlicensed, long as you will where I am ; I intend henceforth you shall understand it.’

“ ‘Oh, dear,’ said the little fellow, with a wail of pain, ‘what shall I do ! I can’t get up ; Russel, please forgive me. Oh, dear ! oh ! oh !’

“ ‘Stop your whining,’ I growled, ‘and get into bed ! Perhaps you will learn to have some regard for other people’s feelings after this.’

“ The moaning stopped for a moment, but Jimmie did not move, and after waiting a little I began to realize the shamefulness of my conduct, and then, for the first time, I thought perhaps he might be really hurt. I raised up to look at him ; the light from the lamp shone full in his face—it was white as death. Upon the instant I was by his side.

“ ‘Jimmie, Jimmie,’ I cried, ‘speak to me ! do speak to me !’ but he did not answer. I lifted him to the bed ; the motion drew a moan from his lips, but no recognition to his face. I called for Mrs. Strong ; she said he had fainted. After applying proper restoratives, he became conscious, and opened his eyes, but, at sight of me, he turned his pale face away, and tried to move his body. The effort brought forth a scream of agony, and he sank directly into another faint. Mike was dispatched in haste for a physician. Mrs. Strong and I both thought he would die before we could get help.

“ How long ! oh, how long the hours of that night seemed to me. I thought I had killed him, and there was no other being on earth I loved so much as he, my only brother.

“ Our good Doctor Sharon, then in his prime, came at last. I told him the whole truth. He examined the boy carefully and said :

“ ‘He has received a severe, if not mortal injury, but we must move him to ascertain where and what it is.’

"We raised him gently, but the motion brought from him only the most distressing moans. At last the Doctor spoke:

"His spine is badly injured. I think he has received his death blow, if not that—worse."

"I could not utter a sound, but Mrs. Strong, in great agitation, asked the Doctor what could be worse?

"To be a cripple—a deformity all his life, with pain and mortification attending it so long as he lives. That is worse, a thousand times worse for a soul like his, than death."

"Great Father, why have I been permitted to do this thing?" I groaned rather than spoke.

"Because you gave loose rein to a degrading temper," answered the Doctor.

"I was more relieved by these harsh words of his than I could have been by any excuses; I had made excuses for myself altogether too long.

"For hours we watched for his return to consciousness; and I believe, so terrible was my mental torture, that, had Jimmie died that night, I should have taken my own life. The helmsman had let go the hold of my self-control, and my tossing nature was at the mercy of any wave of feeling or passion that should come uppermost. When self-rule abdicated in favor of anger or a tempestuous temper, it opened the way for the encroachments of any other dark spirits which might rise within me, and, doubtless, had my brother died, I should have died by my own hand—so terrible, so wicked are the effects of an ungoverned temper.

"As the first rays of the morning sun penetrated our chamber, they fell across the beautiful face of the boy, now so deathlike. I could no longer endure the suspense in silence. I laid my face to his, and begged him to live.

"Jimmie, dear Jimmie!" I cried, "do live, do try to speak, do live to forgive me! Oh! I shall die unless you do! I shall go mad to know I have been your murderer."

"I think my words helped to bring him to his senses. He opened his eyes, and then in a wailing voice cried:

"Mamma! dear mamma! take me away

to you. I shall always be doing some wrong thing if I stay here, and Russel does not love me any more."

"I kissed his lips, I begged and groaned and agonized, to make him understand my love and my grief. At length the whole condition of things became apparent to him. He asked me to look at him. I raised my head and looked into his face, so distorted with pain, that face which a few hours before was as the glory of an angel.

"Russel," he said, "I did not mean to hurt you with the thorns, and I did not think you would be angry much, and I know you did not expect to hurt me so when you kicked me from the bed, so we both have done worse than we meant to; don't worry about it, it won't do any good; just love me and not blame me for the thorns any more, for, Russel, I think I shall die, and I don't want to die with you one bit vexed at me. I will live if I can, but oh, Russel, that was an awful hurt."

"I know it, Jimmie, and if I can only see you once more well, you shall never be hurt again if I can prevent it. Remember that I was the only one to blame—and I love you—"

"I could not finish the sentence. I thought for an instant I should suffocate. He wound his slender arms around my neck, but his feet he could not move. Mrs. Strong, her face wet with tears, withdrew and left us to ourselves. Thus we lay clasped in each other's arms until we heard the Doctor's voice in the hall. He had been for Dr. Simms. The two entered the room together, and I was requested to leave it.

"During those moments of suspense how earnestly I prayed that Heaven would send me help, by aiding my brother's recovery. I felt that now was a time to ask aid from on high, for I was powerless to help myself. The grand forces which had been given to enable me to guide my rebellious spirit aright, I had abused and thrown aside, and now nothing was left me but repentance—alas! repentance that came all too late, with the humiliation of knowing I had spoiled my brother and debased myself—these were what was left to me, these with patience and prayer—and nothing more. The words

of my mother's warning came back in print of flame upon my brain. 'Heaven has given us talents to use, and until we have used them we have no right to expect Heaven to do our work for us.'

"I knew the power of self-control was within me, and yet I had allowed petty vexation and wounded vanity to subvert my moral nature, and I had expended my miserable, contemptible rage upon the purest and most innocent object of love I had in the world. All these self-condemning thoughts passed like a panorama before my heated brain.

"Jimmie's sufferings were so intense that his flesh quivered, and the suppressed moans became audible, in spite of his efforts to conceal them. That day he grew decidedly worse. Dr. Sharon, good as his nature was, found it very difficult to speak to me, except in condemnation.

"It was your place,' he said, 'to have been father and mother to this little orphan, for he had no one but you. Instead of which, you have killed him, or worse—for if he should live, he is destined only to a crippled, agonized existence. Should he live, he can never recover the use of his lower limbs; he must always be a dependent upon such care and sympathy as he may chance to get, and cold enough the world proves itself to such.'

"Doctor, Doctor,' I cried, 'I would gladly give my life for his—I would meet death with joy, could it undo what has been done to him. Is there no possible means by which he can be cured? We have means; take what you will, if you can but find the remedy.'

"Russel,' said the good man with a little softening in his tone, 'there is no power on earth that can restore to James the use of his feet. Henceforth they are, to all intents and purposes, as though he had none, and whether he live long or short, his life will be a life of pain.'"

CHAPTER VIII.

RUSSEL'S SICKNESS.

"PHYSICIANS from far and near were summoned; I would not rest until the

best skill of the country had been called into requisition. It was all to no purpose. For weeks his life hung upon a breath. He begged me, from the first, to keep the cause of his injury a secret; he said he could never endure to see the eyes of scorn and indignation rest upon me. He had observed the look of Dr. Sharon and it pained him exceedingly, and he requested the Doctor, as a favor to himself, to let no person know that I was the cause of his illness. The Doctor granted his request, and I was but too glad to give the promise; hence upon sister May's return, she was told that he was injured by a fall from the bed, and no more.

"The beauty and unselfishness of his character was manifest in this noble desire to screen me from the natural condemnation consequent upon my own act.

"Russel,' said he, 'it hurts me worse than all my pains to hear any one speak harshly to you, or to see them look at you with that awful look as though you had killed me, and had done it on purpose; and all the time your face is so full of tenderness to me.'

"Ah, but I did nearly kill you, my pet,' said I, 'and their indignation is just.'

"Indeed it is not,' he insisted, 'for I was the one first to blame; I vexed you without cause, and the feeling they show toward you is no better than the one you showed toward me when you hurt me; and I do not like it, for you are having trouble enough.'

"Thus it was settled that the subject should be referred to no more, and since that time—except to my wife—the cause of his misfortunes I have told to none.

"For one whole year it was difficult to decide whether he would live or die. I never left him during the time except for a little rest and food. Night and day I carried the little emaciated frame in my arms; I arranged couches and beds for him as comfortable as was possible, but he could not rest. The weary, wishful eyes would look into mine so beseechingly; the pinched face became stamped with the seal of pain, and made its mute appeals for relief so constantly, but all in vain. I was power-

less; I sang to him, read to him, and talked to him, to divert his attention, but still the agony continued.

"One night—it was almost a year after that fated first of April—he grew rapidly worse, and for hours we thought the end had come. Dr. Sharon said that if he could live through this attack, he might perhaps suffer less in future; that an abscess had formed, or was in process of formation, and that would either relieve his pain somewhat or terminate his life.

"For two weeks the suspense continued, and the anxious horror of waiting to know, is it life? or is it death? The ordeal was proving too much for my excited nervous condition.

"A day came at last which the Doctor said must decide his fate.

"Oh! shall I ever forget those long, long hours of watching and waiting! I could not rest one moment from his side. I watched the waning breath and flickering pulse with a solicitude I hope none of you will ever experience.

"At last I was unmanned. I could not bear the suspense one moment longer. I hurried out to the old oak, under which I had cried out my agony the night my mother died, and throwing myself upon the ground, I seemed to go over again the battle of life. All my past came up in condemnation before me. All the efforts I had ever made to do well seemed then but as idle mockeries of some latent selfishness, which had put on a garb of well-doing to deceive the world. My best deeds sneered at me, and my wicked ones held me in their grasp; mocking demons danced around me in malignant glee; and, far away, the vision of my mother's angelic brightness sent reverberating to my ears the words:

"'Where are the jewels I intrusted to thy keeping? Go into the darkness thy wickedness has earned for thee!'

"Then her pale face would come between me and all external objects, and her cold finger would point at me and the bloodless lips inquire:

"'Where! where are my lambs?'

"I tried to hide my face that I might not see the horrid vision, but wherever I turned

the phantom was before me. I was mad. Retaining consciousness enough to know that I must throw off this spell, I endeavored to rise, and fell back in a faint and knew no more.

"One morning I opened my eyes after, it seemed to me, a long and troubled sleep. I was not in my own room. Mrs. Strong and Dr. Sharon were standing near me. The first words I recollect of hearing were these:

"'He is better. With care he may recover.'

"I tried to speak, but found it so difficult I gave up the attempt. A dim recollection of the past came over me, and I thought their conversation referred to Jimmie, and I fell asleep with a feeling of gladness that Jimmie was to recover.

"When I awoke, dear sister May sat beside me.

"'What are you here for?' I inquired. 'Do you wish me to get up?' and I tried at the same time to raise myself, but found I could not.

"'Hush,' said she, 'you have been very ill, but you are better now, and to keep so you must not talk or stir.'

"For six weeks I had lain there with brain fever, most of the time in imminent danger. As soon as I was well enough to hear it, they told me about Jimmie. He was much better; could rest nights, and was getting well. He could not walk, and, as you see, has never been able to walk since. Ere long he was brought into my room, and the sight of his dear face, free from the marks of present pain, aided much toward my speedy recovery.

"I had allowed regrets and self-condemnation to run to such an extreme, that, in my delirium, and in the burning of the fever, they had for a time full sway, and thus spent their force. I felt sad over the past, but the satisfaction of seeing Jimmie so well and so happy sufficed to give me peace. I could now enjoy the long pleasant summer days with his bright smile ever before me; and I have never experienced keener joy than in being able to supply feet for his feet and hands for his hands; I was delighted to attend him, and the charge, though now

shared by others, has never been anything but one of unfeigned pleasure.

"Sister May, I trust you will now understand why the lesson of a self-reliant self-control can not be too thoroughly instilled into the habits of children.

"And, boys: I wish you would try to imagine your Uncle Jimmie when he was near your age. He was far more symmetrical in figure than either of you, agile and graceful of motion, and with a spirit which I had never known to sink to the level of real anger. You may now sometimes think him stern, because he believes that plain truths spoken to-day, may save great sorrow in the future. In those early years, tricks played upon himself only provoked his mirth, hence it was difficult for him to comprehend how they should irritate any one. Insults offered him, he passed by in silence. I once asked him how he could remain so quiet. A boy with whom he was playing became angry at his own dullness, and gave James a blow with his fist.

"'I should be ashamed to strike any one,' said he; 'I think it seems like the dog-fights in the street, or the animals in a menagerie.'

"Now when you realize the power a man might have in the world with that kind of a spirit—possessing your Uncle Jimmie's masterly intellect, and with a body as perfect in proportion—try to comprehend the enormity of my evil-doing. Just think what that boy's hopes and ambitions must have been. As you look at that perfect head and clear, searching eye, remember that the hot blood of his only brother robbed him of his birthright—a body in fit accord, in perfect harmony with that face and head. I shattered that holy temple forever, and rendered futile all the bright anticipations of his youth. Neither of you, with all the superior faculties you possess, have the promise in you of which I robbed him, and this you are never to lose sight of, that an ungoverned temper caused it all.

"When I tell you that our greatest sorrows come as the result of our own wrongdoing, or, in other words, that no sorrow can equal that of self-condemnation, remember the lesson and ponder it well.

James, in his boyhood, until this calamity befel him, was as full of joy as is the day of light, yet he never lost his self-control.

"If you desire happiness you must always refrain from indulging in angry feelings. Remember that, though you may have bestowed upon you a strong and impulsive emotional nature, yet, ever accompanying it, is that Divine Presence which will, if allowed supremacy, guard it, and guide it to the most beneficent results. An impulsive nature, well guided, is like a powerful, fiery steed, when held in abeyance by his rider. Beautiful, strong, rich, and glorious in subjection; but terrible, destructive, and fatal in mastery.

"Ask Heaven's aid to keep you mindful of making the effort; it will help you to be calm and strong; but do not suppose that either God or His holy angels will govern your spirit for you: that is a part of your earthly lesson, a work set apart especially for yourself. Unless your superior powers are exercised, they can never be strong. Unless you have practice in self-government, you can not be equal to the task of governing others. Remember, that 'he who governeth his own spirit is greater than he who taketh a city.'"

A FLORENTINE ORPHANAGE.

WE find the following interesting account of a worthy Italian charity in the New York *Eclectic*:

"Salvatore Ferretti, a Florentine, and educated for the Church, preferred Luther to the Pope, and the Bible to the Mass-book, and became a Protestant layman instead of a Popish priest. Before Italy had won her political freedom she had no religious liberty; and if Ferretti did not want to testify to the sincerity of his faith by a life-long imprisonment, he must leave the country betimes. He did so, and took refuge in London. Here he established a small home for the orphans of the exiles of '48, beginning with two little girls whom he took into his own family, precarious as his means of living were, and gradually raising his numbers up to fourteen—fourteen human beings whom he thus nobly

rescued from the destruction and degradation of the London streets. In '63, when Florence was free and Italy was one, Ferretti returned, bringing his children with him, and founded the female orphanage which now bears the name of Collegio Ferretti—at 10 Via del Gignolo, fuori di Porta alla Croce. The indefatigable secretary is an American lady, Madame Bianciardi, 15 Piazza d'Azeglio, Florence; and to her all inquiries, etc., should be addressed.

"Set in the midst of the vineyards and olive gardens of the Val d'Arno, about a quarter of an hour's drive from the town, this pleasant, simple, homely institution is well worth a visit—and something more. The house and grounds have been bought, and the property is vested in the hands of some American gentlemen as trustees. Before this was done, Signor Ferretti and his orphans were being perpetually 'moved on,' turned out here and driven away there by zealous landlords with whom were the sympathies of the priests, who naturally enough disliked the doings of this heretical philanthropist who got hold of lost lambs, and brought them up in his own doctrines. Now the place is a permanency and a property; and so far the institution has a backbone. It has been working for fifteen years; and in all this time there has been only one death among the children—that of poor little Emma Spelta, who died of inherited consumption at ten years of age; while more than a hundred girls have been educated and sheltered here, and sent out into the world able to get their own living by honest and honorable means. Many are teachers in schools; many are nursery governesses, maids, or other domestic servants, according as they have intellectual ability. One is teaching a Kindergarten school at Pozzuoli; another is doing the same thing at Intra; a third is teaching the Waldensian school at Porto Ferraio in Elba; a fourth is happy at San Francisco; a fifth is with a clergyman in Milan, a sixth with one in Rome; and so on. The higher education given to those who can profit by it enables them to pass the Government examinations and get diplomas for teaching; while the domestic training, which includes fine sewing, and, formerly,

good laundry-work, as specialties, teaches cleanliness and order all through."

UGLY, BUT GOOD.

FOR WOMEN WHO ARE NOT HANDSOME.

BEAUTY gets plenty of praise. Poets sing of it, romancers furnish it in abundance to their heroines, dramatists use it as the motive of their most stirring plays; painters and sculptors delight to portray it; all the world worships it; and yet there is much to be said about the noble qualities of ugly little women. There is often more charm in the vitality, energy, unselfishness, and gayety of an ugly little woman than in half a dozen tall, queenly beauties, who have to be on the watch all the time to pose well and make their points effective. There have been men in the world who thought it a fine thing to say that "an ugly woman has no place in the economy of nature." But if the records of the world were intelligibly written, it would be found that ugly little women have been the heroines, the helpmeets of the heroes. It is the function of beauty to get men into trouble. Helen of Troy, Cleopatra, Mary, Queen of Scots, and hundreds of others, wherever they came, brought calamity. Beauty and anguish have walked hand in hand the downward slope to death, and whenever the poet dreams of fair women he is sure to dream something doleful. If he were to have a dream of ugly little women it would be full of brightness, loyalty, devotion, sincerity, fortitude, and all those other lovable female qualities that make some happy. Tall beauty is epic: Little Ugly is lyric, homelike. Just think of what a deep-seated compliment is involved in calling irregularity of feature homeliness. It means that she is not for the ball-room, but for the home, for the friendships that cluster around the hearth, for the merry little sociable, the picnic or off-hand game, or for the darkened sick-room, where she brings rest and comfort. "Pretty is as pretty does" is an old maxim, whose truth is only half appreciated. For in the plainness of feature and insignificance of person of homely women there is often

found an earnestness, a whole-souled sweetness and sympathetic expression that win love far quicker than mere beauty. The world could far more easily afford to lose its supplies of beauty, than to give up its precious stores of ugly little women. The beauties wait to be loved; the others delight in loving.

WHAT IS A POEM?—Take an idea; illuminate it in the rays of Imagination; mold it in the measure of Form; articulate it with the pulse of Time; intone it with the voice of Music; crystallize it with the gems of Taste; sprinkle it with the flowers of Fancy, and you have—a Poem.

G. H. H.

DRIFTING WITH THE TIDE.

MANY a wreck on the shoals we see,
As along life's voyage we glide;
They had launched on the wave without anchor
or oar
And drifted along with the tide.
Living, and yet with no purpose to gain,
And trusting that others would guide,
They sought but the pleasure the present can
give,
And drifted along with the tide.

Our future awaits us, for evil or good
Each one for himself must decide.
Let each firmly stand for truth and the right,
Nor drift with the wind and the tide.
And if we would anchor at last from the storm—
At last with the true and the tried—
Then steadily row for the evergreen shore,
Nor drift with the wind and the tide.

FRANCES WARREN.



THE PHILOSOPHY OF REACTION.

WHEN a student in natural philosophy, various experiments were made by the teacher of the class, to explain the nature and meaning of action and reaction. The favorite one was made by a number of balls attached to as many strings, passing through and fastened to a board at the top. The Professor would raise the right-hand ball far enough to strike with considerable force against number two. This motion, instead of disturbing to any considerable extent the intervening balls, would throw the last ball on the left to a corresponding distance with that traveled by the right-hand one, return and throw number one again out of position. There were doubt-

less many members of that class who never thought of applying the philosophy of this experiment to anything outside the natural or material world. A few of us came later to understand something of the law of correspondences, and to know that what was true of these balls as showing the power of action and reaction in the physical, was just as true of the moral and spiritual. We came to find that reaction everywhere is as inevitable as action. There is no escape from the bad or the good of it. Every action has to come home again before the full consequences are reached. This return is what we call reaction. If you imagine you have finished with your action when you start

the first ball, you are much mistaken. The consequences come with the return ball, and can never be dodged, or in any way avoided. Now for some applications in every-day life.

Here is Mrs. Smith, a kind, energetic, and helpful woman. She knows, it is true, very little about natural, moral, or spiritual philosophy, but has the golden rule well in mind. She will "do unto others as she would have others do unto her." Mrs. Smith's family is large, and her duties many and varied; but each member of this family is generally and especially attended to in a manner which is really very unselfish, and seems very sensible. There are no holes in the stockings, and no lack of good things on the table. True, there is considerable pastry and salads and puddings and rich sauces; but husband and the children must have such things, because they have no appetite for any other kind of food. Mrs. Smith's back aches with her preserving and her pickling, and her head aches with the calculation of polonaise patterns and overskirts. But what is a table without preserves and pickles, and how can girls get along in these days without stylish garments? And if we can't afford to have such things made, there is certainly nothing else to do but make them ourselves. The conclusion from such premises is certainly correct, but the major premise is wrong; and the worst of it is, the amateur logician never finds it out. Mrs. Smith is kind and pitiful to the sick, and her touch is tender and magnetic. In emergencies, Mrs. Smith is quite as much relied upon as the physician, and consequently becomes the nurse of the neighborhood. In all this there is no vanity, no undue quickening of approbation, nothing but kindness, energy, and the golden rule. A good constitution keeps firmly abreast of all weakness or nervousness till middle life, and then Mrs. Smith, after a long and painful physical experience, is gathered to her mothers and grandmothers, most of whom went out of the world in the same manner; for they, like their descendant, were entirely ignorant of reaction. Now what was the matter? This woman started out in life with a strong physique, a kind heart, and the golden rule. The

golden rule must be all right, and so must be a kind heart and energy and determination. Let us go back to the balls. If Mrs. Smith had understood the philosophy of reaction, she would have hit ball number one very gently, so that when it returned—as return it must—there would have been only a slight jar. But no; energy, kindness, and the golden rule, without the least mathematical computation, lifted the string as far as it would go, and then sent it pell-mell against the muscles and the nerves to come back with a crash that brought its own list of low spirits, headaches, and general demoralization of the nervous system. This process Mrs. Smith kept up three hundred and sixty-five days in the year; and then wondered why the golden rule, and her own great desire to be of service in the world, did not sustain her. Mr. Smith, with a stomach unable to perform the simplest act of digestion, grieves for his wife, and regrets the pastry; while the girls, young and almost helpless, are left to fight the polonaise and society battles as best they may.

Here is Mr. Jones. See what a bright, animated countenance he has; how elastic his step, and how like a hero he carries his head. Can it be that this intelligent and most useful individual has been set apart from the beginning of things for softening of the brain? We all know this is nonsense, and yet how tacitly and constantly we lend ourselves to such deception. Is there any reason why Mr. Jones should not have a seat in the Legislature, or be elected to Congress? Of course not. We want, above all things, to be represented by just such men as Jones. Jones has brains, and better than all, he is honest. So Jones is all the rage. He writes and speaks all night, or the best part of each night, and works all day at an exhaustive and exhausting law business to support his family. Bang! bang! bang! goes the ball. Jones throws it with his own hand, and considers himself a smart man for making so many consecutive ten-strokes. He knows he ought to sleep more; but sleep will come when he gets settled down in Washington. Time enough for sleep. Jones left the philosophy of action and reaction in college,

and has never thought to apply it to the experiences of his own life. So he pulls away at the string and sets the balls in motion, never thinking that the unintermittent strain is destroying the brain fibers and wrecking his life, and worse than his life—his reason. By and by the end comes; or, rather, the beginning of helplessness and insanity. His friends attend his funeral, and hold up their hands in horror at such a sacrifice of a useful life, and go back from the grave to start the balls in motion that

are fast taking them to the same place. Indeed, they feel as if they had lost a good deal of time in being so long away from the machine! and then we hear about the "dispensations of divine Providence," and "how God deals with His children." Can anything be more stupid, or more calculated to give the young and rising generation untrue and distorted views of life? Let us instruct our children that as they act, so must they react, and in perfect proportion.

ELEANOR KIRK.

SIMPLE CURVATURES OF THE SPINE.

IN all classes of society we find persons with deformities of some kind, affecting their bony organism. Of one hundred individuals taken promiscuously scarcely ten can be found whose limbs are alike in shape, and scarcely four whose limbs are both evenly and symmetrically formed. The causes of such defects are usually to be sought in childhood, the season of most rapid growth. Disease of the bones, and the effects proceeding from severe illness,

spinal curvature, and attempt to indicate a few methods for their correction. Of the many different kinds of spinal irregularity, that in which the spinal column is bent to

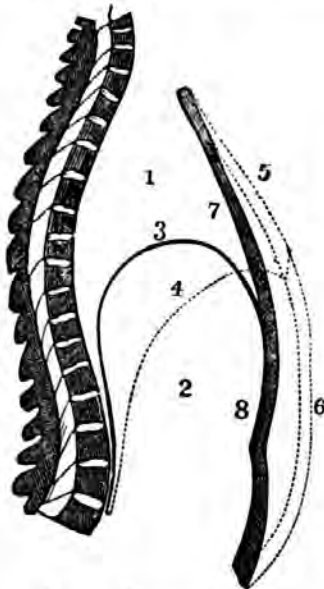


Fig. 1.—GENERAL OUTLINE.

are often the occasion of deformity; but still oftener bad habits practiced in youth break down the integrity of the body and impair its symmetry. Let us look into some of the most frequently occurring cases of



Fig. 2.—EXTENSIVE LATERAL CURVATURE.

one side is oftenest seen. The spinal column consists of twenty-four joints, or vertebrae, and is not straight like a ruler, but bent in a series of curves corresponding with the undulating contour of the body; the bend is inward and outward in a vertica

plane, in a perfectly healthy person. In Fig. 1 a view of the general outline of the spinal column is given. The head is balanced at the summit, muscles being attached in different parts on all sides to keep it in equilibrium. Children at their birth are not able to hold their heads up; generally three months pass before they show strength enough for this. Nei-



Fig. 3.—A COMMON DEFORMITY.

ther is the young child able to stand because of the weakness of the legs, and the immature development of the bones and muscles of the trunk. The trunk rests upon the legs, and so is supported on two sides by two direct props, but needs further support for the maintenance of the equilibrium, which is afforded by the dorsal muscles in connection with the spinal column behind, and the muscles of the breast and abdomen afford it in front. One effect of these muscular attachments is to press the parts toward each other, and so the small-jointed spinal column, with its ligaments and connections, is transformed into a firm elastic process. The strong and thick muscles which form the gluteal region keep the trunk upright upon the legs and so prevent the body from falling forward; while the bones of the spine are themselves of such a

nature that, with their abdominal attachments, it is quite impossible for the trunk to fall backward.

The natural curvature of the spinal column lightens the work of the muscles. We notice in the figure that it takes in its course four different directions: First, the seven cervical vertebræ curve toward the front about fifty degrees from the perpendicular; then the twelve chest vertebræ, to which the twelve ribs are fastened, bend about sixty degrees backward; then the five great lumbar vertebræ bend again toward the front at an inclination of about thirty degrees; the termination of the spine, composed of the sacrum and coccyx, bends outward, making a large angle, about one hundred degrees. This curvature of the spine enables it to carry a heavier burden than nature imposes upon it. It is estimated that it could resist a weight or pressure sixteen times greater than it would were it curved in but one direction.

Fig. 2 represents an anatomical preparation in Hampton's Museum, London, which consists of the spinal column of a young man who, in his youth, was employed in a merchant's counting-room, where he acquired the habit of holding the right shoulder higher than the left. In the course of time the elastic pads between the vertebræ at the region of the curvature were absorbed, and the vertebræ losing their mobility, the young man became permanently deformed. Such sideward curves are very common; may be found in five or six



Fig. 4.—REGULATING STRAP.

persons of a hundred, the majority being women.

Curvature sometimes originates from disease of a single vertebræ, or its adjacent muscular attachment, oftener from a disease of the feet or legs which forces the person to hobble, or stand in an awkward, unnat-

ural way. Thus the upper part of the body not having an equal support is thrown out of equilibrium, and in time a permanent distortion results. We frequently meet with a sideward twist or bend in women; this has its first cause in the use of corsets; when the wearer of the corset is fatigued she can not without inconvenience lie down or lean in a natural way, but rather sinks into herself; leans, in fact, upon the corset, thus producing a rather sharp crook in the back, and the constant repetition of this attitude finally results in permanent curvature. Children should be accustomed to sit and stand erect, and the wearing a corset to preserve erectness is one of the worst of remedies for the tendency to bend over.

Every occupation which tends to exercise the muscles of one side more than those of the other is likely to produce spinal disease. The carrying of burdens on one's arm as a habit, writing with one shoulder elevated, sewing and other needle-work, if prosecuted in a one-sided position, are among the more common causes. If the muscles of one side through exercise become stronger than those of the other side, the

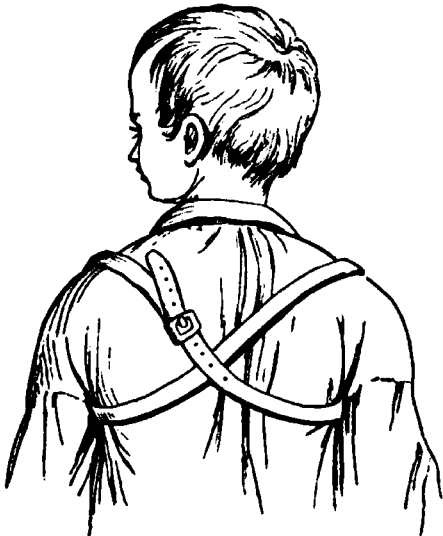


Fig. 5.—STRAP IN POSITION.

spinal column necessarily becomes bent. If we observe people, noticing the back seam of a close-fitting coat, we will find many stand in an uneven way; the seam is bent out of a vertical line, and one shoulder

rises somewhat higher than the other. This sort of irregularity has its beginning chiefly in the period between ten and fifteen years of age; Fig. 3 illustrates it.

If the curvature be considerable it is incurable unless remedial agents are applied early in the life of the subject. Curvature can only be prevented by the taking of daily exercise in the open air, the avoidance of one-sided postures, lying straight when in repose or asleep, bathing and other hygienic practices. If a child exhibit a tendency to curvature, measures should be set on foot at once for its correction. A very useful exercise is the balancing of a light article, a book, for instance, on the head while walking; or walking with a cane passed through the arms behind the back. In Fig. 4 is an illustration of a simple instrument which can be recommended for the correction of incipient curvature. It consists of a shoulder belt made of leather, in the form of the figure 8, through the openings of which the arms are to be passed, as shown in Fig.



5; on both sides is a thickly-padded spring. Fig. 6 shows an apparatus which is adapted to render the head erect in cases where a person has a tendency to carry it on one side. The elastic ends of these are buttoned to the coat; a wooden clamp at the other end is adapted to grasp a lock of hair back of the head; a strap and buckle regulate the length of the apparatus. This of course is mainly designed to correct tendencies to curvature of the upper part of the spine in children, and exercises mental discipline.

THE CHURCH SOCIABLE.

THEY carried pie to the parson's house
And scattered the floor with crumbs,
And marked the leaves of his choicest books
With the prints of their greasy thumbs.

They piled his dishes high and thick
With a lot of unhealthy cake,
While they gobbled the buttered toast and rolls
Which the parson's wife did make.

Next day the parson went down on his knees,
With his wife, but not to pray;
Oh, no; 'twas to scrape the grease and dirt
From the carpet and stairs away.

—*Boston Traveler.*

SOME CHARACTERISTICS OF THE LATE EPIDEMIC.

"LETTERS FROM THE SOUTH."—No. 4.

ABOUT six years ago Dr. Trall, in an article published in the *SCIENCE OF HEALTH*, advanced the opinion, founded upon certain scientific data, that various phenomena of a disastrous character would signalize the years preceding and following 1880, when the conjoint perihelion of the four great planets, Jupiter, Saturn, Uranus, and Neptune, would occur, from which the temperature and climate of our globe must experience disturbing influences, more or less affecting human health and all forms of animal life. In the natural world there were to be cyclones, earthquakes, tempests; among men and animals, plagues and pestilences of great severity. These things have thus far come true. We call to mind here in the South-west strange deviations in the ordinary course of the seasons—last winter too mild even to freeze out the malaria; June and July hot to suffocation. The very zephyrs seemed breathings from a furnace. And with those sweltering summer days came that insidious, terrible disease which has baffled our physicians, mocked at their treatment, and laid such numbers of them in their graves. Here again I am reminded of Dr. Trall and his theories, for the physicians who have been most successful are those who have used no medicines. The hero of the Hernando epidemic—a physician who has had a hundred cases—told me he depended on faithful nursing, keeping up an equable temperature, stimulating moderately at the right moment, and regulating the diet when the fever stage had passed. Whether or not the conjunction of the planets in 1880 is affecting the lands lying on the east bank of the Mississippi, certain it is that most malignant types of malarial disease have raged among us in the last three months. No doubt the conditions of heat, moisture, and decaying matter concurred in Grenada to favor its inception, but certainly it would not have spread from New Orleans to Chattanooga had not air and water and earthy vapors fostered it.

So greatly has it exceeded in severity, fatality, and infectiousness all previous types

of yellow fever known in the South, that it has earned pre-eminently the title of the Plague. In the midnight-black days of early September half of those who took it in Memphis died—the whole city was a pest-house. No locality, as in former epidemics, escaped; and unlike previous visitations, it spread into the country, and once conveyed there was as fatal in the breezy farmhouse as in the hot, close city residence. Hundreds of villages and little country towns have been visited and gone through, leaving huge additions to the grave-yards, and generally the best people in the place were among the victims. You must know that it has always been the best people who have had the courage to stay and face this horrible yellow death. The undertaker of Hernando, and his beautiful Ruth, the "flower of the grave-yard," lie under fresh mounds. This fair girl's lover, who nursed her in her sickness, took the disease, and on his death-bed asked for "some roses to carry to Ruth!"

The poor darkey has not escaped in this epidemic as in former ones; he has been a terrible sufferer in the cities and in the country, and thousands have been dependent for daily bread on the rations issued by Government; for after being in an infected place, a darkey might not come on a cotton plantation, no matter how much in want of "hands," being looked upon only as a facile carrier of the poison that kills. But never have I known them work better or behave more like civilized beings. As Uncle Sam says: "You slap de law onto a nigger a time or two, and larn him dat he got to look out for his own rations, and keep outen oder folks' chicken coops and feed his own childern, and, bless God, you got him on risin' ground. Den when he gits hold ob de sack dat a nigger can hab yaller fever, same as white folks, you done got him on' de mourner's bench, he's a new-made nigger sho as my name's Sam."

When De Soto discovered the Mississippi he found a brave race of red people occupying the rich lands, but these had traditions of a race who had preceded them, whose

burial mounds now testify to their existence and partial enlightenment. May not that extinct race have died out in some terrible plague of a nature kindred to the new disease which has sprung up in Florida and Mississippi swamps in the last few years, called "malarial haematuria," and which is twin-brother to yellow fever? It doesn't have to be imported; it comes to life in the river bottoms and swamps and has the saffron complexion, the black vomit, and the tenacious grip of "yellow Jack" himself. The doctors call it "swamp fever," and "bloody urine fever," and some of them can not tell it from the contagious yellow fever, from which it differs only in not being so communicable. I have an idea it was before some such mighty resistless foe as this the primitive people of the alluvial-bottom lands found their poisoned arrows and war-hoops ineffectual; and in the dim future I see with horror a spectre that may again denude these swamps of human habitations, and restore the rich bottom plantations to bear and panther, and the log-huts of the darkeys to ruins for owls, bats, and creeping things. Heaven forbid!

MRS. V. D. COVINGTON.

ISAAC PITMAN ON DIET.

ALMOST anything that Mr. Isaac Pitman, the inventor of Phonography, has to say of himself is interesting to the reading public. Lately he communicated with the *London Times*, and told the English people some of his dietetic experiences. As the "Thunderer" published his letter in manner and form as written, it possesses other features of interest besides the dietetic. Mr. Pitman, everybody knows, is a spelling reformer, but perhaps everybody doesn't know how he spells.

"Ser—A frend sujests tu me that ei aut tu reit a leter tu the *Teims*, plaising mei leif-ekspeeriens in kontrast with the editoarial suming-up on Mr. W. Gibson Word'z vejetairian leter in the *Teims* ov last Thursday. The konkluzhon areivd at iz: 'So long az no speshal kaul is tu be maid on the strength, a peurili vejetable deiet mai sufeiz.' Az mei leif haz been wun ov somewhot eksepshonal

aktiviti, the fact that it haz been maintaind on a vejetable deiet aut tu be noan, nou a diskushon on deiet haz been admited intu the *Teims*.

"Mei deietitik ekspeeriens is breefli this: Abuv forti yearz ago dyspepsia waz karying me tu the graiv. Medikal advizerz recommended animal food three teimz a dai insted ov wuns, and a glas ov wein. On this rejimen ei woz nuthing beterd, but raather wurs. Ei avoided the meet & the wein, gradeuali rekuverd mei dijestiv pouver, & hav never sins noan, bei eni pain, that ei hav a stumak.

"Theez forti yearz have been spent in kontineuus laibor in konekshon with the invenshon and propagaishon ov mei sistem of fonetik short-hand and fonetik spelling, korespondenz, and the editoarial deutiz of mei weekli jurnal. Tho siksti-feiv yearz ov aij, ei kontinu the kustom ei hav foload aul throo this peeriod, ov being at my ofis at siks in the morning, summer and winter. Til ei woz fifti yearz ov aij ei never took a holidai, or felt that ei wonted wun; and for about twenti yearz in the first part ov this peeriod ei was at mei desk foarten ourz a dai, from siks ih the morning till ten at neit, with too ours out for meelz. Twenti yearz ago ei began tu leev of at siks in the eevning.

"I atribute mei helth and pouver ov endeurans tu abstinens from flesh meet and alkoholik drinks. Ei kan kum tu no uther konkleuzhon when ei see the efekt of such ekstended ourz ov laibor on uther men hoo eet meet and drink wein or beer.

"Ei hav riten mei leter fonetakali, as iz mei kustom, & shall feel obleijd if it be aloud thus to apeer in the *Teims*.

"EIZAK PITMAN.

"FONETIK INSTITUTE, BATH, 27 Januairi, 1879."

FORMATION OF CHARACTER.—The Rev. Phillips Brooks, in a recent sermon, used the following practical language:

"If somebody should give me a diamond to carry to Europe, I can know exactly how much would be lost to the world were I to drop it into the sea; but if a seed should be given me, I can only regard it with awe as containing concealed within it the food of

untold generations. That is the difference between looking at truth as a diamond or as a seed—as final or germinal.

“In all training of character, continuity and economy must be supreme. The notion that character is spontaneous is held by most people in the earlier portion of their lives, and is wrong. When they discover this, nine-tenths change to the other extreme. This is wrong too. Hosts of young men think that their character will form of itself, and that they will necessarily become better as they grow older. Hosts of old men believe that their character is fixed and that it is impossible for them to become better. Such beliefs are foolish. People are also wrong in thinking that they can put off their bad traits and put on good traits. The old failures can not be thus transformed, but out of the old habits new can be formed. This is what many a poor creature needs to know. We must make what we are to be out of what we are already.”

“TAKE A DRINK?”

“TAKE a drink?” No! not I
Of the things you're mixing;
Nature has a good supply
Of her careful fixing—
Water sweet and cool and pure
Is better drink, I'm sure.

“Take a drink?” No! not I;
I have seen too many,
Taking drinks like that of yours,
Striped of every penny.
Water sweet and cool and clear
Costs me nothing all the year.

“Take a drink?” No! not I;
Reason's taught me better
Than to bind my very soul
With a gulling fetter.
Water sweet and cool and free
Has no cruel chains for me.

“Take a drink?” A brother,
Dear to me as reason,
Was a drinker here, you know,
For a little season—
Drank his life and soul away,
And is in his grave to-day!

“Take a drink?” I own it
I was sinking nearly—

Sipping, drinking, every day—
Drinking late and early;
But my rescued soul at last
Sees the dangers it has passed.

“TAKE A DRINK?” No! never—
By God's blessing, NEVER
Will I touch or taste or smell
Henceforth. Amen, forever!
Water sweet and clear and cool
Makes man neither slave nor fool!*

* A new movement for the promotion of Temperance in New York society has been started lately. Its members pledge themselves “not to treat or be treated.” The verses would serve them for a campaign song.—ED.

HINTS ON BATHING.—Avoid bathing within two hours after a meal, or when exhausted by fatigue or from any other cause, or when the body is cooling after perspiration, and avoid bathing altogether in the open air if, after being a short time in the water, there is a sense of chilliness with numbness of the hands and feet; but bathe when the body is warm, provided no time is lost in getting into the water. Avoid chilling the body by sitting or standing undressed on the banks or in boats after having been in the water, or remaining too long in the water, but leave the water immediately when there is the slightest feeling of chilliness. The vigorous and strong may bathe early in the morning on an empty stomach, but the young and those who are weak had better bathe two or three hours after a meal; the best time for such is from two to three hours after breakfast. Those who are subject to attacks of giddiness or faintness, and who suffer from palpitation and other sense of discomfort at the heart, should not bathe without first consulting their medical advisers.

BIRD'S-NEST PUDDING.—Scald one cup of tapioca with four cups of boiling water, and let it stand one hour. Then pare and core (not quarter) half a dozen rich and slightly tart apples, filling the cavities of each with blanched raisins, sugar, and blanched almonds or chestnuts. Arrange these apples in a pudding-dish, and pour over them the tapioca. Bake forty-five minutes, or until the apples are cooked. Serve cold, without dressing, or with cream or sweetened fruit juice.

NOTES IN SCIENCE AND AGRICULTURE.

Depth to which Roots Penetrate.

—Mr. Foote, in Massachusetts, has traced out the tap-root of a common red clover plant downward to the perpendicular depth of nearly five feet. Hon. J. Stanton Gould followed out the roots of Indian corn to the depth of seven feet, and states that onions sometimes extend their roots downward to the depth of three feet; lucerne, fifteen feet. Hon. George Geddes sent to the museum of the New York State Society a clover plant that had a root four feet two inches in length. Louis Walkhoff traced the roots of a beet plant downward four feet, where they entered a drain-pipe. Prof. Schubart found the roots of rye, beans, and garden peas to extend about four feet downward; of winter wheat, seven feet in a light sub-soil, and forty-seven days after planting. The roots of clover one year old were three and a half feet long; those of two-year-old plants, four inches longer.

Importance of Cool-Grinding of FLOUR

—Mitcherlich and Crocker have shown that wheat in which sugar was proved to be absent before sending it to the mill, yielded, after being ground, four per cent. of it. Starch was thus transformed into sugar, which could not be done otherwise than through the internal action of the gluten aided by superabundant moisture. The mutual action of the gluten and the natural moisture of the flour seem often capable, at common temperatures, of slowly bringing about this injurious change. But when the flour comes out hot from the stones, and is left to cool gradually in large heaps, decomposition quickly sets in, starch is changed to sugar, and (when kept warm long enough) the sugar into alcohol, while if the temperature is continued long enough above 60° Fahr., it advances rapidly to the souring stage. These facts form a strong argument in favor of cool grinding.

The Size and Figure of the EARTH.

—Prof. Listing gives in the *Astronomische Nachrichten* the following results of his determination of the constants of the earth's figure: Equatorial radius, 6,377,377 meters; polar radius, 6,355,270 meters; mean radius, 6,377,000 meters; equatorial quadrant, 15,617,560 meters; meridian quadrant, 10,000,205 meters; eccentricity of meridian section, 283.480; length of second's pendulum at equator, 45°, and pole, 990.9948, 993.5721 and 996.1495 millimeters, respectively; force of gravity at equator, 45°, and pole, 9.780728, 9.806165 and 9.831603 meters, respectively; also in general the length of the second's pendulum equals (in millimeters) 990.9948 plus 5.1547 times the square of the sine of the latitude; and the force of gravity equals (in meters) 9.780728 plus 0.050875 times the square of the sine of the latitude.

Lightning made Harmless.

—The discovery of an extremely simple and cheap means to protect houses from being struck by lightning has recently been announced in a French agricultural paper. This consists in the use of bundles of straw attached to sticks or broom-handles and placed on the roofs of houses in an upright position. The first trials of this simple apparatus were made at Tarbes, Hautes-Pyrénées, by some intelligent agriculturists, and the results were so satisfactory, that soon afterward eighteen communes of the Tarbes District provided all their houses with these bundles of straw, and there have been no accidents from lightning since in the district. Probably such a "protector" would answer as well as any—in case the houses were not struck. There are a good many lightning-rods that won't bear that test.

Foreign Demand for Wheat.

—It has been estimated that Great Britain will require an importation of fifty millions of bushels of wheat during the six months beginning March 1, 1879, and that the amount at sea on that day *en route* for British ports was eleven million bushels. France is expected to require nearly as much during the same six months, in consequence of the extremely bad harvest of 1878. Ordinarily, France is not a wheat-importing country. Great Britain always is, and on a great scale, and for the next year, 1879-80, may require more than this, as the area in wheat, which was 3,381,701 acres last year, is now estimated at 700,000 acres, or nearly one-fourth less. British farmers can not pay their rents raising wheat at present prices. The supply of wheat needed by all the European countries which are deficient is estimated at one hundred million bushels for the six months beginning March 1, 1879. The great sources of supply are Russia and the United States. A minor source of supply is Hungary. Prices are so low that India is shipping no wheat, and the crops now coming off in Australia are reported to be unusually poor.

Farming in the East and West.

—A correspondent of the *Country Gentleman* gives farmers here some of the results of his observation of American agriculture, and in the following respects he seems to us to be near the true state of affairs:

"There is just now a sort of panic among a certain class of Eastern farmers because of Western competition. The low price of produce is responsible for this, but they are prices which are quite as ruinous to the Western farmer as to us. B. F. J. has told readers of the *Country Gentleman* how farms are being sold at a sacrifice in Illinois. From still farther west I hear reports of more severe losses and suffering. For New York farmers to sell out and go West would be 'jumping from the frying-pan into the fire.'

"Much is often said of the immense area of new land yearly brought under the plow. I do not question these statements, but they are by no means the only element in the problem. There always has been a large area of new land yearly put under cultivation, from the earliest settlement of the country. During the era of rapid railroad building this area of new land was unnaturally increased; but for several years railroad progress westward has been comparatively slow. Part of our agricultural reaction is due to the fact that we have pushed forward too far and too fast. But for the fact that the railroads have favored far Western freight, the loss to Western producers would be greater than it has been. But we are growing up even to our advanced pickets; for every new acre put under the plow we are having old lands gradually robbed of their fertility and decreasing in productiveness. Large as is the aggregate product of Western crops, it is startling to see how small is the average yield per acre. Minnesota wheat has decreased to nine or ten bushels as an average, while the average of the country is eleven or twelve bushels. And this includes all the new land whose crops are twenty, thirty, or more bushels per acre. It does not seem to me that Eastern farmers, who take good care of their land, need fear such competition as this. Bad seasons, insects, and every other imaginable excuse will be cited as reasons for the failures last season; but at the West, as here, these untoward accidents injure crops most on land that has been partly exhausted of its fertility.

"Eastern farmers are learning to farm better than they used to do. Continuing in this way they are safe from any probable competition from the West. Unless Western farmers learn and practice better methods of saving and using manure, they must suffer worse than they have. When soil is exhausted of fertility it will pay less to restore it a thousand miles inland than near the Atlantic seaboard. If Western lands become poor, the worn-out lands of New England and the Eastern States will take the preference. Already there are signs of some movement in this direction.

"Meanwhile one cause is constantly acting to increase the prices of farm produce. At every census the proportion of our population in cities and villages steadily increases. But for labor-saving machinery, which enables one man to do on the farm the work of two or more, the prices of farm produce would have gone up in like proportion. But the time is soon coming when something more than improved machinery to sow and harvest crops will be needed. Unless we have a more rapid improvement in farm methods than we have any reason to hope for, the decreased crops from impoverished land will necessitate higher prices despite all the economy from labor-saving machinery. The farming of the future in the West as well as in the East, will make the increase and re-

tention of the soil's fertility the principal object to be sought. We shall learn the impolicy of cultivating large areas of poor land at a certain loss, and make our profits by growing larger crops on fewer acres."

The Hum of Telegraph Wires.—

Almost every boy has listened to the hum which can be often heard near a telegraph pole, and it is a juvenile theory that the noise is caused by the passage of the messages. The more general notion has been that it was caused by the wind. A writer in an Australian journal, however, calls attention to the fact that one who will give close observation to both the wire and the sounds will find that the latter make themselves obvious when there is a total absence of wind; and in a quiet morning in winter, when the wires appear to be covered with frost to the thickness of a finger, they nevertheless carry on lively vibrations while the air is totally quiet. According to this writer, therefore, the vibrations are due not to the wind, but to changes of atmospheric temperature, cold producing a shortening of the wires extending over the whole length of the conductor. A considerable amount of friction is produced on the supporting bells, thus inducing sound both in the wires and the poles.

Climate and Consumptives.—

In looking at the thermometrical tables, we find that the mean difference between summer and winter in Minnesota is 52.94, and that in studying the thermometrical divergencies of some thirty-five well-known places, selected all over the world, St. Paul stands next to the very last. In fact, the differences are even greater than in New York. It is startling to learn that, in an estimate made of consumptive people visiting Minnesota, but one in fifteen recovered. Of course, this does not mean that for normal constitutions Minnesota is hurtful, but if a man or woman has weak lungs, Minnesota is not the place for them. An admirable climate may be found in San Diego, Cal., where the mean difference is but 15.88. First, of course, of all places for consumptives is Funchal, Madeira. Here, with a winter of 62.88, summer is 70.19, the mean difference being 8.10. St. Michael's, in the Azores, stands second on the list, with 10.10; then Santa Cruz, of the Azores, with 12.03. Between St. Augustine, Fla., and Naples, the former being 22.11, and the latter 22.33, there is an advantage for St. Augustine. In Aiken the difference is 31.54, about one degree only of the thermometer inferior to that of Genoa. Three important facts have to be examined by the physician in the choice of a locality for a weak-lunged patient. First, that the climate shall be equal (slight differences between day and night). Second, an equable climate (slight range between the months). Third, and a most important one, equability in the moisture. One other element seems also to be necessary, that of a rather heavy barometrical pressure. The con-

clusion Dr. Coan arrived at is, that in the United States the climate of San Diego, Cal., is the best, as San Diego stands fifth on the whole list.—*Harper's Magazine*.

Nickel-Plating without a Battery.

BATTERY.—A process has been published for nickel-plating without a battery, which is said to give good results. It is described as follows: To a dilute solution of chloride of zinc (5 per cent. to 10 per cent.) enough nickel sulphate is to be added to impart a decidedly green color to it, and the solution is then to be heated to boiling in a porcelain vessel. The clouding of the liquid from the reparation of a basic zinc salt need not be heeded, as it will not interfere with the effectiveness of the bath. The articles to be nickel-coated—first carefully cleaned of oxide or grease—are to be suspended in the solution for from thirty to sixty minutes, the bath being kept at a boiling temperature. When the articles are observed to be uniformly coated, they may be removed, washed in water in which a little chalk is suspended, dried, and finally polished with chalk or other suitable material.

The late Visit of American Merchants to Mexico.—The Western merchants, who lately started on a commercial mission to Mexico with so much enthusiasm, returned less confident of a speedy development of trade with that country. Trade revolutions are not brought about simply by willing them. New markets have to be won by patient effort, not less in educating new customers than in learning how to supply wants already existing. Exhibitions like the one which has been proposed may help Mexico to become settled in her political and commercial affairs, and to enter upon the development of her great natural resources. It is to be hoped the efforts of President Diaz will not go unseconded.

A Good Way to Mark Trees.

The following has proved most satisfactory as a tree label with us: Take a piece of common sheet zinc five inches wide. Across this cut three-quarters of an inch wide at one end, and tapering to a point at the other. Near the wider end write plainly with a common lead pencil the name of the variety. This will get brighter by exposure to the weather. The small end may be coiled around a branch of the tree; it will yield as the tree grows and do no injury. Such labels will last a lifetime, and the writing will get plainer all the time. After being used ten years, they are far plainer than when first written. Such labels cost but little, and are permanently reliable.

A cheap, but very efficient label can be made of tin, cut in the form suggested for the zinc ones, with the name written, or, rather, scratched, on it with a sharp awl. This will scratch through the tin to the iron, which, on exposure to the weather, will soon

rust, thus making the letters quite distinct. These may be procured at any tin-shop, and almost any tinner will cut them from scraps at a few cents a hundred. These will last for many years before becoming dim.—*Coleman's Rural World*.

Constitution of Nebulæ.—In the "Investigations upon the Height of the Atmosphere and the Constitution of Gasiform Cosmical Bodies," A. Ritter deduces the following law: "If in consequence of increase or diminution of heat, the radius of the gaseous globe undergoes a change, the temperature of its center also changes; but the product of the radius into the central temperature is constant." Since Neptune's orbital radius is about 6,000 times as great as the sun's present radius, the sun's central temperature is now about 6,000 times as great as when, according to the Kant-Laplace hypothesis, the sun was expanded to the orbit of Neptune. Of the whole work which has been performed by gravity during that immense interval, more than four-fifths is still stored within the sun's mass in the form of heat.

Gas-Tar vs. Garden Insects.

"For the last five years," says a correspondent of the *Chicago Tribune*, "I have not lost a cucumber or melon-vine or cabbage-plant. Get a barrel with a few gallons of gas-tar in it; pour water on the tar; always have it ready when needed; and when the bugs appear give them a liberal drink of the tar-water from a garden-sprinkler or otherwise, and if the rain washes it off and they return, repeat the dose. It will also destroy the Colorado potato-beetle, and frighten the old long potato-bug worse than a threshing with a brush. Five years ago this summer both kinds appeared on my late potatoes, and I watered them with the tar-water. The next day all Colorados that had not been well protected from the sprinkling were dead; and the others, though their name was legion, were all gone, and I have never seen one of them on the farm since. I am aware that many will look upon this with indifference, because it is so cheap and simple a remedy. Such should always suffer both by their own and their neighbors' bugs, as they frequently do."

An Exchange, in the course of some advice to farmers, says:

"When rainy, bad weather comes, so you can't work out of doors, cut, split, and haul your wood, make your racks, fix your fence or gate, and patch the roof of your barn or house."

Here's something like a bull, ain't it?

To Clean Cistern Water.—Add two ounces powdered alum and two ounces borax to a twenty-barrel cistern of rain-water that is blackened or oily, and in a few hours the sediment will settle, and the water be clarified and fit for washing.



MRS. C. FOWLER WELLS, *Proprietor.*

H. S. DRAYTON, A.M., *Editor.* N. SIZEM, *Associate.*

NEW YORK,
JULY, 1879.

LABOR AND THE CRIMINAL.

WE have discussed in two or three short papers the necessity of moral training to the reformation of the criminal, and now for a moment would consider the effect of labor upon him. The peculiar organization which is easily susceptible to vicious influences and the tutorage of crime is distinguished by breadth of head at the base, especially in the region bordering on the ear, while the superior parts are low or conical. Observation of those who are known for energy, industry, and workfulness, will reveal the fact that, as a class, such people have heads that are broad between the ears; or in other words, are well filled out in the lower lateral region. Children so organized are active, restless, anxious to be employed, and will be usefully or mischievously so in their waking hours. On the play-ground they are the most earnest participants in the game; they scream the loudest, and make the most violent exertions. The wise parent can render such children helpful at home, and train them in habits of industry, which will prove their best patrimony in after-years. But the unwise and ignorant mother, not discerning the purport of organization, may stimulate

the unregulated growth of the basilar organs in her children, and in after-years be grieved and disgraced by the outcome of their perversion to improper and lawless uses.

Occupation judiciously distributed will transform a group of disorderly, teasing, fretful children into quiet and amiable co-operators. So, too, it will make men who have been idle and heedless hangers-on or tramps, useful and even highly valuable members of society.

Mechanical employment furnishes a normal medium for the exercise of those organs at the base of the brain which, in their misdirection or perversion, are chiefly concerned in criminal offenses. Destructiveness, Combativeness, and Acquisitiveness have a place in all the departments of human industry, and furnish indispensable stimuli to the effective accomplishment of useful purposes. When related to the conduct of worthy operations they are subject to a process of regulation and discipline; and although they be large and powerful, if such a relation be long maintained, they will assume a phase or condition which will be fruitful of excellent results to the man and his community. It is, therefore, important that the convict should be employed according to his ability. Confinement in a gloomy prison, with nothing of a practical or useful sort upon which the thoughts and energies may be set, is enough, in our opinion, to drive a man of ill-regulated mind to insanity. And to expect a criminal who has been thus confined to show himself a saint when released is far from reasonable. We think that it would unsettle the best-ordered mind somewhat to undergo ten years of unemployed confinement in one of our prisons. As to the comparative effects of employment and non-employment upon the health of convicts, we have a few data

supplied by our little, but progressive neighbor, New Jersey. The *Newark Daily Advertiser* states:

"A striking example of the sanitary effects on body and mind of work as compared with idleness, is given from the records of the New Jersey State Prison. In 1874, when all the convicts were employed, there were only three deaths. May 31, 1875, when they were still at work, only 21 out of 664 were idle because of illness, and only five were insane. December 31, 1875, after six months of idleness, 50 out of 717 were unfit for work, 18 were insane, and there were 13 deaths in the year. In 1876 only a few were busy, and there were 20 deaths. In 1877, when 500 out of 835 were at work, there were only eight deaths, and on December 31st there were 38 unfit for work. In 1878, with only 270 busy, there were 19 deaths. In January, 1879, with the same number busy there were 107 in the hands of the doctor."

Fuller testimony than this is furnished in the report of Mr. Brockway, the well-known and excellent superintendent of the Elmira House of Refuge. Occupation, he asserts from long experience, is one of the best methods for rendering young offenders against law and order self-regulating. Moral teaching without it is, in the great majority of cases, ineffectual. Work which exercises the physical forces and brings into play the practical faculties of the mind, trains one to apply his thoughts and feelings to useful and beneficial objects.

OLD MEN IN OUR DAY.

THERE has been more or less discussion and speculation of late with regard to the time in a man's life when his powers are at their zenith and when he can accomplish the most for himself or others. Some physiologists set down a man's golden period at the decade between thirty and forty; others at between forty and fifty. Some re-

gard the years from fifty to sixty as the most fruitful, on the plea that a man must live half a century to acquire the necessary intelligence and experience which will enable him to exercise and apply his faculties to the most useful purpose. Others again look upon the whole life as a period of development, and claim that he who lives rightly, trains his mental and physical parts in the proper way, will increase in knowledge and wisdom and usefulness from year to year, and even when a hundred years old will be a valuable element in society. To this last view we are strongly inclined, because the statistics of the present day furnish a deal of support to it. The men, and women too, of literature and science, who have the world's esteem for solid acquirements and good work, are, in very many instances, well on toward the hundredth milestone. Emerson, Longfellow, Tennyson, A. B. Alcott, Liszt, Wagner, Whittier, Darwin, Bancroft, Draper, Meissonier, Weir, Lincoln-Phelps, are, as everybody knows, in the category of old people.

In the domain of commercial affairs the leading men almost everywhere are gray-beards. But it is particularly interesting to note the men who control affairs of State in Europe and America. In the legislation and diplomacy of our day there is special need of that intellectual alertness and sagacity which it has been the habit to award to the prime of life. But what is the spectacle exhibited by Europe in this respect? Who are the most trusted servants of nations? Disraeli, Bismarck, Gortschakoff, Grévy, Evarts, Thompson, Andrassy the youngest of whom is past sixty.

In fact, the high places in Church and State, in commerce and society, are so filled with gray-beards that we have heard young aspiring men complain that the old fellows last so long that they don't have a chance

to get up head. Nature sustains the active, stirring, inquiring class, and, as it would appear, keeps them fresh to the last, so that, although they may come to "the lean and slippered pantaloons," they are not found "*sans* teeth, *sans* eyes, *sans* taste, *sans* everything."

GROWING DISUSE OF DRUGS IN MEDICAL PRACTICE.

THE tendency of well-educated physicians of extensive experience is toward the disuse of drug-medication. This tendency is illustrated in many of the contributions to our prominent medical publications, and shown often in the discussions which occur at meetings of medical societies. A late number of the *New York Medical Record*, now lying on our table, a particularly interesting number, contains two or three contributions in which the treatment of certain diseases, by what we may term natural methods, is urged. One appears to be a special report for the *Record*, of "Practice and Peculiarities of Treatment" in the Philadelphia Hospital. The reporter notes especially effects following electrical treatment, and also results obtained in metalloscopy and metallotherapy. In the latter treatment plates made of different kinds of metal are simply applied to diseased parts, especially parts affected by paralysis or atrophy. The reporter also alludes to the good effects following Swedish movements, they being found to be beneficial even in old cases of paralysis, serving to keep up nutrition and temperature, and preventing trophic changes. In neuralgia and hysteria they often prove of much service.

In the same periodical is an extract from a Brussels medical journal which states that Dr. Ebrard, of Nismes, has for many years treated all his cases of sciatica and neuralgic pain with an improvised electric appa-

ratus, which consists simply of a flat-iron with some vinegar. The iron is heated until it is hot enough to vaporize the vinegar, then covered with flannel or woollen cloth, which has been moistened with vinegar, and applied at once to the painful spot. Dr. Ebrard has found that as a rule the pain disappears in twenty-four hours, and is followed by complete recovery.

Another paragraph from French sources relates to a form of digital treatment by M. Quinart for hypertrophied tonsils. It is very simple; applicable, however, only after the inflammatory period is passed. It consists in massage of the gland. The doctor covers his index finger with alum, introduces it into the mouth, and bears directly on the tonsil, manipulating it with gradually increasing force over as large a surface of the glands as he can reach. The operation is, of course, at first painful and disagreeable, but the discomfort is readily allayed by a gargle of some emollient. This process the patient can readily learn to practice for himself, and it has been proved to be very successful in reducing congestion.

ANNIVERSARY STUFFING.

SOME one who evidently understands the situation, has a paragraph in the *New York Sun*, concerning the moral and physical features of Sunday-school Anniversaries. In Brooklyn, N. Y., it has become the fashion to devote a day in the year for the public parade of the children belonging to Protestant Churches, and it is denominated "Anniversary Day." The *Sun* writer puts the matter thus: "Year after year as it comes round, the Brooklyn Sunday-school children, dressed in their Sunday jackets and frocks, are marched about in the sun, stuffed with ice-cream and cake, harangued by their pastor, and ultimately put to bed in a demoralized condition."

There is too much truth in this, and it seems to us a wonder that in spite of the preaching we have through the newspapers and periodicals concerning abuses and improprieties in eating and drinking, the intelligent managers of Sunday-school celebrations do not exercise their reason on such occasions. Children's appetites are always stimulated by anniversary or holiday zeal, so that they are found putting away extraordinary quantities of cake, candy, and ice-cream, if available, and hundreds of parents, doctors, and nurses can testify to the unpleasant consequences of such excess. Far better that these anniversary celebrations were entirely suppressed, than that they should occasion so much annual sickness and distress to children, to say nothing of the expense attending their doctoring and nursing. The *Sun* writer adds half humorously: "Brooklyn would be very indignant if the Society for Prevention of Cruelty to Children were to interfere with this annual parade, yet the agents of that Society have been known to be on hand where there was less excuse for their interference."

Why can there not be gatherings of children and adults for social enjoyment without gluttonous demonstrations?

THE GREAT SUBJECT.—The study of human nature, as revealed by Phrenology and Physiology, is coming to be considered by the clearest and best thinkers as a central subject. Within the last hundred years the attention of the world has been turned outward toward the objective world. The telescope has been developed that the vision of man might be extended to the remote. The microscope has been evolved and perfected to reveal to the wonder of men the infinity of the minute.

These instruments, in their relation to the field of matter, having been pretty thorough-

ly comprehended, man is working back toward himself, and is beginning to study his internal life and power, the center and source of all his hunger to know.

Phrenology furnishes the easiest and most complete method for the study of mind the world has yet found; and while it reveals the inherent elements of human nature in its various phases of faculty, emotion, and passion, it also enables man to read his fellow-man; the parent to study his child; the teacher his pupil; the lawyer his client and witnesses and the jury; the trader his customer; and in social life the qualities which are the basis of respect and confidence in each stranger we meet. The human intellect, through which all knowledge is acquired; the human emotions, through which all joy and sorrow come; the blending and working of this wonderful equipment of immortal faculty may well be the object of the most devout study and of supreme respect. This it has been from antiquity in various ways, but chiefly in an indefinite groping manner, for the reason that there was lacking a solid physiological basis for the most lauded theories of mental function.

Our friends who contemplate entering the next course of instruction in the American Institute of Phrenology, will be glad to learn of the facilities for minute and extended instruction which were never better or more complete. Every year we seek to widen and deepen the channel of investigation, and to make the instruction more thorough. The course will open October 1st; and from present indications we think the class will be interesting in many respects, especially in the intelligence and mental ripeness of its members.

The "Institute Extra," devoted specially to the subject, will be forwarded to any who may express a wish to receive it.



* He that questioneth much shall learn much "—Bacon.

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 FAILS 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.

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. Anonymous letters will not be considered.

ORIGINALITY. — *Question* : It is said by phrenologists that Causality is the beginning of Originality, but it surely does not give rise to every original thought. It is an indisputable fact that there are many persons who are deficient in this faculty, that can write fictitious stories, or see forms which their eyes have never beheld, or compose music different from any ever composed, or describe the most unheard-of regions, or do other things entirely original. It is the experience of most every one, that in his younger days he could think out stories, and be interested in the most unheard-of inventions. . . . It requires as little mental effort on the part of some children to imagine stories as it does for them to think over old ones. It is one fact stated by writers of authority that imagination in childhood is more active than in older age. In these and other observations I have made, it appears to me that Eventuality has the power of imagining events, Ideality the power of imagining things, Music of imagining music, etc., etc., or, in other words, that all the intellectual faculties possess imagination?

Answer : You have, doubtless, read the later installments of "Brain and Mind," wherein the philosophy of the action of the faculties has been set forth very carefully, and you have seen, therefore, that the organs are instinctive in their action, and responsive to impressions in childhood. The organs of the perceptive faculties are then specially active and responsive to impressions made upon them. To this activity is due the sprightliness and vivacity of childhood. Some children are better endowed in the organs of

Sublimity, Constructiveness, Ideality, and so on, than others. Some have an earlier development of the moral group. Most of the story-telling of children is scarcely more than recitation, with much indefiniteness, of what they have heard and seen. It will generally be found that the little stories of children are deficient in reflection. Even well-edited children's magazines show this feature, some of the stories being exceedingly frivolous. If Constructiveness enter largely into one's relation of his experiences, he will show the ability to re-arrange the materials which he has accumulated, and dress them up in what appear to be new forms. And if, in such a case, the reflective faculties are well developed, he will make novel and modified conclusions. Such a person easily gets the reputation of being "original." Genuine originality is rare; and it is found, we think, only in those who have associated large reflective faculties, large Ideality and Constructiveness, and a fine endowment of Spirituality. One man, to whom has been given a high character for original invention by universal consent, is Mr. Edison, and his brain shows in a striking manner such an organization. You speak of Eventuality and Ideality as *imagining* events and things. We would substitute the word *remembering* instead of *imagining*; for we think that in nearly every case we meet in every-day life, the phenomena of statement exhibit nothing more than can be traced to experience and observation, and the faculties, when appealed to for the nonce, simply yield material which has been stored up.

DROPSY OF THE HEART.—J. E. C.—If by "dropsy of the heart" you mean water in the pericardium, it may be due to different causes. For instance, in Bright's disease there may be general dropsy, or fluid in the connective tissue of the body as well as in the serous cavities in general. Dropsy may be due to heart disease, to chlorosis, and it may be due to hydroæmia, or a watery condition of the blood. The treatment will vary according to the disease. Correct hygiene is of great importance in its treatment. Nutrition should be carried to the highest point in every case. In general, the patient should guard against exposure, more especially where the dropsy is due to kidney disease; and a warm and equable climate is desirable. Turkish baths are of benefit in getting rid of the water. It is impossible to lay down any special treatment for all cases. If you mean by "dropsy" an

effusion into the membrane covering the heart, due to inflammation called pericarditis, the treatment in general is to guard against "catching cold," a warm and equable temperature, nutrition of the right kind, and general hygiene. In any case, it is best to consult an experienced physician.

BAIN AND PHRENOLOGY.—H. G. M.—

Prof. Bain may be said to be a leading representative of metaphysical philosophy of the old sort. If you have read his treatise carefully, you will have discovered that he follows much in the channel of the old Scottish school. He is like the old metaphysicians, especially, in agreeing altogether with none of the authors he quotes, while commending here and there certain points brought out by writers like Brown, Reid, Stewart, and Hamilton. He is inclined to favor the phrenological idea of a physical basis for Mind, sees much in Phrenology to commend as a science of character; but as a science of mind thinks it not sufficiently broad. As a metaphysician, he speculates in regard to this or that function of mind. In his "Study of Character" he discusses the phrenological system, point by point; here complaining that Phrenology claims too much, there that it does not go far enough; and like other philosophers, setting up points of his own and attempting to formulate a system with faculties, etc., which he thinks will more nearly fit the case than Phrenology. His method is almost entirely subjective, although he now and then introduces in his "Education as a Science" some well-settled physiological opinions, but he abandons them in his discussions so far as to assert substantially that education is a purely psychological process, and that nutrition has no necessary connection with the science of education.

HOW TO LIVE.—E. M. M.—It may be that Dr. Lewis referred to a book which has been on our counter several years past, entitled "How to Live; or, a Dime a Day," or, he had reference to one of our hygienic manuals.

NORMAL FACULTIES. — *Question:* In your book, "How to Read Character," page 19, you give the principle, every faculty is normally good, but liable to perversion; which, in my opinion, does not agree with your other statements, that a strong or weak faculty is hereditary, and, consequently, a father with an extremely weak conscience, can not endow his child with a normal conscience, or a strong one. I think it is generally understood that as the parent, so the child will be, etc. Please answer and oblige.

A. L. S.

Answer: We think your reading of the statement has been scarcely clear. A faculty in its normal condition is fit for the exercise demand-

ed of it in the mental economy; therefore, it is good; but it is liable to perversion through improper or vicious influences. Benevolence, for instance, when of a development which accords with the general average of the faculties or organs in a given head, may be deemed to be normal; and so long as its exercise is proportioned to the activity of the other organs, so long of course will its influence upon the conduct be happy; but associations and training which are conducive to the predominant exercise of the selfish or propensitive functions will serve to impair or hinder the free exercise of Benevolence, as they will also the other superior or moral organs, finally resulting in the weakening of Benevolence, and the person will show himself less kind and charitable than before in his relations with others. This is one form of perversion. Benevolence in another case may be strong and active, abnormally so, controlling the lower nature, and inducing conduct on the part of the individual signally wrong; even leading him to deeds of injustice and fraud for the sake of obtaining the means to gratify Benevolence. It is not so very uncommon for men of large sympathies and broad charities to use money intrusted to their care in schemes of benevolence, thus actually robbing others to gratify their generous impulses. It can scarcely be expected that a father with an extremely weak conscience can endow his child with a normal development of the faculty which inspires a sense of obligation or justice. But it is a principle in Phrenology that the character being known, culture, training, will help to render active and develop a weak organ, and bring about a condition near to the desired balance of faculty.

WOOLEN UNDERGARMENTS.—J. N. L.—

It is important, for the sake of health, that undergarments be kept clean and pure. Flannels rapidly absorb the secretions of the skin. Hygienists advise white, for the reason that such garments indicate the soil quickly, while other colors do not. Because a woollen shirt is gray, red, or yellow, does not prove that it will remain clean longer than one that is white. The fact is, that it just as readily becomes soiled as the white, but that condition is not so manifest as in the white garment. We think that wool is excellent for summer as well as for winter use. Our own experience has shown that woollen undergarments are more comfortable than cotton or flax. Of course one should change according to the season. We have seen men in factories, where the heat was great, wearing pretty heavy woollen shirts, and that the year around, and they have told us that they felt more comfortable than while wearing cotton fabrics.

Several ANSWERS must be deferred to the next number.



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

MEATS AND POISONS.—In an interesting article on sleep which appeared in a late number of the *Christian at Work*, there were one or two statements which reminded us of the old saying that "What's one man's meat is another man's poison." A proverb which seems to us to be one of the truest of all proverbs, and yet all must embrace a measure of some well-recognized truth, before they can obtain the stamp from the mint of common sense which alone enables them to pass current.

In speaking of Dr. Hammond's proposed queer remedy for sleeplessness, namely, that the wakeful person shall think of something disagreeable, the writer remarks that "to imagine burglars in the house, to think of the last bill for your wife's new bonnet, or that unpaid tailor's bill for which you were dunned during the day, may have a soothing effect on some minds, but we confess to skepticism on that point."

In this paragraph the writer shows a dim perception of the truth of our proverb; but further on, in speaking of sleeping with the head low or high, he seems to think that to lie with it high, is to prevent invariably the flow of the blood to the head in sufficient quantities to nourish the brain, and thus the sleep will prove uneasy and exhausting. That this is frequently the case is no doubt true, but there are persons who are compelled to sleep with the head very high, or else suffer from a too great rush of blood to the head. One lady of our acquaintance invariably suffers from the nightmare if her head be supported by only one pillow, even if this be a large one. She is a woman of very nervous temperament and active brain. Another lady, of much the same physical and mental excitability, suffers from very cold feet, which she can only warm effectually by lying down with her head quite low. This position seems in her case nearly always to equalize the circulation, warming all parts of the body alike; but in addition to this she is sometimes compelled to eat a cracker, or take some other form of slight nourishment, before her feet will become warm, and she can not sleep until they do so. The philosophy of this is apparent. She can not sleep while the blood is drawn so exclusively to the head, and to give the stomach something to do, is to make it demand the presence of the blood which it summons from the brain to assist its labors. One man will get his best sleep in a chair after dinner; another can only sleep comfortably by

allowing an interval of several hours between a meal and a nap.

That sleep was ever induced in any person by thinking of the sort of disagreeable things mentioned in the remark we lately quoted, is difficult to believe; still, so diversely are we made, that it is possible. But we fancy that Dr. Hammond must have intended the thinking of some disagreeable physical sensation, on the principle of diversion. Thus, if the brain be too full of blood for sleep, and the wakeful subject does not wish to eat to divert the blood from the brain to the stomach, it may answer a similar purpose to think of a severe attack of gout in the foot, or of the amputation of a finger. If the imagination be strong enough there may be actual sensations of pain in the foot or hand, and thus the blood be diverted from the brain to the extremities.

In relation to foods it is probably most emphatically true that, "what's one man's meat is another man's poison." There are persons whose systems demand animal food: they can not maintain themselves in health and do their best work on a purely vegetable diet; while many others are both physically and mentally the stronger for a strict avoidance of all animal food.

There are persons who can not eat strawberries without the indulgence being followed by symptoms similar in kind, if not in degree, to those which affect people who are poisoned by touching or handling the wild mercury, or three-leaved ivy of our Atlantic States. And this, again, is an instance in point; some persons can freely handle this vine with impunity; others can not ever so slightly touch it without suffering to a great degree. Most animals can browse freely in among its leaves, but during the past summer we knew a valuable horse that was so badly poisoned about his mouth and throat with this vine, that his life was despaired of for several days.

Similar instances to prove the truth of our proverb might be endlessly multiplied, and even include such things as are known to be virulent poisons to the larger part of the human race, yet which, from a morbid condition of certain physical systems, may to them become absolute necessities of existence. But such multiplication would be useless, for we have already said enough to prove our position, viz.: that it is folly to lay down any one rule or set of rules to be rigidly followed alike by all, without regard to individual differences of temperament, constitution, degrees of physical strength, and the circumstances or conditions of the moment.

H. E. SMITH.

THE PROPELLING ORGANS EAST AND WEST.—*Editor PHRENOLOGICAL JOURNAL:* In the domain of phrenological research we have

met with a strikingly confirmatory fact, which, though it may have been noted by others, is to us entirely new, and certainly one of interest to the readers of the JOURNAL. We say striking, because calculated to excite the closest attention of scientists who are delving in the field of mental philosophy. In making admeasurements of dozens of adult heads in Wyoming Territory, our curiosity and astonishment have been greatly excited to note the disparity in the sizes of heads here and in the States—heads west of the mountains being, measured horizontally, considerably larger than those east of such natural division. A full-sized adult head measures twenty-two inches, and we have found one rarely that falls below that size, while in the States east of the mountains we have found the proportion of adult male craniums that fall below twenty-two inches to reach thirty or forty per cent. We can not say that people are more moral here: they appear to be rather less so than in the States, and with moral qualities, absolutely, this measurement has little relation.

We do not say that people here have more general intellectual power, for they have not; but we do most unhesitatingly assert that they are proportionately superior in the particular mental qualities indicated as larger here by the horizontal measurement. In other words, the organs over which this line passes are larger here, and the faculties dependent on them for manifestation are stronger. Men here have larger perceptions; particularly the organ of Locality, which, giving memory of places and love of travel, is almost invariably large. Again, Constructiveness, Acquisitiveness, and Combativeness, the very faculties which conduce to, and assist in, emigration, as well as make the pioneer, are noticeably large. There is less reflection, and not superior moral sentiments, when contrasted with naturally contented residents of the States; but in practicality, in energy of character, in capacity to brave danger and build civilization in the face of innumerable difficulties, people of the West are superior to those of the East. Heads here in horizontal circumference exceed those in the States by three-quarters of an inch. Additionally, we may say, that the sexual instinct is stronger, a thing which, as a necessity, is in accordance with the natural demand of all new countries. Yours for truth,

Golden Dale, W. T.

C. M. ALEY.

FUTURE OF CHRISTIANITY.—The necessity for some object to worship, for some god to adore, is one of the elements of humanity. This faculty for worship, this reverence for a power above and beyond us, is one of the purest and most ennobling characteristics that we possess. It is that which distinguishes man from the lower animals. Our philosophers, with all their observations, have found nothing which marks

the line between them with more vividness than this, and, to my mind, there is nothing that more clearly demonstrates the existence of a Creator and Supreme Ruler than our tendency to believe in and worship Him. Turning back, away back to the dawn of the world's recorded history, we find prominent among the less perishable monuments of past ages, the traditions and relics of religious beliefs. Every nation which now exists has its religion, and every nation that has left a trace of an organized national existence, has left a trace of its religion; hence we may conclude that religion is one of the vital functions in the life of a nation; that it is even the foundation upon which the framework of all government is built. Hopes and aspirations of a spiritual nature have a tendency to elevate nations as well as individuals; describe to me the accepted religious belief of any nation, and I will describe to you its form of government; describe to me the accepted religious belief of any nation, and I will describe to you its state of morals and political strength; describe to me the accepted religious belief of any nation, and I will describe to you its progress in arts, sciences, and literature. So also, from a nation's religious standing may be deduced its social standing among the nations of the world. Look, for example, at any Protestant-Christian people, and you will find a nation whose form of government is either republican or that of a limited monarchy—a government independent of any higher political power. Show me any country whose length and breadth are dotted with Protestant churches and I will show you a country that counts its school-houses by thousands, and its colleges and universities by scores; a country that encourages the agriculturist, the manufacturer, the inventor, the artist, the musician, and the man of letters. It is not necessary for me to describe the condition of those countries which adhere to the tenets of some strange system; but if you would see examples of the religions of Buddha and Mohammed, look at China with her thousand years of absolute stagnation, and at Turkey in her present state of misery, where the hands which hold the reins of government do not scruple at the same time to use the murderer's dagger, and where the power of that will that controls the fate of millions of human beings is used to gratify its own selfish and licentious ends. The Africans and East Indians are examples of the civilization attained by those nations which worship many gods. Their civil system is a collection of petty provinces, unstable as water; their occupation and their pastime, war; their code of honor, that might makes right. They bow with as much reverence and self-abasement before their fetish gods, and to the controlling spirits which are born and exist only in their imaginations, as does the Christian to his God; theirs is a

religion of faith and zeal; but faith and zeal uncontrolled by reason, is as destructive as the mighty cyclone, or as the unchained element of fire. We all see this plainly enough when it applies to the religions of barbarous nations, but we are slow to perceive that among those professing Christianity, reason is too often made subordinate to prejudice. We all view with horror the immense sacrifices of human life offered to heathen deities; we shudder when we read of the crushing wheels of the car of Juggernaut; we recoil from the page that tells of the Polynesian's former worship; we fain would banish from our minds the frightful images that arise after reading the religious ceremonies of Gurna's people; and again our feelings are lacerated by the Livingston and Stanley story of the condition of the Hottentot and the Bushman. It is the same old story of religious feelings degraded to superstition, and combined with ignorance, told and re-told to-day in the nineteenth century and in the centuries gone by. Nothing abiding, nothing satisfying, nothing real was possessed by humanity, although "every human heart is human, and though e'en in savage bosoms there are reachings, longings, yearnings, for the good they comprehend not," till this good was shadowed forth in the promise of Jehovah to Abraham. This promise was fulfilled by the birth of Christ, and then arose the Sun of Righteousness, under whose rays man's heart and intellect have been remodeled after a higher, purer pattern. By its power, the nations which accepted it have been exalted, and the proportion of their exaltation has been according to whether they accepted it in its purity, or mixed it with the dross of their own imaginations; while those nations which entirely rejected it have passed into the forever, or still remain in their original condition; and we hope the belt of glory formed by Christian nations and Christian missions in heathen nations, which now surrounds the world, will be broadened and broadened until it reaches from pole to pole. But before we can expect to see all the earth drawn under the influence of the Gospel, we, as Christians, must make our Christianity brighter.

Many points of belief now prevalent among Christians were imbibed from the nations with which the primitive Christians commingled. The mythology of Greece, the magi of Persia, the philosophy of ancient Egypt, have left traces of their footsteps in the nineteenth century Christianity; and lingering atoms remain of the self-righteousness and harsh judgment to those who differ in religious faith that was manifested in the dark ages, when the Inquisition and all its attendant horrors flaunted triumphantly under the banner of Christ's meekness and mercy, and notwithstanding the respect due to wisdom, is

daily becoming wider and deeper; the sins of ignorance still leave their slimy trail among us.

These are the three grand arguments hurled against the Christian Church; the three stumbling-blocks over which the skeptic falls. Of the three, the first mentioned is harmless compared with the other two. But while we must regret that their blight has proved so serious an obstacle to religious progress, we can rejoice that the prospect ahead looks brighter, aye, we can rejoice, for the day of blind prejudice and bigotry is fast waning. That enlightened reason brought to bear by Martin Luther, three hundred years ago, has grown and strengthened; day by day its scepter grows longer, and its crown brighter. Reason is the future hope of the Church, notwithstanding the many seeming arguments which are constantly used against it; it will eventually trample down and triumph over every shred that throws a shadow upon our spiritual belief. Then the religion of Christ will come forth entirely freed from all the dross that has mingled with its purity: "She shall be a crown of glory in the hand of the Lord, and a royal diadem in the hand of thy God." M. P.

PERSONAL.

WM. LLOYD GARRISON, whose staunch advocacy of abolition fifty years ago in Massachusetts subjected him to persecution and violence at the hands of his fellow-townsmen of Boston, died in New York, May 24th last. He was born in 1804, commenced life for himself when but ten years old, became the publisher of the *National Philanthropist* at twenty-two, and when but twenty-five his bold expressions in favor of negro emancipation made him a leader of the anti-slavery agitators. Later he espoused the cause of woman's rights. He was an earnest, fearless man in the enunciation of his principles, and at all times a kind and upright man.

M. LITTRÉ, who has just completed his great French Dictionary, is seventy-six years old. His production is referred to as "the precious fruit of many laborious years, and an imperishable monument and example of patience and perseverance." Of our own lexicographers, Webster was eighty-five when he stopped work, a short time before his death; and Worcester lived to be eighty-one.

PRINCESS LOUISE, wife of the Marquis of Lorne, the new Governor-General of Canada, is described as a woman of strong character and decided will. She has an intelligent and determined face, which suggests her mother's. Perhaps she is the real "Governor-General."

MR. THOMAS WINANS, eldest son of Ross Winans, the inventor of the modern railway coach,

died a few months ago at Newport, R. I. Mr. Winans served his apprenticeship in his father's shops, and at twenty years of age he went to St. Petersburg, Russia, with a locomotive engine of his father's manufacture and pattern, to compete for the equipping of the then new Nicolai railroad. He was fortunate enough to secure the contract, and subsequently other public works in Russia, and in 1850 he returned to the United States with ten million dollars.

FREDERICK COOM, of Schuyler's Falls, New York, celebrated the one-hundred-and-first anniversary of his birthday a few days ago. Frederick makes willow baskets, and recently walked eight miles in carrying them to market.

MADAME IDA PFEIFFER, the great traveler and authoress, recently held a "Greek costume soiree" at her home near London. There were about one hundred and twenty guests present, and she herself was attired as a lady of Athens in the time of Pericles. The object of the *soiree* was to create a taste for a more simple style of dress than that now in fashion. 'Tis hard, dear Madam, to oppose the current of silly fashion.

WISDOM.

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

MURMUR at nothing. If our ills are reparable, it is ungrateful; if remediless, it is vain.

How would you be if Ho, which is the top of judgment, should but judge you as you are?—SHAKESPEARE.

As large a demand is made on our faith by nature as can be made by miracles.—SWEDENBORG.

THE mind hath reason to remember that passions ought to be her vassals, not her masters.—SIR WALTER RALEIGH.

WE are always clever with those who imagine we think as they do. To be shallow, you must differ with people; to be profound, you must agree with them.—BULWER.

WE can not express in words the thousandth part of what we actually think, but only a few points of the rapid stream of thought, from the crests of its highest waves.—ZSCHOKKE.

SUCCESS rides on every hour; grapple it and you may win, but without a grapple it will never go with you. Work is the weapon of honor, and he who lacks the weapon will never triumph.

THE more people do the more they can do. He that does nothing renders himself incapable of doing anything. While we are executing one work, we are preparing ourselves to undertake another.

THE word impossible is the mother-tongue of little souls.—LORD BROUGHAM.

VICISSSE may well be heir to old Richesse,
But there may no man, as men well may see,
Bequeath his heir his virtue's nobleness;
That is appropriated unto no degree.

—CHAUCER.

VIRTUE is like a rich stone, best plain-set. This the best part of beauty which a picture can not express. Beauty is as summer-fruits, which are easy to corrupt and can not last.

AFFECTION can withstand very severe storms of rigor, but not a long polar frost of downright indifference. Love will subsist on wonderfully little hope, but not altogether without it.

MORE sweet than smiles are tears which rise unbidden

When some fair scene first dawns upon our eyes.

A gift of joy, by nature long kept hidden,
That thrills us with the rapture of surprise.

But dearer yet and deeper is our feeling

When some fair deed by one we love is wrought,

Some unexpected grace of soul revealing,
The lovely blossom of some secret thought.

—LADY ELLIOTT.

BIRTH.

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

If a man have a great many debts, are they very much to his credit?

A BOY of twelve, dining at his uncle's, made such a good dinner that his auntie observed, "Johnny, you appear to eat well." "Yes," replied the urchin, "I've been practicing eating all my life."

A NOTICE in a Western newspaper ends as follows: "The captain swam ashore. So did the chambermaid; she was insured for fifteen thousand dollars, and loaded with iron."

PHOTOGRAPHER—"You look sober; smile a little." He smiles, and the photographer says, "Not so much, sir; my instrument is too small to encompass the opening."

MANY a man has been hurt by a lumber pile falling on the top of him; but has any one ever heard of a lumber pile being hurt by a man falling on top of it? And yet they talk about the equalization of forces.

A NEW YORK woman says with much truth: "Were it not for the self-sacrificing women of the land who marry and support so many men, the number of tramps would be largely increased."

THE foolish man foldeth his hands and saith : "There is no trade, why should I advertise?" But the wise man is not so. He whoopeth it up in the newspapers, and verily he draweth customers from afar off.

"It is an excellent thing," pathetically remarks an exchange, "to suspect that the person you call on may have something to do, notwithstanding you have nothing."

WHEN a young man was questioned as to why his engagement with Miss H. had been broken off, he rolled his eyes, looked very much pained, and groaned, "Oh, she turned out a deceiver." But he did not mention that he was the deceiver whom she had turned out.

"UNDERSTAND me, Mrs. Trevor, I don't say that your man was drunk, or that he had been drinking even, but my husband says he can prove by three witnesses that they saw him try to pare an apple with a cork-screw, in broad daylight, and I thought that looked so suspicious I felt it my duty as a neighbor to come and tell you about it."



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.

STENOGRAPHIC TEACHER; in two parts; by John Brown Smith, author of the "Kirografik Teecher," etc.; 2d edition. Amherst, Mass.: J. B. & E. G. Smith, Publishers.

A novel system of Stenography, introduced a year or two ago by this author, seems to have found sufficient encouragement to warrant its further development, and he now appears in this fresh volume of one hundred and sixty pages, and challenges the notice and study of all who are desirous of learning the mysteries of the reporting art. The author of the "Stenografik Teecher" says for his system "that it boldly strikes out in untried fields of stenographic thought and experiment, but practical fields though. It is not an imitator of existing systems, but, on the contrary, takes rank with Tiro's, Gabelberger's, Duploy's, and Pitman's, as an absolute new creation. It is not asserted in any spirit of vain boasting, but as a mere act of justice to the rights of its author, and the recog-

nition of what must inevitably be the verdict of history." He claims that the abbreviated forms which he gives in his text-book will enable one to report at the rate of one hundred to one hundred and fifty or more words per minute. He is frank, however, in warning "all who can not devote at least six months' or a year's time to the reporting style, that they should not attempt to go beyond Part I."

Such are the claims of Mr. Smith. This book is very neatly printed, and the tracings of the characters on a black ground are neat and clear. To us who are acquainted with the Pitman style, Mr. Smith's outlines appear to be involved in more or less confusion, especially the specimens of reporting notes. Simplicity somehow or other appears to us to be an indispensable co-ordinate of facility in the expression of short-hand character. We know, however, that persistent practice overcomes what appears at first sight exceedingly difficult of execution, and that is probably the case with Mr. Smith's abbreviated forms.

TEMPERANCE LECTURES. By Jno. B. Gough.
1. "Our Battle-Cry: Total Abstinence;" 2. "The Force of Appetite;" 3. "The Only Remedy." New York: American Temperance Publishing House.

The whole world knows Jno. B. Gough as a Temperance advocate, so that we need not waste ink and paper in the attempt to describe his oratorical characteristics. Wherever the banner of Temperance has been carried among English-speaking people, there Mr. Gough has been in request, and his efforts, wheresoever exercised, have accomplished good. The three lectures which this little book contains belong to the list of the orator's strongest, and it is a happy thought which impressed Mr. Ogilvie sufficiently to determine upon their publication. The pamphlet is neatly printed, of a type liberal in size, so that old eyes will not tire in their perusal, and the price is moderate enough—twenty-five cents. The lectures may be obtained separately at ten cents each. The office of the publisher is 29 Rose St., New York.

THE SCHOOL GARDEN: Being a Practical Contribution to the Subject of Education. By Erasmus Schwab, the Lecturer of the Military College of Vienna. Translated from the Fifth German Edition, by Mrs. Horace Mann. 12mo, pp. 92, paper. Price, 50 cents. New York: M. L. Holbrook & Co.

During the past few years the system of teaching the young, which was so well illustrated by Froebel, has become well known in the United States, especially in New England and some of the Middle States. The "School Garden" takes up the Froebel idea, and adapts it to older children, not as an experiment, however, for the reason that in Europe the matter has passed from experiment to demonstration,

there being in France thousands of schools with gardens attached. In Vienna Dr. Schwab started the movement, and very successfully illustrated the virtues of the system. In Sweden nearly every school has its garden, and the rickety school-houses and disorderly yards which are found associated in almost every part of America, would be looked upon as disgraceful to white intelligence by a Swede. The experiment has been tried in Cambridge, Mass., it seems with the best results, so that we have now a prospect of its pretty general introduction. Mrs. Horace Mann has taken to the subject very heartily, and we have no doubt that her excellent translation, if it can find its way extensively among the reading public, will stimulate effort to make the school-garden a matter of course in every progressive American community.

ECHOES OF CHILDHOOD. *Old Friends in New Costumes. For the Risen and the Rising Generation.* By L. A. Gobright, author of "Recollections of Men and Things at Washington," with illustrations. 12mo, pp. 95, cloth. Philadelphia: Claxton, Remsen & Haffelfinger.

This author gives us new readings of "Jack and Jill," "Mr. and Mrs. Spratt," "The Old Woman Under the Hill," "Three Wisemen of Gotham," "Little Jack Horner," and a dozen other rhymes familiar to our early childhood. With humorous art he has gone "behind the scenes," and traced for our amusement or edification many of the motives which might be supposed to have lain at the bottom of the conduct of the distinguished heroes and heroines of the ancient rhymes. For instance, we are told that "The Old Woman Under the Hill" teaches us "a lesson of humility," that—

"Her mansion was not a mansion large,
With windows broad and high,
And ample grounds and ornaments
Which riches could supply.

"But how she lived or kind of home,
The poet does not state,
This seemed a trifle in his mind
That he does not relate.

"The fact that she her domicile
Under the hillside made,
Not in the sun's exposing blaze,
But in the softened shade,

"Shows that she lived an humble life
Which envy could not reach,
And that her ways, unheralded,
Should e'er contentment teach."

And so on for a dozen more verses of similar poetic vigor.

THE DANCE OF DEATH. By William Herman. Third edition, 18mo, pp. 181. New York: The American News Company.

A very powerful denunciation of dancing, this, yet candid and logical in argument. A picture of society at the *soirée* or *sociable* or ball is given

us, with its moral features most conspicuously exposed; and the reader is made to realize, if graphic earnestness can impress him or her, the dangers of promiscuous dancing. Upward of sixteen thousand copies of this little book have been sold, and it would be well for the moral and physical health of the masses were a million copies distributed throughout the country. There are thousands of families that need enlightenment on the tendencies of dancing as commonly practiced.

PUBLICATIONS RECEIVED.

THE QUAKER CITY INDEPENDENT AND PHRENOLOGICAL ADVOCATE, of Guernsey County, Ohio, is a lively sheet, in which local interests appear to have ample consideration, while the phrenological department is well furnished with articles, notes, and comments of an attractive and edifying nature. The editor, so far as his paper is concerned, presents the philosophy and practice of the subject in the clear and definite manner of a well-read student and experienced observer.

FOURTEENTH ANNUAL REPORT of the National Temperance Society and Publication House, presented at New York, May 9, 1879, shows advancement in public opinion with regard to the liquor question.

MOORE'S RURAL LIFE: an Illustrated Journal for Suburban, Village, and Country Homes. D. D. T. Moore, editor. The initial number of this new enterprise on the part of Mr. Moore is very promising. It is in large form, well arranged, copiously illustrated, and neatly printed, its topics covering many departments of interest to our social and industrial life.

THIRD REVIVAL YEAR AMONG SEAMEN IN the Port of New York, January, 1879. Being the sixty-first annual report of the Society for Promoting the Gospel among Seamen, known as the N. Y. Port Society. A most worthy missionary enterprise.

COLLEGE LIFE: its Potency and Promise. An Address delivered by Rev. Francis N. Zabriskie, D.D., before the Alumni Association of the University of the City of New York, June 20, 1878. A most admirable portrayal of the various aspects of the student's career, and abounding in rare and useful suggestions.

THE TWELFTH ANNUAL REPORT OF THE HOME FOR INCURABLES, approved and ordered to be printed by the Board of Managers. This home is situated, the report has it, at Fordham, in the upper part of New York city. If the managers do as well for their institution as they are able to do in the way of getting up a neat, readable, and somewhat elaborate report, it must be very successfully established, and they who are its inmates may be accounted well provided for in this world.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 69. 1879.

NUMBER 2.]

August, 1879.

[WHOLE NO. 489.]



WILLIAM LLOYD GARRISON.

JANUARY 1st, 1863, the day when the "Proclamation of Emancipation" went into operation, may be said to have terminated the long period of agitation with respect to slavery in the United States. Thirty years before the country was convulsed with

excitement from Maine to Mississippi. North and South the friends of slavery and the advocates of "equal rights for all men" were arrayed in fierce controversy, which even on the floor of Congress turned to brutal attacks, and in Boston, the vaunted "cradle of liberty," resulted in popular disorder and violence. Conspicuously foremost as an opponent of slavery, the acknowledged leader of abolitionism, was the subject of our sketch, whose decease on the 24th of May in New York has naturally enough revived memories of the famous anti-slavery period.

A character so well known as Mr. Garrison's needs no interpretation. The attitude in which he placed himself before the country drew the closest scrutiny of both friends and foes, and his every word and act were made themes of criticism. It is probable, that with the one exception of Abraham Lincoln, no man since the days of Washington has been more thoroughly analyzed than William Lloyd Garrison. Frank, fearless, impetuous, inquisitive, proud-spirited, emphatic and determined, his speech and conduct declared the motives and methods of the man, so that the observer had little room for speculation or conjecture. Some were deceived by his very openness and transparency, but they were few, and either not in sympathy with his aim or incapable of comprehending its magnitude. As we now view the portrait, we note the definite outline of the face and head as a whole, and are reminded of the clearness with which he formulated his purpose, when a young man of but twenty-five, a purpose which he knew would on its first announcement excite popular opposition, and if vigorously conducted, tend to widespread agitation and revolution. We note also the impress of decision in every line of the mouth and chin, and of power in the square jaws, broad forehead, and wide cheek-bones.

The Motive temperament is well pronounced in the organization, but there is also a high development of the Mental. His faculties acted with great celerity and strength, yet harmoniously, and their exercise although prolonged was attended with little friction and weariness. He was of rather tall stature, erect and dignified in bearing, yet winning and kind, his face always wearing an expression of gentleness and sympathy. His hair was originally light brown, and his complexion of that smooth, clear type which indicates a good circulation and considerate habits. Benevolence was the mainspring of his religious and emotional life, while immense Firmness and a good degree of Combativeness were present to sustain the philanthropical designs of his robust years.

MR. GARRISON was born in the old town of Newburyport, Mass., December 12, 1804, and at the age of ten was apprenticed to a shoemaker at Lynn. His childhood had many shadows and sorrows, for his father, a captain of a trading vessel, was a drunkard, and had abandoned his mother and her children to their destitution. The boy Garrison did not remain long at the cobbler's bench, but returned to Newburyport, where he supported himself as best he might, and attending school as he obtained opportunity. When he was fourteen he was apprenticed to a cabinet-maker; but he did not like the business, and soon after, to his great satisfaction, secured a place in a printing-office. At sixteen or seventeen he began to write upon subjects of public interest, sending his articles anonymously to the editor. He wrote, also, for other papers, notably the *Salem Gazette*, under the signature of "Aristides." In 1826 he began a paper of his own, which failed within a year; and later, in 1828, we find him the proprietor and editor of the Bennington (Vt.) *Journal of the Times*, probably the first distinctively anti-slavery journal ever published in America. It lived "neither peaceably nor prosperously" for about one year. Its owner next went to Baltimore, and in association with Benjamin

Lundy, whose name is prominent in the history of his period, established the *Genius of Universal Emancipation*, a title that reflected clearly the aspirations of its principal editor. This journalistic effort came to an end in about two years.

On the 1st of January, 1831, Mr. Garrison issued the first number of the Boston *Liberator*, the "fiercest, ablest, longest-lived, and most famous of anti-slavery newspapers;" the last number of which appeared on the 31st day of December, 1865, its occupation being gone. Its history is the chief part of the fame of the man "whose voice and pen," to use the words of the late Senator Henry Wilson, "were among the most potent influences that produced the anti-slavery revival of that day."

With how much earnestness and devotion he threw himself into this agitation, is evident from one incident which is specially worth mentioning in this connection. While he was connected with the *Genius of Universal Emancipation*, a Newburyport ship took a cargo of slaves from Baltimore to Louisiana. Mr. Garrison denounced it as "domestic piracy," and declared that he would "cover thick with infamy" all who were engaged in the transaction. At once Baltimore was all excitement. He was prosecuted and convicted for "a gross and malicious libel" upon the captain of the ship and Francis Todd, the owner, and was imprisoned for forty-nine days, until the fine and costs were paid by Arthur Tappan, of New York. Henry Clay had been appealed to on his behalf, and was about to pay the fine, and Daniel Webster spoke kindly and hopefully to the young man on his release.

His moral convictions carried him so far that he would not vote, because voting would be a recognition of the Constitution, which he held to be a bond of slavery. He claimed for women an equal liberty of choice and action with men, and refused to sit in the "World's Anti-slavery Convention" in England, in 1840, because women were excluded from it as delegates. Soon afterward the American Anti-slavery Society divided upon the question of the participation of women, and the part that favored it became

known to the world as the Garrisonian Abolitionists. In 1843 Mr. Garrison was chosen President of the American Anti-slavery Society, and held the office until the war ended and slavery was abolished.

After the close of the war Mr. Garrison was not very active in public affairs. He felt as if his life-work were ended. Almost his last appearance before the public was as the author of an indignant and eloquent protest against the policy of the anti-Chinese bill, for to the end he was true to the words of his motto, that "liberty is the inalienable right of every man, independent of the color of his skin or the texture of his hair," and he regarded all mankind as his countrymen.

When speaking in public Mr. Garrison was stern, rigid, exact, straight as an arrow; he looked directly in front of him, and made few gestures and those incisive; he abhorred rhetoric, and stopped when he had said his "say." Wendell Phillips once observed: "Of all men, Garrison is the hardest for a speaker to come after," so strong was his hold upon an audience.

In 1834 he married Helen Eliza Benson, of Brooklyn, Connecticut, a lady about six years his junior, and the union proved a happy and fortunate one. Of his domestic conduct Mr. Oliver Johnson has written very enthusiastically in terms like these:

"Mr. Garrison's devotion, as a husband and father, was one of his most beautiful characteristics. He never made his public relations an excuse for neglecting his family. Did one of the children cry in the night, it was in his arms that it was caressed and comforted. In every possible way, in the care of the children, and in all household matters, he sought to lighten the cares of his wife, taking upon himself burdens which most husbands and fathers shun. In short, he made his home a heaven, into which it was a delight to enter. He was never so happy as when surrounded by his wife and children and a few favored guests. Under such circumstances he was at his best—happy as a bird, genial, witty, and full of a generous hospitality. His reverence for woman was strong, and no one ever heard from his lips a word or a sentiment that could bring a blush to her cheek. He had

a tender regard for the feelings of others, and was always thoughtful for their comfort and convenience. He was kind even to the bores that haunted his office and house, consuming his precious time by their idle discourse. To the poor and the unfortunate his heart and his purse were ever open. As a guest in other homes he was a great favorite. Children were drawn to him by an irresistible attraction. His conversation,

though generally serious, often sparkled with wit and fun."

Mr. Garrison's wife died several years ago. Two of his children, a son and a daughter, died in infancy. The others, five in number, four sons and one daughter, still live, and all ministered to him in the last hours which closed the life of one of the most remarkable men America has produced.

DO ANIMALS BLUSH?

I REMEMBER that John Neal, in one of his novels, describing the fine sensibilities of his heroine, says "she blushed from head to foot," an assertion by no means startling to women conscious of a glow over the whole person at some experience likely to cause a rush of blood to the cheek; but the critics made themselves merry at the expense of the author, and now that science has taken the blush in hand, Darwin, from extensive observation, inclines to the opinion that the blush is mostly limited to the *face and neck*; that it is hereditary, and confined to the human being.

We can not prove that animals do or do not blush, from the reason that the face being encumbered generally with hair or feathers, conceals the fact; but we all know that the eye changes with emotion, and the whole expression also, as under the blush, so that many a lover of a fine dog is aware that the blood must recede or rush to his face when his eye glows, or sinks aside at the emotions of delight, or the presence of pain. If the blush is the expression of self-consciousness, or is wholly allied to it and some moral consciousness, I do not see why the germ of it may not exist in the inferior animals, just as we find the germ of many of our moral ideas in them—such as honor, fidelity, reverence, and most discriminating affections. If shyness, shame, and modesty produce the blush, as Darwin argues; a sense that others are looking at us and estimating us in some way, and this consciousness has caused the blush to come down to us with all its complications through eons of existence, I do not see why it may

not have made expression upon the face of inferior creatures, though in a less degree. It seems to me that this beautiful banner cast over the countenance, which is at once charm and protection, must have arisen coeval with the dawn of observation and reason, and unless purely moral in character, must have been evolved with the earliest steps of intelligence, whether in brute or man.

I once wrote an apologue in which I imagined our mother Eve weeping with combined awe and love over the birth of her first daughter; remembering the lost joys of Paradise, and the forbidden fruit first plucked by her own daring hand, she trembled at the destiny of this reproduction of herself. Suddenly the Angel of the lost Eden stood before her, and asked what gift she would have for this new, lovely creation.

"Something," exclaimed our ancient mother, "that shall be both a shield and warning—that shall speak like an inward voice at the approach of evil."

"That thou hast already in the monitor, Conscience," returned the Angel.

"True, but even that may be silenced, and even that may be blind and ignorant."

"Thou hast well spoken," said Raphael. "Thou wilt behold on the cheek of thy daughter that which hath never mantled thine own."

He took his departure, and years passed away before Eve comprehended the gift; but when her daughter merged from childhood into the graces of maidenhood, then she learned that the Angel's gift was the Blush.

Sir C. Bell says the "Blush is not acquired; it is from the beginning." Dr. Burgess believes "it was designed by the Creator in order that the soul may have sovereign power of displaying in the cheeks the various internal emotions of the moral feelings; a check upon ourselves, and a sign to others that we are violating rules that ought to be held sacred." Gratiolet regards it as the natural sign of the high perfection of man.

These regard the blush as the natural endowment of man when he was first made in the image of his Creator; but all this is in a fair process of expurgation by the scientific process of evolution, which would have it that the blush is an emotional expression making its way through untold impediments, by heredity, and men and women getting better acquainted with themselves. It has now become an immense capital in the hands of novelists and poets, even the ideal and sublime Milton making his angel blush "Celestial rosy red, Love's proper hue." The beautiful Circassian commands a higher price in the slave market when addicted to the blush. Laura Bridgeman, though blind and deaf, is well known to blush.

Dr. Darwin says, "Blushing is the most peculiar and most human of all expressions. It would require an overwhelming amount of evidence to make us believe that any animal could blush."

Monkeys redden with rage or pleasure; the wattles of the turkey redden in their courtships; the bills of the canary grow bright, or turn pale with emotion; the eyes of albinos, which have the retina red, turn more red when they blush—why is not this akin to the lustrous eyes of the dog when he greets the return of his master? and why are not these appearances the first steps toward the blush?

I had for fourteen years, a pet macaw—a fine, large, gold and green bird, very intelligent, and most affectionate of nature. The face of Montezuma, or Monté, as we called him, was not covered with feathers, but was prettily marked with exceedingly small feathers, that had the appearance of cords or lacings to a helmet, while otherwise his face was bare. He had not been long in

my possession before I learned that emotional expressions might be as clearly read in his face as in that of a human being. Monté would redden with delight, grow pale with fear, and a sort of gray, ashen hue come to his face under disappointment. "See how Monté blushes!" was a common exclamation in the family. He was a creature capable of choice, attaching himself to few, but no sooner did he see myself or my son Edward approach, than his face would redden up, and he would begin to make a sound with his bill that passed for a kiss.

Now, whether this kissing was a trick of his brought from the forests of Central America, or was learned by companionship with the family, I am unable to determine, but he expressed affection in this way, and also by taking our fingers one by one and drawing them through his bill, his eye bright, and face all aglow. He was very fond of children, not because they coaxed him with cakes and candies, for these he often dropped on the ground, at the same time that he had a comical way of seizing the back of his head with his great black claw, and wondering to himself, as much as to say, "That is not what I am thinking about," and then he would shake out his feathers and dance with delight, and scream with the noisy children to be heard nearly a mile away, for Monté had by no means that "excellent thing, a voice gentle and low."

No sooner did Monté see the baby laid in his cradle, than down he came from his perch, and mounting the side, would explode kiss after kiss, his cheeks red, and eyes fixed upon the sleeping child. I wonder what ideas were passing through his poor brain? Human beings blush from emotions of pleasure, and blush when alone and in darkness over remembered incidents—why should not my bird blush? and why should we not call it a blush? and who shall say that in their native wilds the macaws do not scream and blush with their fellows? and who shall say that these memories did not work in my poor bird's brain, and that the baby, nestled in down, did not remind him of a lovely nest shelter-

ed in the dense green of the mahogany tree and aromatic with the citron and banana?

Monté was neither caged nor chained, but allowed to wander at his own sweet will, often exercising this freedom in hunting over house and grounds to find me if I were long away from him, and then when found, he would blush and kiss and scream "Mamma," "Mamma," with delight. I had a hammock stretched under the oak trees; no sooner did Monté see me taking my book or paper to enjoy this lazy luxury, than I would hear him talking, suspiciously and critically, to himself (for I more than once caught him not altogether reverent in language), and he would make his way over the green, up the bole of the tree, follow the rope down to the side of the hammock, and there sit and rock, sometimes with head behind his wing, with a dreamy human sense of comfort. He certainly dreamed at these times, for he would start up and look about him as if expecting something that never came, and then he would kiss my fingers as the best substitute he could obtain, and then drop away to sleep, doubtless imagining himself back to his old haunts. I had many misgivings about his exile among us, and misdoubted whether his superior attainments could compensate him for the loss of old associations.

Monté was not heroic, his plane of existence did not comprise the hardier virtues: a wasp or a bee would cause him to turn deathly pale, and forthwith he uttered a great scream and took to flight. At one time his perch had been incautiously placed near a lilac hedge in which some cat-birds had built a nest. Whether Monté had been satisfying his curiosity by peeping into the nest, or whether the cat-birds were the aggressors, can never be known, but he set up such a tremendous succession of screams and yells that I made haste to see what could be the matter. There was Monté ingloriously on his back, claws grappling with the air, bill distended, and face pale with terror, while two feathered imps of darkness were worrying the life out of him by pouncing down, first one and then the other, aiming mercilessly their

sharp beaks at the face and eyes of my favorite.

Monté was not a great talker—he called me "Mamma," and "Madam" when ungentle in spirit. Edward was the only name he pronounced, and this he uttered as distinctly as human lips could do, and with a tender intonation quite touching. We do not half appreciate the sensibilities of our partially dumb friends, the depth of their social affections, and the consequent depth of their sufferings, when familiar companions are taken from them—the assurances of reason indicated by many of their acts, and the germs of a moral sense implied by demonstrations poorly understood by us.

Edward had been in the habit of taking Monté upon his shoulder while studying, and rambling the woods with Monté and his books, and no sooner did the latter see his friend, book in hand, than he fluttered his wings, and blushed and kissed, and called "Edward" coaxingly for his accustomed privilege; but in the course of time his gentle companion, the soul of all sweet sympathies, went away never to return, crossing the dark river, and leaving us only the memory of what had been, and the hope of what might be. Monté sensibly pined, grew silent and sat mopingly upon his perch, breaking out every now and then with a deprecating cry of "Edward, Edward," as if he would reproach him for neglecting his old familiar friend, and thus it passed on for five years, and he never entirely recovered his old life and buoyancy, though his affection for me assumed more of concentrated devotion.

I might fill pages with testimonials of his intelligence and sensibilities.

I held him in my arms all night as I saw he must leave me. He allowed me to wrap him in flannel, and laid his head upon my breast like a sick child; sometimes he would faintly kiss me, but he was deadly pale and weak, and took little notice. As the morning dawned he suddenly shook off the flannels, fluttered to his feet—the blush glowed upon his face, and crying "Edward, Edward," he fell back—dead.

Who shall say that this half-reasoning bird, this creature so replete with tenderness, did not see his beloved, his long lost friend in this his hour of departure?

ELIZABETH OAKES SMITH.

ALCOHOLISM TREATED PHRENOLOGICALLY.

ONE of Mr. Joseph Cook's recent lectures and one of the most forcible of his usually strong discussions of vital questions, reviewed the influence of liquor-selling and drinking on society. His peroration in this instance was grand, and contained so much of Phrenology that it is in place to repeat it in our pages :

It is to be remembered that by the law of local affinity the dose of alcohol is not diffused throughout the system, but is concentrated in its chief effects upon a single organ. When a man drinks moderately, though the effects might be minute if dispersed through the whole body, yet they may be powerful when most of them are gathered upon the brain. They may be dangerous when turned upon the intellect, and even fatal when concentrated upon the primal guiding powers of mind—reason and moral sense. It is not to the whole body that the moderate glass goes ; it is chiefly to the most important part—the brain ; and not to the whole brain, but to its most important part—the seat of the higher mental and moral powers ; and not to these powers at large, but to their helmsman and captain—Reason and Conscience.

"Ship ahoy ! All aboard ! Let your one shot come," shouts the sailor to the pirate craft. Now one shot will not shiver a big ship's timbers much ; but suppose that this one ball were to strike the captain through the heart and the helmsman through the skull, and that there are none to fill their posts, it would be a terrible shot indeed. Moderate drinking is a charmed ball from a pirate craft. It does not lodge in the beams' ends. It cuts no mast. It shivers no plank between wind and water. It strikes no sailor or under-officer, but with magic course it seeks the heart of the captain and the arms of the helmsman, and it always hits. Their leaders dead, and none to take their place, the crew are powerless against the enemy. Thunders another broadside from pirate Alcohol, and what is the effect ? Every ball is charmed ; not one of the crew is killed, but every one becomes mad and raises mutiny. Cominand-

ers dead, they are free. Thunders another broadside from the pirate, and the charmed balls complete their work. The mutinous crew rage with insanity. Captain Conscience and 'steersman Reason are picked up, and, lest their corpses should offend the crazy sailors, pitched overboard. Then rages Jack Lust from one end of the ship to the other. That brave tar, midshipman Courage, who, in his right mind, was the bravest defender of the ship, now wheels the cannon against his own friends and rakes the deck with red-hot grape until every mast totters with shot-holes. The careful stewards, seamen Friendship and Parental Love, whose exertions have always heretofore provided the crew seasonably with food and drink, now refuse to cook, furnish no meals, unhead the water-casks, waste the provisions, and break the ship's crockery. The vessel has wheeled into the trough of the sea ; a black shadow approaches swiftly over the waters, and the compass and helm are deserted. That speculating mate, Love of Money, who, if sober, would see the danger and order every rag down from jib to mainsail and make the ship scud under bare poles before the black squall, now, on the contrary, orders up every sail and spreads every thread of canvas. The rising storm whistles in the rigging, but he does not hear it. That black shadow on the water is swiftly nearing. He does not see it. In the trough of the sea the ship rocks like a cockle-shell. He does not feel it. Yonder before the dense rush of the coming blow of air rises a huge wave, foaming and gnawing and groaning on high. He does not hear it. With a shock like the opening of an earthquake, it strikes the broadside ; with a roar it washes over the deck. Three snaps like a cannon, and the heavily-rigged masts are gone ; a lurch and sucking-in of the waves, and the hold is full of water, and the sinking ship just survives the first heavy sea. Then comes out Mirthfulness, and sits astride the broken bowsprit, and ogles a dancing tune. The crew dance. It were possible even yet so to man the pumps and right the helm

as to ride over the swells, and drive into port; but all action for the right government of the ship is ended. Trumpeter Language mounts the shattered beams of the fore-castle, and makes an oration. It is not necessary to work, he tells the crew, but to hear him sputter yarns.

It is fearful now to look upon the raging of the black sea. Every moment the storm increases in fury. As a giant would toss about a straw, so the waves handle the wrecked timbers. Night gathers her blackness into the rifted clouds, and the strong moaning sound of the storm is heard on the dark ocean. By that glare of lightning I saw a sail and a life-boat! Men from another ship are risking their lives to save the insane crew whose masts are gone. They come nearer, but the boat bounds and quivers, and is nearly swamped upon the top of a wave. Jack Courage and Independence see the boat coming. "Ship ahoy!" shout the deliverers. "Life-boat from the ship Temperance! Quit your wreck and be saved!" No reply. Independence grinds his teeth and growls to Jack Courage that the offer of help is an insult. "I will tell you how to answer," says Jack, stern and bloody. There is one cannon left with a dry charge. They wheel that upon the approaching boat, and Independence holds the linstock over the fuse-hole. "Life-boat for sailors on the wreck," shouts Philanthropy from the approaching boat. "What answer, ship immortal?" Then shoots from the ringing gun a tongue of flame, and ten pounds of iron are on their way. The Temperance boat rocks lower from the wave-top, and the deadly reply just grazes the heads of the astounded philanthropists and buries itself heavily in their own ship beyond. It was an accident, they think, and leap on board the ship and stand upon its deck. Then flash from their scabbards a dozen swords; then click the locks of a dozen muskets; then double the palms of a dozen fists; then shake the clubs of a dozen maniac arms, and the unsuspecting deliverers are murdered on the deck they came to save. As the lightning glares I see them thrown into the sea, while thunders are the dirge of the dead and the damnation of the murderers.

The drunken ship is fast filling with water. Not a man at the pumps, not an arm at the helm. Having destroyed their friends, the crew fall upon each other. Close under their bow rave the breakers of a rocky shore, but they hear it not. At intervals they seem to realize their condition and their power even yet to save themselves, but they make no effort. Gloom and storm and foam shut them up against hell with many thunders. In this terrible extremity Independence is heard to refuse help, and boasts of his strength. Friendship and Parental Love rail at thoughts of affection. Language trumpets his easy yarns and grows garrulous as the timbers crack one after another. Rage and Revenge are now the true names of Firmness and Courage. Silly Mirth yet giggles a dance, and I saw him astride the last timber as the ship went down, tossing foam at the lightning. Then came a sigh of the storm, a groaning of waves, a booming of blackness, and a red, crooked thunderbolt shot wrathfully blue into the suck of the sea where the ship went down.

And I asked the names of those rocks, and was told: God's stern and immutable Laws.

And I asked the name of that ship, and they said: Immortal Soul.

And I asked why its crew brought it there, and they said: Their Captain Conscience and Helmsman Reason were dead.

And I asked how they died, and they said: By one single shot from the Pirate Alcohol; by one charmed ball of Moderate Drinking!

On this topic, over which we sleep, we shall some day cease to dream.

"It's no in titles nor in rank,
 It's no in wealth like Lon'on bank,
 To purchase peace and rest;
 It's no making muckle mair,
 It's no in books, it's no in lear,
 To make us truly blest!
 If happiness ha'e not her seat
 And centre in the breast,
 We may be wise, or rich, or great,
 But never can be blest!
 Nae treasures, nor pleasures,
 Could make us happy lang;
 The heart's aye the part aye,
 That mak's us richt or wrang!"

—BURNS.

MENTAL SCIENCE IN CHINA.

IN the April number of the PHRENOLOGICAL Mr. W. G. Benton supplies a paper on the home life of the Chinese, in which he

wise man's discourse. On the front of the table are certain mysterious characters, which we may assume to be an advertisement of the peculiar nature of the art practiced by the gentleman behind it.



CHINESE PHRENOLOGIST.

describes many scenes and incidents of his own observation during a visit in the "Flowery Kingdom." He mentions the fact of there being men among the Chinese reputed very wise, whose calling is akin to that of the phrenologist of Western civilization. They examine the heads of old and young, give advice with respect to the education and training of the latter, and their opinions appear to be accepted by the masses with implicit confidence. "They seem," Mr. Benton says, "to have discovered that the contour of the cranium has some relation to the mental aptitudes," and its coincident practice of examining heads is claimed by them to be of ancient origin. The engraving is taken from a photograph made in Shanghai, and represents the "Celestial" phrenologist descanting on the mental organization of a boy, while

on the opposite side of the table the boy's father is listening in rapt attention to the

The second engraving illustrates a common feature of Chinese life, the street "doctor." Men professing extensive acquirements in the higher art of Apollo, station themselves on the sidewalk and spread out their potencies in the shape of roots, dried bones, scraps of this or that, even parts of toads and other reptiles being deemed remedial in certain maladies.

Very remarkable stories have been told of the peculiar medical practices of the Chinese; their appeal to powers supernatural, incantations, jugglery, and how in some cases the patients are beaten and manipulated in most grotesque fashion. The regular or "scientific" physician among them is paid a fee for keeping his clients well and receives nothing when they are sick. In principle this seems a very satisfac-



"CHINESE STREET DOCTOR."

tory arrangement, and would doubtless take well if introduced this side of the globe.

EDWARD PAYSON THWING.

HERE are the indications of refinement and high quality and culture. The subject of this portrait has lived evidently in a region where the themes which have exercised his faculties relate mainly to morality and to the esthetics of literature. One examining this face can hardly avoid the impression that he has had scarcely enough to do with the outside and rough phases of life, with the mechanical or muscular features of human industry for the development of his physical qualities. The base of his brain is relatively small and narrow, indicating a lack of constitutional vigor at the same time that it does a life in the upper realms of thought. One of his stamp is naturally given to intellectual and moral improvement for one's self, and also to reformatory effort for the sake of others.

His Benevolence is very strongly marked. Kindness and sympathy are among his most influential traits, and largely control whatever may be the line he pursues. He is an earnest, thoroughgoing man. Work which enlists his sympathies is entered upon with enthusiasm. He knows no half-way measures in this kind of activity, and thus tends to use up his strength rapidly and keep himself below par in health. He bears the appearance of a man who is insufficiently nourished. He needs to have a special regard to his health; should order his everyday habits with respect to supplying brain and body with ample nutrition.

Ideality is an organ which is conspicuously developed. He has very delicate sensibilities, affecting whatever relates to the artistic, elegant, and refined. His Cautiousness is large, inclining him to avoid precipitancy or rashness; it leads him to regard all the consequences of action. He has fair financial talent, so that he considers the in-

terests of economy and is prudent in the expenditure of money.

His enthusiasm usually vents itself in personal effort, in the giving of his mind and hand to promote any undertaking; he will go as far as any one in self-devotion to a worthy purpose; but his management of fiscal matters, especially as an agent for others, would be characterized by discretion. He appreciates duty; has a very sensitive regard for the estimate in which he is held by others, and never assumes responsibility with indifference. We would give him, if we could, a stronger body, better digestive power, more capacity in the way of manufacturing nutriment. His large brain and very active temperament demand copious supplies of nutrition; they need an abundant circulation of red blood. He ought to weigh one hundred and seventy-five pounds to supply the stock of vitality his very active nervous system needs, and such a physical condition would enable him to work out his purposes with more satisfaction to himself. As matters are, he should be moderate in his demands upon the brain; if possible, live more in the realm of the animal faculties, that he may acquire balance or harmony between the brain and body.

EDWARD PAYSON THWING, of whom the foregoing physiological notes are predicated, is the pastor of the Church of the Covenant, in Brooklyn, N. Y. He was born on the 25th of August, 1830, at Ware, Mass., and is the only son of the late Deacon Thomas Thwing. His early educational training was excellent, and ultimated in a degree from Harvard College, in the summer of 1855; after which he spent a short time in European travel, and then studied theology at Andover.

He was licensed to preach December 29, 1857, and ordained minister of the St. Law-

rence Street Church in September, 1858. Four years later he was called to Quincy, Mass. There he remained five years, when impaired health compelled him to seek release, and he spent some time in travel, meanwhile lecturing on literature and religious subjects. For two years he supplied the Second Church of Westbrook, Mass., and in 1870 accepted the Professorship of Vocal Culture at Gorham Seminary, Maine.

institutes. He was in 1866 editor of the *Home Monthly*, Boston, and has had since that year a connection with the *Herald and Presbyterian*, Cincinnati, and is now editor of a department in the *Homiletic Monthly*. He has published several books, two of which are worthy of particular mention, to wit: a "Handbook of Illustrations," and a "Drill Book in Vocal Culture." He has lately been lecturing in the Theological



EDWARD PAYSON THWING.

Later, Professor Thwing occupied the chair of Sacred Rhetoric in Lay College, Brooklyn, for four years. He has lectured also at the Boston Lay College. In the spring of 1876 he began his professional work with the Church of the Covenant, and on the 12th of May following accepted a call to become the acting pastor. Aside from his ministerial labors, Professor Thwing lectures on various subjects, Vocal Culture in particular, before the public and at educational

Seminary at New Brunswick on Vocal Culture. A parishioner of Professor Thwing says of him: "He is proverbially a gleaner, the bulk of selections do little more than to present old ideas in a new dress; but he does more, nicely adjusting and wisely discriminating as to their relative importance. These productions are so widely spread in various periodicals, that thousands are made acquainted with and benefited by thoughts condensed and presented in a unique form.

As a public speaker, also, he gives from pulpit and platform these fruits of research, which can not be otherwise than largely advantageous to the community."

He is of medium height, rather slightly built, with delicate features and a volumi-

nous head, whose shape, like the general character of his face, is well represented by the engraving, and marks him a very active man, earnestly given to the work in which he is engaged, especially in its relation to literature and reform.

BRAIN AND MIND.

THE CRIMINAL CLASS—THEIR TREATMENT.

THE laws of mental activity which have been discussed in the foregoing remarks on the training of children, are universal in their application. All conduct, the virtuous as well as the vicious, has its origin in the mental organs, and to them we should go in our endeavors to root out vice and to promote virtue; for no reform can be permanent which does not reach back to the sources of moral conduct. Hence in our treatment of criminals it is not enough that we shut them up in prison and train their hands to some useful employment. This treatment is good so far as it withdraws them from the natural stimulus of their evil propensities and calls into activity the higher power of intellect; but we can not hope to reform them and make them good citizens unless our influence reaches their moral sentiments. These must be called into exercise and trained to exert their proper influence in the mental economy, to control the inferior powers of mind, else we can have no assurance that the criminal will not relapse into crime as soon as he is released from physical confinement. In dealing with the criminal classes it should be remembered that they are such in consequence of a preponderance of the animal nature over the moral, a positively unbalanced mental condition, and that they are therefore as truly deserving of sympathy as the deformed or the idiotic. The better class of the community—those

whose higher faculties exercise an habitual control over the lower—are, in a social sense, the keepers of these unfortunates. It is for them to remove temptation as far as possible from the propensities of their weaker brethren; to destroy all causes which inflame their animal passions, and to surround them with those influences which tend to call forth whatever may exist in them of the qualities which dignify and ennoble human nature. In the performance of these duties their own moral sentiments will be rendered habitually active, and thus develop a truer manhood, while at the same time they are lifting their unfortunate fellow-men from degradation, rendering them self-helpful, and relieving the community from the unhappy results of crime.

Brain and National Growth.—The customs and institutions of a people can never be superior to their mental development. If we examine the crania of the different nations of the earth, we may find a direct correspondence between them and the degree of the nation's civilization; and the typical cranium of any period in a nation's progress from barbarism to the highest civilization is an indication of the development of their mental organs; and from this development we may infer in general the character of their pursuits, their amusements, and their institutions.

All our schools and institutions of learning promote popular advancement

by the cultivation and development of the intellectual faculties, and, coincidentally, knowledge is diffused. Our asylums, our prisons, and reformatory institutions are useful to society in so far as they tend to place a restraint on the undue activity of the propensities, and to secure the normal and harmonious activity of the mental faculties. Our laws and political institutions are indispensable to the welfare of the people, because essential to regulate the activity of the selfish and physical faculties; and our religious societies are in the highest degree promotive of human progress, because while they inculcate precepts which appeal directly to man's moral nature, and thus tend to exercise those powers which are naturally constituted to promote virtue and to repress vice, they present the most powerful motive to right conduct by linking the concerns of the present life with a future and spiritual one. The physiologists are wont to refer to crania like the Neanderthal, Mentone and Calaveras skulls as representative of the mental conditions of ancient man.

A General Conclusion.—After what has been said, it may be unnecessary to observe that the material organs of the mind are the basis on which all human improvement, as it is exhibited to our physical consciousness, must be built. There can be no progress except through the instrumentality of these organs, and any reform in the life and conduct of an individual must take place in accordance with the laws which govern their activity. Experience may teach us in a vague and indefinite manner the general method by which these laws operate, as experience will teach the farmer the general method of managing his soil and crops. But as the farmer who ignores science, as it is related to his vocation, would

be liable to defeat his own best interests frequently through ignorance of the laws and conditions under which nature operates, so the most strenuous endeavors of the virtuous and benevolent in behalf of the amelioration of their fellow-men will often prove abortive and defeat their own ends, unless guided by a thorough knowledge of the mental constitution, its laws, and modes of activity.

CHAPTER XV.

VALUE OF PHRENOLOGY AS AN ART.

PHRENOLOGY, as a system of mental philosophy, is superior to any other science of mind which has been formulated. But beyond the advantages which it possesses over other systems as a science, it stands alone in the application of its principles to the delineation of character. No other system of mental science makes any pretensions to character-reading as an art, but is confined to collecting and collating the facts and phenomena of mind as they appear through consciousness. We do not by any means claim that Phrenology is complete as an art any more than we do that it is complete as a science, or that the most skillful will not frequently make mistakes in judging character from external forms. The chemist, the geologist, the astronomer make mistakes in their respective spheres and are excused, and any one who will give his attention for a little time to the matter, will be able to appreciate the magnitude of the difficulties under which the practical phrenologist often labors in estimating correctly the size of mental organs, the manner in which they combine, the degree in which the activity of each is modified by its combination

with others, and the effect of the modifying conditions of temperament, health, education, activity, etc. And any one who will make himself familiar with the grand principles of the science, so as to comprehend their immense practical utility in all the concerns of life, will concede that it is worthy of the very highest consideration, although its application to the delineation of character were a chimera.

But while the deductions of the practical phrenologist may not always possess the certainty of a mathematical demonstration, we claim for Phrenology as an art, peculiar and important advantages. In our social, domestic, and business relations the characters of those with whom we have to deal are linked in a very important degree with our individual interests. Merchants are liable to be defrauded by employing dishonest clerks. Persons in the employ of the Government frequently embezzle funds which are intrusted to their care; servants often cause their employers much inconvenience and annoyance through their incompetency, and their deceitful and unamiable conduct; in short, we are liable to be continually deceived by those with whom it is necessary for us to deal, but whose characters are unknown to us by experience. It is true in general that we need not place our property in the hands of others without exacting bonds for their good conduct, or employ clerks or servants without a certificate of previous good character. But bonds do not always save us from loss, and recommendations are by no means assuring. We need to make use of every safeguard, and any means which will increase our security in the good conduct of those with whom we have to deal should be assiduously cultivated. If the experienced practical phrenolo-

gist were always at hand to pronounce judgment on the character and ability of those seeking places of trust and responsibility, we feel confident that losses to employers from dishonest and incompetent employes would be greatly diminished. The phrenologist should be consulted just as the lawyer or the doctor is, and a certificate of character from his hands should be deemed as essential to one seeking employment as a recommendation from a previous employer. If the two certificates agreed, we might rely with confidence on the character which they ascribed to the individual, while any discrepancy between them would naturally put us on our guard, and lead us to make careful inquiry into the character which the person had previously borne.

SOME ILLUSTRATIONS.

As an instance of the practical utility of Phrenology when applied in the manner above recommended, Mr. Combe relates that in one instance he refused to hire a boy because he found that his head indicated a low grade of development, although the boy was introduced by a woman whose good conduct and discrimination he had long known, and who gave him an excellent character. The woman was at first greatly incensed by Mr. Combe's refusing to engage the boy; but within a month she returned, and said that she had been greatly imposed upon herself by a neighbor whose son the boy was; that she had since learned that he was a thief, and had been dismissed from his previous service for stealing.

On another occasion, Mr. Combe hired a female servant because of the testimony of her head as to rectitude, etc., although her former mistress gave her a very different character. She

turned out an excellent servant, and remained with him for several years. He afterward ascertained that her former mistress possessed a head of an inferior order and hence was continually nettled by the superior mental endowment of her servant. The servant's ill-humor was naturally excited by the causeless irritability of her mistress, hence she appeared to the latter hasty in temper, obstinate, and disagreeable, and was given a corresponding character.

A year or two since, one of the authors of "Brain and Mind" having occasion to select a house servant, did so in accordance with his knowledge of the human organization. The young woman when first presented to his family did not make a favorable impression, some of its members declaring that her appearance was much against her, and that "she would not do at all;" that there was "an untrustworthy look about her." A week's stay, however, showed her to be a most industrious and faithful domestic, and kindness brought out a strong expression of regard.

The experience of eminent practitioners of Phrenology can furnish hundreds of instances which illustrate the important aid this science confers on society. Scattered through its literature are the acknowledgments of a great multitude of men and women, testifying to the benefit which they received from an examiner's counsel or the reading of a phrenological work. Well might a well-known educator say, "If Phrenology could be proved to be a science, it would be a more beneficent invention than the electric telegraph, because it would help to put the right man in the right place."*

* PRES. HUNTER, New York Normal College.

Of Special Importance Where.—These observations on the application of Phrenology to the selection of clerks and servants have a bearing on all our intercourse with our fellow-men. Even if we lack the practical experience necessary to judge of character from external forms, a knowledge of Phrenology as a science will be found eminently useful in enabling us to analyze the characters of those whom we meet, and to discern the motives and sources of their conduct. How much domestic infelicity might be avoided if the real character of those about to unite in matrimony were laid open to view, and each were enabled to dissect and analyze the mental traits of the other with the critical and dispassionate eye of science! What severe and mortifying disappointments would not many an individual be spared if, when about to choose his life pursuit, he would listen to the voice of science as interpreted by a competent phrenologist, and choose his calling in accordance with his natural endowment. Through ignorance of physiology and the constitution of the mental faculties many parents seem to think that a child may be molded into any form that their fancy may dictate, just as a sculptor would carve an image from a block of marble; and so they place their children under the tutelage of instructors to be developed into successful doctors, lawyers, divines, or men of science. The sculptor can chisel the inanimate marble into any form which may be desired, and the beauty of the image will depend upon the skill of the artist. With the living human subject, however, the law of his being determines the form without. Skillful training may accomplish much for any one, but its influence is limited to developing what already exists as a native endowment.

It can not create a single faculty; it can only work on the material which nature has already supplied, and in accordance with the laws which she has imposed upon it. Hence the importance of making use of every means in our power to ascertain the qualities and faculties which nature has bestowed, that we may co-operate with her in the production of perfect mental forms, and that we may not be found wasting our resources in a futile attempt to mold a colossus out of the material of a pigmy.

To the teacher, the lawyer, the doctor, and the clergyman, a knowledge of this science will be found especially useful. The peculiar vocation of the teacher is to train and develop the youthful mind. In order to be successful in this, it would seem to be of the highest importance that the elements, or faculties, of the mind should be definitely known, and that the laws which govern their activity should be thoroughly understood. Children differ greatly in their mental constitutions, hence the same modes of instruction and discipline can not be employed with equal success in all cases. The teacher should be able to estimate and appreciate this difference that he may adapt his method of instruction to it, and thus act in harmony with nature, and not in antagonism, as one is likely to do who is not conversant with the laws of human organization.

Much of the lawyer's success depends upon his ability to read and comprehend the motives or sources of human conduct. He should be able to discern readily the faculties which are most influential in the character, that, like a skillful General who knows thoroughly the position of the enemy, he may determine when and where to move his forces that they may prove the most effective. Patrick Henry's success at the

bar was due, in a large measure, to his intuitive knowledge of human nature. He studied the faces of jurymen that he might discern the effects of his arguments, and learn how his appeals should be urged in order to win them over to his views.

The clergyman, for many reasons, will find a knowledge of this science highly advantageous to success in his avocation. An individual's religious character is not something which is stamped upon his life by external influences, but results from the calling into activity of powers which the Creator has already implanted within him. "Besetting sins" result more from the unregulated activity of the physical and passional elements than from the influence of circumstances. To teach his people how to overcome these, as well as how to develop their moral faculties, a correct theory of mind is indispensable.

One of the most eminent of American pulpit orators was once asked whether or not Phrenology had aided him in his profession as a preacher, and he promptly replied: "Suppose I were on an island in mid-ocean, and permanently cut off from obtaining anything from the rest of the world, but having all the tools and machinery for raising crops and manufacturing other useful things; and suppose some night pirates should land and rob me of all they could carry off, and burn my books, tools, and machinery, and leave me despoiled and desolate to construct such rude tools as might be possible under the circumstances. Without Phrenology and the aid it gives me in treating of mind, I should be as much at a loss how to proceed effectively in my vocation as I should to carry on farming with my appropriate implements destroyed."

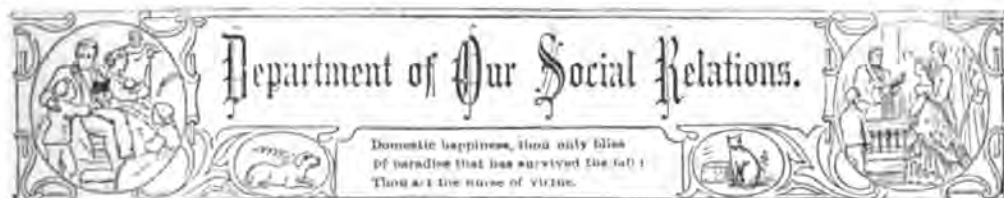
These remarks are applicable in a greater or less degree to every pursuit

where mind comes in contact with mind. To know how to meet men, to avoid exciting their disagreeable characteristics, and to call into activity their kind and amiable qualities, will greatly facilitate our intercourse with them, and prove highly advantageous in promoting our individual interests. Any philosophy which professes to unfold human nature as it is, and to lay open the secret springs of human conduct, is surely worthy of our consideration. And in proportion as such a philosophy is practical and adapted to the every-day needs of men must it be valuable.

The venerable John Neal, long known among American authors of eminence, wrote the following emphatic statement a few years before his death :

"I am asked what I have to say about Phrenology in this age of the world. To which I answer, first, that I look upon Phrenology as now understood, by experts and professors, not only as a science worthy the name of science, but as one of the greatest discoveries, and one of the most beneficent and useful, if rightly employed, that was ever made by mortal man. There was a time when it would have passed for inspiration. But what has it done—what is it doing for mankind? Much every way—ininitely more than the people have an idea of. It is modifying our whole system of education. It is changing all our notions of insanity, and leading to new treatment in our hospitals and courts of justice."*

* AM. PHRENOLOGICAL JOURNAL, Sept., 1866.



TWO KINDS OF SELF-SACRIFICE.

[There is some wholesome truth in this story which we find in an old number of the *Zion's Herald*, and we doubt not that the reader will agree with us in the opinion that such teaching should be well circulated.—ED.]

"WHAT! supper not ready yet!" said Mr. Smith, as he entered the dining-room about half an hour earlier than he usually came from his office.

Such a remark as that Mrs. Smith did not notice, because she would not; but by the expression that passed over her face we saw that it hurt. But, womanlike, no other sign of pain was shown. She awoke that morning with a headache, and, to use her own expression, had felt so miserable all the day that she could hardly drag one foot after the other, but had done her usual week's wash-

ing, and the usual Monday's picking up of papers and books that were scattered all over the house the day before.

"Seems to me I never find my meals ready," said the man, not noticing the tired look on the face of his wife. "All you have to do is just to see to things here in the house, while I have been tramping all over town in this hot sun. It seems as though I should starve to death; I wish you would hurry up supper. Everything has gone wrong to-day. Newton has gone back on his word, and I warrant I shall lose one thousand dollars by him."

After a short pause he continued: "Newton will not sell that land by the home farm, and I shall have to sell some of the cows."

For about a quarter of an hour Mr. Smith poured this kind of "wine and oil" on the

weary heart of his wife, until his burden was somewhat removed. After a few minutes' silence, he said, in a quick, harsh tone: "Do take that baby; he is enough to kill a nation with that everlasting cry; I should think he'd get sick of it."

"His teeth trouble him. Can't you take him a few minutes?" And with a sigh the mother placed the youngest of seven children in her husband's arms, who took the baby in a far different manner from what he did the first, or the second, of their children.

"Come, now, hush your crying," said the thoughtless father. "What is the use of whining? It does no earthly good." The one-year-old little man ceased his pitiful crying, and the one forty years old commenced his cheerful strain.

"That stock I bought at Vernon I have been disappointed in, and shall lose on it. Never should have bought it if you had not persuaded me to do it. That is all a man ever makes by listening to a woman."

He was silent a minute, and his boy, about sixteen, raised his head and gave his father anything but a look of reverence, pushed his books back from him, and stepped toward his mother, taking a pitcher from her hand, saying, "I can go down after the cream, mother."

We blessed the boy for those gentle words, although we saw the mother wipe a tear from her eyes with the corner of her apron.

Mr. Smith was only acting perfectly natural; he did not notice the "school-marm," (she was one of the family), but the "school-marm" noticed him, and never will forget the feeling of contempt she had for the selfish creature. She distinctly remembers the first time she ever heard a man blame a woman. Men in her eyes then were gods; but, as on that occasion, they have fallen, one by one, from their high place in her estimation, until now she has only one or two enthroned. The others are mortals, and quite faulty ones, when hungry or tired, and she often wishes to recommend to them the same remedy for crossness which they apply to their hungry children; but her amiability always prevents her from speaking her thoughts.

When quite young she visited with her

parents an intimate friend of the family, who had met with a great loss of property. The gentleman, after giving an account of the transaction, said, "If it had not been for my wife I should not have met with the loss: she urged me to invest my money there."

"Why, Edward, I thought you talked about it before you were married," said her father.

"Well, so I did; but I did not put my money into the concern until the next year; my wife thought it would be just the right thing."

"I used to think that everything which you wished to do must be just the right thing," said his wife, sharply.

When we were going home father said to mother: "God pity the wife of a man who lays the blame on her shoulders instead of shielding her; it is so contemptible for the strong to oppress the weak."

We sometimes wonder if we have been unfortunate in our acquaintances; but it really seems to us that the spirit of self-sacrifice is oftenest shown by the "weaker vessel," as St. Paul has been pleased to style us. The men who take more than half the burdens of life upon them, we find, like angels' visits, "few and far between."

Women, in their happy days, are ready to carry all the load; but sometimes the blue days come, when every grain of trouble will grow quickly to a tree large enough for the lowls of the air to build their nests in its branches—when a harsh look, even, makes them feel as though no one in all the world cared for them, and they sigh for what might have been, so different—when even God's face seems hidden from them, and the journey of life is a toilsome way, tangled, rough, and through a wilderness; the cry of the baby jars every nerve of the body; a disobedient act from a child makes the mother feel totally unqualified to govern her family of restless feet; the breaking of one dish by a servant causes a dread of the poor-house; in fact, she is so morbidly sensitive that without one additional trouble, life has a very gloomy look; and if, on such a day, one extra burden is placed on her shoulders she feels as if the only thing she could do was to lie down and die.

But to die is not always convenient, and the wife takes up her burden of life again, with the thought, "If my husband only knew what a sword-thrust an unkind word gives a woman, he never again would speak harshly to me: if he only knew how warm it makes my heart, how trifling the cares of life seem when by word or look he says that I am doing the best I can—that I am not the cause of all the misfortunes that come—that he loves and trusts me constantly—the kind words and the acts of self-sacrifice would come exceedingly often from him, and our home would be a 'heaven and a paradise below.'"

We sometimes wonder if the women are occasionally to blame for the lack of sacrifice manifested by their husbands. In our happiness to deny self for those we love, we commence our married life by laying self on the altar of our love.

We run for the slippers, the glass of water, the book or paper; we offer the best chair, the cosiest place by the fire; we adjust the lamp-shade for his eyes; we deny ourselves the pleasure of cutting the leaves of the last magazines because he likes the first reading of them; we roast because he likes warm rooms in the winter, and we freeze because he wants the windows open the remainder of the year; he likes a fast horse, and we silently cling to the carriage, hold our breath, expect to have our brains dashed out, and smile as he asks, "Isn't this jolly?"

After a few years he forgets to thank us, and the time comes with most men when they take these things as their right. If we ask for horses that we can enjoy riding after, he opens his eyes and informs us that he "hates a slow coach." If the wind gives us the neuralgia, and we ask to have the window closed, he is "surprised that we can't endure a breath of air." If we dare to sit in the most comfortable chair when he is in the room we can not enjoy it because it is his chair.

Even though we like to sacrifice our own wishes for the comfort of those we love, when we realize what it will help them to become, it is our duty to sometimes deny our "likes," that our husbands may have the opportunity of knowing by experience

this more blessed way of self-sacrifice. If we've found that self-denial is the greatest of all virtues it is our duty to give our husbands a chance to practice this saintly trait once in a great while. If it is more blessed to give a pleasure than to receive one, would it not be for the highest good of the husband if once in a year or two we should take the lesser blessing?

Isn't it, we ask with fear and trembling, our duty to teach our husbands the art of self-sacrifice? MRS. C. F. WILDER.

"GOOD ENOUGH FOR HOME."—"Why do you put on that forlorn old dress?" asked Emily Manners of her cousin Lydia, one morning after she had spent the night at Lydia's house.

The dress in question was a spotted, faded, old summer silk, which only looked the more forlorn for its once fashionable trimmings, now crumpled and frayed.

"Oh, anything is good enough for home!" said Lydia, hastily pinning on a soiled collar; and twisting up her hair in a ragged knot, she went down to breakfast.

"Your hair is coming down," said Emily.

"Oh, never mind; it's good enough for home," said Lydia, carelessly. Lydia had been visiting at Emily's home, and had always appeared in the prettiest of morning dresses, and with neat hair, and dainty collars and cuffs; but now that she was back again among her brothers and sisters and with her parents, she seemed to think anything would answer, and went about untidy and in soiled finery. At her uncle's she had been pleasant and polite, and had won golden opinions from all; but with her own family her manners were as careless as her dress; she seemed to think that courtesy and kindness were too expensive for home wear, and that anything was good enough for home.

There are too many people who, like Lydia, seem to think that anything will do for home; whereas, effort to keep oneself neat, and to treat father, mother, sister, brother, and servant kindly and courteously, is as much a duty as to keep from falsehood and stealing.

THE NIGHT-BLOOMING CEREUS.

THE reader will probably be pleased with the illustration when told that it is an excellent view of the singular flower called



NIGHT-BLOOMING CEREUS.

the Night-blooming Cereus. The plant belongs to the great cactus family, and is not particularly ornamental, but the flower is worth more than mere mention. It is described in a late number of *Vick's Illustrated Magazine*, and on account of the general interest which its rare blossoming in this latitude awakens, we copy the description into our columns :

"The flower-buds first appear on the angular ribs of the plant as little, white, cottony bodies, as large as a pin's head ; the bud scales are covered with soft, silken, white hairs, apparently matted together. The buds enlarge gradually, but slowly, at first, remaining small for a considerable time ; within a few days of their full development they enlarge more rapidly, so that it can be told almost with certainty what night they will open. On the final day they increase several times in size, and in the fading twilight they unfold their buff-colored sepals until the pure, snowy-white petals stand revealed, a vision of purity. The spreading, reflexed sepals form a fine back-

ground, from which the petals in tube-form stand boldly out ; gradually the spreading sepals take a regular cup-shape. Through the night this flower diffuses the most delicate odor of vanilla, but the morning sun shows withered and faded what was only so recently bright and beautiful. We once cut one of these flowers when in perfection, and placed it on a plate with water in a stone jar in the cellar, and covered it so as to exclude all light, and kept it in fair condition through the next day. The specimen from which our engraving was made was raised by Mr. Jackson Lewis, San José, California. It remained open long enough the next morning to allow a photograph of it to be taken, and from this photograph the drawing was made. Mr. Lewis remarked in his note accompanying the photograph : ' It is the only instance I have known when the flower was open late enough in the morning for a picture.

The extreme diameter was fourteen inches, and the corolla eight inches, as the flower opened naturally, without being extended, but it closed about two inches before the artist was ready. The size was nothing extraordinary, but I think the opportunity for a photograph seldom occurs.'

"During the winter season very little care is required for the plant ; it should be kept in a warm room, quite secure from frost, as in an ordinary living-room, and given little or no water."



PLANT OF NIGHT-BLOOMING CEREUS.

TRICKLING from the mountain's height,
Through the beech-roots stealing,
See, a thread of silver bright,
Sunbeams are revealing ;
Drop by drop it gathers fast,
Never resting, never ;
Till it swells and flashes forth
In a glorious river !

THE ADVANTAGES AND DISADVANTAGES OF THE AMERICAN NOVELIST.

No. I.

SINCE in later days the novel has come to rely for its strength upon forceful and distinctive characterization, it is evident that its foundation lies deep in human nature. It is not from the frills and periwigs of society that the novelist gathers matter to his shaping thought. It is for him to penetrate beneath the ephemeral and the fleeting; for him to quarry out the hard granite of our natures; and then he shall have material which, receiving from him both form and spirit, shall live while humanity lives in kinship and in sympathy. Fielding said that he had made for his readers no other provision than Human Nature. Tourgènieff, divesting mankind of deciduous and provincial features, has peered down into the universal. Balzac, ignoring the lifeless and mechanical routine of social forms, concerned himself only with passions deathless as the race. Hawthorne looked upon men as men, and not as magnates and parasites. He passed beyond the domain of thieves and chapmen, of bankers and judges, and sought the realm of Human Nature, divested of masks and accidents. The penetration which detects the essence of things is essential to the novelist who is to command the hearts of men beyond a passing hour. He must look upon men at the bath and consider thought divested of sound. "What but Human Nature," says Fielding, "is the subject of all the romances, novels, plays, and poems with which the stalls abound?" Yet Cooper, ever on the alert for the accidental, was impatient at the fancied poverty of American impulse; and, possibly apologizing for himself, petulantly said that any one could strike a spark from the flint, but that it would baffle the strength of a giant to kindle a flame with a pudding-stone.

Hawthorne, to be sure, cast many a longing look at the artistic associations of European life, which, imparting no force to the individuals of his creation, might lend a charm to his representations by the mellow light of the background; but it was

merely the yearning of an esthetic nature for sympathy. Hawthorne had no regrets. Emotion and passion, joy and sorrow, make up life; and these are universal. The novel is so dependent upon the individual—upon his inherent impulse, and upon the spur that drives him to his work, that the distinctive nature of the material becomes of little account. The novel reflects life, to be sure, but it is the universal and not the eccentric. The novel, too, is tinged with a local coloring; but it is only the gilding of Chamouni by the morning sunbeams: the ice remains—the sunbeams are fleeting. Does the man of genius go idle for want of dignified occupation? He ennobles whatever he touches. Tourgènieff can still impassion the men and women that to us seem cold and mechanical. We have heard of a boy who sat down in a field to cry because he had lost his row. Shall we go about hunting out unruly rows for those who have lost them? Shall we be knocking up rocks to see what advantages there may be in becoming scientists? Shall we roam about with telescope and glass, spying out favorable conditions for the landscape painter? Shall we not look after the inclination, capacity, and power of boy, scientist, and painter, assured that if these qualities exist we need concern ourselves no further? The man of genius holds the world in fee. Let us look at the advantages and disadvantages of the American novelist with respect to subjective conditions, rather than with respect to the material upon which he is employed. We shall see how, through certain needs of the American people, through certain traditional modes of thought, and through certain inherent tendencies, our novelists may be aided or hindered in the production of successful work—work which shall not merely prove effective—rank, fierce, mephitic, fitted to serve some fleeting purpose—but the perfect work, full of mind and beauty, "the meek, silent light which can mold and purify."

Important in the history of mind was the

period when American society began its growth. Europe was just emerging from the glow of romantic impulse; chivalry had ceased to bathe with mellow light the rugged features of feudal life, and human society was just then impelled to the discussion of graver questions than those of love and minstrelsy. The pioneers of the new continent, a class ever the most forward and adventurous of their time, were filled with the new spirit of the age. Besides, there was a vast and fabulous country to be subdued and civilized; there was a government to be established, new and tentative; there was a society to be formed and set moving. What wonder that the Puritans were solemn and unromantic? The mighty weight of the American Republic was upon them, and the sensitive part of their natures yielded to the burden. Any wonder that the spirit of the people culminated in the philosophy of Jonathan Edwards? This was not the age for novels in America.

The popular mind grew at the same time intensely practical. Early established in the national mind, and intensified through two centuries of existence wherein the nation has not yet reached that point of repose which, even to us of the present, is far in the future, still does the tendency exist, shaping action and guiding thought. We are all men of business completely absorbed. We have not learned with the Englishman to see that the man of leisure is the envied man, and that the end of toil is the ciceronian relief from care. The climate is stimulating; and we have been nursed amid associations that divert us from retirement to the more dazzling exercises of practical life. Habitual action has given color to our thinking; we have become modern tyrants, testing truth by the iron law of practical application; we accommodate art to convenience; we follow the maxim, "Cut your coat according to your cloth;" we reverse the principle of Goethe: we encourage the useful, and suffer the beautiful to encourage itself. Useful? what is the useful? As Americans, we have had the question answered for us by a condition of our life; we have always been a nation of abundant material resources; we have

never been compelled to make the most of what we have; we could impoverish our soil, waste our fuel, slaughter our game in season and out of season; land was free, forests were endless, and game abundant. Has not a reckless improvidence come with time? We suit our immediate convenience; we aim at palpable, material results. The Englishman, conscious of the past of his country, *serit arbores quæ alteri sæculo prosint*;* the American, satisfied with a temporary advantage, is proud of the present, and believes that the morrow will take care of itself. Hasting for material good, we are inclined to ignore the influence of art; we do not see that living within its quickening atmosphere, that absorbing to our natures from the fullness of its beauty, that establishing a kinship with its grace and purity; we do not see that thus the rugged part of our nature becomes more sentient, that we who had been sensitive to the reek and fume of sense only, now yield to the plastic touch of sensuous fancy. Its results are not physical, and its operations are too tacit to engage the attention.

If, however, material resources have been abundant in America, they have not hitherto begot the independence that leads to repose. We have been compelled to be harsh to ourselves and to everything about us. The necessity has given rise to abundance of inartistic association, sadly prevailing, which has resulted in a persistent ruggedness of life and dullness of artistic perception; we suffer, too, in an absence of artistic inheritance from the past; nor have we old remembrances to make the mind contemplative, nor old traditions of chivalric impulse to give to the popular mind an imaginative tone. But back of this repression of the esthetic nature, back of this disregard of art itself, exists a feature healthful and promising. Leslie Stephen noticed it when he said that the Englishman is less accessible than his American cousin to those delicate impulses which are to the ordinary passions as electricity to heat. The American has a French susceptibility and an English energy, though he evades the honesty of the English as he ignores the frankness of the

* Is planting trees for a future generation.

French. Repressed at present by opposing conditions, this impressibility is nevertheless to be recognized as a latent force. Bartholdi pronounces the American the most adventurous people on earth. Surrounded by innumerable circumstances that court investigation, unimpeded in its search after truth by popular prejudice, or by civil discouragement, the American mind feels a

constant spur to seek out new combinations of thought or fresh fields for the exercise of genius. Guarded and restrained, the tendency results in breadth of view and in originality of thought; perverted, it becomes grossly partisan, is impatient of proper restraint, and culminates in the wildest solecisms and ridiculous vagaries.

L. D. TEMPLE.

A REVOLUTIONARY SCHOOL-TEACHER.

THE *Free Press* man of Detroit gets off the following satire on teachers, which, although very severe, will fit too many of our pedagogues:

I was talking with a school-teacher the other day who will certainly come to some bad end if he does not change his opinions. He had the audacity to hold that children went to school not as prisoners, but as pupils, the social equals of teachers, but to obey orders because realizing that discipline advanced the interests of all. He held that it mattered not how the pupils learned that Michigan was bounded on the south by Ohio and Indiana, so long as they came to a distinct knowledge of the fact, and he, therefore, said to his young class in geography:

"Now, children, the President of the United States used to live in Ohio, and Senator Morton, now dead, lived in Indiana. Tell me in what direction these two States lie from Michigan."

It is very wrong in him, because the pupils take real pleasure in hunting out the answer. No pupil should be allowed to search for any answer not regularly laid down in the text-books. This teacher sets another awful example. Right in the face of the fact that there is a school reader containing the history of William Penn and the adventures of Mary's little lamb, he takes a magazine or newspaper into his school-room, and says:

"Now, children, I shall let one of you read this report of recent excavations in Pompeii. Before we read let some one tell me where Pompeii is?"

"In Italy," is the answer.

"And what happened to the city?"

No answer, because it is not down in their readers.

"It was buried by ashes and mud from an eruption of Mount Vesuvius," he said, "and now where is that mountain?"

"In Italy."

"Correct, and it again shows signs of an eruption. We will now read."

In half an hour not only one class, but the whole school has learned geography, history, natural philosophy, and something of art in the one lesson, and each pupil goes home to relate what was read, to discuss it with his parents, who are very likely to be interested themselves in the studies of their children, if such a teacher be employed. In this way the children learn new facts. However, it is wrong—very wrong. What is to become of our children if we permit such things?

THE best mode of government for youth, in large collections, is certainly a desideratum not yet attained with us. It may well be questioned whether fear, after a certain age, is a motive to which we should have ordinary recourse. The human character is susceptible of other incitements to correct conduct, more worthy of employ, and of better effect. Pride of character, laudable ambition, and moral dispositions are innate correctives of the indiscretions of that lively age; and when strengthened by habitual appeal and exercise, have a happier effect on future character than the degrading motive of fear. Hardening them to disgrace . . . can not be the best process for producing erect character.—THOMAS JEFFERSON.

A VERY YOUNG PHRENOLOGIST.



A VERY YOUNG PHRENOLOGIST.

[In a recent number of *The Nursery*, the following little poem was published by Emily Carter, in which one branch, at least, of Phrenology is very naturally and pleasantly illustrated.]

Now tell me, my own baby-sister,
What bumps do you find on my head?
You've felt it all over so wisely,
With your little soft fingers outspread!

In my brain do you find any music?
Am I good at a tune or a glee?
Or is it your private opinion
I never a singer shall be?

Can I fight? Can I cipher? Oh, tell me!
Am I fit for the pulpit, the bar?
Will it be my desire to travel
From you and my dear ones afar?

Now say, little sister: you've studied
The bumps right and left, up and down
Do they bid me be painter or poet?
Was I born for a Deacon? a clown?

Oh, stop there, you strong little baby!
To play such a trick is not fair:
Do you think, little maid, I've no feeling?
Oh! how she is pulling my hair!

EMILY CARTER.

THE STAGE-DRIVER'S STORY.

"HAVE we a very hard ride before us to-night, driver?"

"Middling, ma'am. You'd better take an outside seat, along wi' me. You've nothing to fear up here, ma'am. Aside from the danger of sea-sickness which you'll miss by being in the open air, you'll have an easier seat. The hind wheels of the old coach spring over the rocks like a whip-cracker, and with her load so light as it is, your spinal column will be telescoped before morning if you don't ride a-top o' the for'ard wheels, where you'll have one jolt, and then it's all over till the next one."

I shuddered involuntarily. Not that I was a novice in staging. I had already pursued my journey in this way for five hundred miles eastward, accomplishing half the distance upon a sort of railway "buck-board," that plies in places between the Dalles of the Columbia and Baker City of Eastern Oregon. I had also crossed the plains with teams before railroads were, occupying six months in the transit from Omaha to Oregon City, a journey full of incidents and experiences well worth remembering, many of which passed before me like a mental panorama as I looked out upon the wide expanse of sage and grease-wood that lay in a spiritless level beyond the pleasant homes and irrigated gardens of Bois  City.

The disciple of Jehu had mounted the box and gathered the "ribbons," six long, strong, unwieldy lines of leather, attached to the stiff, cruel Spanish bits of as many well-kept and well-broken sorrel horses.

"The driver's a born gentleman, madam," said the landlord, aside.

"Doesn't he *drink*?" I asked, a little nervously.

"Oh, yes; but that's nothing. Most of 'em drink and gamble when they're off duty; but give 'em the ribbons, and you've nothing to be afraid of. Rankin reveres a respectable woman."

Thus assured, I mounted the box, above the boot, a feat in climbing which would have astonished my gracious liege had he but witnessed it, for he always deems it

necessary to assist me in and out of a private carriage when at home.

"All *set*, ma'am?" asked the driver.

"Yes; thanks."

The ladies of the Overland hotel were congregated on the front stoop of the second story; and, as the driver, with a peculiarly graceful flourish of his long whip that ended in a snapping report like the explosion of a mammoth Chinese cracker, started the six sorrels into an eighteen-mile stampede through the ashlike plain, I looked back to answer the parting salute of the friends aforesaid, and in so doing lost my balance and came near falling from my precarious perch. Had I so fallen this story had not been chronicled, for the horses' heels would have finished the work of demolition that the lumbering coach would have then and there inaugurated.

From my hotel window in Bois  City, I had several times observed the Bois  River bridge, and was much surprised when we came to a ferry where we proceeded to cross in a little clumsy boat. Peering through the thickening twilight, I saw, away about two hundred yards to the right of us, the ghostly frame-work of the bridge I had seen from the window; and there it sat, high and dry among sand and boulders, mocking the lazy, shallow river whose bed had shifted to its present channel.

"The river took a new departure when the snow melted, and swinging round the circle has left the bridge beached, as you see it," said the driver, as chary of his words as though in the habit of retailing them at a dollar apiece.

I looked and marveled. There was something both solemn and ludicrous in the ghostly bridge, and our present effort to cross the stream in a boat below it.

"The river looks little and harmless enough now, but you ought to have seen it when it plowed this channel," added the driver, closing his lips and tightening the ribbons as he again made artistic flourishes with his obedient whip.

"Please tell how it came about," said I, gazing earnestly at the ghostly bridge, and

anxious to beguile the time by conversation upon some theme, of the nature of which I did not much care, so it had some sort of bearing upon the road and its adventures.

"Nothing to tell, ma'am. Everybody knows water runs down hill. They know, too, unless they're idiots, that when it can't climb over obstructions, it plows through 'em. The piers o' that bridge were too broad and too close together. The water wanted its level; the bridge wouldn't give way and the soil did. It's clear enough how't came about."

Heartily ashamed of my own verdancy, and fully conscious that I would henceforth appear, in the estimation of that sagacious driver of stage teams, as a person of remarkably limited talents of observation, I settled myself as best I could in the lofty outside seat of the clumsy vehicle, and on we went, bumping, crashing, banging, careening, sometimes holding to the side straps with a nervous clutch, as the coach threatened to upset endwise upon the horses' haunches, and again cracking my spinal column in the region of my neck by being thrown backwards without warning as a sudden change in the inclination of the road sent us up instead of down hill.

After many miles of travel over the arid plain, our road changed from a comparatively level to a positively mountainous one. Horses were changed every twelve or eighteen miles, but the driver kept on; and for hours we toiled along over rocks and ridges on the margin of the zigzag heights, with only a few spare inches of rocky roadway between us and eternity.

About midnight we reached the summit of a mountain overlooking the great Idaho basin. The moon was shining with a brilliance never equaled in the valley of the Mississippi where the atmosphere is not tempered by mountain ranges. Afar, before and below us the long line of dusty roadway unrolled itself like a silver ribbon. Beyond the road, beyond the near-by hills, and far away, beyond the nearer mountains of Idaho, rose the grand ridge of Alturas, while nestled at its feet the purple timber pointed with its countless spires toward the snow-

crowned heights which smiled their greetings in the mellow moonbeams.

Behind us, in the far, far distance, lay the rivers Payette, Weiser, and Boisé, gleaming like threads of molten moonlight among the sage and grasses, while away, away in the distant foothills, Snake River ran, looking like a monster anaconda as it wound its tortuous lengths through the ghostly solitudes.

Boisé City lay asleep in the shadows, and a few lazy midnight clouds hovered above the church spires as if to protect them from intrusive eyes.

"What a beautiful night!" I exclaimed in transport, as I rose to a half standing posture, from which I was suddenly surprised by a lurch of the stage-coach, which for the second time since the night ride began, came near landing me upon my head.

The driver caught the ribbons nervously, as with a sudden awakening he started the horses on the down grade upon a tight run.

"It was just such a night as this, only hotter, when my hay was burned on the ranch about sixty miles from Downieville," he said, and again relapsed into silence.

I wanted very much to ask about that conflagration, but the remembrance of the Boisé bridge intimidated me, so I only said, "This would be a grand night to burn a hay harvest. The air's as dry as tinder and lighter than lucifer matches. I wish I could see a genuine pyrotechnic display among these wilds of nature."

"You needn't ever make a wish like that, ma'am; and I guess you wouldn't if you'd had my experience."

I half suspected that the driver's growing loquacity had been induced by the shy and rather frequent use of a mysterious flask, of which I could only see an outline, as he held it to his mouth under the cover of a soiled bandanna. Then, too, when the mountain breeze sprang up, making the chill night air pierce my lungs like a knife, he had insisted that I should wrap my mouth and throat in a shawl which he carried for such purposes, and which I, after a slight trial, relinquished, making the excuse that I was warm enough, though in reality I was chilling uncomfortably; but the smell of

whisky upon that shawl was not like the attar of roses.

"I had as good a home and as true a mother in York State as ever blessed an ungrateful son, ma'am. I was young and passable looking, and, as my father had a good farm and was considered forehanded by those who knew him best, my prospects were average to say the least. Get up, there, beauties! I'll stretch the ribbons and yank your mouths if you don't step sure!"

The horses pricked their ears, and I presume "stepped sure," for the threatened "yanking" did not transpire; and the driver, again helping himself to a draught from the mysterious depths of his dirty bandanna, proceeded with his story.

"Molly Winters was a pretty girl. Her eyes were as clear and blue as the sky over Alturas, yonder; and you wouldn't have thought there was anything on earth but constancy in 'em. She was deuced smart too. I never see the girl that could beat her at a churning or a washing; and she could make bread equal to my own mother. I loved her, and we were engaged, and I thought everything was right, and was going on in the old way, contented and doing well enough, as I thought, when who should come home from California but Hez. Rankin, my cousin, a snobby sort of stuck-up specimen, and what should Molly do but cut me clean and marry him. He was rich, and that was what did it; and he made his fortune in the gold mines; so I thought the most desirable thing left for me, since I couldn't have Molly, was a gold mine.

"My mother didn't want me to leave home. I was the baby, and she'd have died for me. Mothers are always true, wives and sweethearts never."

"I wouldn't slander my own mother in that way if I were you, Mr. Rankin. Was not your mother your father's *wife*? and wasn't she his *sweetheart* once?"

"I beg pardon, ma'am. There may be exceptions. At least there was one exception in my mother."

"And in mine too," said I.

"And in yourself, doubtless. But, as I was saying, I was determined to have gold,

and plenty of it. I little thought that I'd fetch up at last at the end o' these ribbons, with forty dollars a month and night drives and all the hardships of a frontier castaway thrown in."

"You were saying something about a conflagration on a hay ranch near Downieville," said I, anxious to change the subject.

"Well, yes, that *was* a *fire*! You see, Sam Withers and I had been prospecting at Red Bluff and hadn't raised the color for a month or more, and grub got low, and winter came on, and we weathered it through on mule straight, which isn't a very palatable dish, but all things considered is better than nothing, by a long odds.

"I wasn't lucky as a miner; I wasn't lucky as a marrying man; I wasn't lucky as a hay farmer, and I've never succeeded yet at anything but driving stage. Everybody strikes their level sometime, and I've hit mine at last."

"You must have encountered many embarrassing vicissitudes before you settled in this niche," said I.

"Well, I'd say I had. Sam and I got through the winter by the very skin of our teeth. I had four mules and sixteen horses left, for I'd been a packer till the process proved too slow, then I went a-prospecting and reached a slower gait than ever, and so I said to Sam, 'Suppose we go down into the Nokolumne Flat and take a hay ranch. There's money in it, and we'll herd the Indians and their horses off the wild grass till it matures and then we'll get Greasers and Kanakas to harvest it; and we'll have the mules and horses to pack it through to Downieville when its baled, and then we'll make some money.'

"Sam agreed, and I sold my two best American horses and bought grub, and hired the Greasers, and we guarded the hay, and when mowing time came I worked with the rest of 'em, day and night. I was ragged and bronzed and dirty as ever you see a fellow, but I looked forward to clean profits and a biled shirt in the fall, and so I stood it. The hay was all cut and cured, and the men were baling it and waiting to be paid off when we'd make some sales after the first pack train of it would be

sold in Downieville, and I had been off to a rancherie for more grub. It always costs like the very dickens to feed Greasers, you know."

I did not know, but wisely concealed my ignorance.

"The day had been a mortal hot one. Some suspicious-looking Vaqueroes had been lurking in the vicinity for a week or two, and I didn't feel altogether easy in my mind, and one night I waked with a stifling sensation as if I was smothering in smoke, but I didn't mind it, though it's since clear to me that it was a warning.

"I'd been off all day with one of the mules after grub, and I'd been delayed a little, and when I got back to camp it was night, though it was light, like day, as it is now, almost, and the men were messing by a camp fire, and I knew something was wrong the minute I came in sight.

"'Guess what's up?' says Sam, and I could tell by his pale face that there was trouble.

"'The hay's burned,' says I.

"'How d'ye know?' says he.

"'Felt it in my throat,' says I, and as sure as I hold these ribbons I did feel it in my throat at that minute, like the smoke of a burning haystack, *exactly*."

I did not question the peculiar sensation.

"'What are you going to do now?' says Sam.

"'Let her rip!' says I. Excuse me, madam," and the man made a bow in the moonlight that would have done no discredit to a Beau Nash; "excuse me, but that's the slang of the road."

"All right," said I, "please proceed. I am deeply interested."

"'Let 'er rip,' says I, and Sam ripped out some awful oaths. Not that he swore as a general thing. He had to be awfully worked up before he'd swear.

"Then the Greasers and the Kanakas wanted their pay, and there was nothing to pay 'em, and they're ugly devils when they're stirred up; so things looked blue. The Vaqueroes had tramped with the horses, and we had left only the one pack mule I'd had away after grub.

"'I'll sell the mule and the men may di-

vide the price among 'em, if they'll call it square,' says I.

"'Agreed,' says they, and there happened to come along a prospector whose mule had a sore back, and he gave me a hundred dollars for the only hoof the pillagers had left me. The Greasers and Kanakas divided the money, leaving Sam and me without a red of it.

"As fate would have it, Sam Withers struck luck right away, for the fellow that bought my mule gave him a job at once.

"'Never mind me, Sam,' says I, though I did think a little hard of him that he seemed ready to abandon me in my sorest streak. But I would have died before he should have known how miserably used up I did feel. Guess I was born under an unlucky star, for I've never had any good fortune, except as a stage-driver.

"Well, I went to Downieville. On my way a wagon overtook me, and I had a bundle of clothes, the only thing under the sun I had left, and I gave them to the teamster to carry in the wagon over to town and leave 'em at the hotel.

"Then I trudged on. It was night again; just such a night as this, madam, and I had only fifty cents—the price of the plainest meal was a dollar—and I didn't know where to go, or what to do. I've wandered a long way from religion, ma'am, but I remembered the Scripture and realized what it meant as applied to my case at least when it said, 'The foxes have holes, and the birds of the air have nests, but the Son of man hath not where to lay his head.'"

"That was Jesus," said I timidly.

"It was me, madam, that night, and for several nights after, as sure as you're born."

I did not controvert further, and he continued his story.

"I went up to two or three different men when morning came and asked for work. Appearances were ag'in me, ma'am. I hadn't changed, or shaved, or washed, or brushed for two months, and the scallawag who took my bundle on to Downieville hornswaggled it."

"What?"

"Stole it, ma'am. Beg pardon. It's the

slang of the road. So I had nothing to eat, no place to sleep, and nothing to wear. I bought me fifty cents' worth of crackers, and spent all my capital. I ate sparingly, strolled idly through the town by day, slept in an old stable at night, and woke every morning half frozen. My rations were reduced to three crackers a day. I couldn't look anybody in the face. I felt wolfish, and I believe I was wild."

Here his eyes glared upon me, and I could see by the paling of the harvest moon that daylight was dawning, else I should have been badly frightened.

"Do you know what I resolved to do next?" said he.

"Commit suicide?" I asked.

"No; it's strange, but I really didn't think of that. I meant to wait till dark and then go and rob somebody's house! And I'd have done it, ma'am, but for a woman! She saved me. You see, Mrs. Chatham was keeping hotel at Downieville, and I'd often patronized her when I had money, but now for three days I'd been skulking past her house like a famished wolf because I was dead broke. I was walking aimlessly along the street just after I'd resolved to commit burglary, when she ran over from the porch and said, 'Mr. Rankin, is that you? Come over here.'

"What do you want?" says I.

"I want you to come and stop at the hotel like a gentleman."

"But I've no money."

"That's no difference."

"Nor no good clothes."

"Brother Jack has clothes, plenty of them. Come right along."

"I forgot that I was bent on burglarizing, and I was soon hid away in the bath-room, scrubbing off the accumulated dirt and arranging myself in Jack's clothes."

"When I came to the dining-room the widow asked me to sit at her table, and introduced me to Jack. He proved to be a fine fellow. He gave me employment, and I was soon in comfortable circumstances, the only trouble being that I would take too much liquor now and then, which, when Mrs. Chatham discovered my failing, caused her to set me afloat again, and so I'm des-

tinued to be a drunken stage-driver for the rest o' my days."

"But can you not break off the habit?"

"What good would that do? I never get drunk when on duty, and when I'm off I drink to kill memory."

"But, would it not be well to go home to you're dear mother in York State, and make her declining days happy? You don't imagine how devotedly she loves you."

"It's too late, ma'am. Besides, my cousin married Mollie Winters, and the sight of the old place would waken old memories, and drive me deeper than ever into drink. There's no more stage-driving in York, and I wouldn't do anything else; so I'll fight it out on this line to the end of the swing."

"What of the hereafter?" I could not help saying.

"I'll never find a hotter hell than this!" he answered, striking his breast, "and I can stand this, so I'll risk the other."

It was early morning now, and we drove up to a lonely station in the midst of an arid desert, where a pale woman with a fretful baby prepared us a hasty breakfast.

Rankin ate a few mouthfuls and excused himself. When next I mounted the box he had disappeared and a new driver took his place.

"Is this the terminus of Rankin's line?" said I.

"No; not when he's sober, but he takes periodical sprees, and I'll do double duty till he gets over this one rather than have him discharged. Don't report him, please. There never was a better-hearted fellow; and if the old man knows of this spree he'll be out of a job. Many a poor fellow that goes to the bad is more sinned against than sinning."

The "old man" thus alluded to was the gentlemanly superintendent of the line, and knowing him as I do, I could readily comprehend why it was that it was well understood among all the employes that the dissipation of any driver when on duty would be met with prompt dismissal should the facts be known at "headquarters."

Stage-drivers are always generous with each other. Their life is a hard and responsible one, and I often wonder how

many letter-writers, and magazine and newspaper readers, ever stop to think of the hardships of these men in transmitting the mails from post to post, across the continent. If there are degrees of exaltation in

the great hereafter, where merit meets its just reward, faithful stage-drivers will occupy some very high seats, despite their temptations and falls.

ABIGAIL SCOTT DUNIWAY.



WHAT SHALL WE DRINK?

Perspiration, what is it?—Object we have in taking Fluid—Alcohol, Tea, Coffee—A Nutritious Drink—Fruit Juices—"Home-made" Wines.

THE heated term is upon us. Active exercise raises the heat of the body, and nature, by a most kindly provision, pours out the fluid secretions, which, evaporating upon the surface or upon the clothing, reduce the temperature, and we are again comfortable. Without this provision we should hardly find much exertion practicable in very warm weather, and life itself would be scarcely enduring. But the fluids which are thus poured out must be replaced, and nature, by the thirst which she creates, calls out for something to take their place. What shall it be?

Let us see what is gone—water mainly, a few salts, and some other waste products of the system. Perspiration varies somewhat in its solid ingredients, according to what there is to be thrown out by this channel, but water is always present as the main constituent, and observe, if you please, it is *water*, and not tea or coffee or spirituous liquors; and it is the water which must be replaced.

Water is by far the largest ingredient of the human body, the usual proportion being

seven-eighths, the dry material being one-eighth, or we might say, about one peck of "dust" to seven pailfuls of water. This amount of fluid is necessary, in order that all the functions of the body may be carried on easily and effectively. The blood must have its proper amount of fluidity, so that it may carry the necessary nutrition to every part; the muscles can not act if they are dry; the eye is nearly all fluid, and even the bones themselves have their moisture. Puncture any part of the skin, and moisture pours out, nay, the very breath that comes from our lungs and the invisible perspiration from every part of the surface contain so much moisture that it can readily be condensed on a cold surface. The sweat from the skin amounts to an average of two and a half pounds daily. All this must be replaced, and again the question comes, Wherewith shall we replace it?

At the first glance it would seem that nature does not intimate the necessity for pleasant flavors in drinks as she does in foods. The drink we can pour down quickly; it does not require digestion or mastication. The highest requisite of drinkable water is that it shall be perfectly tasteless; unless we conclude that it is better or more de-

sirable when infused with tea or coffee or mingled with alcoholic drinks. That it is more *desired* in many cases, is abundantly proven by the fact that multitudes drink these artificial drinks. That these drinks are on the whole the most largely patronized, we should not like to say; nor that their large patronage indicates a natural law of demand, any further than it concerns the water they contain. It is true, however, that the diffusible nature of liquids makes them much sought for as the favorite vehicle of agreeable flavors and stimulating effects, quite aside from the quenching of thirst. Without waiting for mastication, the mouth may be filled with a delicious taste, and without waiting for digestion, the entire system may be refreshed and invigorated. This partly results, no doubt, from the fact that the increased amount of fluidity makes more available the nutrition already digested, and partly from the feeling of fullness which naturally follows their injection. Moreover, any stimulant they may contain is much more readily diffused through the system, since fluids do not pass through the process of digestion like solids, but are passed off through the coats of the stomach and carried to the liver through the portal veins and there mingled directly with the blood. Solid particles are detained in the stomach, but that which is perfectly fluid, like alcohol and the theine and caffeine of tea and coffee, pass with the water which contains them immediately into the blood. This fact has its dangers as well as its advantages, for if theine and caffeine (said to be identical) and the alcohol are prone to mischief, they have so much the better chance for it. If they are nerve poisons, this brings them directly into contact with the most delicate nerves in the capillary circulation, and we feel the effects (we feel with the nerves) very quickly. If previously the nerves were not satisfied, if something was wrong and they were telling us of it, this stills them—paralyzes them for the time being. So if we have a headache (which certainly is a complaint of something wrong) and the poisonous principle in the tea is strong enough to silence the complaining nerves, the headache is cured (?) for the time being, not by removing the

cause, but by silencing the faithful sentry which had discovered the danger and was giving warning. The cause is still there, perhaps increased by the poisoning, and when the sentry recovers from his stupefaction, he will cry out again. So it happens that tea-drinkers so frequently have headache and still insist that tea cures it; so it also happens that many who are wise enough to see their mistake and give up the tea, eventually get rid of their headaches.

But some wonder how it is that tea or any other warm drink proves to be so wonderfully cooling in hot weather. If they observe, they will see that it is mostly by reaction. It is rather amusing to notice how soon after the tea-drinking commences there is a cry of "How warm it is!" and a while afterward the drinkers feel cool and delightful. The heat has induced perspiration, and the evaporation of this cools the person. At the very same meal those who do not take the hot drinks do not feel these extremes. They are more even, quiet, and peaceful throughout. Perhaps some of the after effect is due to the paralysis of the nerves, as it certainly is in the case of alcoholic liquors, which are notably drunk in cold weather to warm up, and in hot to cool off. We have already dwelt upon this deceitful peculiarity of alcohol, which it holds in common with all other nerve poisons, but in so much greater degree and with so much worse effects, that we really do not like to class them together. We will not dwell longer upon the effects of alcohol at present. We will take it for granted that those of our readers who are making the inquiry, "What shall we drink?" are not disposed to touch even beer or wine as a beverage. We have also given our reasons for not drinking milk, and those taking it for granted that the only thing left to do is to drink water, now begin to marshal their objections against that.

"If water was intended for the universal drink, how is it that we find so many places where the water is not drinkable?"

Suppose we illustrate the absurdity of that objection by another question: "If it was intended that all men should eat food, how is it that in so many places no suitable food is produced spontaneously?" If the supplies

of food can be improved by culture, so can the supplies of water be improved by proper measures. There are elaborate treatises showing the nature of impurities in the waters of various localities and how they may be purified, while viaducts for conducting good water to localities where it is needed, are almost as old as civilization itself. The folly of disguising the taste of disagreeable water, or of pretending to counteract the effects of unwholesome water by the infusion of tea, coffee, hops, and malt, is too patent to require argument.

There is another consideration, however, which requires attention. It is urged that hurtful effects ensue from drinking sufficient water to quench thirst in very hot weather. It is now acknowledged that the most of this danger arises from the use of ice-water. In desert heat and in shipwreck destitution they make no such objection. Nothing is so good there "as cool waters to the thirsty soul." It is also possible that the thirst which will not be satisfied with water is unnatural, and that with better habits of eating we should have no occasion for such complaint. But such being the fact, there are methods of meeting even this difficulty. One of the most popular of these is the use of oatmeal, in the proportion of about two pounds (or two and a half) to a twelve-quart pailful of water. This is largely used in factories, glass-works, foundries, navy-yards, etc., but is in danger of being discounted in popular use, because it is found to be good enough for horses. Many of the car-horses in the cities get their drink by the way out of barrels of water creamy-white with oatmeal, but we are sorry to add that these are not always kept in the sweetest condition. For our own use, we prefer to mix and drink it at once. The fine oatmeal (Schumacher's "A") is our favorite, and two teaspoonfuls of this in a half-pint glass of water stirred a minute and then drank is a draught both satisfying and pleasant.

But we surmise that the use of fresh fruit juices is destined to become more and more popular, and we see no objection to it. Lemonade is sensible, wholesome, and refreshing, especially when not too sweet and

not too cold. The acids of fruits and vegetables have a use in the human system which is more and more recognized every year, and we confess that we are surprised that the delicious drinks that can be made from a mixture of pine-apple, strawberry, cherry, or grape juice with water in the fashion of lemonade are not more largely used in the hot season. The fruits can easily be strained or pressed in this season, and the juice heated and canned, exactly as fruit is canned and kept at hand to be used in case of a deficiency of lemons or other fresh fruit.

To make them into "wines," as drinks by themselves, is not so desirable. Undiluted, they are too rich to be used as drinks; and for use in cool weather, they are quite uncalled for. There is also danger of their fermenting, by imperfect keeping or by standing after they are opened, which was undoubtedly the manner in which alcoholic wine was first introduced to the human family. We have suffered too much from such causes for temperate people to run any further risks in that direction, and besides, it is true that the masses of the people are still far too ignorant to be trusted with the manufacture of any such drinks, to which shall be given the sanction of temperance people. If the latter drink "sweet wine" and "new cider," why should not they? and sad results have too often proven that they knew far too little about the *origin* and nature of alcohol. Pure home-made wine, with "no alcohol in it" (because they had *put* none in), has been the ruin of many a family.

But aside from all this, we need no such drink, because it is not physiologically desirable to make any drink so attractive that it shall be taken for its own sake when there is no thirst, and drinks always are so taken when wines of any kind are used, and perhaps we might add, where tea and coffee are used. We not unfrequently hear it said: "I seldom drink excepting at meals," as if this were a wholesome habit. The great objection to drinking at meal-time is that its tendency is to suppress the secretion of saliva. The food moistened by the drink is too often washed down, or at least hurried

down, with too little mastication. A much less objectionable form of taking what fluids we need is in the fruits themselves. Juicy as they are, it is a singular fact that they produce copious secretions of saliva, recognized in the "watering" of the mouth on the approach of the tempting morsel. And when the fruit is mingled with other food, the latter is detained still longer and more agreeably in the mouth, and the copious secretion goes on with the most satisfactory results.

Here, then, we find the harmony of natural action and adaptation; how may we improve by it? It has been suggested that the natural, and therefore the most wholesome, method for man to take the fluids necessary for his system, is by eating fruits. This is certainly a very agreeable method, and though it might do away with much costly and showy service, we are not certain that it need to diminish at all the splendor of our tables. Fruit dishes and baskets can be made as costly as tea and coffee urns, or as sparkling as decanters and pitchers, while the fruits can be served out to the guests on plate, majolica, or glass ware, with costly fruit knives, showy napkins, dainty finger-bowls; and fashion could doubtless add much more if she chose. With all these helps some would be likely to see the "natural adaptation" more readily.

But let us look a few moments more at the physiological points. It would give us not only a grand riddance from colored tea, adulterated coffee, and swill milk, but it would remove the difficulties we find in impure drinking-water. Here, then, is nature's remedy for a natural difficulty. No malaria, no limestone, no stagnant matter in good fresh wholesome fruit! Surely, when we can do this, we have taken another step toward making this earth a pleasant habitation, if not a paradise.

But there are doubters whether fruits will afford us sufficient drink, and these doubters are especially those who use much salt and many fiery condiments, and perhaps we might add other thirst-provoking food. There is no question but it takes a large amount of water to float out of our systems all the salt we put in; and if people prefer

to make such brine-bowls of themselves, we do not propose to throw our fruits away upon them; but there are many who live so simply and purely in their diet that they find in fruits ample supplies of fluids for all but the hottest weather, and perhaps they might even then, if they had a sufficiency of melons and other such fruits at command. There is a fine field for experiment in this line, and we assure those who choose to try them that they will find them both agreeable and profitable. JULIA COLMAN.

EFFECT OF GIVING UP LIQUOR IN OLD AGE.—Rev. T. H. Chope, of North Devon, writes as follows to the *London Times*: "It is frequently affirmed that any sudden abstinence from alcoholic beverages in a person—much more an aged person—who has used them through life, is prejudicial to health. An instance has lately come under my observation of the beneficial results arising from the sudden disuse of alcoholic stimulants by a widow of eighty-two summers. Her usual drink has been gin. She suffered from occasional attacks of gout in her left hand, and also a running foot-sore. Upon her reaching the age of eighty—that is, two years ago—she suddenly adopted the total abstaining principle, much to the surprise and consternation of her friends, who all prophesied a speedy and sudden termination of her life for the want of her accustomed potations. Nothing of the kind. The toe healed, the gout vanished, and for two years she has been free from these harassing complaints, and is a living monument of the good effected by the sudden adoption of the non-alcoholic regimen. She is in her eighty-third year, and frequently walks out in her son's garden or farm-yard without any covering on her head. Her memory is excellent, and she bids fair to become a centenarian."

This is a remarkable case of recuperative energy, and indicates a very unusual organization, especially the power to combat the poison of alcohol, and to maintain a good balance of vitality throughout a long contest. As a rule, very few gin drinkers survive to eighty.

A STUDY IN VEGETARIANISM,

BEING AN EXPERIMENT MADE BY DR. EUGENE BILFINGER, OF HALLE, GERMANY,
UPON HIMSELF.

IT is only very recently that we have had discussions upon the subject of vegetarianism. Medical men have usually taken sides against it. For this reason it may perhaps be interesting to a large number of persons, if I, who have experimented upon myself for a considerable length of time with this method of living, should give the results at which I have arrived. Formerly, I naturally shared with all other physicians the universal prejudice against a fleshless diet, believing that it had an effect to weaken the physical and intellectual powers and the capacity to endure; and that it robbed life of most of its gustatory enjoyment.

By way of preface I may state that a long personal acquaintance with a young vegetarian of cheerful disposition, in whose case I found none of the evil results I had looked for, gradually brought me to a position where I was able to lay aside my prejudices; and, furthermore, a desire was awakened to investigate the effects of this proscribed method of living in a scientific manner, by experiments made upon myself. And, being in a condition of perfect health, I hoped to be able to make a careful objective study.

In the first place, in spite of my unconquerable prejudice against the medical literature of the laity, I read the writings on vegetarianism of Hahn, Baltzer, Von Seefeld, and others. To my great surprise, I found these works to be of the highest interest. They opened my mind to perceive a multitude of causes of disease, concerning which a physician's knowledge is sadly deficient, for they showed me that improper eating and drinking were among the principal causes of disease and death in society. An old French proverb says, that "One-half of Paris dies from dining, the other half from supping."

As to what is best in the way of eating and drinking, physicians, as a rule, are quite as ignorant as non-medical men; and, in-

deed, their opinions upon these points are based upon what has been customary among the people from time immemorial. This is perfectly natural, since science, when it treads upon the domain of dietetics, has no certain foundation under its feet, and even up to the present time, only the chemical, and, therefore, one-sided and untenable view has been given. Virchow was honest enough to confess this, since, in his lecture on food and diet, he says: "A strictly scientific system of diet has been hitherto impossible; and it is, in fact, astonishing, that after so many thousands of years, neither experience nor science, as one would think, is able to bring this, first of all questions in which the interests of humanity are concerned, to a proper solution." Also, Prof. Voit, a special investigator in this department, in his most recent publication, declares that "What, and how much, a man, under all the varying circumstances of his life, requires for his sustenance, should we, first of all, truly know; and yet is our knowledge herein, alas! very meagre, and not at all commensurate with the importance of the subject." According to this statement it is not difficult to understand how the present theories of diet have been influenced by custom, and why a flesh diet has been glorified as the self-evident and indispensable means of nourishment. Sang indeed, Prof. Bock in his time, in the *Garten Laube*, that flesh food increases the poetic fancy, and so he recommended to the Silesians to eat roast beet instead of potatoes. And so Prof. Moleschott, a no less powerful champion of a flesh diet, says in his lectures: "To every meal belongs meat."

On the other hand, writers on vegetarianism have shown me by proofs drawn from the book of nature that the eating of meat is merely an acquired habit, and it needs but little consideration to discover that it may be wholly dispensed with, or that it is a food wasteful of the strength and vigor. And it is not to be denied, certainly, that

about 300,000,000 Buddhists in India, China, and Japan, live almost exclusively without animal food, and are not on that account any the less strong and robust, and these reach for the most part a very advanced age. So is it indeed also a fact that the rural population of nearly every civilized country, from the earliest times, though perhaps not from choice, have been more or less vegetarians. Nevertheless, they have been the most healthy people; as, for example, the higher class of Italian laborers, who perform the most arduous duties. And who will deny that the possibility of obtaining our nourishment from sources which shall make the shedding of blood unnecessary would be gratifying to the humane and moral sense? So is it also well known that in all ages various persons—philosophers and poets, among the ancients, Pythagoras, Plato, and Plutarch; and in more recent times, Shelley, Leibnitz, Newton, and others, have, from esthetic considerations, for a considerable portion of their lives at least, eschewed animal food, nevertheless they have been the most beautiful examples of the intellectual life of our time.

In spite of these facts, which, at all events, are well worth considering, I was somewhat doubtful as to whether a fleshless diet would be suitable for us who, for generations, have been accustomed to the use of animal food; and as to whether, on account of climatic conditions, we could employ it without injury. In order to arrive at an independent opinion on this subject, I hold that an extended practical investigation by actual experiment in this manner of living, is indispensable. Alas! that so many, both professionals and non-professionals, speak and write against vegetarianism according to received prejudices, without having made any such experiment. A person accustomed to meat, who occasionally makes a dinner of pan-cakes and salad, can not appreciate the value of vegetarianism, and is not, therefore, justified in speaking to its prejudice. In this way only a distorted judgment can originate; just as one school of medicine forms an opinion adverse to another school, upon what is merely hear-

say evidence. The vegetarian experiment demands, indeed, from men of culture in modern times, some self-sacrifice, and the moral courage necessary to liberate themselves from the popular opinions of the day, for the sake of truth. Nor must they be afraid of ridicule. For myself, the experiment had few difficulties, since I had already made the foundations of modern hygienic science my own. So had I accustomed myself beforehand to think of beer, wine, coffee, and similar means of excitement as things seldom to be indulged in. I thought that smoking was to be avoided, as an unnecessary filling of the lungs with soot; and that pure fresh air was to be considered most important, as a means of nourishment by day and by night, together with much more that was essential.

The experiment now became to me an easy one, for, in addition, I had for a long time previously been accustomed to eat Graham bread, one of the principal articles of a vegetarian dietary. Thus prepared, I ventured to make the experiment scientifically, and resolved that for the period of one year, beginning January 1, 1876, I would abstain wholly from animal food in every form. Since I was vigorous, well-nourished, somewhat inclined indeed to corpulency, and temperate withal, I hoped to be able to venture a good deal. My food consisted now of uncooked milk and bread, of soups of all kinds without meat, but with butter only, wheat, corn, rice, and the like; of the many varieties of vegetables, as of fruits of every kind. To my great astonishment, a vegetarian table offered, without roast beef or steak, a more than abundant variety. This is shown indeed by the large cook-books of Von Theodore Hahn, Von Ottilie Ebmeyer, and others, which contain over 1,200 recipes for the preparation of purely vegetable dishes. Since I entered upon this manner of living, neither after eight, nor after fourteen, nor after forty days, in spite of the most extreme hard work, protracted walks, and the practice of my profession, have I at any time become weary or felt fatigue; but, on the contrary, have felt fresher, more enduring, and more capable of hard work. So I lost the fears I

had in the beginning as to whether or not I should obtain a sufficiency of albumen. Indeed, the longer I went on, the less did I fear this, and I therefore soon discontinued the use of eggs, since it gradually came about that the more simple the food, the better I liked it. But in spite of this change I could not perceive the least diminution of my powers of endurance. Indeed once, for four weeks during the heat of summer, half out of curiosity, I made trial of the cold food of the Swiss herd-maidens of the Alps, and during this time partook of no cooked food; and thus, at the same time, made a partial investigation of the question of abstinence from salt. Genuine Graham bread, as it is well known, contains the addition of no salt. Incredible as it may seem, it is nevertheless true, that during this time I was most lively, cheerful, and happy, and felt myself to be in all respects at my best, and so was able to make in my own person a scientific experiment which completely disproves the popular dogma that man can not exist without salt. Whoever does not, by discarding the skins and bran, remove from fruits and grains the mineral matter which nature has put there, requires the addition of no salt to his food. This little episode is given only as an example of the way in which vegetarianism in many respects rectifies science, and besides teaches each one how to distinguish between the essential and the non-essential requirements, and leads to the most simple and natural way of living.

As for the rest, I persevered in my experimental trial conscientiously, and during those 365 days, for only three times, in the first quarter of the year, did I, from social considerations, make some slight departures from my general way of living. At this period, at a general festival, I made some concession for the sake of society.

With the exception of the first eight days, during which time I missed the customary stimulation of flesh food, I enjoyed my repasts exceedingly. Hunger was a most excellent sauce, and I had indeed, as the experiment progressed, a constantly improving sense of taste and smell. I rejoiced in the best sleep, and there was a constant,

undisturbed condition of good health. Corporeally, I decreased somewhat in weight; I weighed five kilogrammes less after the first six months. For mountain climbing and pedestrian tours my capacity to endure was greatly increased, and to these active exercises, rather than to my fleshless diet, was my loss in weight to be attributed. For during my year of experiment I was physically more active, and also more moderate in my eating and drinking than formerly. I soon observed that by this unstimulating manner of living the demand for spirituous liquors and similar means of excitement decreased, and likewise that I was completely satisfied on a much smaller quantity of food than before on a mixed diet. This latter observation was to me worthy of notice, since it disproved the formerly cherished opinion that vegetarians had to swallow an enormous quantity of food in order to be properly nourished. Nothing can be more erroneous than this idea, and it originates from another mistaken opinion, namely, that vegetarians are mere vegetable and grass eaters and worshippers. Rightly regarded, however, the vegetarian takes vegetables and salads only as additions to his food, the nutritious grains and fruits forming the basis of his diet.

Just as unfounded is another objection which has been raised against vegetable food on the side of science; that is, that vegetables are more difficult of digestion than the flesh of animals, and that, therefore, a smaller portion of it is digested. Perhaps many plants used for food are more difficult of digestion, especially to weakened digestive organs, as, for example, beans and peas cooked in the ordinary way; properly prepared, however, even these become easy of digestion, as is proved by the leguminous preparations of Hartenstein, well known as consisting of finely-ground beans, peas, and lentils. They have great celebrity, are easily digested, and strengthening foods for invalids. On the other hand, nature does not offer to man his food in a concentrated form. A food containing nothing but pure nourishment would be like an atmosphere of pure oxygen, and would not contribute

to man's welfare. A flesh diet is somewhat analogous to an atmosphere of pure oxygen, and wears out the body too rapidly. Vegetable food is, on the contrary, unexciting; it has neither a chemical nor a stimulating effect upon the organs, and offers to the vegetarian the not to be despised advantage, that he has not, as the flesh-eater—for example, the Englishman with his enormous quantity of pills, aperient waters, and such like—to battle against habitual constipation.

During the latter part of my experimental year, I had a season of excessively hard labor, including much watching at night. In spite of my abstinence from meat and wine, my strength did not desert me; indeed I bore the severe trial cheerfully and with unbroken spirit.

To my discredit—the learned doctors will say; and I acknowledge it—in the course of my experiment, having been convinced of the advantages of the vegetarian manner of living upon the side of dietetics, and also upon the side of esthetics, economy, and morality, out of a Saul I had become a Paul. I have since that time had no reason to change my views. My opinion agrees fully with that of Hufeland, who, in his "Art of Prolonging Life," says: "Man in the selection of his food always leans more toward the vegetable kingdom. Animal food is always more exciting and heating; on the contrary, vegetables make a cool and mild blood. We also find that not the flesh-eaters, but those who live upon vegetables, fruit, grains, and milk, attain the greatest age." Also Niemeyer, of Leipsic, who a few years ago spoke of vegetarians as being wonderfully healthy, in his most recent work, which contains the kernel of the vegetarian theory, greets the friends of a natural manner of living (vegetarians), as a courageous minority, and as pioneers of a worthy reform in society. Indeed he pictures the children of vegetarians as models of a natural nourishment, and allows to the adults the evidence of physical elasticity and endurance. From the fullest conviction, therefore, I give it as my deliberate opinion that vegetarianism is a justifiable reaction against Liebig's albuminous theories of diet,

upon which the modern doctrine of meat-eating is built; and that it opposes and has a tendency to correct the pernicious theory everywhere prevalent, that meat and wine are the most strengthening articles of diet; and that on this account alone it deserves consideration and respect from science. Moreover, on account of its influence in the domain of national economy, is vegetarianism worthy of the attention of all who have the physical and moral welfare of the people at heart. To all the friends of man, therefore, is it to be personally recommended, and on every suitable opportunity a knowledge of vegetarianism should be imparted. Propagation of these ideas among our people is indeed of very recent date. Each one must begin with himself, for each has his own special difficulty. Vegetarianism is, however, in its whole nature so true, that in later centuries there will certainly be a conflict in its favor.

Translated from the German by

M. L. HOLBROOK, M.D.

FACIAL PECULIARITIES.

A WRITER in the *Popular Science Monthly* relates a singular physiological incident as follows:

"I was once sitting in a cool underground saloon at Leipsic while without people were ready to die from the heat, when a new guest entered and took a seat opposite to me. The sweat rolled in great drops down his face, and he was kept busy with his handkerchief, till at last he found relief in the exclamation:

"'Fearfully hot!'

"I watched him attentively as he called for a cool drink, for I expected every moment that he would fall from his chair in a fit of apoplexy. The man must have noticed that I was observing him, for he turned toward me suddenly, saying:

"'I am a curious sort of a person, am I not?'

"'Why?' I asked.

"'Because I perspire only on the right side.'

"And so it was. His right check and

the right half of his forehead were as hot as fire, while the left side of the face bore not a trace of perspiration. I had never seen the like, and, in my astonishment, was about to enter into conversation with him regarding the physiological curiosity, when his neighbor on the left broke in with the remark:

"Then we are the opposites and counterparts of each other, for I perspire only on the left side."

"This, too, was the fact. So the pair took seats opposite to each other and shook hands like two men who had just found each his other half."

"Well, this makes an end of natural history," exclaimed another guest, who hitherto had quietly gazed on this strange performance as though it were a play; and every one that overheard what was said

came to look at this novel wonder. "This makes an end of natural history!"

"This expression excited me to laughter, and involuntarily I exclaimed:

"No, sir; this is just the beginning of natural history; for nature has many strange caprices even as regards her symmetry."

"I then mentioned the case of a man I had known in my boyhood, who, Janus-like, had two totally different faces—on one side laughing, on the other crying. Naturally I dreaded this strange, double face, with its one side smooth, plump, and comely like a girl's cheek, while the other was all scarred by the small-pox. This side of the face denoted churlishness; and, while the other side wore a smile, this boded mischief. In this instance disease had been unsymmetrical."

NOTES IN SCIENCE AND AGRICULTURE.

Origin of Petroleum.—This is one of the questions that has long agitated the scientific world, and upon the answer to it more depends than seems to at first sight. If we know its source we can fairly determine as to the nature and extent of the supplies, and as to where to look for them. The *Scientific American* says: "Some have thought that the oils have been produced by a slow distillation during the process of coal formation. A fatal objection, however, to this theory is found in the fact that Great Britain, which has immense coal-beds, contains nothing of the kind, though supposed traces have been found here and there. The silurian and devonian rocks, which contain the sources of most of the oil-wells now in existence, have great quantities of fossil remains, and this has suggested the theory that the oils have resulted from their decomposition."

Prof. Mendeljeff thinks that on the first formation of the earth vast reservoirs of inorganic iron and carbon existed in the interior of the globe. These were reached by the water condensing on the newly-formed land and percolating beneath its surface. The heat decomposed the water into its component parts, oxygen and hydrogen, the first forming with the iron oxide of iron, the latter with the carbon petroleum and other hydrocarbons. If this theory be the correct one, there still exist in the center of the earth reservoirs of petroleum that are to the sources as yet known as the ocean is to the spring, whose waters finally find a resting-place in its bosom.

Dr. T. Sterry Hunt, of Massachusetts, pro-

pounded in 1861 a theory to which he still adheres. He thinks that many of the animated beings of early ages were half vegetable, half animal, and that the decomposition of their tissues produced what is known as mineral oil. Certain magnetic oliferous lime-stones have been found to contain $4\frac{1}{2}$ per cent. of their bulk of petroleum. A square mile of these thirty-five feet thick would yield nearly 8,000,000 barrels, and as the area of these rocks is very great, they may contain supplies calculated to last an indefinite period of time. The subject is one well worthy the attention of all interested in oil-wells.

Comparative Physiology among DIFFERENT RACES.—A correspondent of the *London Times* gives an interesting account of certain investigations in anthropology made by an eminent medicist. He says: "The department of anthropometry, of so much importance to the science of anthropology, has recently been carried to great perfection and its method extensively applied. Some very curious and very interesting results have thus been obtained; some of the most interesting of these have been recently published by Dr. A. Weisbach, chief physician to the Austro-Hungarian Hospital in Constantinople, who, Dr. Von Scherzer tells us, has probably taken more measurements of living men than any other anthropologist. Dr. Weisbach's measurements refer to 19 different peoples and more than 200 individuals from the most various parts of the earth. The most interesting of these measurements refer to the pulse, the length of the body, the circumference of the head,

the height and length of the nose, as well as the comparison of the length of the arm and bones with each other. Thus, for example, the number of pulse-beats per minute varies within wide limits; the Congo negroes, (62), and, next to them, the Hottentots and Roumanians, (64), have the slowest pulses. Then follow the Zingani, (69), Magyars and Kafirs, (70), North Slavs (72) and Siamese, (74), Sundanese and Sandwich Islanders, (78), Jews, Javanese, and Bugis, (77), Amboinese and Japanese, (78), and lastly the Chinese, (79). The quickest pulses belong to the Tagals, (80), the Madurese and Nikobars, (84). As to height, the smallest among the peoples measured are the Hottentots, (1,256 millimetres); this is far behind any other people, as the next, the Tagals, are 1,562. Then follow the Japanese, (1,569), the Amboinese, (1,594), Jews, (1,599), Zingani, (1,609), Australians, (1,617), Siamese, (1,622), Madurese, (1,628), South Chinese, (1,630), Nikobars, (1,631), Roumanians, (1,643), Sundanese, (1,646), Javanese, (1,657), Magyars, (1,658), Bugis, (1,661), North Slavs, (1,671), North Chinese, (1,675), and Congo negroes, (1,676). The longest measurements, however, are found among the Sandwich Islanders and Kanaks, (1,700 millimetres), Kafirs, (1,753), and the Maoris of New Zealand, (1,757). To compare these with the stature of European peoples, we find that of the English and Irish to be 1,690 millimetres; the Scotch, 1,708; Swedes, 1,700; Norwegians, 1,728; Danes, 1,685; Germans, 1,680; French, 1,667; Italians, 1,668, and lastly, Spaniards and Portuguese, 1,658. The greatest circumference of the head is found among the Patagonians, (614 millimetres), and Maoris, (600). Following these are the Kafirs, (575), Nikobars, (567), North Slavs, (554), Congo Negroes, South Chinese, and Kanaks, (553), Tagals, Sundanese, and Roumanians, (552), Japanese, (550), Bugis and Jews, (545), Amboinese, (544), Javanese, (542), Hottentots, (540), and, lastly, the Zinganis and Siamese, (529). Stature and circumference of head generally stand to each other in opposite relations; although there are exceptions, as in the case of the Siamese with small stature and small head, and the Patagonians with great height and large head. The breadth of the root of the nose is found greatest among the Patagonians, (41 millimetres), less among the Congo Negroes, (36), Australians, Maoris, and South Chinese, (35), Sundanese, Amboinese, Bugis, Nikobars, Tagals, and Kanaks, (34), North Chinese, Kafir, North Slavs, Roumanians, Magyars, and Zinganis, (33), Jews, Japanese, Siamese, Javanese, and Hottentots, (32). The Jews and Patagonians excel in length of nose, (71 millimetres). Following these are the Kanaks, (54), Roumanians, (53), North Slavs and Maoris, (52), Tagals, (51), Japanese and North Chinese, (50), Siamese, Magyars, Zingani, Madurese, (49), Amboinese, (48), Nikobars, (47), Sundanese, Javanese, South Chinese, Kafirs, (46), Hottentots, (44), Congo Negroes, (42), Bugis, (41), and Australians, (30). The

breadth of the nostrils gives quite another arrangement. Here we find the Australians excel, (52 millimetres); then come Congo Negroes, (49), Kafirs and Patagonians, (44), Tagals, (42), Nikobars, (41), Hottentots and Sundanese, (40), Malay races, (39), South Chinese, (37), North Chinese, (36), Japanese, North Slavs, Roumanians, Zingani, (35), Magyars and Jews, (34). With regard to the bust, it is found that the North American Indians and the Polynesians excel all others in size. Next to them come the North, Middle, and East Europeans; after them come the West Europeans, Negroes, and after them the South Europeans, who are followed by the East Asiatics and Malays. Among European peoples, in respect of race, we find the narrowest chests among the Semites, followed in order by Romanee, Celts, Fins, Zingani, Germans, and Slavs. Interesting results are obtained by comparison of the length of the arm and the leg-bones. Among East Europeans the leg-bones throughout are longer than the arm; among Australians, Polynesians, and especially East Asiatics and Patagonians, the leg-bones are shorter than the arm. Among Africans, only the Congo Negroes have the leg-bones longer than the arm. Dr. Von Scherzer, to whose paper we are indebted for these details, points out some important conclusions to be drawn from these data as to the classification of races of men. These we have not space to go into. While, of course, it would be quite misleading to build any classification upon anthropometric measurements alone, their importance, when obtained in large numbers and with trustworthy accuracy, as a help to anthropologists is very great."

A Feathered Sentinel.—In Buenos Ayres there lives a bird which appears to devote his existence to filling the post of volunteer sentinel, warning other birds of the approach of their common enemy, man. From its unceasing, unwearied, hawk cry, which often disturbs the silence of the night as well as of the day, and which sounds like *Ta-ru-te-ro*, the natives give it that name, but it is known to naturalists as *Valcillus-Cayanus*.

"While riding over the grassy plains," says Mr. Darwin, who tells us about them, "one is constantly pursued by these birds, which appear to hate mankind. To the sportsman they are most annoying, by warning every other bird and animal of his approach."

The Ainos of Northern Japan.—A people who most innocently and unwittingly, have long posed in books of travel and theory as "hairy-men" are the Ainos who inhabit Yezo, Saghalin, and the Kurile Islands. Though now confined to the coldest portion of the Mikado's Empire, they once inhabited almost the entire area of the main island, Hondo (most incorrectly called Nippon). In this paper we shall show, among other things, that the reputed "canine origin" of the Ainos

and their almost beast-like hairiness are myths and foolish stories of their conquerors, the Japanese.

The term "Aino" is of comparatively modern origin. They were anciently called *Ebisu* (savages) or *Yezo* people, when *Yezo* (*Yesso*), meant all the unknown land northward of the shifting frontiers of the ancient Japanese Empire—that is, the land in and north and east of what is now the great plain of Yedo. The wave of Japanese civilization rolled upward from the south, and the *Ebisu* or *Ainos* moved before it. Japanese scholars variously derive the modern epithet *Aino* from *inu*, a "dog;" *ai no ko*, "offspring of the middle," i. e., child of a breed between human being and dog.

Their traditional origin, said to be given by themselves (though the story bears a savor of having been originated by their Japanese conquerors), is as follows: A prince of one of the kingdoms of Asia, named *Kamui*, had three daughters. One of them, whose body was covered with hair, quitted her father's palace at night, and fled to the sea. There she found a deserted canoe having on board a huge dog. The young girl resolutely embarked, and set out on a voyage to the East. After some months the young princess landed in an uninhabited and mountainous country. There she gave birth to two children, a boy and a girl, who were the ancestors of the *Aino* race. Later the two children married with one another. Their offspring in turn married, some among themselves, others with the bears of the mountains. The children of these last were extraordinary men, brave warriors and famous hunters. After having remained in this country (where the *Ainos* live) during many years, they emigrated toward the North, where, continuing to inhabit the high table-land of the inaccessible mountains, they exist through the ages, not subject to death, and direct by their magic influences the actions and destinies of mankind (the *Ainos*).

The *Yezo* bear is one of the most imposing and magnificent of its species. The *Ainos* contest supremacy with him, venerate, deify him. He is the standard of their comparison of manly person and character, the burden of their national chant, and the symbol of all that deserves respect. Upon the death of a hunter by a bear, his relative vows to avenge his death, and becomes a revenger of blood against the brute enemy. — WM. E. GRIFFIS.

A Cheap Greenhouse.—The *German town Telegraph* says: "The cheapest plan of erecting a greenhouse that we have any knowledge of—and we used one successfully for many years—is to dig out a pit in a side hill, where the upper end will be just above ground and the lower end will be two or three feet above ground, where the door must be, with two or three steps down for an entrance. Wall up, roof the wall, and cover the whole with sash, as in hot-beds, the sash having more fall, say three feet in a width of two, the house being fifteen by ten. Erect

in this the stand of shelves, and when it is time to take up the summer flowers, bulbs, etc., store them here. The glass should be covered with thick straw mats, which can be removed even when the weather is coldest, in clear weather, for an hour or two at mid-day, to get the warmth and influence of the sun. At such times ventilation also should be attended to, by slightly opening a sash or two. No fire is needed. Nearly all readily flowering plants will bloom, and there will scarcely be a week during the winter that a bouquet may not be gathered, if the house is properly managed."

—
"THE noblest men I know on earth,
Are men whose hands are brow with toll,
Who, backed by no ancestral graves,
Hew down the woods and till the soil,
And win thereby a nobler fame
Than follows king's or warrior's name."

Soot vs. Wireworms.—A correspondent of the *London Land and Water* found the wireworm so abundant in every part of the garden he was set to cultivate, that he could scarcely grow a potato or a carrot without its being rendered useless by it; and among the various things he was led to adopt as preventives, soot appeared to be the only effectual remedy. This he applied to potato crops in the following manner: The drills were got ready in their usual way, and the sets laid in at the bottom of each drill; the soot was then put down upon them, in quantity sufficient to cause the drills to assume quite a black appearance. This being done, the drills were closed in the ordinary manner to the natural level, and the work was finished. Wherever soot was applied the crops turned out clean and good, scarcely a trace of the wireworm's ravages was to be seen, while those from rows not dressed with soot were quite the reverse—the potatoes being pierced through in every direction, and fit only for feeding pigs.

Lumber from Straw.—Mr. S. H. Hamilton, of Bushnell, Ill., has discovered a process for making hard wood lumber out of common straw, with all the effects of polish and finish which is obtainable on the hardest of black walnut and mahogany, at as little cost as clear pine lumber can be manufactured for. The process of manufacture as explained by Mr. Hamilton is as follows: Ordinary straw board, such as is manufactured at any paper-mill, is used for the purpose. As many sheets are taken as are required to make the thickness of lumber desired. These sheets are passed through a chemical solution, which thoroughly softens up the fiber and completely saturates it. The whole is then passed through a succession of rollers, dried and hardened during the passage, as polished, and comes out of the other end of the machine hard, dry lumber, ready for use. It is claimed that the chemical properties hardening in the fiber entirely prevent water soaking, and render the lumber combustible only in very hot fire. The hardened finish

on the outside also makes it impervious to water. The samples exhibited could hardly be told from hard wood lumber, and in sawing it the difference could not be detected. It is susceptible of a very high polish, and samples of imitation of marble, mahogany, etc., were shown, which might deceive the most experienced eye. Not only does Mr.

Hamilton claim a substitute for lumber in sash, doors and blinds, and finishing stuff, but also as a substitute for black-walnut and other woods in the manufacture of all kinds of fine furniture, coffins, etc., and also an excellent substitute for marble-top tables, mantel-pieces, etc. He claims that it will not warp in the least.—*Farmer's Magazine*.



MRS. C. FOWLER WELLS, *Proprietor*.

H. S. DRAVTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK,

AUGUST, 1879.

WHAT IS MIND?

WE should be glad to resolve this question to the satisfaction of the many of our correspondents who propound it, but we frankly acknowledge that we can not. Large libraries could be made up of the treatises which have been written by the learned for the purpose of enlightening the world on the subject, but after all it comes to this: We know of mind only by its phenomena, and by contrast. The customary method of thinkers for ages has been to describe mind by comparing its phenomena with the properties of matter. To use language quite common in this treatment of the subject: when we are conscious of anything as having the property of Extension our consciousness is occupied with the outer world and material objects, with things which are not mind. When we are feeling pleasure or

pain, remembering or reflecting, and are not conscious or observant of anything extended, we are said to be in a state of subjective consciousness, or our mind is acting in itself. The degree of mental activity depends upon the nature of the influence which has aroused the faculties. Emotion or passion produces the strongest expression. Yet such is the closeness of the relation subsisting between the mind and external nature that the major part of mental activity is resultant from impressions made upon the faculties by physical objects. There is a class of thinkers who claim that mind is a growth dependent upon external impressions, and not an entity distinct from the physical. Another class attributes to mind a spiritual or immaterial consistency, and claims that it is something above the physical, yet operating upon it through the brain, and according to the perfection of that organism is the refinement of its expression in human life. Another class which counts among its members some of the leaders in modern science, strongly insists that mind is simply a production or excretion of the brain tissue, an essence, subtile enough, of material elements. This last class places mind on the same footing with other subjects of observation, and predicates its nature according to their analysis of its phenomena. They relegate to the domain of fancy all discussion that may not be sustained by phenomena. In other words, they demand positive evidence, literal facts, for their belief in things mental as well as in things physical.

As for ourselves, we are inclined to regard mind as an entity superior to brain tissue, but how it is brought into contact and relation with the brain is beyond our power to explain.

This is not our construction (if construction it can be called) of the intelligent sense or mind. It has been held by the leading phrenologists from the first. Dr. Gall himself says: "When I say that the exercise of our faculties, moral and intellectual, depends upon material conditions, I do not mean that our faculties may be a *product* of the organization; that would confound the conditions with the efficient causes—I hold to what one can subject to observation. Thus I consider our moral and intellectual faculties only so far as they become phenomena through the agency of the cerebral organs."*

In harmony with this great teacher, Dr. Spurzheim says: "We separate the faculties of the soul or of the mind and consider the cerebral parts as instruments by means of which they manifest themselves." And later, Dr. Capen, author of "The History of Democracy," says, in a pamphlet which was published in answer to a criticism of phrenology which had appeared in *The Christian Examiner*: "The conclusions that 'the manifestations (spoken of by phrenologists) are the manifestations of the cineritious and medullary substance,' and that the 'organs are the *cause* of mental phenomena,' are perfectly gratuitous on the part of the reviewer, and without authority."†

Every one who has given attention to the subject knows how susceptible the mind is to influences excited by physical condi-

tions, and also how mighty is its effect upon vital organism. So interblended in action and reaction are mind and body, that they at times appear inseparable and interchangeable. Yet we are all the while conscious of something within us which is capable of better things than we do, a something which urges us to look higher and strive more than is our wont. No man ever accomplished so grand a result in personal development that he felt within his soul he had reached the limit of his capability. No, the higher the reach of mental improvement, the broader the sweep of the spiritual eye over the desirable and unattained. This very expansion of the mind, its capability of grasping ever-widening vistas of human amelioration, is to us a demonstration of its being more, than common matter, more than protoplasm.

ONE OF THE BLOTCHES ON OUR CIVILIZATION.

WHILE on the street the other day we saw a man crippled in both limbs, so that he was compelled to shuffle laboriously along on his knees. He carried an accordion, and occasionally stopped to peer at the upper and lower windows of a house, thus seeking an audience for his music. Aside from his distorted feet, he appeared in excellent health, and the dexterity with which he fingered the keys of his instrument showed no lack of manual vigor.

He was accompanied by a woman apparently thirty years old, a robust, active person, who assisted him in crossing the street, and carried a tin cup, which we inferred was to receive the contributions of soft-hearted people who might express their pity for the cripple in a pecuniary way. While we contemplated the two, however, the abject appeals of the man and the listless ex-

* Recherches sur le System Nerveux en General, et sur celui de Cerveau en Particulier.

† Thoughts on Materialism, Insanity, Idiocy, etc., by Nahum Capen. Boston, 1835.

pectancy of the woman elicited no responses of copper or nickel from the passing multitude or from neighboring windows. Perhaps after we had turned away there was a dropping of coins into the tin cup, but we heard it not, and our reflections ran somewhat after this manner: "There is a man who could be useful in many ways; he has health, strong hands; in some sedentary occupation he could by industry earn a comfortable livelihood and be independent. There is a woman in whose appearance we can find nothing to excuse her mendicancy. Were she willing to earn her bread by honest labor, she could easily find the opportunity. Indeed, she could earn enough to keep herself and her crippled companion in a state much better than that which is dependent upon begging." We noticed that the complexion and features of the two mendicants were of the type which is best illustrated by the Italian, and we were reminded by that fact that some of our acquaintances who wield the crayon and splash the canvas, would probably find some very *artistic* elements in the faces and attitudes of the beggars. But somehow or other we could not dwell upon their esthetics. To our mental view, the practically vicious side of their conduct persisted in occupying the foreground. We saw them as two indolent loiterers in the highway of civilization, stolidly, abjectly, soliciting the public to give them money that they might live without labor, without sense of responsibility. With evident capabilities for usefulness, they were more than wasting their best years. It could not be that this truth did not press upon their recognition from time to time; but in their pitiful indolence, or slavery to the habits of beggary, it failed to arouse more than a temporary thrill of self-condemnation. The next moment they had settled again into the old channel of thought, heed-

ful only of the needs of the present, and planning how to supply them without rendering aught of compensation. How many such wretches we jostle against on the busy thoroughfares! Who will show them how to live? "Who will show them any good?"

THE NORTH-EAST PASSAGE.

THE Swedish explorer, Nordenskjöld, concerning whose safety grave apprehensions were entertained, has been heard from. He has solved the problem of the North-east passage from the Atlantic to Behring's Strait.

It will be remembered that in the summer of last year Nordenskjöld left Norway for the purpose of exploring the northern coast of Asia and entering the Pacific through Behring's Strait. For several hundred years the world had been interested in the attempt to find a north-east passage from the Atlantic to the Pacific, just as it has been interested in the endeavor to reach the North Pole. Prof. Nordenskjöld appears to have made the passage with comparative ease. He sailed with two vessels—the *Vega* and the *Lena*—and, on the 7th of August, reached the mouth of the Yenesei. On the 21st rounded Cape Chelpskin, the most north-eastern point of Asia, and a week later reached the mouth of Lena River. Here the vessels separated—the *Lena* going up the river and the *Vega* going eastward toward the strait. For a long time no tidings were received from the *Vega*. It was even reported by a vessel which arrived at San Francisco that a vessel supposed to be the *Vega* was ice-bound forty miles north of East Cape.

Considerable excitement was awakened in scientific and commercial circles. Expeditions were organized to search for Prof. Nordenskjöld and his companions. The

Russian Government was particularly energetic in this respect and had ordered an overland expedition from Yakhutsk and set on foot other measures.

According to his own report, the courageous navigator made his way with tolerable facility, wintering in safety amid the rigors of an Arctic winter, and, when the genial warmth of early summer loosened the ice, unfurled his sails and proceeded on his course of discovery.

Prof. Nordenskjöld has been very successful as an Arctic navigator. In previous

voyages he demonstrated the practicability of commercial relations between Europe and the Yenesei and Lena Rivers, and held stoutly to the practicability of navigation in the Arctic Ocean.

Whether or not the north-east passage will become thoroughly available for commercial operations between this country and China and Japan remains to be determined. The fact that a voyage can only be made during the warm weather is not a favorable one. Russia, however, may turn the discovery to important national ends.



"He that questioneth much shall learn much."—Bacon.

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 FAILS 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.

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. Anonymous letters will not be considered.

DEFECTIVE ORGANS COMPENSATED.—

A man with large perceptives may take in details enough on all subjects to be able to talk with more or less fluency, but he will not show ability in construction unless he have the organ of Constructiveness fairly developed. A man may plan from the intellect in conjunction with Ideality; he may suggest methods for carrying into effect certain things; but if Constructiveness be small, he will not show distinctive practical ability in such undertakings. A man with a long head may have a fair development of Constructiveness, and yet it may not appear conspicuously to one who is not conversant with the details of examining. No combination of organs will compensate for a deficient development of Constructive-

ness. We have heard phrenologists speak of other organs making up for one that was deficient in the brain; they evidently were not well grounded in phrenological philosophy. Each organ has charge, so to say, of a certain sphere of mentality, and other organs can not tread upon or occupy its place. Locality has to do with place; Tune with melody; Ideality with imagination; Cautiousness with fear; Combativeness with boldness; Firmness with decision; Benevolence with generosity, and so on. Locality can not compensate for a want of Tune, of Time, Eventuality, Benevolence, etc. Combativeness can not compensate for a lack of Firmness, Secretiveness, Destructiveness, etc. There is no such thing as one organ occupying the place of another under any circumstances, and the sooner the student of Phrenology gets that essential principle well impressed upon his mind, the better for his advancement in phrenological philosophy.

INFECTION — CONTAGION. — Question : Will you be kind enough to give me a definition of these two terms? They mystify me, and I am unable to obtain a clear understanding of them from others. Most people appear to mix them.

Answer : It is more difficult to define these terms than one would think at first glance. Even physicians seem to mix them. So far as we can discern, infection signifies that the origin of the poison of a disease is external to the animal affected by it. In other words, the poison is not the product of the animal organism which it infects, but owes its existence to external causes, whatever they may be. Contagion is a product or poi-

son emanating from diseased organism. I. is matter communicated by an affected person or animal to another, entering his blood, and occasioning, by its development therein or through the disorganization which it produces, all the symptoms and changes which characterize the original disease. Miasmatic disorders are infectious. They are hardly ever limited to one particular place, but may be distributed through the atmosphere of an entire district, and affect many persons at the same time. A contagious disease, originally emanating from an affected person or animal, is extended by other individuals in the vicinity inhaling or swallowing the emanated matter. The poison of infection may exist in a gaseous form; arise from decomposing vegetable or animal matter, or in the form of living organisms suspended in the air, which are known as spore or fungus, or bacteria. The poison of contagious disease being the product of an animal organism, is of a glandular origin; in other words, the product of a secreting cell.

SLEEPING WITH THE MOUTH OPEN.—

This is an improper habit for one to contract, as it is unnatural; and one who gets accustomed to sleep thus, generally awakens in the morning with very disagreeable feelings in the mouth, and experiences less refreshment than if he had slept with the mouth closed. The nostrils are given us as the instruments of respiration; the air in passing through them undergoes a filtering process, as the channels by which it reaches the lungs are crooked and long, and arranged in other respects for breathing. We think that people who are in the habit of breathing through the mouth are rendered liable to disorders of the mucous membrane, catarrh, pulmonary affections, etc.

MIND READING.—E. G.—The experiments you recite are similar to many of which we have heard, and they evidence that one mind can influence another to the degree of communicating its impression in a subtle manner. The process appears to be beyond the pale of scientific interpretation. It is something different from clairvoyance. You may term it "magnetism," if you will, as that is as good a term as any, for the reason that the mind which is reading or expressing impressions without exercising the senses is under control of another's will.

NOSE AND CHARACTER.—Prominence of the nose, by which we mean that its projection outward from the face indicates a disposition to inquire, to observe, to learn, with something of the quality known popularly as "inquisitiveness." People with such noses are fond of making investigations; they are curious about that which is unusual and strange; but a somewhat different character is indicated in the Ro-

man contour. The nose of Secretary Evarts, which you instance, is indicative of positiveness, decision, and assured reliance upon self. There are phases of this outline which approach deformity, and these cases indicate rather weakness, in that the person may be over self-reliant, may trust too much to his powers, and so defeat his ends. We think the nose relates more to the physical forces in the organization than to the intellectual development, although we usually trace a relation between a finely-chisled nasal organ and symmetry and refinement of mental development.

ABSENCE OF MIND.—*Question:* There are times when I lose myself for seconds, and always return to consciousness with a shiver. It has occurred to me in company, but for so short a space of time that the person with whom I was talking didn't observe it; it might have been minutes or hours for aught I know. The first time I observed it I was a child in church, and was looking intently at a figure on the wall, and the impression remained with me for a long time that the figure I was looking at had something to do with it. It has occurred in the school-room (I am a teacher), and for the instant I am absent from my class, where, I know not; it takes me an instant to recover myself and remember where I am, and I have a very peculiar feeling for some time afterward. I would like to know your opinion in regard to it.

Answer: You doubtless have a predominance of the reflective organs, and that has a great deal to do with the experiences you relate. There is also a high degree of nervous intensity. An idea enters your mind, and for a moment or two absorbs the attention of your thoughts; you forget surroundings. The time may seem to you long, but usually it is but a minute, perhaps not half that in most instances. The shiver you speak of is occasioned by your return to consciousness, by your sudden appreciation of where you are, your work, your duties, and it embarrasses your mind for a moment, so that some seconds are necessary to enable you to recover your balance and adjust yourself to your duties.

CALCULATION AND ANALYSIS.—*Question:* What is the difference between the organization required to make one a rapid, accurate calculator, and to make one good in the analysis of complicated problems? I see rapid, accurate calculators who can not analyze, and good analyzers who can not calculate well.

Answer: Good calculators, or those who are able to use numbers in computations which have no very intricate relations: for instance, simple processes of multiplication, addition, etc., and reach the exact results, have large Number, or Calculation. Those who can analyze, who are able to appreciate the higher branches of mathe-

maties, the logical relations of numbers, have a good development of the reasoning organs, especially Comparison. We have met persons who are very quick in performing examples in multiplication and division, multiplying a number composed of six or eight or ten integers by itself, extracting the square root, or the cube root of a large number, or raising a certain number to its fourth or fifth or even higher powers, but in the department of reasoning they were deficient. The boy George Bidder, who was very remarkable for his power of mental calculation, was thought to be adapted to professional engineering, but on trial failed; he lacked the organization adapting him to appreciate the philosophy which enters into the combinations the engineer must work out when planning some extensive enterprise, like the building of a bridge or a great public building or planning machinery for certain kinds of work.

SPONGE PILLOWS, ETC.—H. S.—Sponge is excellent for cushions, mattresses, etc. The very best quality of sponge, however, is necessary. Cotton is good material for such purposes; so, too, is hair. For pillows we prefer hair not too tightly massed.

MARRIAGE OF THE RACES.—H. S. J.—The joining of persons belonging to the different white nations or races is not at all objectionable. We think the happiest results may be expected from the marriage of a Frenchman to an English lady, both being in good health, of course; or the association of the Irish and English strains, or German and French, or Italian and Scotch or Swedish, and so on.

CAUTIOUSNESS AND SELF-ESTEEM.—J. W. L.—It is somewhat unusual for one to be deficient in both these qualities. It is common for one to be deficient in Self-esteem and strong or large in Cautionness. On the one hand, we should be inclined to advise you to be prudent in your conduct, to avoid extremes, and to be careful in the exercise of your strength and means; on the other side, we should advise you to be self-reliant, to work out your own purposes for yourself, and to be less disposed to appeal for advice and help from others. Do not be precipitate, rash, or headlong; cultivate moderation in all that you do; think over the matter, then act about its performance. Lay your plans carefully and work according to them, turning neither to the right nor to the left. Make use of the very trite but excellent aphorism, "Be sure you are right, and then go ahead."

COL. INGERSOLL'S CREED.—G. W. L.—We are unable to define this gentleman's religious belief. According to his own avowals, he is very earnestly hostile to Christianity, and seems to be on the side of Tom Paine, Voltaire,

Strauss, and others, who appear to entertain what are called Deistical opinions. Pagan is a term usually applied to worshippers of idols, animals, and other earthly objects, whether as divinities in themselves or as symbols of supernatural power.

Perhaps your rheumatism is aggravated by too much bathing. Once a day, we think, would be sufficient, and let the water be about 65°.

COUNTRY SPEAKING.—G. A.—On account of their isolated life, country people have less to excite them than the dwellers in a city, and, hence, their temperament has less of the Mental element, which conduces to excitement and irritability, and so quickens the action of the mental faculties; they think with comparative slowness, and speak correspondingly.

SEVEN WISE MEN OF GREECE!—M. J.—The honor of being enumerated among the Seven Wisest of the Grecians is generally given to Solon, who is the reputed author of the celebrated motto in the Delphian Temple, "Know thyself;" to Chilo, whose motto was, "Consider the end;" to Pittacus, author of "Know thy opportunity;" to Bias, "Most men are bad;" to Pericles, "Nothing is impossible to industry;" to Cleobulus, "Avoid excess;" and to Thales, who said, "Suretyship is the precursor of ruin."

Several ANSWERS must be deferred to the next number.



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

SOME OF MY "NOTIONS."—[Under this title a contributor to *The Household*, a periodical so long and so well known in this country that any special characterization would be superfluous, says some very pertinent things concerning Phrenology. We take the liberty of republishing the article—Ed. P. J.]

As long ago as memory serves me, there was an impression made upon my mind by a conversation between my father, who was a physician, and a friend of his, regarding some lectures upon phrenology and psychology they had been attending, and the discussion hinged upon the practical value of those, then, new branches of science. My opportunities to glean information upon them had never been improved until it occurred to me while teaching school my one winter, that the influence exerted by a delicate girl over a dozen or more rude boys who were older and physically stronger, must be the result of an asserted men-

tal strength, and as opportunity offered I experimented a little, looking what I wished to say, with gratifying results; and since I have felt the need of help in governing my family, both children and servants, I have found in continued experiments in this direction a benefit, though it be only one of my—"notions." And would like to know if there is any avenue to information further upon the subject open to a casual reader who can seldom give more than an hour of the twenty-four to reading.

Of the practical value of mental strength—of will, of expression, of snariness—in a nurse, any physician will testify, but 'tis for phrenologists to tell us if these qualities assert themselves or require exercise for development.

When I consulted Prof. Capen as to the education of my eldest child, before he had been six months in school, that I might direct every lesson to the best interest of the business for which he seemed best fitted, 'twas in the face of opposition and derision if not contempt from some of my best friends, who treated me to opinions as to the folly of "fortune-telling" and waste of money, but my faith continues and I propose to consult him again and again for each child at from seven to ten years of age and a second time, before putting them to trades or business to test, for my own gratification, if nothing else, if he will tell me the same story twice of the same head. If we know of tendencies to wrong-doing and the weakness of good qualities with which our children begin the world—from prenatal causes oftentimes—would not, could we not sympathize, warn, encourage, help more certainly than we might, if, as too often is the case, we allow the conceit that our offspring can not but be naturally better than those of our neighbors? I feel certain if parents believed in Phrenology and educated their children for the positions in life for which they are by nature fitted, there would be fewer people of whom it could be said, "He has mistaken his calling," and less sadness of heart over possibilities discovered "too late" to save from lives of wretchedness many lovely daughters. I think it is to be deplored that the old custom of lecturers (upon physiology, phrenology, or in courses, of from three to five lectures) going through the country upon their own responsibility has been abandoned. The many litters who took up the cue were probably the ruin of the custom, but I think the country is ready now again for good men who know of what they speak.

While the subject of education is an all-important one, and I am in sympathy with all sensible advancement in any direction, there seems to be an aimlessness in the lives of most students of either sex that prevents them from appropriating anything of the much general information so necessary for the many whose school-days end

at from fourteen to sixteen years of age, and 'tis just here educators should pause and ponder, and parents inform themselves as to whither their children are going and what the results will be.

P.S.—I have no axe to grind.

ALEXANDER POPE.—Of all the great English writers Pope seems to us the greatest study, for into his poems are infused so much of his own strange, sensitive individuality. How can one describe them? They are not penlandscapes like many of Byron's; they are not dainty bits of nature like Burns'; they do not point to nature's God like Cowper, for his wit, fine and polished, lies concealed like the bright, flashing sword in its scabbard, giving but a hint of its presence and power. What are his poems, then? We can only answer: they are Pope, original, inimitable, unique.

Alexander Pope was born in London, May 21, 1688. He was a puny, sickly child, and in the more than half a century that he lived, the poor, unlovely, diminutive and deformed body was never free from some weakness or malady. He was a great reader and an ardent lover of Spencer, Waller, and Dryden in his very childhood; and very early displayed his own talent for versification. Of his earliest poetic attempts the "Ode on Solitude" only remains. His first appearance in public as an author was on the occasion of the publication of his "Pastorals" when he was twenty-one years old, but which were written five years before. These were spoken of highly by many of the ablest critics of the day. A life of honor and distinction was at once gained by the poet; he was courted by the wealthy, sought out by the wits of that age, and the bitter and caustic sarcasm of his ready pen feared by his literary enemies.

His translations of the two great epic poems of antiquity, the *Iliad* and *Odyssey*, of the selves would have brought him fame, but they far from exhausted the mental powers he held in reserve and which resulted in his "Imitations," "Satires and Epistles," the "Dunciad" and moral essays. The "Rape of the Lock" is somewhere charmingly described as the "most exquisite specimen of filigree work ever invented; it is admirable in proportion as it is made of nothing. It is the triumph of insignificance, the apotheosis of foppery and folly. It is the perfection of the mock-heroic." The plot—if plot it can be said to possess—is founded on a "trifle light as air," and none but Pope could have thrown around it such a delicate, fanciful, rhythmic wreath. Lord Petre severs a lock of hair, in sport, from the sunny little head of Arabella Fermor—a very pretty and very silly little lady, whose dignity was injured and temper fearfully ruffled by such a lawless and daring act; results:

a feud between the two families, and Pope's good-natured satire, whose delicious nonsense caused the poem to win public favor at once, passing through three editions, a great literary success for those days.

Pope died the 30th of May, 1744, but his name and works will ever live, and England may well prize the poet who from so humble circumstances as the son of a linen draper, rose to so high and well-deserved a distinction.

There are few poets so widely quoted from in literature and conversation, as Pope; and many terse sentences, familiar as household words, we find in his works, and in closing this fragmentary sketch of our author we will give a few, as possibly many may not be aware from whence these old friends dated their nativity.

In his masterly essay on criticism we have:

"Pride, the never-falling vice of fools."

"A little learning is a dangerous thing," and,

"To err is human, to forgive divine."

By him we are introduced to the Hon. Mr. "Lo, the poor Indian," and from his works, too, we often hear quoted:

"Beauty draws us with a single hair."

"Whatever is, is right."

"The proper study of mankind is man."

"Order is heaven's first law."

"An honest man's the noblest work of God."

"Just as the twig is bent the tree's inclined."

"The feast of reason and the flow of soul."

"Honor and shame from no conditions rise;

"Act well your part, there all the honor lies."

A. L. ROCKWOOD.

HEALTH REFORM, AND A COLONY MOVEMENT.—We all have the sad spectacle before our eyes of great men, good men, statesmen, divines, and others who have fallen or proved recreant to the promises and professions of a lifetime, and if we will carefully and fully examine the causes, we will find that in nearly every instance they started from diseased bodily conditions, or were founded in habits which rendered the blood impure, the secretions depraved, the brain confused, and consequently the sensibilities perverted, the intellect beclouded, and the moral sense obscured.

Very few outside the ranks of the health reformers are aware that the dietetic habits almost universal among our people at the present time are the predisposing causes of the moral and physical depravity that we behold on every hand. The masses can see no connection between the food they eat and the physical and mental suffering they endure; even the well-educated and refined classes of society, the moral and religious teachers and ministers of the Gospel, square their lives by the Scriptural passage that "Man born of woman is of few days and full of troubles" (which they interpret literally).

When they become sick, they are perfectly satisfied in calling it "providential;" still they have a way of twisting their theology and sending for a physician to assist in removing this most providential act.

There are thousands of true health reformers in the United States, but they are so isolated that it is impossible for any great number of them to attain to anything like perfection. There are other thousands that would be glad to live in accordance with the laws of their being, if they could find a place in which they could receive the counsel and sympathy of congenial spirits. There are many fond parents that would go to the ends of the earth, if by so doing they could find a place in which to rear their children free from the vices and evil influences of fashionable society. To all such I wish to say that there is a small number of health reformers in this vicinity where I live, who have determined to go away from society as it is, and build up a society of their own, in which they can worship God according to the dictates of their consciences, in body as well as in spirit, in which they can obey as well as learn the laws of Nature as manifested in and through the living organism. In order to interest as large a number as possible in our enterprise, we wish to open a correspondence with health reformers in all parts of the country. We have no particular place in view as a location for our colony, but wish to find the best wherever that may be. We expect to locate in a mild and healthy climate where land is cheap; if we can find Government land where the soil and climate are adapted to our wants, we think of locating on it so as to give the poor an equal chance with the rich to get land on which to make a home. In establishing a colony we do not propose communism or unitary homes; we neither expect nor desire a uniformity of religious or political sentiments; we only ask a unity of purpose in carrying out the great truths of health reform. We are thoroughly convinced that health reform is the very foundation of all reform; in fact, that it includes all true reform; health reform means *obedience to all the laws of our being*. To have healthy muscles, nerves, brain, bones, etc., we must conform in *all respects* to the laws which Nature has implanted in our organization; and to have healthy perceptions, judgment, conscience, will, passions, emotions, propensities, etc., we must obey the irreversible laws which control the mental and moral manifestations. In short, health reform means, "Cease to do evil, and learn to do well," in *all things*. The basis of all good, all truth, all progress, is integrity in the bodily structures. The immediate source of all error, all falsity, all crime in the world, is unhealthy conditions of the bodily organs. The idiot, the madman, the murderer, are

but extreme illustrations of the principle. Avarice, drunkenness, gambling, licentiousness, selfishness, and the multitude of vices, crimes, faults, and foibles, which are so prevalent as to be regarded by many as necessary evils, and by some as the normal conditions of society, are nothing more nor less than the legitimate offspring of foul blood and bad digestion. If the Christian would succeed in evangelizing the world; if the temperance reformer would rid the earth of the terrible curse of intoxicating drinks; if the moralist would close the dens of debauchery and prostitution; if the statesman would purify legislation of party politics and chicanery; if the philanthropist would shut up the gambling hells; and if the sociologist would induce men to deal equitably with each other, they must go back to first principles, and teach all classes and all conditions of human beings that the first rule of conduct and the highest good of all requires a life in accordance with the *laws of life*. This must be accomplished, if accomplished at all, through the health reform movement, by hygienic preaching and practice. Health reformers must *never* falter in the good work, nor give way to the world in what they know to be wrong, but stand firm, fixed, and true, as knowing the right and daring to maintain it. We must overthrow the moldy structures of time-crusted error; meet the opposers of our system with plain, practical living, so plain that a fool need not err therein; discard all fashions that are not consistent with reason, common sense, and decency; crush out intemperance from the whisky bottle down to the castor, and thus rear a philosophy beautiful as heaven, true as life, and firm as the rock of ages.

Any person wishing to become one of a society as above indicated, will learn our plans and prospects by addressing

J. O. CLARK,

Black Jack Grove, Hopkins Co., Texas.

PHRENOLOGY NOT A PROOF OF FATALISM.—There are conscientious, and, in many respects, correct-thinking people, who insist that Phrenology is a false notion because, if true, it is to them a proof of fatalism. Surely a careful examination of the subject would convince them of their error. For there is no organ of the brain, as acknowledged and defined in Phrenology, that goes any further toward proving fatalism true, than does the fact that we have feet or other physical members. The organs of the brain and members of the body bear precisely the same relationship to the soul; they are physical avenues by which the soul may be approached, and through which the soul may act. One would be as just in saying, "We have feet, therefore we are predestined to dance," as to say of an individual, "He is foreordained to steal, for he has large Secretiveness." The

truth is, we have feet—the power to walk. That power may be misapplied to dancing, or otherwise. Secretiveness, as a power of self-conservation, may be used naturally, reasonably, in the way God meant it to be used; or it may be perverted to stealing or lying. So with the other organs of the brain, as set forth in Phrenology.

If any one will acquaint himself with Phrenology sufficiently to make anything of a general application of its rules, he can demonstrate this for himself. He will soon find persons of well-developed domestic faculties who have lived to old age without being married; persons with large Veneration, who have never professed to be religious, and many with more than an ordinary development of intellect, who have never been engaged in a strictly intellectual pursuit. This shows that a faculty may not only escape perversion, but that even its natural use may never obtain full sway. The fact is, the use or abuse of a power of the brain, like other physical powers, depends upon the will. When one organ acts, the blood is called to that, to the neglect of others; and such a process kept up, renders some organ more or less incapacitated for action. The same is true of every member of the body. Instance the disabling of the feet by Chinese women, and the weakening of the muscles of the body by the American custom of wearing corsets.

MISS ELIZA J. STEPHEN, A.M.

NERVO-MENTAL FORCE — "Oh, here are more philosophical speculations!" petulantly exclaims the profound reader. Not so, my hasty critic. Be assured you have my sincere sympathy, because I know, only too well, the vast libraries, the unnumbered tomes, that you have been obliged to examine to familiarize yourself with the diverse schools of philosophy, founded on the teachings of Plato and Aristotle, and amplified by their respective scholastic followers, covering a period of over two thousand years, until the induction of modern philosophy at the beginning of the seventeenth century; and I know, too, very well, that since the Baconian era, each generation has given birth to a school or two of philosophers until the nineteenth century finds almost every famous seat of learning promulgating a different class of philosophical speculations in regard to some of the higher attributes of man. I am not surprised, then, to hear you exclaim, "Give us a rest;" but be patient, and "hear me for my cause." My object in writing is to clear away some of the so phistical speculations of the past, and to present facts—facts that can be demonstrated beyond a reasonable doubt. I hope the day has been ushered in when hypothesis will be compelled to give way to reality, and that the philosophers of this age will cease to speculate, and direct their ponderous intellects in the direction of investigation.

"Nervo-mental force" simply implies a force supplied by the nerves and wielded by the brain or will. "Nervo" is derived from the Portuguese, and signifies nerves. I use this phrase, because it conveys exactly what I comprehend. [Rather is it not from the Greek *neuron*, whence the scientific term neurology?—Ed. P. J.]

Several years ago I discovered that certain extremely nervous persons, under favorable circumstances, conveyed certain sensations to me. I was at first told this was "sympathy," but, by a series of accidents, I was led to investigate the phenomenon, and my investigations resulted in satisfying me that *all the higher forms of animal life hurl or radiate a current of magnetism or electricity (?) upon every object to which the attention is directed, and that when directed against a similar animal body it has, at least, a sensible effect.* This current I discovered was hurled or radiated from the eyes. After a severe strain I found my eyes invariably painful and much exhausted. My body, after experimenting for an hour or two, is literally covered, as it were, with electricity (?), causing pricking and stinging sensations and neuralgic aches, similar to those produced by an electro-magnetic battery. To relieve myself I am frequently compelled to walk my chamber or apply some cold substance. From these and other reasons I concluded that the current was electrical, similar to that of the gymnotus, the ray, the serpent, the cat, and the toad. In my many experiments to ascertain whether the current is direct, I have found no non-conductors that break it; therefore, I conclude that it is propelled or radiated directly through the atmosphere or space.

My experiments were suggested by the successive steps of my discoveries. After having learned that sensations were communicated to me in the manner described, I began to direct my mind upon others, and I soon discovered that in from twenty to forty seconds I experienced a return circuit, when I experimented with the passive mind of a nervous person. The best time to make these experiments is in the morning, between the hours of one and five o'clock. I soon could tell whether my subject was asleep or awake, or whether my force caused a dream. The return circuit would concentrate, invariably, upon the same portion of the body, not varying once in many months. If there was any variation, it was only in amount of surface covered growing out of the excitement of the subject. In cases of extreme excitement the force was much stronger, the neuralgic pain much sharper, and the surface covered greater; no two, in a score of cases, concentrating their force upon the same portion of my body. However, in my long and extensive experience, I have discovered that upon the spine, immediately over the location of the heart, there are many more concentrations

than on any other portion of my person; but in many instances I find my mind directed to the subject before I notice the force. These sensations are what we usually call neuralgia. They are the witchcraft of the Dark Ages, and I am sorry to say of more recent times. Should the subject have a sore muscle or gland, the force would cause it to give pain. I soon learned that persons of a bilious temperament, persons of dark complexions and negroes, have much more force than blondes. Females generally have twice or thrice the force of males. Men appear to have lost the power save when much excited.

As I proceeded with my experiments, I soon learned that all the emotions, all the feelings which are peculiar to us, can be readily communicated to nervous, sensitive persons who remain passive, by simply directing the mind for a few minutes upon such passive persons, while the experimenter is in the proper mood. All excitements can be communicated in this manner. Some epidemic diseases can thus be disseminated. If the mind is turned directly on the brain of a passive, sensitive person, thoughts will be readily conveyed. By this means an idea may be conveyed to a whole community. This accounts for religious, temperance, and other reformatory waves. The concentration of many minds, with a single idea, upon a single individual who is sensitive, is likely to prove irresistible. It is only the lymphatic who can hold out, and even these from policy frequently surrender.

Mesmerism and fascinating or "charming" occupied my attention in turn. I found here and there a good mesmeric subject, not many, who would pass into a mesmeric sleep readily when my mind was directed to them. While in this condition the motor nerves were subject to my will, and I appeared to control the muscular action quite as readily as they could themselves. I had previously demonstrated to my entire satisfaction that such action is the result of nervous force. I have had numerous demonstrations of this fact. Fascinating can only be accomplished on a good subject. There may be times when any one may be fascinated, but it is a rare thing to succeed.

Spiritualism, which brings all this peculiar phenomena into requisition, as well as clairvoyance, have engaged much of my attention. It is in these higher stages of nervous phenomena where the reasoning faculties marvel at the grandeur and sublimity of the reasoning world, I must confess that I have not mastered them, but I have had sufficient experience to satisfy me that nervo-mental force is the key to all the mysteries which enshroud them.

For the last four months I have given a great portion of my time to experimenting with clair-

voyance and clairaudience, and therefore I assert what I know to be facts. The latter is the result of two persons simultaneously directing their minds to each other and uttering sounds, and the circuit of electricity passing between them conveys the sound. It is quite probable that what was accomplished by Prof. Loomis, in the mountain heights of Virginia, can be readily accomplished by two good subjects, with delicately-constructed instruments in the nature of telephones, anywhere and at any distance.

I invite the scientific to examine the phenomena of which this article is predicated, and to assist me in its investigation that their testimony may be added to mine.

Huntingdon, Pa.

J. R. DURBORROW.

PHRENOLOGY IN LITERATURE.—Mr. Burroughs' fresh and sprightly book, "Locusts and Wild Honey," abounds in suggestive reflections on scenes and life out of doors. In his chapter entitled "Sharp Eyes," he indicates a scientific vein, and speaks particularly on the discovery of rare and characteristic things. In the course of his carefully-penned thoughts occurs this: "The phrenologists do well to locate not only form, color, weight, etc., in the region of the eye, but a faculty which they call individuality—that which separates, discriminates, and sees in every object its essential character. This is just as necessary to the naturalist as to the artist or the poet. The sharp eye notes specific points and differences—it seizes upon and preserves the individuality of the thing."

WISDOM.

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

MEN of wit have not always the clearest judgment or deepest reason.—ROBERT WALSH.

It is easy to look down on others; to look down on ourselves is the difficulty.—LORD PETERBOROUGH.

ONLY what we have wrought into our characters during life can we take away with us.—HUMBOLDT.

MOST of the shadows that cross our path through life are caused by our standing in our own light.

THE hum of a tea-kettle paid for is more beautiful than the most splendid air on a piano that is not.

It is an uncontrolled truth that no man ever made an ill figure who understood his own talents, nor a good one who mistook them.

THE longer I live the more do I become satisfied that nothing is so good for people who are in deep trouble as real hard work—work that

not only occupies the hands, but the brain; work on which one lavishes the best part of the heart.—W. G. ELIOT.

No good man ever gave anything without being the more happy for it, unless to the undeserving, nor ever took anything away without being the less so.—LANDOR.

KNOWLEDGE dwells in heads replete with thoughts of other men;

Wisdom in minds attentive to their own.

Knowledge, a rude, unprofitable mass,

The mere materials with which wisdom builds,

Till shaped, and smoothed, and fitted to its place,

Does but encumber what it seems to enrich.

A NOBLE man compares and estimates himself by an idea which is higher than himself, and a mean man by one that is lower than himself. The one produces aspiration, the other ambition. Ambition is the way in which a vulgar man aspires.

MIRTH.

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

WHY is a baby, before it is christened, like a newspaper article without a signature? Because it's anonymous.

HIS name was Wrath, and when he asked his girl to marry him, she gave him a soft answer; and a soft answer turned away Wrath.

"My dear," said a gentleman to his wife, "our club is going to have all the home comforts." "Indeed," replied the wife; "and when, pray, is our home to have all the club comforts?"

AN ethereal maiden called Maud,
Was suspected of being a fraud;
Scarce a crumb was she able
To eat at the table—

But in the back pantry, . . . O Lawd!

HE was a hard-looking old customer; he was blear-eyed; his hair was long and straggling; his clothes were in rags, and he was fearfully dirty. You never would have supposed that he was worth \$6,000,000, and he wasn't.

THE following was recently sent to a school-mistress in Birmingham England: "Miss X., can you allow our Henrietta Georgiana to come home and nurse Glandius Alfred while our Louise Anne Victoria goes to dancing-school?"

SARAH BRIGGS (reading the local)—"Sakes alive! I would no more name a child Alias than nothin' in the world! They're allurs cuttin' up some caper. Here's Alias Thompeon, Alias Williams, Alias the Night-hawk all been took up for stealin'!"

THE EXACT SPOT.—"And where was the man stabbed?" asked an excited barrister of a physician. "Well, it was about an inch and a half to the left of the median line, and about an inch above the umbilicus," was the reply. "Oh, thank you, sir, I understand now; but I thought it was near the Town Hall."

A POPULAR concert singer, advertised to participate in an entertainment in a Missouri village, excused her absence on the ground of having a severe cold in the head, and the next day received the following from an admirer: "Thiz is gouse greze; melt it, and rub it on the bridge of yore noze until cured. I luv you to distrax-shun."

PERSONAL.

THE death of the young Prince Imperial of France at the hands of savage Zulus, was a sudden and swift termination to his military career. No matter what one's opinion of the Bonaparte family may be, and of its relation to the political embarrassments of France, he can scarcely help a feeling of sympathy for the poor Empress Eugénie, who clung to her boy as her only stay. He was but twenty-three.

LORD DUFFERIN is said to have retired from the Governor-Generalship of Canada a poorer man than when he assumed the duties of the office. The salary was \$50,000 a year, upon which he was expected to maintain a semi-royal state. His salary as Minister to St. Petersburg is \$50,000.

JAMES COLLINS and his wife, the latter known as Martha Wren, were considered a strong attraction in the variety theaters a few years ago. Mrs. Collins was young, pretty, and clever. The pair played in musical sketches, and received high pay. The wife has now been sent to a Philadelphia inebriate asylum, her drunkenness having kept her for a long time off the stage, and a delirious attempt to kill her children rendering police interference necessary.

"EDITOR KEITH, of the Denison (Iowa) *Bulletin*, is publishing a series of interesting articles on the theory and practice of Phrenology." So says the Council Bluffs *Daily Nonpareil*. Mr. Keith is a very thorough phrenologist.

GOVERNOR DREW, of Florida, a New Hampshire man, owns sixty thousand acres of land. He employs four hundred men cutting logs and sawing them into lumber. All his men live in neat cottages built by him, for which he charges no rent. He is now constructing a tramway eight miles in length into the forest, and the trees of convenient access to it will be felled, and the logs conveyed by it to his mill.

MRS. SARAH J. HALE, who for half a century was editor of *Godsey's Lady's Book*, died at Phila-

delphia on Wednesday evening, the 30th of April, at the age of 84. She was born in 1795 in the town of Newport, N. H., and was married at the age of 19 to Mr. David Hale, a distinguished lawyer of her native place. He died in 1822, eight years after their marriage, leaving his widow with five young children dependent upon her exertions for support. She devoted herself to literary work, and became the author of numerous volumes of poems, stories, etc. She was actively engaged in numerous benevolent and charitable enterprises nearly to the close of her 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 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 ART OF READING. By Ernest Legouvé, of the French Academy. Translated and Illustrated, with copious Notes, mainly biographical, by Edward Roth. 12mo, pp. 372. Price \$1.50. Philadelphia: Claxton, Remsen & Hefelfinger.

We think, that in thanking Mr. Roth for giving to English readers this admirable treatise, we express the feeling of all who have been privileged to peruse it. The treatise proper occupies but 150 pages, yet is rich with instruction and the suggestions of a remarkable elocutionary experience. M. Legouvé, as a member of the French Academy, is a gentleman of reputation in Europe; but it may not be so well known on this side of the Atlantic that he is a dramatic author of special prominence. His sphere of authorship has brought him into close relations with many of the most celebrated actors and actresses—for instance, Samson, Provost, Regnier, Got, Mars, Rachel, Ristori, and the very interesting incidents related by him as occurring in the course of a rehearsal or the private study of a play supply most pertinent hints to those who would be proficient in articulation. Legouvé teaches in this book without seeming to teach. One reads it as if it were a series of entertaining sketches portraying life and character in the walks of the drama. The translator has added a voluminous appendix, in which notes, descriptive and biographical, are given for the information of the reader whose knowledge of French literature and art may not be extensive. Necro-

sarily in a work of so much technique the translator has given the author's quotations and references in the original tongue, but he has also been careful to supply excellent renderings in English.

ROSA LEIGHTON; or, *In His Strength*. By M. F. Martin. Dedicated to the workers in the cause of Gospel Temperance. 16mo, cloth; 90 cents. New York: National Temperance Society and Publication House.

Elegance, refinement, luxury, and wine in a city home, and the result of indulgence in the thing last named. Another pathetic story—all stories of the blight produced by intemperance are pathetic enough—of the sorrow brought upon a happy home by intemperance. But right loyally does the author perform her part as a rewarder of virtue, for in the end Rosa, the blind girl, turns her degraded father to better ways, and with the assistance of her minister-uncle George, his feet are once more "set in pleasant places."

LIFE OF BENJAMIN F. BUTLER. By T. A. Blund, M.D. 12mo, pp. 202, cloth. Price \$1. Boston: Lee & Shepard.

Few men of our time have made so much talk as Gen. Butler. He has been a "marked man" for thirty years, and particularly during the last twenty years; whether as an officer in the army of the Union, or as a member of Congress, or as a counsel in some "celebrated case," his conduct and sayings have been closely scrutinized by the public. His vigorous measures at New Orleans furnished the material for a graphic volume by Mr. Parton; and now Dr. Bland finds in his relation to certain important political issues good cause for writing a book. We read in the "Introduction": "The groans of the oppressed fill the air, the prayers of the poor ascend to Heaven; and the demand for justice is taking shape in the form of a new party of the people. Among the representatives of this new party Gen. Benjamin F. Butler stands out as the great leader—the man who, of all men in this country, combines the qualities of a leader such as is demanded by the exigencies of the times; a large brain, untiring energy, unswerving integrity, indomitable will, dauntless courage, independence of character," etc. Dr. Bland heartily sympathizes with the new or Greenback party, and as Gen. Butler has made an alliance with it, and with his customary earnestness has been laboring in behalf of its interests, he discusses the career of his subject *con amore*. He has given us a lively, entertaining book, and sketched, with a bold and vigorous pen, the more important phases of our political and financial affairs.

HOW TO GROW HANDSOME; or, Hints toward Physical Perfection and the Philosophy of Human Beauty, showing how to acquire and retain Bodily Symmetry, Health, Vigor; secure Long Life and avoid the Infirmities and Ailments of Age. By D. H. Jacques, author of

"Temperaments," etc. 12mo, pp. 224. Price \$1. New York: S. R. Wells & Co., Publishers.

Book critics are wont to inquire nowadays the reason of a book's existence. Three-quarters of the publications which flood the market may be said to have no practical value, even as they have no substantial worth. The price of a book, if it be of genuine use to its reader, can not be a measure of its value; for usefulness has in itself a moral significance that can scarcely be estimated in dollars and cents. This book has an important use. It relates to human physiology, to health, written in a spirit of thoughtful earnestness by a man well versed in the subjects which he considers. It is written in clear language, for the understanding of the masses. Scientific formulas are everywhere interpreted in plain terms. The author believes that whatever relates to health or human physiology the public has a right to know, for the same reason that every one has a right to improve and develop what there is of himself in mind and body to the furthest possible extent. The writer pursues a definite course in the treatment of his subject; starts with the foundation, the structure of the human body; next he considers the nature of perfection in form and function, and explains the laws of growth—always chastely, always in language of refinement, but by no means veiling the truth. He turns then to mental culture, the moral and emotional functions; how arts exercise their esthetic impress; how social conditions and occupations affect the body. He goes further and considers the relation of climate, and then enters upon a careful discussion of the modes of self-improvement, physical culture, etc.

A SELECTION OF SPIRITUAL SONGS, WITH music for use in Social Meetings. Selected and arranged by Rev. Charles S. Robinson, D.D. Price in cloth, 75 cents. New York: Scribner & Co.

The excellent collection of "Spiritual Songs for the Church and Choir" introduced to the public last winter by Dr. Robinson, appears to have received somewhat of the appreciation it well deserves, and suggested the preparation of a smaller collection adapted to general social meetings. The new book, however, offers a good variety of words and music, as it contains 553 hymns and 830 tunes, which embrace the greater part of the old and beloved pieces, and the new pieces which have become popular.

THE SPELLING REFORMER, for 1878. Published monthly in aid of a Revision of English Orthography without new Letters. By Eliza Boardman Burnz, teacher of English Phonetics and Fonography and a Vice-President of the Spelling Reform Association.

This little volume contains the twelve numbers of Mrs. Burnz' courageous endeavor in behalf of phonographic spelling, and makes up a good body of argument and illustration. It is printed

on the Anglo-American basis, or the plan approved by the philologists who constitute the Spelling Reform Association, of which Prof. Francis A. March is President, and Mr. Melvil Dewey is Secretary. That plan, briefly stated, is to use "no new letters, but each letter and digraph of the common alphabet employed to denote its most usual sound." The *Spelling Reformer* is published at 50 cents a year.

PUBLICATIONS RECEIVED.

NEW TEMPERANCE DIALOGUES: The National Temperance Society of New York has just published three new dialogues, by H. Elliott McBride: 1. A Boy's Rehearsal, for eight boys, in which each one rehearses his speech selected for a public meeting. Price ten cents; \$1 per doz. 2. A Talk on Temperance, for two boys, for a public meeting. Six cents; 60 cents per doz. 3. A Bitter Dose; or, The Drunkard Cured by a "bitter dose." Ten cents; \$1 per doz.

COOPER UNION, for the Advancement of Science and Art. Summary Report, May 29th, 1879. A brief statement of the work of a most noble charity for a year.

THE QUARTERLY JOURNAL of Inebriety. Published under the auspices of the American Association for the cure of Inebriates. June No. contains data which every social economist, reformer, and advocate of decency and purity should examine.

ANNUAL REPORT of the Executive Board in

charge of the Departments of Water-works, Fire-Highway, and Street Improvements, for the year 1878, to the Mayor and Common Council of the City of Rochester, N. Y. Voluminous in detail with respect to the character of the excellent water supply of the city named.

ANNUAL REPORT of the Commissioner of Agriculture to the President, November, 1878. Mr. Le Duc's statistics contain many facts and suggestions of value to the progressive agriculturist.

THE AMERICAN TEMPERANCE SPEAKER, No. 1. A Choice Collection of Dialogues, Prose and Poetry, especially adapted for use in all Adult and Juvenile Temperance organizations, schools, etc. Compiled by J. S. Ogilvie. 96 pp.; price in paper 25 cents, cloth 60 cents. New York: American Temperance Publishing House.

CHOIR'S HISTORY, BUSINESS DIRECTORY AND Immigrant's Guide-book to and throughout Washington Territory and vicinity. Price \$1. M. Choir, Seattle, W. T., publisher. A good expression of the growth of the far Northwest.

ANNUAL CATALOGUE OF THE MORGAN PARK Military Academy, Morgan Park, near Chicago, Illinois. Capt. Ed. N. Kirk Talcott and Henry T. Wright, A.M., Associate Principals.

THE AVE MARIA. A Catholic Journal devoted to the Honor of the Mother of God. Published at Notre Dame, Ind. We would acknowledge the arrival of Vol. XV. of this enterprising serial, which is published weekly.

PHRENOLOGY IN EDUCATION.

One of the most active graduates of the American Institute of Phrenology, Professor Hoffman, who is still teaching and lecturing in Indiana in connection with a normal institute, writes that normal schools have sprung up within the last few years to supply the demand of the times for a thorough, rapid, and economical education, such as is not supplied by the colleges. The latter are patronized mostly by parents who wish their children educated in an institution founded by some particular denomination, and most of such places being supported by heavy endowment, they linger behind the day, and are slow and conservative, while the normals are up to the times, active, vigorous, and prosperous. Students, as a general thing, attend the normals for the purpose of making the most of themselves and waste no time in hazing and college trickery. Professor Hoffman has had considerable experience in the endeavor to associate phrenological instruction with the usual

branches of education, and says that he is more confirmed in his belief that the normal school, with Phrenology as one of its prominent features, would be a great success, and he is laboring with the object in view of founding a school of the kind. His experience warrants him in saying that Phrenology is growing day by day in the interest of teachers.

He is an excellent hint to our intelligent and enterprising young men and women; and to make those who aspire to success as instructors in Phrenology well fitted for their work is the mission of the Phrenological Institute. Every student who came prepared for the training in mental science which it provides, has given a good account of himself since his graduation.

The next session will open October 1st, and full particulars concerning the course, lectures, etc., will be furnished by the publishers of the **PHRENOLOGICAL JOURNAL.**

THE PHRENOLOGICAL JOURNAL

VOL. 69. **LIFE ILLUSTRATED.** 1879.

NUMBER 3.]

September, 1879.

[WHOLE No. 499.]



ANDREW D. WHITE,

PRESIDENT OF CORNELL UNIVERSITY AND U. S. MINISTER TO GERMANY.

ON the death of Mr. Bayard Taylor, the post of Ambassador for the United States to the German Government was made vacant. The very cordial welcome which had been tendered to Mr. Taylor on his arrival at Berlin gave to his appointment the character of fitness, and it was expected that the amicable relations between Germany and the United States would be strengthened not a little through the diplomacy of a gentleman whose culture partook largely

of the German schools. His sudden demise was keenly regretted, and in the deliberations which ensued at Washington with respect to a fresh appointment to the Berlin Mission the importance of literary talent appears to have commanded attention, resulting as they did in the selection of the President of Cornell University.

PHRENOLOGICAL INFERENCES.

MR. WHITE appears to have a very large head, but, never having seen him, we make our inferences solely from the portrait. The temperament seems to be predominantly mental; the brain is large for the size of the body, and it widens as it rises, showing that the superior portions of the head are larger than the basilar. The distance from the opening of the ear forward is long, showing ample anterior, or intellectual development. The lower half of the forehead is large, showing keenness of criticism, capacity to gain and appreciate facts, and the ability to acquire information for himself; and though he is fond of natural science and literature, and has a natural talent for business and business affairs, he has really more capacity for pushing investigations, for making discoveries in science, for comprehending remote causes with relation to truth, than for the mere matter of fact which pertains to business or scholarship.

He is a natural leader of thinkers, and possesses also the qualities which make him a leader of men as men. The upper part of the forehead where the reasoning organs are located, and the development of the head in the region of imagination and invention, indicate that he is inclined to deal with new veins of thought, make discoveries, to grasp new truth, or new phases of old truth, and make himself master among thinkers. The fullness of the eye indicates talent for language, his power of observation shows that he is able to gather facts on which to base discussion and expression, while the upper and lateral portions of the forehead give

a wide scope of thought, and comprehensiveness of judgment, and the ability to think beyond the facts of history and daily life.

As we approach the middle section of the head, above and about the ears, we see a good development of Combativeness, and Acquisitiveness, which give energy and capacity for judging economic matters, and a fair share of Secretiveness, which gives policy and a judicious method of carrying himself and his cause.

The upper portion of the head being large, we judge that he has strong moral tendencies; that he loves justice, respects things sacred, sympathizes with those who are suffering, and inclines to plan largely for the permanent benefit and welfare of others.

He has ambition, is mindful of rank and reputation, and while he seeks to build himself up in knowledge, in respectability, rank, and standing, he inclines to lift other people up as well, and give them large opportunities for attainment and advancement. A man so organized is not likely to be afraid of rivals; he does not stop to discuss that. His ambition does not need to pull any one down in order that he may rise; he feels strong in himself.

Socially, we regard him as a warm-hearted, friendly man, capable of surrounding himself with those who would become attached to his interests, and take pleasure in forwarding them.

He has talent for research and inquiry, the ability to compass broad fields of thought and plow more deeply than most men, combined with imagination that gives him capacity to broaden out his life, and moral sentiment enough to regulate and control his emotions and passions. We regard our subject as a very superior man: first, in quality; second, in sentiment; third, in mind.

BIOGRAPHICAL SKETCH.

Andrew Dickson White is of New York nativity, having first seen the light in Cortland County, N. Y., in 1832. He was well educated, studying at Hobart

College, taking the baccalaureate degree at Yale, and then visiting Europe for the purpose of a course in history. He remained abroad about two years, stopping mainly in Paris and Berlin. During this time he served as an attaché to the American Legation at Paris for six months, and traveled on foot over many of the historical fields of the Continent, principally in northern and western France. In 1856 he returned to America and spent another year at Yale, as special student of history, at the end of which time he was elected to the chair of History and English Literature in Michigan University. It was largely due to Mr. White's labors that that now prominent Western institution of learning was placed in its condition of prosperity and usefulness; and so strenuous were his exertions at this period that his health became impaired, and he was obliged to resign his professorship and travel in Europe for six months.

Returning to Syracuse, N. Y., in 1862, he was elected to the State Senate, and re-elected in 1864. During his two terms in the Senate Mr. White devoted his attention to the relations between his State and the Federal Government, which had become previously complicated by reason of the war, and to the educational system of the State. As Chairman of the Committee on Education he introduced several important bills, among them those for making the common schools entirely free, for establishing normal schools, and for preparing a digest or code of the laws relating to public instruction.

While in the Legislature the question arose with reference to the State accepting the Congressional land-endowment for colleges of agriculture and the mechanical arts. The share allotted to New York amounted to nearly a million acres, and much difference of opinion existed as to the disposition of so valuable a gift. The friends of the already existing colleges wished to have it parceled among them; but Mr. White opposed such a division, and advocated the policy

of keeping the endowment entire for founding a new institution which should be worthy of the country and the State. Mr. Cornell, himself a Senator at the time, then came forward and offered an additional donation of \$500,000, provided the Congressional endowment should be preserved intact and the institution located at Ithaca, Mr. Cornell's native town. This offer was finally accepted, and in 1865 the bill incorporating Cornell University was passed. This may be regarded as the turning-point in Mr. White's career. He was appointed a trustee of the newly-incorporated university, and in 1866 was elected its President. Since then his time and attention have been devoted to the University. He visited Europe for the third time in 1867-8, for the purpose of examining into the organization of the leading schools of agriculture and technology, and of purchasing books and apparatus for the University.

In 1870 he was appointed one of the United States Commissioners to San Domingo, and took a leading share in the preparation of the official report of the Commission; but with that exception his attention during the past eight years has been devoted exclusively to education, and Cornell University is a witness to his zeal and executive skill.

As might be expected from his active and laborious life, Mr. White has had but little leisure for authorship. He has, however, contributed to periodical literature, and has delivered numerous political and educational addresses; but there is no single work which can be pointed to as an adequate illustration of his powers. The recent volume, entitled "The Warfare of Science and Religion," was written, we presume, mainly in answer to the many utterances which had appeared on the side of science as against revelation, but, while its reasoning is scholarly and powerful, it is not extended enough to be exhaustive. We think that Mr. White appears to even better advantage in such deliverances as his inaugural address at the opening of

Cornell University in 1868; the address before the State Agricultural Society on "Scientific Education," and before the Cooper Institute on "The Battle-fields of Science," delivered in 1869; and in an

address "On the Relation of National and State Governments to Advanced Education," delivered before the National Educational Association at Detroit in 1874.

PHRENOLOGY AND METAPHYSICS.

THE old method of studying mind by speculative theory, by closing one's eyes and thinking what he has within himself, and then writing upon this inner consciousness, has occupied the attention and philosophical labor of the best thinkers of a hundred generations; but this mode of studying man had no relation to organic structure, no attempt was made to study mind through organic constitution; mind was supposed to be an entity so different from organism that the study of the physical, as connected with the mental, was left entirely out of the question, and when any mention was made of the location of the mental forces, it was in such general terms as to be of no service. The heart, in a general way, was sometimes stated to be the seat of the affections, especially of the moral feelings; some had supposed that the brain was the seat of the intelligence, or the intellect, and there are hundreds of people now who talk as if the brain were the seat of the intellect and memory and of nothing else; the love and the hatred, the conscience and the kindness, they refer to the heart. With these speculative ways of thinking and talking of the mind and character, it is not strange that prior to the days of Gall and Spurzheim it was not thought possible to estimate in different individuals, the type, style, and strength of mind and character in mankind. When Phrenology was discovered, and it was ascertained that particular faculties are related to special portions of the brain, and according to the size and quality of the brain in these parts, so is the strength and intensity of the different faculties, then, and not till then, was it supposed that a person could look upon a stranger and correctly estimate his mechanical talent, his ability for figures, for music, for art, for money-making, for courage, for prudence, for ambition, policy, integrity, sympathy, capability

for governing or leading men, for friendly affection, parental love, or conjugal affection. That these faculties and specific impulses exist there is no doubt; and when the phrenologist refers to the different parts of the brain as related to these faculties respectively, and can go into a family of half a dozen children (inheriting more or less from each of the parents, who may be very unlike) with striking peculiarities and differences, and describe them; and when the parents and neighbors declare the descriptions to be perfect, and as this can be done by a dozen different phrenologists at different times, we begin to see the benefits of Phrenology, as a means of reading mind, when compared with studying any other method of knowing men.

This is no mystery; any person that knows enough to teach school well, can learn to read character according to phrenological development. We should be much ashamed of ourselves and of an intelligent boy of twelve years of age, if we could not teach him in two days so that he could go into a museum of skulls and determine which were the moral and which the immoral, which the wise and which the unwise, of those who carried the skulls while living. In our collection we have some skulls which measure the same distance from front to rear, and there is a difference of two and a half inches in the width. We have some that are of the same width, and there is two and a half inches difference in the length; this difference can be seen as far as the skull can be distinctly seen. The same is true of living heads.

In walking through a State's prison, where the hair of the convicts is cut close to the head, the phrenologist will readily see which development would indicate crime against property, crime against person, crime against decency, and not make a mistake in fifty

cases. We remember passing through the Connecticut State's prison at Wethersfield some thirty years ago, and thus describing in a general way dozens of the convicts. We were shown by the officer a man with a very finely-formed head, particularly in the region of art and mechanism; the officer asked us what we supposed he was incarcerated for; we instantly told him that the man, if a convict, must be there from the exercise of his mechanical and artistic skill. The officer then told us that the person was a bank-note engraver, and though he had never handled counterfeit money, he had made the plates from which others had produced the money. He was convicted for making counterfeit plates.

Since the brain is the organ of the mind, and since character varies according to the development of the different parts, and since exercise or proper training will elevate or modify the manifestation of the organs, Phrenology points the teacher and the parent to a wide and interesting field of observation and cultivation.

If the muscles of a slim, delicate young man can be developed by proper and judicious gymnastic training, and he can be expanded three or four inches in chest, and his vital system thereby greatly enhanced, the same law of development and growth pertains equally to the brain. The teacher who is well versed in Phrenology will cast the eye over a class of two dozen boys, and instantly detect those who can commit to

memory and those who can not; those who are sound thinkers, but slow; and those who are quick to learn, but not very solid in their understanding. He may see, in like manner, what children will be respectful, or kind, or truthful, or ambitious, or headstrong, or tricky, or quarrelsome; which will be affectionate, and which difficult to discipline; and, of course, by this knowledge he can adapt himself to their peculiarities, training and culture according to quality and development of character, and thus become useful to each pupil. The unwise system of beginning with all alike, and finding out mistakes only after the mischief, by erroneous treatment, is done, is not the most successful way of molding the infant mind and giving it its proper start for desired results.

To the teacher, then, Phrenology is a guide to the proper understanding, training, culture, and government of pupils. Magistrates, ministers, and especially parents can not afford to ignore the guiding truths which Phrenology proffers. He who builds houses, shoes horses, makes coats or shoes, is expected to learn his business. Those who manage the human mind and character should also take some pains to learn how to adapt the proper treatment to each human being whom it is necessary to instruct or govern. Instruction is not the only or most important function of the teacher. Molding the character rightly is quite as important. S.

PHRENOLOGY APPLIED.

THERE are many persons who suppose Phrenology to be true as a matter of fact; but they ask, "If it be true, what good will it do? what is its practical benefit?" and a good many persons who patronize it in a practical way, approach it with a good-natured, idle curiosity; and, when the phrenologist reads their character, setting forth its defects as well as its excellencies, when we point out the weak places and how to improve them, and the strong points and how to control and regulate them, when we tell them what they can do to the best advantage in the way of business or of study,

they begin to be astonished, and ask why they have not known all this before. One man said to us, "You ought to promulgate this. You ought to lecture in every school-district. You ought to publish tracts and circulars and force this knowledge upon the people." It sometimes reminds us of the zeal of the woman who met the Master at the well and who said, "Behold a man who told me all that ever I did!" Now, we have been for more than forty years doing this very thing—lecturing, writing, publishing the JOURNAL, publishing books, and scattering this information as far and as wide as our

means would permit or as public sentiment seemed to demand.

There are many thousands of persons who appreciate the value of phrenological examinations and regard the benefit derived therefrom as incalculable. These facts crop out occasionally, but some are never heard from.

Not long since the wife of the writer met a respectable, well-to-do man in middle life, who, on learning her name, inquired if her husband were a phrenologist, and remarked that he had good reason to remember him with gratitude. He went on to say: "I called on him at his office one Saturday afternoon when I was some seventeen or eighteen years old. I was running with wild, reckless, wicked boys, drinking heavily and going to ruin. As I passed his office, being somewhat under the influence of liquor, I wandered into the phrenological rooms and took a seat, asking for an examination—not knowing what I was to get, and not expecting what would be the result. Your husband remarked to me, 'Young man, you have an organization qualifying you for respectability and success; but with your present habits of drinking, smoking, and running wild, you will go to the dogs as straight as the waters of Lake Erie rush to Niagara. If you will turn square around, throw away your tobacco, quit drinking, drop your present associates, clean up to-morrow morning and go to the nearest church, listen to the service, stay to Sunday-school, and try to live a new life, you will succeed in business and become honorable and happy.'

"On the way home I said to myself, how does he know me? I have not given him my name or residence, but he has read me like a book. I will try the experiment. I threw my tobacco into the gutter on my way home. My companions whistled for me around the house, but I did not heed them. In the morning I went to the nearest church—listened to the music, to the prayers, and to the preaching; stayed to Sunday-school, and felt that I had got into a new atmosphere. I have drunk no liquor; I have used no tobacco since. I dropped my associates, and all of them have either

gone to the State's prison or died drunkards, and I am the only one out of the crowd that is respectable and respected. I belong to that church, and am now the superintendent of that Sunday-school. I have a lovely wife and two dear children, and am worth \$15,000, and am a respectable man, and I owe it all to the advice given me by your husband on that Saturday afternoon fifteen years ago. He would not remember me. He has probably forgotten the circumstance, as he has met with hundreds of others like me; but I have not forgotten him, nor will I forever."

Only yesterday a gentleman aged eighty-two years, who had been examined and derived as he thought great benefit from the physiological advice we had given him with a view to sustain and strengthen his declining years and thus enable him to retain his vigor and clearness of mind to the last, in recounting the extra strength and mental clearness and general vigor which he had been able to attain by following the advice, said: "I never shall cease to thank you for the benefit your advice has conferred upon me. I shall talk of it among my friends, that they, too, may avail themselves of your counsel."

Within a month we have received a call from a professor in a Southern college, who seven years ago had an examination, and said he had come now to express his thanks and report his case. When examined seven years ago he weighed one hundred and twenty pounds and had a twenty-three-inch head. We told him how he should live in order to attain to the requisite weight of one hundred and seventy-five pounds. He said: "I have now attained to one hundred and seventy-two pounds and never felt better in my life." He has written books in addition to his labor in the college, and is working harder than he ever did before, and, at the same time, is appreciating in weight, strength, and vigor.

Some derive benefit from the physiological advice we give, and others from that which is more strictly mental or phrenological. But as mind and body are so intimately related, and as the strength, vigor, and clearness of mind depend upon the

health and harmony of the body, our advice always relates to both mind and body, so that by the improvement of the one, the other shall be elevated, refined, and sustained.

On the 22d of February, 1878, a young man from Pennsylvania came to us for an examination, weighing but one hundred and three pounds and standing five feet eight inches. He was exceedingly nervous, emaciated, and broken down by overwork and wrong habits of diet. He came to New York with \$150 in his pocket, intending to have his head examined, and then find out from us some reliable physician, and make one desperate effort for recovery if he were not too far gone.

We gave him advice as to what to eat and how to carry himself in all respects, and told him he did not need to spend \$150 on a physician, but to rest himself for a few days and go home and put into practice our advice, and the result he stated in two letters. Thirty-five days after he had been to us, namely, March 28th, he wrote: "You will remember when I came to you (February 22d) I weighed only one hundred and three pounds. My weight is now one hundred and twenty-four, and I feel very much better." On the 17th of May, 1878, less than three months from the time he came to us, he wrote: "Dear Sir—I am still improving, my weight being one hundred and thirty-five pounds."

We had a call from a lady living in Connecticut, who weighed two hundred and fifty-six pounds, and was only thirty-four years of age. We asked if she would like to be lighter, and she eagerly asked how she could become so. We prescribed for her habits of living calculated to prevent the abnormal accumulation of flesh, which she adopted, and fell off six pounds a month for six months, and improved in health and vigor; and we gave her the same regimen that we did the young man. The truth is, the food that created fever in him and was burning out his very life was converted by the lady into fatness and excessive weight. By bringing both down to the laws of nature, each was benefited according to the necessity of the case. Hundreds consult

us without telling their friends of their intentions, or of the fact that they have been to us. They come in the spirit of Nicodemus, not knowing how much to believe, and not willing, perhaps, to express faith in Phrenology in the presence of their skeptical friends, and thus they hide their light under a bushel, rejoicing, however, in the improvement, and thankfully telling us their joy when we happen to meet them.

When we get beyond the realm where foolish skepticism and ignorant pride seek to hide the truth and make people ashamed to acknowledge benefaction and beneficence, we expect that thousands will thank us for the service we have done them, whose thanks and recognition we shall know nothing of here. The ten thousand children who, through our advice and guidance, have been saved from error and sin and placed in positions of usefulness and honor, we hope to count among our garnered sheaves.

No man wields a more potent instrument of good than the sincere phrenologist; and, though thousands of patrons may never be able to appreciate the benefit derived from it, his work is none the less valuable. His work is something like that of the switchman on the railroad. Many passengers are sent toward their proper destination by the simple moving of the switch-bar, utterly unconscious of the hand that guides their course, and it is only when he neglects his duty that they think of his existence.

We cultivate in men the elements of character which are to exist forever; and, though the house-builder and clothier and hatter minister to the outward comfort of the man, and his work is seen and fully appreciated, it perishes with the using; while the good work done by the phrenologist, centered as it is upon that which is immortal, shall exist in vigor and freshness when all things earthly shall have passed away.

S.

GOOD manners are made up of little sacrifices.

THAT only can with propriety be styled refinement which, by strengthening the intellect, purifies the manners.

REV. ALEXANDER CLARK, D.D.

THIS gentleman died in the State of Georgia in the early part of July last, while on a visit to deliver an address. He was a man of rare gifts and great promise. He was born on the 10th of March, 1834, in the State of Ohio, from Scotch-Irish ancestry. His mother was a McKenzie, and was born among the Highlands of Scotland. In the summer of 1860, Mr. Clark, a stranger to us, strolled into our Phrenological rooms in New York, and obtained an examination. The examiner remarked, as soon as his hand touched his head, "Your mother was a Scotchwoman." Inheriting as he did from the mother's side, taking on the qualities



REV. ALEXANDER CLARK, D.D.

of steadfastness and moral independence which belong to the Scotch character, his whole life was an active force in molding and guiding the opinions of men. In 1863 a full description of Mr. Clark's character, together with a biographical sketch, was published in the PHRENOLOGICAL JOURNAL.

He was an editor for more than twenty years, having founded the *School Visitor*, and at the time of his death, and for many years previous, had been editor of the *Methodist Repository* in the city of Pittsburgh, Pa., where for more than ten years he lived and labored. Mr. Clark was a poet, a very tender and effective preacher;

was a reformer, yet did not run away from the people. Being radical, he strove to make advancement, but had enough of conservatism to wait for those who were able to follow him.

We knew him personally, and, like ten thousand others who knew him, we loved him from the start.

In the description of his Phrenology, published in the JOURNAL in 1863, these passages occur (which we dictated while the subject was a perfect stranger to us):

"You are not contentious, avoid all unnecessary difficulty, dislike to resort to severe means, but are very thorough and prompt, and always approve of decided means. You have the rare power of changing your opinions whenever new light is received, and of being earnest, even if you are combating your own early prejudices.

"Another unusual power you possess is that of deciding on facts and argument, without reference to the popularity of either side, or the opinions of your friends. You are very cautious to know the truth, and indifferent to all other considerations, and will go any length the case requires. You are, therefore, a cautious radical, too far in advance of the masses to derive support from them, and yet so correct that, far in your rear, they gradually fall into your wake.

"You are remarkably frank and open-hearted, and no one need be in doubt about your opinions and purposes, so far as they relate to questions of public interest.

"Your moral character has an unusual degree of stamina. You have so much real independence that you can stoop to the lowest and least. You have uncommon freedom from that cowardly jealousy that is reluctant to acknowledge anything good or great in the poor and feeble. You love personal liberty, and whatever you claim as a right you will accord to others. You are, therefore, a friend to universal freedom. It is not license, but liberty, that you desire, for you recognize

the most minute obligation to obey the laws of the Creator.

"Benevolence and Veneration are conspicuous organs, and it would be more natural for you to be respectful, confiding, and generous, than critical. If you lived in a society where all endeavored to do justly, you would be very charitable, and so far overlook their faults that Conscientiousness would not appear a conspicuous feature of your character, but with society in general you are likely to appear exacting and rigid. You are very kind to the humblest person who is doing his best."

Mr. Clark has done much in the direction of radical reform, so administered as to carry the common-sense and sympathetic co-operation of the common people. He was beloved by every denomination, and highly respected by those who did not accept religious teaching. He was brave as a lion for the truth, yet tender as a girl toward those who were weak, and his very voice was full of tears when a pathetic subject was his theme.

Few died more lamented, few leave as many friends, or as few enemies.

BRAIN AND MIND.

CHAPTER XVI.—*Continued.*

PHRENOLOGY AND THE PHYSIOLOGISTS.—OBJECTIONS AND CONFIRMATIONS.

THE advocates of Phrenology to-day have some reason for thanking Sir William Hamilton for his zeal in endeavoring to refute the doctrines of Gall and Spurzheim. His examination and arrayal of the old anatomists against the German philosophers but brought into strong relief some of the anatomical facts which the latter had personally ascertained in the course of their study of brain structure; and as science now recognizes those facts, Hamilton stands in the position of a witness unconsciously awarding the credit of their discovery to those two great apostles of Phrenology.*

* That Hamilton was far from familiar with "the concurrent testimony of anatomists" of his own time and the century immediately preceding, is shown by Professor Huxley in a recent contribution to *The Nineteenth Century*, in the course of which he uses this language: "Even Sir William Hamilton, learned historian and acute critic as he was, not only failed to apprehend the philosophical bearing of long-established physiological truths; but, when he affirmed that there is no reason to deny that the mind feels at the finger-points, and none to assert that the brain is the sole organ of thought, he showed that he had not apprehended the significance of the revolution commenced, two hundred years before his time, by Descartes, and effectively followed up by Haller, Hartley, and Bonnet in the middle of the last century."

THE DISCLOSURES OF GALVANISM.

Neurological science has for many years had eminent observers who have given exclusive attention to the brain,



Fig. 109.—MONKEY'S BRAIN.

and its physical relations. A few years ago it was discovered by Fritsch and Hitzig of Germany, that the brain is electrically excitable, and this new fact at once imparted a powerful impulse to experiments on living animals. The results of a course of such experiments which have been published by Dr. David Ferrier, of King's College, London, are exceedingly interesting to the student of Phrenology, because they constitute a physical demonstration of

the fact that the brain is an assemblage of centers subserving distinct functions. To be sure the results which Ferrier has tabulated,* relate simply to the mechanical organism; but the evident impossibility of obtaining purely mental responses by the galvanic excitations of an animal, which had been rendered unconscious by anæsthesia, can not impair the observed facts of mental manifestation.

Fig. 109 is taken from Prof. Ferrier's work, and represents the left hemisphere of a monkey's brain, with the centers or regions numbered, which are said to be productive in imitation of certain muscular movements. 1, for instance, is related mechanically to "advance of the opposite hind limb as in walking." 3, has to do with "movements of the tail, generally associated" with other movements. 9 and 10 are related to "opening of the mouth with protrusion (9), and retraction (10) of the tongue." 13 and 13, "the eyes move toward the opposite side with an upward or downward deviation according as the electrodes are on 13 or 13. The pupils also generally become contracted." 14, "Pricking of the opposite ear, head and eyes turn to the opposite side, pupils dilate widely."

Here (in 13, 13, and 14), we have movements which are suggestive, if of anything emotional, of watchfulness, caution, and shyness; and it is curious to notice that the region designated by the numbers are analogous to the locations of Cautiousness and Secretiveness in the phrenological order.

THE SPEECH CENTER.

Allusion has been made to the determination of a speech center by observations of the phenomena of aphasia, and the repeated examination of the

brain of aphasic persons after death. That this center is situated in the third frontal convolution near the Island of Reil in the left hemisphere of the brain all the physiologists agree. Some, however, Dalton, Lander, Brunton, and Ferrier being among them, are inclined to believe that a corresponding center lies in the right hemisphere. Prof. Ferrier explicitly says: "The speech center is, as has been stated, in the great majority of cases, situated in the left hemisphere. But there is no reason beyond education, and heredity, why this should necessarily be so. It is quite conceivable that the articulating centers of the right hemisphere shall be educated in a similar manner.

"A person who has lost the use of his right hand may, by education and practice, acquire with his left all the cunning of his right. In such a case the manual motor centers of the right hemisphere become the centers of motor acquisitions similar to those of the left. As regards the articulating centers the rule seems to be that they are educated, and become the organic seat of volitional acquisitions on the same side as the manual centers. Hence, as most people are right-handed, the education of the centers of volitional movements takes place in the left hemisphere. This is borne out in a striking manner by the occurrence of cases of aphasia with left hemiplegia in left-handed people."*

This reasoning accords with the phrenological doctrine of the *double organization* of the brain, each hemisphere being a complete set of centers, motary, sensory, and mental. Observers of the form of heads know that the left side of the cranium is generally larger than the right, a natural consequence of the superior activity and use of the left hemisphere in the mental

* "The Functions of the Brain." By David Ferrier, M.D., F.R.S. Ed. 1876.

* "Functions of the Brain," p. 278.

life of men. The differences in minute structure which are noticeable in the right and left hemispheres of the adult brain, are explicable by the same law of growth and development which governs in the case of our arms and hands.

According to Gatrolet, the brain of the Hottentot Venus who was not idiotic, presented a simple and regular arrangement of the convolutions of the frontal lobe, the two hemispheres being almost perfect in symmetry. Her type of organization being low, and her mental faculties being almost limited in their exercise to the simple processes which relate to gratifying the animal instincts; there was nothing of that elaboration which is conspicuous in the brain of the white at the normal stage of development.*

A Case quoted by an Opponent.—As Dr. Maudsley appears to belong to the class of thinkers who attribute the growth of the intelligence peculiar to man to his superior power of attention, and to experience, it could scarcely be expected that he would show much favor toward the phrenological doctrine of localization; yet he occasionally supplies an incident or argument in his works which can be made serviceable in behalf of that doctrine. For instance, to his chapter on "Hemispherical Ganglia" (Physiology of the Mind), he appends a very interesting account of the French sergeant's case as reported by Dr. E. Mesnet.†

A young French soldier was wounded at the battle of Bazeilles by a gun-shot, which fractured the left parietal bone. Hemiplegia ensued, from which he recovered, but subsequently peculiar disturbances of the brain were manifested, which have recurred since, periodically. The sergeant, in his normal condition,

is an intelligent and faithful hospital attendant at Mayence, but in an instant he becomes unconscious of his surroundings, and acts like an automaton. The only sense by which an impression may then be made upon him is that of touch. His hearing is entirely lost; pins may be thrust into his body, and strong electric shocks administered without producing the least evident effect. He may be given to drink water, vinegar, assafoetida, etc.; they are all alike to him. His sight is so far lost, that it evidently conveys to his perception only vague impressions of brilliant objects. He eats, drinks, smokes, walks in his usual manner, repeating in the course of an attack his accustomed habits. There are, however, one or two manifestations which entirely belong to his abnormal state. The sergeant becomes a kleptomaniac during the attacks, purloining everything he can take and concealing it. If he finds no property belonging to others, he hides, "with all the appearance of secrecy," small articles belonging to himself. Can it be doubted that the parietal fracture so injured the brain-tissues that some permanent lesion was produced, and an inflammatory disturbance brought about in the region of the organs known in Phrenology as Acquisitiveness and Secretiveness? It is to be regretted that Dr. Maudsley was not more definite in his location of the injury.

DR. CHARCOT'S TESTIMONY.

In the discussion of abnormal mental phenomena, and their relation to pathological conditions of the cerebrum, Professor J. M. Charcot, of Paris, has shown a rare minuteness in tracing the boundaries of an affected region. It must be admitted that his position as chief of the great Salpetriere hospital,

* "The Physiology of the Mind." Henry Maudsley.

† "La Union Medicale," July 21 and 23, 1874.

ANIMAL MAGNETISM AS A FACT AND AS A CURATIVE AGENT.

UNDER the head of "The Delusions of Clairvoyance," a writer, in the July number of *Scribner's Magazine*, characterizes animal magnetism as "the one great delusion of our time, and especially of our country," and says of it, that "it is to the nineteenth century what witchcraft was to the sixteenth or seventeenth."

The article alluded to is mainly directed, as the title would imply, to the subject of clairvoyance, but, as will be seen from the above quotation, it is intended also to include animal magnetism.

In attempting a reply to it, I will first candidly admit that I have never investigated clairvoyance, to an extent that warrants me in passing an intelligent opinion upon it, and, therefore, propose to leave the discussion of that question to those who are more conversant with it.

On the subject, however, of animal magnetism, I claim to be pretty well informed, and to have investigated it to an extent, and with such results, as justify me in positively denying that it is "the delusion of the nineteenth century," or, in fact, that it is a delusion at all.

It may add to the strength of the arguments which follow in support of this contradiction, to state that I am not a "negro," or a "spiritualist," or even a magnetic doctor, but that I have investigated it out of a love for the curious and interesting in nature, and with the determination not to believe in animal magnetism, or anything connected with it, until forced either to do so or disbelieve the evidences of my senses.

For many years I have known that the touch of my hand was soothing to certain persons when in pain, but within the last year only have discovered that in addition to this power to soothe, I could perform other and more singular and wonderful results by the action of my hands.

In taking hold of the hands of a subject to be operated upon, I have found it possible, in a few minutes, to cause a feel-

ing of numbness in the patient, which finally becomes more and more decided, spreading through the hands, then up the arms, to the shoulders; in the head, down the back, and even to the toes of the subject; and, as the operation progresses, this feeling assumes the apparent characteristics of a gentle current of electricity from a galvanic battery, and pervades the whole body of the subject.

Having caused the person magnetized to feel this magnetic current, as thus described, decidedly in every part of his body, it is my firm conviction that there is scarcely any ill that flesh is heir to which can be cured at all, which can not be mitigated or cured by magnetism, or any pain that can not almost instantly be relieved and finally removed. This conviction is not based upon theory or speculation, but upon the result of my own experiments on different people for various aches, pains, and diseases. To give an idea of the character of these, the following cases are mentioned:

A little girl of ten was suffering with erysipelas on the limb; had been attended by a physician for a week or more; the limb constantly becoming more and more painful, until she could not use it, and had to be carried. I magnetized her for about half an hour, and relieved her entirely of pain, and she at once walked without difficulty or suffering.

The inflammation subsided almost immediately, and that evening the physician said there would be no further trouble with the disease, as it was healing rapidly. He did not know of my operation. The child took no more medicine, and had no return of pain or inflammation.

A young man fell on an icy pavement last winter, 1879, striking his knee-cap, and injuring it so badly that he suffered the most excruciating pain, and could only walk with the greatest suffering.

I magnetized him for nearly an hour, and when he was thoroughly charged with the magnetic fluid, made a few

passes with my hands from his knee to his foot, and the pain left the injured part, as if by magic. On rising to his feet, he could hardly believe that he had no pain, but after shaking his foot, bending his knee, putting his foot up on a chair, and, finally, running up and down stairs, he was convinced that he was totally and entirely relieved of all pain and soreness. He went away so perfectly relieved that he forgot his cane, which he no longer had any use for. He had no return of the soreness.

An old lady, nearly seventy years of age, fell last fall, 1878, and injured her hip, so that she was laid up for several weeks unable to walk. Since that time she has been almost constantly afflicted with rheumatism, and recently was suffering extremely with it, and especially so in the injured hip.

She felt the magnetism quickly, and in twenty-five minutes (the operation was timed) she was entirely relieved, and could walk without any suffering or pain, which was the first time she had been able to do so since the accident.

I have performed other operations equally remarkable, and if space permitted, and necessity required, could furnish abundant evidence of the wonderful curative powers of magnetism from my own experiments. In addition to causing a current of magnetism to be felt, I have produced, by passes before the face, the magnetic sleep. That this was not an ordinary sleep I have fully convinced myself of in various ways. I have pricked the subject with needles until the blood came—pinched the arm until it was black and blue—and have allowed others to do the same, but without producing the slightest symptoms of uneasiness or pain; have had others shout in the ear, and shake the sleeper violently, loudly calling, at the same time, to awaken him, but with no effect; and then, in an almost inaudible whisper, have said, "Wake up now," and the subject roused immediately.

There is only one way in which the author of "The Delusions of Clairvoyance"

can reply to such facts as these, offered in proof that animal magnetism is not a delusion, and that is by refusing to give credence to the facts stated, and pronouncing the cases cited as fabrications throughout.

If the cases named were the only ones on record, and future trials failed to produce similar ones, it would not be unreasonable to denounce the whole thing as a deception and a fraud; but there are thousands of well-authenticated cases recorded even more wonderful, and it is just as easy to find patients and to produce these same results to-day or to-morrow as it was yesterday, a month or a year ago. It is therefore easy for any one to satisfy himself of the reality of animal magnetism, and I will undertake to convince even the author of "The Delusions of Clairvoyance" himself, that animal magnetism is *not* a delusion.

That there is a something—an effluvia or an influence—real, but not tangible, which passes from one person to another, thereby affecting such an one, can not be doubted or denied.

I am full of blood, and life, and energy; another is pale and sickly, and lacking in vitality. My hands are warm, his are cold. When we place ourselves in contact with each other, nature tries to produce an equilibrium, and my body gives up a part of its heat and vitality to him, and he becomes warm.

There is something passes from a child, who is full of vitality, to an old person, who is lacking in it, if they sleep together; and if the child be sickly it will give up all its vitality and die if the practice be continued. How do we sometimes become aware of the presence of others when we do not see or hear them; and why do we turn about and look at a person who is intently gazing at us? These are well-known and generally admitted facts, and can only be satisfactorily explained upon the hypothesis that there is something which passes from one person to another, which we call magnetism, and which affects the person to whom it is directed.

"Powwow" doctors are to be found in

almost every community, whose fame is wide-spread for ability to remove warts, take out fire, stop the flow of blood, cure felons, etc., etc., and the relief which they give is sometimes indeed wonderful. I have no faith whatever in the "pow-wowing" part of the process, but have been forced to believe that cures *are* effected; and am convinced that the curative agent is animal magnetism.

And why should it be considered so incredible and marvellous a thing that such a power should exist? The writer whose article is under criticism says:

"It is known by established and formulated biological law that no human being has, or can have, any quality different in kind from those that belong to the race in general. To this law there can be no exception."

If this be true, then *we* have to-day no quality differing in *kind* from the qualities found in Adam, or any man who has lived since his time; nor has there lived since Adam any human being who possessed any quality differing in *kind* from those *we* possess. If we, then, possess these qualities, not differing in kind from those possessed by Moses, and Joshua, and Samuel, and Elijah, and Elisha, and Christ, and Paul, and the Apostles, why should it be thought impossible for us, if not to perform miracles, at least to do those things which Christ said those who believed on Him should do? "In my name shall they cast out devils; they shall speak with new tongues; they shall take up serpents, and if they drink any deadly thing, it shall not hurt them; *they shall lay hands on the sick and they shall recover!*" Paul says: "Is any man sick, let him send for the elders of the church, and let them *lay their hands upon him*, and pray, and the sick shall recover."

The author of "The Delusions of Clairvoyance" says that "animal magnetism is the one great delusion of our time, and *especially of our country*," which, if it be a delusion at all, is very far wide of the truth. In point of fact, animal magnetism is comparatively little known or

practiced in the United States. As a science it is not taught, and among the many private and public hospitals, there is not one, so far as I know, where it is practiced.

We are at least a quarter of a century behind Europe on this subject. In 1840 Dr. Esdaile, an English surgeon, established a magnetic hospital at Bengal, India, where hundreds of the most remarkable surgical operations were successfully performed, without pain, under the anæsthetic effects of magnetism. (See Dr. Esdaile's work, "Mesmerism in India.")

In 1846 a similar hospital was established in London, and others were afterward established at Exeter, Bristol, and Dublin, while in France and Germany even still greater interest has been taken in the subject.

In Sweden degrees are granted by the University of Stockholm to those who make magnetism a study, and pass successfully an examination upon its laws and effects. In Russia a commission of medical men, under direction of the Emperor, inquired into the merits of animal magnetism more than thirty years ago, and reported it a "very important agent," and the first physician of the Emperor, with other eminent physicians of St. Petersburg, commended its utility in the highest terms; and at Moscow a systematic course of magnetic treatment has been employed for many years.

In Denmark it is practiced by physicians under a royal ordinance, and by a decree of the College of Health. In Holland it has made equally great advances, and it is even extensively and intelligently practiced by the Burmans, who style it "the medicine over all medicines."

The delusion, so-called, is not, therefore, "*especially of our country*;" in fact, it is less of our country than of any other which compares with it in a knowledge of the arts and sciences.

That such institutions, and so many of them, were ever established, and successfully conducted, ought to furnish convincing proof, to any reasonable mind, that animal magnetism is not a delusion,

but a blessed reality—a God-given power, which is capable of relieving pain and suffering, and bringing happiness and health to humanity.

If further proof were necessary a host of witnesses could be brought to testify of the curative and beneficial effects of magnetism, as evidenced in their own cases, and some of the most distinguished and eminent physicians, and men of science, whom the world has ever known, would also give it as their opinion that magnetism is far from being a delusion.

Of these, however, we will only quote from Dr. Brown-Sequard, whose name is so well known, and whose opinions are so well regarded by the whole world of medicine and science, that it will generally be admitted as conclusive authority. He says:

"My friend Dr. Broca took it up in 1857-8 and pushed it very far; and for a time it was the fashion in Paris to have amputations performed after having been anæsthetized by the influence of Braidism or Hyhnotism. A great many operations were performed in that way that were quite painless. But

it was a process that was long and tedious, and surgeons were in a hurry and gave it up."

"I regret it very much, as *there never has been a case of death from that method of producing anæsthesia*, while you well know that a great many cases of death have been produced by other methods."

Without knowing anything of clairvoyance from practical experience, I am entirely willing to admit that I am strongly prejudiced against the class of people who may be styled professional clairvoyants, and am quite as willing to denounce them and their practices as any one else can possibly be.

I am not, however, prepared to say that there is no such thing as second sight, or clairvoyance, as with added years I find that there is nothing easier than to be mistaken, and the age we live in is so full of wonders that I am slow to say that the most improbable things are impossible.

"There are more things in heaven and earth, Horatio,
Than are dreamt of in our philosophy."

THOMAS A. BEEL.

THE ADVANTAGES AND DISADVANTAGES OF THE AMERICAN NOVELIST.

No. II.

IN my former paper I endeavored to show that the American nature was early diverted from romance and became intensely practical; that it acquired a spirit of expediency, and closed its eyes to the influence of art; that it became harsh and rugged without, though remaining plastic and impressible within; that it possessed a restless, adventurous trend, and a fund of varied impulse, vigorous and independent. Having thus established some definite notions concerning American tendencies, we can intelligently proceed to ascertain resulting limitations to the success of the American novelist. Men do not write contrary to their natures.

"If you would be a man," says Emerson, "write what you think to-day in words as hard as cannon balls; and to-

morrow write what to-morrow thinks in hard words again, though it contradict everything you said to-day." If the principle be old, the energy with which it is enunciated is original. It is an American energy, prone to become fitful, impatient, and capricious. Emerson, full of national impulse, leaps at truth here and there, but never constructs a system. Americans are not given to polishing, revising, correcting. If they must conquer Heaven, they will pile mountain upon mountain, but they will never undertake a Babel. Conjoin to this propensity their dim sense of the artistic, and do you not understand the genius of Simms?—Simms, who, in a former generation, flooded the reading public of America with a deluge of novels. Those works were sprightly, and the tale galloped along with a pleas-

ing clatter. The work, however, was harsh and unpruned. Simms loved mental excitement; he had no patience for the arid part of his work, and no artistic sense to compel him to undertake it. He fancied that exuberance of expression, that garish figures of rhetoric, that long and threatening climaxes constituted the highest good. Occasionally his characters would be strong and definite; but they seem to have been so accidentally. Aiming to be national, he cut himself adrift from British influence, made his escape to the woods, and sat there naked and ignorant, in the hope that inspiration would visit him.* In his rage to be American, he escaped being artistic; and Simms is long since dead to fame—a victim to unfortunate tendencies that came with his birth. But the disastrous results attendant upon impatience and dull artistic perceptions are not confined to the days of Paulding and Simms. It was not long ago that Eggleston, by a series of hastily-written novels, was holding the attention of the public who caught eagerly thereat, because of the active personality of the author, because the fiction seemed to reflect contemporary life, and because it conformed to certain prevailing tastes. Each of these conditions of popular approval will be removed by time; and this writer, we fear, must be content to be entombed along with Simms and his compeers.

Too often Americans look merely at things visible, and take no thought of things not seen. A passing shout, fleeting fame, ephemeral applause—these things are sufficient. And what is the effect of the tendency? To it we owe the school of Habberton: writers whose bent is far from being mastering; cute, tentative figments they give us—something to catch the eye and please the fancy. Very popular for a time are these sentimental fictions, but they rest amid shifting conditions. The tide will come in with the next generation, and these feeble structures will be scattered and forgotten. Just now there is also a fash-

* *Maga.*

ion for writing "novels with a purpose." Authors who have no acute artistic sense—they who aim at a temporary impression, and who are averse to an ascetic seclusion—these writers find no difficulty in accommodating themselves to such a mode. They cast a sermon in the mold of romance, and suffer no twinge of conscience. A living novelist admits in a preface that he does not claim for his works the character of beautiful works of art, and, with silly sophistry, asserts that they were written with the honest, earnest purpose of helping the reader to do right. This is the class of writers that modern tendencies are producing—not artists, not even men who care to be artists; but men, forsooth, willing to write good novels—very good. We will defy you to reprove a man of this class. He will listen calmly to your chiding, but will inevitably remind you that your opinion is worth no more than his own. How else shall we look upon the theory of Holland; how that criticism is to be regarded as a fine-art merely, valuable only as affording a field for the play of creative thought? Restless by nature, the American novelist is inclined to do hurried work; too often possessed of little acute artistic sense, therewith he is content; and aiming at immediate effect merely, he feels no spur to rise from the provincial to rest upon the classic. He is running, therefore, into most offensive solecisms, and refuses to be moved at the rebuke of the occasional wise man who fortunately still exists.

Is it not Boucicault who says: "There is always a Shakespeare in existence"? But he adds most suggestively: "Mankind is not always pleased to call him forth." He has implied a most important truth—the dependence of author upon the public. Plutarch said that the shoe fitted the foot, and not the foot the shoe; and the principle remains. Madame de Staël noticed the adaptation of the novel to the requirements of the public: "The English novels are spun out to a great length; but they are intended for those who have adopted that style of life which

they represent—for those who live retired in the country—in the bosoms of their families.” Scott, in speaking of the romances of chivalry written later than 1350, tells us how “sentiment had begun to enter into these fictions, not casually, or from the *peculiar delicacy of an individual writer*, but as a necessary qualification of heroes and heroines.” It is merely the old question of supply and demand tricked out with literary terms. Before a critical public, literature becomes artistic and less provincial. Witness the public for which Shakespeare and his contemporaries wrote—an aristocratic one, intensely intellectual. This principle of interaction has especial force among American authors, who are extremely sensitive to conditions in the literary atmosphere. The American is adventurous—he is an empiric. He finds a perverted taste in his public, and hastens to gratify it. The American novelist is not, as Shakespeare, writing for cultured men and women only; but also for the *herd*, as Bulwer would say—for undisciplined minds engaged at the mill and the mine. To many of this latter class the attraction of the novel is in the interest of the story. They are held in check by no artistic sense. Familiar with the classics of his language, the most practical German possesses a literary taste healthful in tendency, if still imperfect. But the class to which we refer knows nothing of classic literature. They find most complete satisfaction in absurd situation and in melodramatic incident. These people are they who create a demand for sensational fiction. Again, the want assumes a slightly different form; not so much for the melodramatic as for the cute, the sprightly, the pleasing trifle—such as will require of our ladies no thought in reading, and such as our careworn men will greet, as now and then they may greet a lull in business; bringing no profit—at least, it brings no additional care. There is another class—and it includes leaders and led—most peculiarly American. Groping hither and thither in uncertain mysticism, upon

which artistic thinking has cast but a dim and ghastly light, Americans are coming to think that the purpose of fiction is a didactic one; that the novel is a proper form for the expression of political prejudice, or of religious dogma. Many of them will read a novel written in harmony with such a belief, when they would pass unnoticed the classic fiction of Hawthorne, or curse the stupidity of a sermon that dared appear in legitimate garb. The American is never so eager as when he fancies that he is getting more than the worth of his money—he is forever endeavoring to hit two birds with a single stone. We take up a newspaper at random, and this paragraph meets our eye:

“— have in press a novel by —, which holds out the promise of unusual interest. In the progress of a well-sustained plot, it is said to discuss various social questions which vitally affect the happiness of woman.”

It is in this state of the public taste that the popularity of Holland is to be sought. He is not an artist. Though a Philistine withal, he is a genial instructor, and the people love him.

Sainte Beuve has said: “In France the first consideration for us is, not whether we are amused by a work of art or mind, nor is it whether we are touched by it. What we seek above all to learn is, whether we were right in being moved by it.” In the self-reliant spirit of his birthright, the American seldom distrusts his ability to pass judgment upon whatever is submitted to him. He is never harassed by a literary conscience. He is content to be touched merely. Appealing to his sensibilities for decision upon the merits of a novel, he takes no trouble to establish definite notions concerning its essential nature. For this reason, criticism in many magazines and newspapers is unphilosophical—mere dandyism. Too many American critics play at criticism as babies play at keeping house. Just now some of them are testing fiction by a standard of realism. To them, by this test, *Nicholas Minturn* becomes great.

Say they, "It images our life, and we can ask no more." Oh, yes! it pictures fleeting conditions. It shows us the features we possess apart from other men, and not our common nature. It becomes therein caricature, and not realism. But these fictions are mainly appealing to unreflecting natures. The American is in some respects like Irving's Spaniard, to whom if you would give the sun in winter, the shade in summer, a little bread, garlic, and oil, the world might roll on as it pleased. Give to an American a novel didactic, racy, or hot; and art may encircle itself with walls as high as the walls of the Middle Kingdom, and set angels with flaming swords to guard its gateways, and our friend is as happy as Sancho munching his cheese 'mid the glitter of chivalry.

Over against this public stands the novelist, eagerly moved, eager for fame and for money. Well knowing that the public will rate his work according to its power to move them, he endeavors to understand the taste of his public rather than the essential nature of the novel. It therefore results that novelists comprehend the province of fiction but little better than the receptive public. It was not long ago that a popular magazine published a letter from a man who laid claim to the authorship of two novels written during the last four years. Soundly did he berate his critics for denying the existence of the society he described: "The social-dividing lines of a people are of inestimable service to a novelist—he can not, indeed, do without them. It is somehow the literary curse of our country, as regards the writing of fiction, that what few lines really exist are denied by those living nearest them." Such is the verdict of this anonymous writer. What would he imply, if not that it is with social forms that the novelist is chiefly concerned? But what of these lines? How will his artistic perceptions be the keener therefrom? How will his characterization become more vigorous? How will the dramatic movement of a tale become more complete?

These things are independent of such trivial circumstances. But why "a curse" not to recognize them? Did the popularity of the romances of chivalry blight the genius of Cervantes? Ah! our novelist has covertly disclosed his dependence. We suspect the man to be seeking melodramatic effect. He will be content, therefore, only when he can tilt with wind-mills. The literary curse of America is, that our novelists should conceive such flippant notions of the novel, and should so prostitute their function that they should fancy that popular crotchets—ephemeral whims—can in any manner be a hindrance to complete success. But many novelists are poor, and more are prurient. The reception of the novel depends upon its coincidence with popular taste. When taste is largely untaught of artistic association, and sadly perverted by provincial thinking, can we wonder at the tone of contemporary fiction? Habberton touches the talisman that brings the applause. Holland produces *Arthur Bonnicastle* and *Nicholas Minturn*; and morning papers lament the scarcity of novelists like this one to discuss the questions of the day.* It is only the intense genius like Nathaniel Hawthorne, who writes for man and not for men, who can override by the force of native impulse all provincial considerations, while yet suffering himself to be tinged with a local coloring—it is Hawthorne alone who, in a novel like the "Blithedale Romance," can say to a public itching for the discussion of socialistic questions that he neither pretends to illustrate a theory or elicit a conclusion favorable, or otherwise, in respect to Socialism. So, between the inherited tendencies of our novelists and the unfortunate requirements to which they are subjected, are not conditions most unfavorable to their success? It is only in more correct conditions of public taste, and before more definite standards of criticism, that the novelist will feel a

*As did the Utica (N. Y.) *Herald*, reviewing *Nicholas Minturn*.

constant impulse toward more attentive study and more careful execution.

Is this popular indifference for an author's right, to which we are addicted, an outgrowth of our bondage to the practical? Unengaged in material occupation, do we look upon the novelist as a drone? Be that as it may, that officious man of function voiced a prevailing tendency when he said of Hawthorne: "This man is one of them 'ere visionists, and we don't want no such man as him 'round." It was said by Burroughs: "Men do not play at literature (fiction particularly) in the Old World as they so often do in this country." Do our novelists go to poetizing, then, because their dignity otherwise suffers? It is certain that, in other ways, the tendency works disastrously. Set a publisher's profit against an author's right, and the popular vote ignores the latter. Still do our legislative bodies refuse to establish international copyright. This attitude of government wrought the decline of the English drama, because it made a drudge of the literary artist. This fact is significant to us,

for Americans make much of independence.

It has been observed that the English mind is passing more and more away from all that is imaginative, and is proceeding into science. But is not America, too, deeply intent upon the mysteries of nature? This, we think, is the scientific age. The mind has ceased to soar as in Shakespeare's day. So we are not writing epic poems, nor building cathedrals in America. This is the age of knowledge—of skepticism. The age is prone to assign its great creative geniuses to mechanics, and not to literature. The imagination finds expression in a Corliss engine, and not in a second Macbeth. Again, the press is a recent feature of life, having its completest development in America. To submit an opinion upon every subject, and a record of every event, however trifling—such is its province. The profession of journalism, affording both dignity and profit, is to be filled with writers drawn from other occupations. Naturally, those least satisfactory are deserted.

L. D. TEMPLE.

INJURY OF THE BRAIN.

THE New York *Sun*, early in July last, contained the following:

"A Chicago Bohemian, named August Drabrandt, met with a serious accident, the result of which was that his skull was fractured, a portion of the brain gouged out and afterward removed, his nose pretty well demolished, two ribs broken, and his body badly bruised. On the 1st of July he resumed work, and considers himself well, though not strong. The remarkable recovery of the man after the loss of a portion of the brain, and the retention of all his faculties still in their normal condition, makes this one of the most curious cases on record. Drabrandt was employed in the establishment of the Northwestern Fertilizer Company, located on Forty-fourth Street, and in the vicinity of the stock-yards packing-houses. He had ascended to a horizontal shaft

about sixteen feet above the floor, for the purpose of oiling it. He had walked along a temporary scaffolding near the shaft, and reached his left hand over it, and in doing so the sleeve of his shirt caught in a projecting screw, or bolt. The shaft was whirling about at the rate of three hundred revolutions a minute, and Drabrandt, of course, went with it. How long he was carried about the shaft he does not know, as he became senseless. It could not have been many seconds, however, as his clothing was literally torn to shreds, and he was hurled to the floor naked, with the exception of his boots. The concussion against the floor aroused him momentarily, and he remembers that he started to his feet, but again fell senseless. Others in the building heard the fall, and rushed into the room to find Drabrandt helpless and un-

conscious. Dr. Crane hastened to the scene, and found the skull crushed in on the left side of the head, and just above the ear, and the brain protruding. The cut in the scalp was about five inches in length, and irregular in shape. The temporal bone was broken into several pieces, and the portion of the brain protruding seemed to have been pushed out, as if by the bolt which caught his sleeve. It was still held at one end to the brain mass, and was about the shape and nearly the size of a man's index-finger. The doctor saw that it was so mangled it would be utterly useless to attempt to replace it.

"He clipped it off and removed the broken pieces of the skull, including a wing of the sphenoid bone on that side of the head. The exposed portion of the brain was dressed, and, fortunately, there was no hemorrhage from it. At the man's home his ribs were set and the wounds more carefully dressed. On the fourth day the brain had healed sufficiently to warrant no further anxiety about that. On the fourteenth day the patient went out of the house, and two days later his physician was discharged, and he resumed his work. A reporter saw Drabrandt at his home, and questioned him closely to discover, if possible, any abnormal condition of mind or body, which would most certainly be expected from the loss of so much of the brain. He says he has retained full possession of his faculties, and has never been disturbed by indications of paralysis or loss of senses, so far as he knows. He is attacked by heat, however, and at times is troubled by his 'brain seem to get hot,' as she terms it, and his head aches. His wife says that she has noticed nothing unusual in his actions, except that 'he gets mad awful easy now,' whereas he was, before the accident, one of the kindest and mildest-tempered of men. He becomes vexed at the children, and wants to whip them for the most trivial offenses. He has been perfectly rational in his talk and actions, aside from that, she says, except on one

occasion, when he was at work in the basement of the house and became heated. Suddenly he rushed up-stairs, out on the street and three blocks away, as fast as he could go. He then stopped and walked back to the house, wondering how he got out. The man is forty-five years of age, and he has an iron constitution."

The above article is one of those curious commentaries which indicate the loose methods of observation and statement which are common among those who are not educated physiologists, when anything in the way of injury occurs to the brain.

We have it stated distinctly that a man retains all his faculties in their normal condition. Let us say that the injury being above and back of the ear, was in the region of the propensities, not of the intellect; and if there was a local disturbance of any of the faculties, it would be that of Combativeness, Destructiveness, and Secretiveness, which produce anger, severity, and suspicion. As we proceed with the article, however, we find that the man became furious or insane on the subject of force, and ran out of his house and forgot what he went out for; and that the wife said: "He gets mad awful easy now; that he becomes vexed with the children, and wants to *whip* them for the most trivial offenses." If that does not indicate an unusual action of some of the faculties, we do not know what would. She says, moreover, "before the accident he was one of the kindest and mildest-tempered of men."

Since Combativeness and Destructiveness have become injured on one side of the head, these *heats*, or congestions, come on, and he seems to lose himself.

We have rarely met with a case which more clearly proves the truth of Phrenology, and the location of the organs; yet newspapers will probably circulate this story as widely as the language is spoken; and the general inference will be that his faculties were not injured at all, though his brain was severely injured.

We trust that the reader will now carefully peruse the above statement again, and recognize the fact that the man did show abnormal excitement of the organs which were involved in the wound.

INTERNATIONAL PRISON REFORM.

No. I.

Interesting correspondence between M. Charles Lucas, Member of the Institute of France, and Dr. E. C. Wines, Honorary President of the Prison Congress of Stockholm.

I. LETTER OF M. CHARLES LUCAS.

PARIS, 14th May, 1879.

DEAR DOCTOR WINES:

MY note of the 12th May, which accompanied the transmission of certain pamphlets, announced to you an approaching letter in reply to your personal request for information for your work on the *State of Prisons throughout the Civilized World*. My silence hitherto has proceeded only from the fear of saying too much and too little; and I have the same fear still, in this letter which is personal, and whose dictation follows the course of my impressions. Let me say, in the beginning, that no one approves more than I do, your proposition to trace the picture of the actual condition of prisons in the civilized world; and I rejoice, most of all, that your work will appear next autumn. When our learned friend d'Olivecrona dedicated to me his book on the means of preventing relapse (*récidive*), he had the good taste to omit from his dedication every eulogistic expression, and, restricting himself to the invocation of two historical dates, he contented himself with saying: "To Charles Lucas, who, in 1828, gave to prison reform its first history, and, in 1836, its first theory." I ask nothing more of God, than time enough for the reproduction of these two works. You will say to me: "Why, then, wait so long, since they have been for so long a time out of print?" You who are, like myself, a man of vocation and of action, will understand me when I say, that I have felt the necessity, above all, of tak-

ing part in the progressive movement of this reform by successive publications in the order of events, that is to say, in the historic and practical order, and in the order of ideas, that is, in the theoretical and scientific order.

But it is, at length, time to give myself entirely to the reproduction of these two works, beginning, as a matter of course, with the first, for the scientific method is, for me, that of observation. It is from the lights of practical observation that we must demand the deduction of theoretic principles. Now, my dear Dr. Wines, my work, in three volumes, on the penitentiary system in Europe and the United States, which was a stripling in 1828, is an old man to-day, and, at the distance of fifty years, it is not a work to be reprinted, but reconstructed. I have gathered the materials for such a labor; but it is the good God who inspired you, when you conceived the idea of collecting them also yourself. You have, in addition, traveled in the United States and in Europe; you have visited many places in both, and are thus able to add your personal observations to the lights gathered from study. I therefore await with impatience the publication of your work, whose valuable information I shall be able to utilize. It is an unlooked-for aid which comes to me, and no one can give to your book a more sympathetic or grateful reception.

Penitentiary reform, when I look at it as a whole, during the half century in which I have been devoted to its service, presents itself to me under two points of view: first, that of the national character of its progressive movement, that is, of the development which it has had in each civilized country; and, secondly, that of the international character of this progressive movement, that is, of the changes

in the different countries, and of the progress of theory and the practical results of ideas in their application.

As this letter is personal, and is a sort of *tête-à-tête* talk between us, I may say that you are the representative of the international progressive movement, as the promoter of the two Congresses of London and of Stockholm, and your work will be the solemn attestation of this historical truth.

But the appreciation of the progressive movement of penitentiary reform under its national relations is a more delicate question, since it seeks to ascertain the part due to each country in the progress obtained. I do not know whether, in this regard, we shall agree on all points, and there are some on which I ought to state to you my actual conviction.

First, as regards Europe and the United States, I am of the opinion that, as a matter of fact, Europe is more advanced than the United States in the progressive movement of penitentiary reform, and *that*, both in theory and practice. I do not know whether you share this opinion, but I doubt if you would be able to produce documents of a nature to modify my conviction in this respect.

As far as Europe is concerned, I believe that France is the country which has most effectively aided the progressive movement of penitentiary reform. Belgium alone might contest that position with her, and it is certain that, originally, she did hold the priority, but at a date far removed, going back as far as the prison of Ghent. That early advance belonged to the order of facts, but in a theoretic point of view, the initiative, beyond all doubt, belongs chronologically to France. The sole *theory* of imprisonment is that which I published in France in 1836 and 1837; and it did not remain a dead letter. This theory, it is well known, divides prison treatment into five degrees, namely: 1. The specialty of establishments for young prisoners under sixteen years. 2. Preliminary detention for adult prisoners of both sexes before trial, with cellular separation as a protection against

contamination. 3. Repressive imprisonment for minor offenders sentenced to short terms of cellular separation, with a view to intimidation and deterrence. 4. Repressive and penitentiary imprisonment, based on the two principles of intimidation and reformation, combined with that of the duration, with cellular separation by night and associated labor in silence by day. 5. The final degree, relating to prisoners *en route* from one prison to another, whether before or after judgment.

This theory, which, on its promulgation, provoked the criticisms of so many criminatists, attached to the complicated system of the legal classifications of imprisonment and to the empire of afflictive and infamous punishments, has, to-day, penetrated, everywhere, into the ideas which are proclaimed, and into the things which are done. Belgium does not contest with France her supremacy in the theory of imprisonment. At the session of the 5th of June, 1879, of the General Prison Society, at which you were present, M. Stevens, in speaking of France, said: "You are the masters in penitentiary science. But if I can not speak to you of theory, at least I may be permitted to give you some facts on the application which we have made of your principles."

If Belgium has studied the application of the principles of the French theory, it is France which has, herself, taken the initiative of their application on points the most important. Thus, as regards the first degree of this theory, that of special establishments for young prisoners: Is it not France which gave the impulse to Europe, by the establishment of penitentiary agricultural colonies, public and private, for juvenile prisoners, which the law of the 5th August, 1850, erected into a system, and organized on a uniform plan? Is there in this regard any colony in Europe more celebrated or more popular than that of Mettray? The experiment of Val-d'Yèvre, designed to give the highest value to the labor of juvenile delinquents by employing it in the clearing of wild, but reclaimable lands—

has not this experiment, in the new horizon which it has opened to the penitentiary colony, given to the problem of the improvement of the delinquent youth by the land and of the land by the youth, a happy and lucrative solution for the State? Has not the law of June, 1875, enacted a rule which, it is true, has waited a long time since the publication of the theory of imprisonment in 1836—that, namely, of the application of individual imprisonment to both preliminary and repressive detention? As regards repressive and penitentiary imprisonment for convicts sentenced to long terms, it is not at Louvain that Belgium has made application of the principles of my theory of imprisonment, for I am the steadfast opponent of cellular imprisonment for long detentions. But I affirm that the central prisons of France, with their common dormitories and their excessive agglomerations of prisoners, lack the essential conditions of a penitentiary system, and can not offset this deplorable situation by any organization of labor, however remarkable its development.

However, this unfavorable state of things is mitigated in the central prisons for women by an institution on whose origination I felicitate myself, namely, that of the special order of Sisters for Prisons, who have replaced the male keepers, formerly employed in the central prisons for women. Belgium does not yet appear to me to have done, in this regard, more than to follow the example of France.

In a word, when I am charged with being the implacable foe of the cellular *régime*, a grievous wrong is done me; for, after having recommended its adoption for preliminary detention and for repressive imprisonment in the case of short-term prisoners, I was myself the first to recommend its use for the cellular transfer of prisoners *en route*, and for the suppression of the abominable system called *the chain*, so long practiced in the case of convicts sentenced to the galleys, in conducting them to their destination.

Foreign countries hastened to borrow

from France this method of transfer by cellular carriage, which suppressed, in the first place, the public exhibitions undergone by prisoners before and after sentence in their passage from one prison to another, and which, more than all else, suppressed the abuses engendered by the promiscuous association of prisoners *en route*, in the intermediate lodging stations where they passed the night.

You see, dear Dr. Wines, that, in the order of ideas, as in that of facts, no country in Europe has lent a more effective co-operation than France to the progressive movement of penitentiary reform. For more ample developments on this point, you may consult my address to the General Prison Society on the progressive movement of penitentiary reform in France during the last fifty years; an address pronounced at the session when the society was organized, and over which I had the honor to preside as the senior (*doyen*) of prison reform. Consult also the excellent discourse of M. Dufaure, who presided over the following session as president of the society. I am extremely anxious, from a natural sentiment of patriotism, and also from a regard to historical truth, that the justice due to her be rendered to France. I am anxious for this, still further, from a sentiment of family affection, joined to that of love of country, for the best part of the patrimony I can leave to my children is that of my service as a veteran in the cause of penitentiary reform.

Nor can I forget two considerable facts, which honor France and attest the impulse which she is giving in Europe to the progressive movement of penitentiary reform: I refer to the labors of the late Parliamentary Commission on this subject, and to those of the General Prison Society. I might invoke many other facts in favor of my country, whose services are not always appreciated abroad at their true value; but space is wanting for further observations, and I close by the expression of my very devoted sentiments.

CH. LUCAS.

P. S.—I add a *post-scriptum* to the let-

ter which I wrote you yesterday before sending it to the post, because I omitted to speak to you of an important point. As we are each about to publish, in the near future, an historical recital, which will have for aim to serve the cause of prison reform, to which we have given a sincere and common devotion, it is important that, to a certain extent, an understanding should be established between us, and that we know whether it is on the same plan and arrangement, or on different plans, that we propose to proceed. If I have well understood your lithographed circular and the letters you have addressed to me in asking co-operation, there is between us identity of aim without identity of plan. Your aim appears to me to be to look at prison reform in its present state, and to exhibit and set forth that actual condition of things among the different civilized peoples of the earth. Mine is broader. It embraces the fifty years last past, and shows, during this half century, the progressive movement of this reform, with a view to arrive at the verification and statement of that actual condition. These two different plans find their perfect justification in the difference of our respective positions.

You are the representative of the international movement of this reform, which dates from the Congress of London. You, then, to show the actual state of the reform, have not to go back beyond the Congress of London. My position, on the contrary, requires more; my point of departure is my *Penitentiary System in Europe and the United States*, published in 1828. I have already followed, since that date, the progressive movement of this reform, in numerous publications and successive communications to the Institute of France, which would fill several volumes in octavo. It would, therefore, be quite necessary that I present to-day an historical *résumé* of this progressive movement of penitentiary reform, of which I have already been, in a certain sense, the historian. It is thus, I think, that our two publications must

naturally appear to the eyes of the public to explain themselves, to go hand-in-hand, and to be completed the one by the other.

It is of much importance, in the interest of prison reform, that public opinion do not see in us two competitors, but two faithful and devoted servants of this reform, who march, in thorough and loving union, by two different routes, to the same end.

I do not see that our two several personalities can offer the least obstacle to a good understanding between us, for, as I have already said, this reform presents itself under the two-fold point of view of the national and the international movement. Now, nobody can deny that you are the representative of the second; and I do not believe that any one, considering my fifty years of persistent devotion to the service of prison reform, will contest the point that I am, to-day, the principal representative of the national movement. It would be an injustice which would wound me far less in what concerns myself personally, than in what concerns my country, which has a right to claim for herself all the services which her children can render to the progress of European civilization.

Do not, however, misconceive the sense in which I said that France had taken the largest share in the progressive movement of penitentiary reform in Europe. I do not intend, in this regard, to belittle or to exaggerate the account that should be taken of my personal services; but I have desired to rate, at a high value, the signal services which other devoted men have rendered to this reform in France by writings as remarkable as they have been remarked, and which have won for them a European reputation. But at the side of these personal services France must claim the collective or corporate services which, in the course of the last fifty years, she has given to penitentiary reform: first of all, by the concurrence and co-operation of those learned bodies, at the head of which stands the Institute. Has not the Institute of France made of

the principal questions which belong to penitentiary reform the object of competition for prizes? Has it not seized all opportune occasions to bestow rewards on meritorious publications, consecrated to the penitentiary question? And has it not, in some sort, become the Tribune of the progressive movement of this reform? In the number of these collective services, I have already mentioned the labors of the Parliamentary Commission to study the penitentiary question, and those of the General Prison Society.

Special inclinations—vocations—may not be forgotten, because, for the progressive movement of penitentiary reform, there must be joined to the double concurrence of science and practical experience, a providential call. You know this better than any one—you, who have had such a call, and who in one of your letters, expressed to me, in terms so energetic, your sentiments on this point.*

* It is proper to state that the "energetic expressions," referred to in the text, had relation to M. Charles Lucas himself, and to no one else. E. C. W.

BLONDE AND BRUNETTE SOLDIERS.

WE find in the newspapers a statement that in the Russian army the blondes are put into one company, the brunettes into another, the black horses are placed together, etc. There is a law in organization which is sought to be made available in the instance referred to.

During our war we noticed that regiments as they marched through our city the men who were blonde were just about equal in number to the brunettes in the regiments. Of course there were many who were a medium between the two temperaments.

When the regiments returned, after two or three years' service in the South, among the malarial districts, where bilious diseases were likely to prevail, we noticed that there were twice as many blondes as brunettes.

We account for it in this way: The brunettes were much more seriously affected by the bilious climate than the blondes, and large numbers of them had become affected by bilious diseases through exposure in the swampy, malarious regions, and had died, or gone into hospital, or been discharged.

The blondes, not suffering from liver difficulties, had been able to do duty there and retain their health. If the war had been in Canada or in the cool Northwest, the brunettes, being tougher, would have stood the labor better, and given a more favorable exhibit of numbers on returning.

In Russia it doubtless will be found that hard, long marches will be endured by the brunettes much better than by the blondes, other things being equal, and the blondes would endure the swampy regions of the Danube better than the brunettes.

At all events, separating and classifying them will give opportunity for equal and uniform service by regiments composed of men of similar temperaments. We doubt not the same would be true with horses.

THE BEAUTIFUL HARVEST.

Out in the fields the bees are singing
Love to the clover, and fondly clinging;
Timothy blossoms, and purple fringes
Sway where odor the gold air tinges;
The wheat has grown, her hair is brownish;
Acres of oat have tinted crowning.

It is the harvest,
The beautiful, bountiful harvest.

Wonder we half with disbelieving,
While earth's liberal wealth receiving,
Whether the land with full life breathing,
E'er was silent beneath snow's wreathing;
Whether the days by summer lengthened,
Ever were dwarfed, or cold winds strengthened,

For we have harvest,
The beautiful, bountiful harvest.

Sing on, bee, to the blush bloom clover;
Wing away, birds! each to your lover;
Fan us, breeze, with your odorous kisses;
Toss to us, blossoms, no spray misses;
Rest on us, sun, your golden glory,
Till hearts within chorus the story,

We have the harvest,
The beautiful, bountiful harvest.

MRS. S. L. OBERHOLTZER.

HENRY S. DRAYTON.

WHEN an editor voluntarily puts three thousand miles of ocean between himself and his work, to rest, and revel among the beauties and glories of France, Italy, Switzerland, and Great Britain, his associates who assume the edi-

analysis of the character, as represented in their phrenological and physiological developments, and these he publishes in the PHRENOLOGICAL JOURNAL verbatim, together with their biography.

Now that he is abroad, we propose to



HENRY S. DRAYTON, EDITOR OF THE PHRENOLOGICAL JOURNAL.

torial duties during his absence are likely to take some special responsibilities which he might not incline to sanction.

The editor has always seemed to take pleasure in obtaining photographs of noted personages, presenting them to our examiner without giving the name of the originals, and asking for a full and sharp

give him a taste of the same thing, feeling certain that if he were consulted he would put a veto on it; and no one else will be so much surprised as himself when this article appears.

We regret that we can not give a more circumstantial account of his work previous to his becoming associated with us, but the fact that we could not consult

him about it shuts us off from the chief source of information.

HENRY S. DRAYTON, of English and French extraction, was born in Jersey City, N. J., Sept. 16, 1839, and is the only child of his parents. He was fond of books and made commendable progress in his studies, anxious, as he became old enough to think, to get as much education as possible before his thrifty father should deem it advisable to withdraw him from school, and place him in the large and stirring business in which he was earnestly engaged. The son was kept in the store during the intervals of study, and trained not only in the work of selling and delivering goods, and making collections, but in keeping accounts. He then had a serious foretaste of what he supposed he soon would be required to enter upon in earnest, while his desire for all the education he could acquire before the opportunity should be effectually cut off, sharpened his attention to his books to a painful eagerness; and between this hunger for books and the work he performed in the business, he became prematurely manly and serious in his mental condition; consequently his boyhood was measurably absorbed by the duties incident to manhood.

Thus expecting to be withdrawn from school, he worked on until his associates, prepared for college, were about to leave him, when his father unexpectedly told him he might go to college if he wished. He had the vacation to review and get ready for examination, and passed with high marks. He entered the University of the City of New York, and graduated with good rank in June, 1859, two months before he was twenty. Two or three years later he was admitted to the bar from the University. He soon entered

the law office of Messrs. Mott, Murray & Harris, and turning his attention, meanwhile, to phonographic reporting, as an aid in law practice, he became qualified, by this art, to become a reporter in courts and elsewhere.

The war at this time made everything so unsettled, and there being some features in the ordinary practice of law which did not comport with his tastes, he turned his thoughts toward science and literature, especially journalism.

September 21, 1864, he married Miss A. E. Guernsey, of New York, daughter of Henry Guernsey, M.D.

In January, 1865, he accepted a situation as reporter in the office of Fowler & Wells, and, two years later, graduated at THE AMERICAN INSTITUTE OF PHRENOLOGY, thus laying the foundation for a permanent relation with the office, professionally, and in connection with the AMERICAN PHRENOLOGICAL JOURNAL.

This relation continued, and became more intimate and important for ten years, during which time he became very useful and efficient as assistant editor of the JOURNAL, and in 1875, on the death of Mr. Samuel R. Wells, Mr. Drayton became editor-in-chief. For more than four years he has filled that important post, with credit to himself and advantage to the JOURNAL. Besides the usual work of editor, he has written several series of articles which have since been collated and published in book form: One entitled "Light in Dark Places;" another, of which he is joint author, entitled "Brain and Mind," will soon be given to the public by the house of S. R. Wells & Co., successors to Fowler & Wells.

Mr. Drayton is an advanced thinker, and a clear and strong, though temperate

and judicious, writer. He is a member of the faculty and lecturer in the "American Institute of Phrenology."

He is a member of the Protestant Episcopal Church, and regards the principles of Phrenology as a part of the works of the Creator, and recognizes no necessary antagonism between science, rightly interpreted, and revealed religion.

PHRENOLOGICAL CHARACTER.

HENRY S. DRAYTON has a predominance of the mental and motive temperments. He has fine dark-brown hair, thin, fine skin, and more than common mental activity. He is about five feet ten inches high, muscular, but rather slight in figure, is quite strong for one of his weight, and turns the scale at about 145 pounds. His head, measuring more than twenty-two inches, is rather large for the size of the body, but the head being well developed at the base, above and about the ears, he has strength and vigor of constitution, and a great deal of force of character.

The perceptive intellect is uncommonly strong, showing fullness across the brows, and, though the forehead seems to retreat, it is well represented in the reasoning organs. Upward and backward from the eye, the head widens out rapidly until the point above the ears is reached, showing first, back of the corner of the eye, a large development of the organ of Tune. In music he has considerable culture, and performs on the organ and other instruments. His Constructiveness, shown by the wideness in the region of the temples, would have given him excellence in any mechanical department; and his Acquisitiveness, shown in the back part of the temple, where the hair commences, indicates inherited thrift in business matters, the power to financier and comprehend the laws of commerce.

His Secretiveness is rather large; hence he is reticent, concealing that which ought not to be told, and expresses his thoughts with guardedness and care; is

not likely to commit himself unduly, or expose plans and purposes which would thereby be put in jeopardy.

Directly over the ear the head is broad, showing rather large Destructiveness, giving executive force, thoroughness, and severity when required. He knows how to say "No" calmly, though the negative he gives may be exceedingly unwelcome to the one who receives it. If he had been educated for a surgeon or a soldier, the severities which belong to those professions could have been manifested by him, vigorously, steadily, and calmly.

His Combativeness gives him promptness to repel aggression, but his Caution and Secretiveness lead him to such self-restraint that he can "be angry and sin not," can carry his fire as a flint does until some adequate provocation calls it out. Had he been devoted to ordinary business, he would have pushed his cause with industry, persistency, prudence, policy, skill, and economy.

He appreciates wit; is sharp and quick, but very playful in repartee.

He has large Ideality, as shown by the fullness in the upper side-head, where the hair joins the forehead, upward and backward from the eye. His taste for refinement, for polite literature, for art, and for poetry especially, are marked characteristics, and he has written for the JOURNAL, and for other magazines, sometimes anonymously, some excellent poetry.

If he were to occupy himself less in writing, and the careful analysis and special statement of subjects, and devote himself to off-hand speaking, he would become a ready and effective speaker, especially on topics in which the feelings and imaginations could be called into use. As a speaker on scientific subjects, his style is guarded, careful, analytical, and pruned. This comes from Cautiousness and Secretiveness partly, and partly from Order and Ideality, as well as from the habit of writing for the press.

He has a strong development of the moral elements. Conscientiousness and Hope give him love of justice, and an expectation of future good, while large

Veneration gives him reverence for whatever is eminent and sacred. His Benevolence renders him sympathetical, desirous of helping and benefiting others; not, perhaps so much by mere gifts, as by assisting people to help themselves, and thus enable them to work out success without pecuniary assistance.

His knowledge of character qualifies him to appreciate mind, comprehend its peculiarities, and trace it out in its practical working.

He is adapted, mentally, to scientific investigation—especially to mathematical accuracy and demonstration.

His Language is fully developed, but his style is not redundant—it is guarded and specific; and his thoughts are not smothered in a deluge of words.

He has strong social development, is capable of uncommon domestic affection. His love is quite as much a sentiment as a passion. The faculty of Conjugal love is

particularly strong; so is that of Friendship and Parental Love.

His Self-esteem is large enough to give him a consciousness of his own worth, and a tendency to carry himself in a dignified, self-possessed manner. He does not become unduly familiar with strangers, and never would incline to show the weak side of his character or cause.

He is ambitious to be approved, but not vain or hungry for praise.

Holding in our hands an excellent cast of his head, recently taken, we would say of him, had we no other knowledge, that he is a man who would be able to command respect, maintain his position, work out success, conquer difficulty and opposition, win friends and hold them, and carry himself with self-reliant dignity and moral bearing, and intelligent wisdom and skill in almost any field of effort to which he might devote himself.



LOVE OF YOUNG.

THE study of this faculty is one of the most interesting which the science of Phrenology brings before us. It was established by upwards of three thousand observations, and is found to exist throughout the animal kingdom to a greater or less extent. In the study of the different organs, Dr. Gall, the great founder of Phrenology, observed that in females the upper part of the occipital bone receded more than in males, and naturally inferred that the brain beneath this part was the probable seat of some quality which is stronger in woman than in man. Hence the question arose, Of what quality is it the seat? Various opinions were formed at first in his mind, none of which satisfied him, and for five years the subject remained an unan-

swered problem. But at length he noticed a similarity in this one respect between the crania of monkeys and those of women. Here was a clue, which this earnest man immediately followed up. He pondered long upon the different qualities of the monkey tribe, but it was during the delivery of a lecture, when the subject of love of young in the monkey was introduced, that the truth flashed upon him which he had sought so long. Dismissing his class, he retired to his cabinet, and there comparing the different skulls in his possession, he found the same difference to exist between male and female skulls in general. All subsequent observations confirmed the truth of his discovery.

It is a study of extreme interest to

watch the manifestation of love of young in the animal kingdom. Destroy an ant hill, and see how earnestly and quickly the little creatures collect their eggs and hurry with them to a place of safety. Watch the spiders carrying their eggs in a little sack on their back; how they cling to them, never parting with their treasures unless compelled to do so by the most pressing necessities. The cricket in its wonderful home forms winding and intricate passages to its miniature nursery, and keeps watchful care that no harm shall come near its loved ones. How beautifully the mole constructs its home and cares for its young, building an underground palace, with winding galleries and lofty apartments, with a room in the safest and most retired part for its children. The crocodile steals forth and deposits its eggs in the warmest and sunniest sand-bank, using the utmost caution and secrecy lest some one should discover and injure them. How careful and tender bees are over their young! how they cherish their infant bees, caressing and licking them, guarding them from danger, and defending them from harm. We recently heard of a lady who had some bees which she was very fond of watching. One day she noticed two large ones, who appeared to be tossing and tormenting one which was much smaller. After continuing this for some time they flew away, leaving it on the grass. The lady thought she would prevent it from being teased any more, and so hid it under a rose-leaf. Not long after the two bees returned and hovered about for some time, as if trying to find it; then, failing to do so, they returned to the hive, and the lady went into the house. In the afternoon she called upon a friend who understood bees, and told her of the incident of the morning.

"Oh," said the friend, "you should not have touched that bee; it was a young bee lately born and very weak, and the other two were airing it, that is, they were taking it up and down in the warm sunshine, just as we might walk

about with a sick baby, that it might be strengthened by the summer air."

When the lady returned she went to the hive, and immediately two bees flew out and stung her on the cheek. They knew her well, and were generally so friendly that she concluded they had stung her out of revenge.

How perseveringly the birds hatch their eggs! How patiently and tenderly they feed and protect their young, and what alarm they manifest when their brood is threatened. Through hunger and cold they will cling to their little ones, and have been found dead with their young sheltered beneath their wings, warm and safe. It is said that the cuckoo is an exception to the general rule, for she leaves her eggs; but she does possess the quality, though in an inferior degree, for she deposits her eggs in the nest of some bird which will hatch them and supply the little waifs with food, so that you see she does regard their helpless condition, though unwilling to labor for them herself.

In the mammalia what an instinct is the love of young: how the fox, cat, and squirrel watch over their young, immediately removing them to another asylum if they find their habitation is suspected! When the fox has whelps to succor, it loses all its usual caution, and becomes rash and dauntless. The strength of this feeling in humanity needs no assurance. Mother-love is one of the greatest boons that God ever gave to the human race. The strength of the Love of Young is greater and the organ larger in females than in males. This is shown from earliest infancy. The boy wants his drum, horse, shovel, whip, velocipede, but the little girl is never happier than when nursing her doll and playing mother; and as the years go by and the heart expands, this quality becomes developed (for it can be developed); her love goes out to every little baby form. When passing children on the street they look into her eyes, and their souls answer back the love they see beaming for them and their interests.

Oh, this love of children, how mothers

ought to thank God for it! how it helps them to bear with childhood's faults and sympathize with young hearts in every trial! How it gives strength to the arms and courage to the soul!

Children instinctively know when they are loved. Hawthorne once said: "If I value myself on anything it is on having a smile that children love." You can not win a child's love with a gift unless your heart is in it. They will enjoy the toy most surely, but one can go empty-handed to a little one and win its affections by the mystic tie of love.

Who does not know of some dear lady friend who possesses this quality to such a degree that she can never pass a child but her arms go out unconsciously toward it; and if it is dirty, she longs to bathe and dress it; if it is sick, she longs

to nurse and make it well; the more helpless and poor the little ones, the more her heart yearns over them.

Ah, friends, what should this instinct of parentage within us inspire? Is it not implanted there by our Divine Father to teach us His own feeling toward us? As the mother's heart throbs for her children, seeking their best interests, loving them even when they stray away from the dear home-nest, yearning over each wanderer and rejoicing over its return, so our Father pities and cares for His children; and as one whom a mother comforteth, so will He comfort us; and with a love greater than our weak human affection, reaches out His infinite arms of tenderness with a yearning, passionate "Come unto me!" in the voice of Immortal Love! SARA KEABLES HUNT.

A BOY ALL OVER.

AS I was sitting in my friend's room the other day, some one came up the stairs, whistling a jolly air.

"There comes Ned," said a lady in the corner of the bay-window, busy with worsted work, "and now everything will be topsy-turvy. You may as well finish your story another time, for there's no use trying to do anything when that boy is 'round."

In came "Ned," an embodied breeze, one of those fluttering, fragrant, saucy summer breezes, that scatter your manuscript leaves over the lawn, as if they were so many rose-leaves—pray Heaven they may be as sweet!—that toss your hair, and flutter your ribbons, if you happen to be of the be-ribboned sex, and play the mischief generally with whatever airy possessions you chance to have around you. I say Ned came in like just such a breeze. Everybody in the room was a little afraid of him, yet the sound of his footsteps, the echo of his merry whistling, the ring of his boyish voice, brought smiles to every lip, a quicker beating to every heart; in short, his coming brought life into the room. In the course of a minute Ned had stepped

into his mother's work-basket, had tossed his aunt's ball of pale pink worsted to the ceiling, had pulled the cat's tail, and teased his little sister till she "wished boys wouldn't bozzer;" then he sank into a chair and began to beg pathetically for his dinner. But at the sound of a comrade's voice he dashed out of the room again, dragging his mother's knitting after him, and breaking the yarn by a vigorous kick as he shut the door.

"I should think you would send that boy away to school, if you are going to," said Aunt Grace, taking a false stitch in her crocheting, and making a very bad place. "I would as soon live with a whirlwind."

"Ned has wonderful spirits," said the mother, joining her severed yarn.

"Truly wonderful," replied the aunt, in tones of quiet sarcasm; "so wonderful that I wouldn't like to be responsible for his future if they are not toned down pretty soon."

"I think you are a little hard upon Ned, sister. He is generous, and brave, and truthful, and——"

"And utterly inconsiderate of everybody's feelings or comfort," interrupted

the aunt. "What do you think he did this morning? Came pounding on my door at five o'clock—after paper for his kite; and he knows what a poor sleeper I am, and how much I depend upon my morning nap!"

"He knows, but he forgets," said the mother, gently.

"I suppose he forgot when he dressed up that bolster, and set it in the corner of my room, and frightened me nearly out of my wits—me with such nerves that it is all I can do to get along under the best circumstances."

"Oh, that was——"

The mother's speech was interrupted by what seemed a miniature hail-storm, but proved to be a shower of pebbles thrown against auntie's window, giving the good lady a sad "start." Mamma looked grieved and anxious, and I took up the cudgels for "that young good-for-nothing."

"I think, auntie," said I, "that you are a great stickler for the best of its kind in everything."

"Of course I am," replied the irate lady, the flush of annoyance fading from her thin cheek.

"Well, then, you ought to rejoice in Ned, for you must admit that he is boy all over, from the crown of his cropped head to the soles of his mud-tracking feet—no adulterated article there."

"What of that, pray?"

"Why, everything. Real boy, real man. All this mischief and noise and nonsense means courage, enterprise, will, perseverance—a joyous, irrepressible temperament, that sheds troubles and trials as a duck's back sheds water. Effervescence now means fullness by and by. Your jovial, frolicsome boy, provided he have a sound, warm heart, and a good brain, becomes the powerful, genial, useful man, with not only the wish, but the force, to do his part toward setting the world right."

Ned's mother smiled and drew a long breath as I finished my little speech.

"I am glad to hear you say a good word for Ned," she said.

"I don't wonder," said auntie, somewhat softened. "Somebody is always complaining about him, and wishing he would go to school; and yet I don't know what we should do without him, after all."

Aye, there's the rub—what to do without him! Many a mother, and many a sensitive, fastidious aunt, rubbed and jarred and fretted through the childhood of their boys, depriving them of much rightful sunshine, much needed companionship, to see them at last go away in their suits of blue to the defense of their country. Then indeed the house was still! And how true to the flag were those blustering, careless, troublesome boys! What courage, what endurance, what splendid manliness they showed! How patient were they in prisons, how dauntless on the field! The irrepressible force that their friends and guardians sought to bottle up found in the right time glorious use.

The patience of kindly hearts can no longer avail for those boys. They jar upon no sensitive nerves, they disturb no quiet. But others fill their places—boys as full of possibilities, aye, and every whit as troublesome as they. They are here, brave, big-hearted, hot-headed fellows. Often you are at a loss to know what to do with them, but what could you do without them?

MRS. M. F. BUTTS.

OUR DAILY RECKONING.

If you sit down at set of sun
And count the acts that you have done,
And counting, find
One self-denying act, one word
That eased the heart of him who heard;
One glance, most kind,
That fell like sunshine where it went,
Then you may count *that* day well spent.

But, if through all the livelong day
You've cheered no heart by yea or nay:

If, through it all,
You've nothing done, that you can trace,
That brought the sunshine to one face;
No act, most small,

That helped some soul, and nothing cost,
Then count *that* day as *worse* than lost!

—*The Young Reaper.*



A FAMILY PHYSICIAN; OR, THE CURE.

A RICH Hollander had an only daughter, whom he regarded above all else, and loved to an indiscreet degree of fondness. Whatever she wished in dress, ornament, and other indulgences, she had. Could Europe not provide it, then India must help. Her apartments were decorated in the most elegant manner, and, in addition, were set off with flowers and plants such as might be sought in vain in many a prince's greenhouse. But among them sat this only child herself, as a withering flower. She had not gone out in the open air for a long time, because she fancied that every breath of air injured her health.

At the most, she rode out only half an hour once a day, and that in the meridian sunshine, and in a close carriage. All courage was gone; every day she had new complaints, and her malady continually took on new forms. One fancy quickly followed another. What she set her heart upon to-day, that was a burden to her on the morrow. She thought and spoke of death, yet trembled in dismay before it. All the eminent physicians had tried their art upon her. The father would have been willing to pay his daughter's weight in gold as a fee to any one of them who should be able to restore her to her health. Still all was in vain; she faded and was tottering toward the grave.

Now there lived in the city one other

physician who had his practice chiefly among the poor, and attended upon them with the most unwearied fidelity. The rich were wont to give the cold shoulder to this man, and indeed, spoke somewhat contemptuously and bitterly of him, because he had been a little too free in reproving their in general indolent and self-indulgent ways of living. Still the report went about that he was effecting cures bordering on the miraculous, and in cases where other physicians could do no more. He was said, also, however, to use very singular means, and to go to work in rather an uncereemonious and imperious manner. When his name was mentioned to the troubled father as a last sheet-anchor, he at first shook his head. Yet what will one not consent to for the sake of an only child? So our Hollander must needs call in the wonderful doctor. He came, saw, and heard. The father tells the long, maladiol story, lays before him a great package of prescriptions, and finally leads him to the sick girl. The physician now made very particular and searching inquiries, but received faint and half answers. Then he required his patient to walk several times through the room, after which she sank exhausted upon an easy-chair.

At last the father, with beating heart, puts the question:

"Doctor, is help possible?"

"I hope in God, sir, that it is," replied

the latter; "but you must punctiliously comply with my directions."

"What, then, do you require to begin with?"

"Provide to-day for your daughter a plain, substantial dress, such as citizens' daughters generally are wont to wear, and just such a hat, and I will go out with her," was the answer.

The father clasped his hands in astonishment, and exclaimed:

"Go out with her? It is one year and a day since she has been out of doors!"

The doctor shrugged his shoulders, and simply said:

"If you will not comply, I can not help. At ten o'clock to-morrow morning I will be here again; but for the last time, if you will not yield to my directions."

This decided manner exerted a power over the father. Other help had long been despaired of, and so after some hesitation he concluded to yield the point. The required rig was procured, and, as something new, worked animatingly upon the daughter, who, at the appointed hour, was in readiness, equipped in plain town-folk style. The doctor grasps her arm, and goes out of the house with her, the father, following them with his eyes wonderingly and anxiously from the window. When out, the doctor says to her:

"We are not going far to-day."

In the next street he turned into a house, went through into the rear, and there, in semi-darkness, they ascended two flights of stairs. Then they entered the dwelling-room of a family in which poverty and sickness had long been at home. The mother, a widow, lay in bed very ill; the children with their sickly countenances stood about her, and extreme destitution was written in but too legible lines upon the whole apartment. The doctor prescribed, comforted, and left appropriate remedies. His companion, who had not seen the like in her life before, opened her eyes wide, and her heart also opened. As she took the arm of her guide, looking him brightly in the face, she said:

"But, doctor, my father must help

here." And with this, a gleam of color and new life ran over her face such as had not been there for a long while.

And the physician responded:

"Yes; entreat him for them—that's right; but forget not also that there is a Helper above. Ask Him, too!"

Then descending the stairs, the physician says: "Now, let us go in one direction more."

"Yes; I will go with you."

There was another case of need, and it knocked again at the door of her heart. The doctor now brings his patient home. To the inquiry of the timid father how far she had gone, and had it agreed with her, his daughter hardly gave any reply; but began immediately to say:

"Father, I have seen great want, and thou must help!"

Then she went on to tell the story. When the father saw those signs of new life in his child, his purse was at once in his hand. But the doctor had more orders to give, and said to his patient:

"All these poor people are to have, you must take to them yourself. Your servant may carry it, but you are to go with her. You must give no money; but medicines, clothes, and articles of food. You are never to provide for a family more than one week in advance, and every time you visit them, read to the sick a psalm which you have beforehand thoughtfully selected."

The patient vigorously obeyed these injunctions. Her heart got into motion; she again took an interest in something; she learned to love, to pray, to rejoice. The fear of air, wind, and weather was soon dissipated. She went her own ways in works of charity, and the doctor led her into others—in all weathers. Her plain citizen habit was her robe of recovery. Medical aid, in the proper sense of the phrase, then also took effect. Thus, the invalid girl became a nurse of the sick, then a healthy woman, then a pious, capable housewife, who, her life long, took pleasure in climbing narrow stairways to visit humble abodes of the poor. And she was wont to say:

"As I have now become well in body and soul, I will continue to bear thank-offerings even to the end!"

What would have become of her but for this *cure*? Ministering love had made her well! So cheap and simple are the

means of health—of health in its true and highest sense, alike the *vis medicatrix nature* and the blessed *ordo salutis*; and who would, who could willingly remain unhealed by them?—*Translated from the German, by Rev. William Hall.*

INTELLIGENT LABOR.

MRS. Browning says:

"Get leave to work
In this world—'tis the best you get at all;
For God, in cursing, gives us better gifts
Than men in benediction. God says, 'Sweat
For foreheads;' men say, 'Crowns,' and so we're
crowned,
Ay, gashed by some tormenting circle of steel,
Which snaps with a secret spring. Get work;
get work;
Be sure, 'tis better than what you work, to get."

Man's greatest glory in the affairs of this life lies in what he can do, in his power over the elements, in his ability not merely to shield himself from their untoward power, from the winter's cold and the blistering sunshine, but to make them minister to his wants and his pleasures, and to do his bidding. Labor is the magician's wand with which he strikes the earth, and lo, there spring out of it clothing and houses, carriages and ships, as well as everything else comfortable, desirable, and beautiful. If this wand were given to a few, the gift would be greatly coveted; but now that it lies within the grasp of all, we undervalue or despise it. Shall I venture to say that it is because we do not know how to use it to the best advantage? Let us glance a moment at first principles. I think we hardly study them enough, sometimes.

I suppose we have all heard the maxim that labor is the source of wealth; but how many are there who still fancy that gold, and silver, and gems are the most desirable things? Let us resolve society into some of its elements, and we will get a glance at the truth. Suppose a man is thrown, like Robinson Crusoe, upon some lone Juan Fernandez. Do you remember how it was with him when searching the wreck for some serviceable articles to take on shore? Among the rest he found some gold. At a glance

he saw its worthlessness. "Lie there, thou vile drug," he exclaimed; "I have no use for thee!" It would neither feed, nor clothe, nor shelter him. I believe he took it on shore, and very likely we should have done the same; but that is the last we hear of it. By means of his own industry and ingenuity he became rich. But his riches consisted only of such things as he could use, collected, raised, or manufactured by his own labor. With the few things brought from the ship, which had aforetime been the product of the labor of others, he had supplies of clothing and food, a dwelling in which they and himself were secure against the weather, wild beasts, and savage men. It is plain enough, in his case, what was the real wealth, and we are in the same case as to really desirable things. It would matter very little to us who had the gold and the silver, if we could have everything else we want. These precious metals only help us exchange with our fellows, and save us the trouble of keeping on hand large quantities of such things as we shall want.

Our civilization would never have come into existence but for this power of labor, through the exercise of which we are enabled to accumulate supplies of all things necessary for the body, and so feel at leisure to turn our attention to the more æsthetic wants of our nature, which opens only another department of labor.

In both the physical and mental departments of labor do we show our rightful lordship over this world we inhabit? We may not create new matter, yet we give it new forms, and thus in one sense we become creators. We have produced acres and miles of houses, with their endless variety of design and detail; our

temples point their lofty fingers heavenward; our bridges span the rushing torrent and the rolling river; our calcium lights beam with the brightness of sunshine; our heavily-loaded trains leave behind the fleetest horses; our harvesting machines travel over smooth and smiling leagues of grain; our steamships walk through the mighty deep; our telegrams outstrip the lightnings themselves, while we run to and fro, and knowledge is increased.

With these products of labor, man stands a prince in his rightful domain. But if we fancy that we can take the best rewards of labor without the toil, we deceive ourselves. It is the planning, the willing, and the doing that bring the consciousness of power, and develop true dignity of character. No one can rule here who has not shown himself capable of good service.

And women have much to do with all this. It may seem to some that there is very little of dignity and elevation of character compatible with scrubbing and washing dishes; but if these have been neglected, where is the dignity of the hostess when the guests arrive? Where will be her self-respect and the respect of her own family? When Solomon drew the portrait of the excellent woman, almost every stroke of his pen meant labor: "She seeketh wool and flax, and worketh willingly with her hands. She considereth a field and buyeth it; and with the fruit of her hands she planteth a vineyard. She riseth early—looketh well to the ways of her own household, and eateth not the bread of idleness." And the results are, that "she gaineth the praise of her husband, and the blessings of her children." Solomon honored woman's labor, and gave her credit for industry. This entire passage is worthy of study.

We, too, give women credit for industry, but we blame them for not stepping into their well-earned heritage. Instead thereof, they allow themselves to be enslaved by labor, bowed down and overcome by it; they so often undertake more than they are physically able to perform;

they give themselves such unreasonably long tasks, and such unreasonably late hours; and then they fly at their work with such haste and expenditure of nervous power in their unreasonable hurry to get through with it, that they can not expect to hold out. I am often struck with the contrast between this and the cool manner with which men go at their work. It certainly is not an intelligent way of doing things. It is no wonder that we hear so much of women being overworked; that we see so many toil-worn figures of women intellectually capable of better things. We do not say that this is the only cause of woman's being broken down with overwork; but we do think that if women were more determined to be the mistresses of their work and not its slaves, there might be great reform in this respect; there would not be so many worn-out, spiritless, broken-down women. Solomon's excellent woman was not so unwise as that: "Strength and honor are her clothing, and she shall rejoice in time to come."

But let us inquire a little further into this sad plight of our countrywomen. We are told in this easterly section of the land, it is caused by the deficiency of good female help; and yet in Massachusetts, which has its full share of overworked women, there are 60,000 more women than men; American girls are blamed for not going out as household helps. Perhaps they object to being worked to death after the fashion of the mistress, without a moment to themselves; or to the meniality of personal service, without the love which should sanctify it. If so, we must allow their right to their choice, while we can but see that the difficulty is not likely to diminish; and it is our business as women to look after the matter.

Suppose we consider that the elements are under our power also, and make them do our bidding. Already labor-saving devices abound in our work. We may not yet be able to shut up a cleaning-machine in our parlor and set it to work while we go about something else,

and come back by and by to find it swept and dusted; nor can we yet see how it could be done. But, then, our great-grandmother's mother would have had very much the same difficulty of understanding if she had been told that she would one day be able to put the meal and water for the mush over to cook without any further attention until it was done, and then take it up cooked to an exquisite perfection, and clean the kettle by simply washing it out. Such a statement would have roused her questionings and doubts, most unmistakably. "How could it cook without burning, unless it was carefully watched and stirred? And how could a mush-kettle be cleaned without soaking or scraping?" We answer the question and save the time simply with the double boiler. As to the advantages of oatmeal over maize, that, of course, she could not have understood, unless she had been of Irish or Scotch extraction. How, then, can we tell how many more such things are yet in store for us?

Doubtless, we might, at the present time, understand how we could do our marketing and purchasing of groceries by telephone, and so save that amount of time, or of servants' help; but I am not certain that we would be quite so willing to do our shopping by the same method. Those of us who live out of the city can already do it by post, if we choose, the samples sent from responsible houses, for the asking, being marvelous both for excellence and abundance. Some of our suburban ladies save time and strength by availing themselves of these facilities. But we fear that the majority yet prefer to make long and laborious shopping excursions to town, often seeing not half so good an assortment, nor with half so good a chance for examination; and if they more frequently pick up bargains, so do they very often get their fingers burned. Of course, if it is the highest pleasure of a woman's life to shop; if dressing in style, and seeing what other people wear, and how it is made up, are the great things to live for, then we must expect

women to be willing to endure the excitement and exhaustion of this most exacting kind of labor. Perhaps it takes higher culture than the average to lift women out of all this. Even the rapid stitching of the sewing-machine does not abridge labor in some women's households. That result would require intelligence; high culture on the part of those who use the machine, as much as its invention did on the part of those who devised it. The forces of nature are only more aggressive when supplemented by art. If the elements beat pitilessly upon the savage who did not know how to shelter himself from them, man's combinations of the elements known as civilization are still more exacting of those who are in contact with them, and who must master them, or be mastered by them.

In spite of all the agitation, there seems to be little or no improvement in the source of supply for domestic help; the American girls are now even less willing than formerly to go out to service, while foreigners and their children soon prefer to take shop-work, or go into stores and factories. We do not propose to examine the question of what is best for them. The attractions of service, and of homes in well-ordered families, have been set forth again and again, and still they choose a service which is less personal, and therefore more independent. I sometimes question in my own mind whether this may not be one of the great drift-tendencies by which nations are uplifted. Certainly we must acknowledge that it quite counteracts and breaks up the tendency to make large homes instead of many homes. The Eastern, and, to some extent, the European civilization, tends to produce large segregations of individuals around one family. It fills large houses with many servants; of course many of these servants live single, or do worse. It is very plain that it does not aid in carrying out the apostolic suggestion of every man having a wife of his own. The results do not favor virtue and purity, if we may judge by the polygamy and the concubinage of the East, and the

miscegenation of the South. These are questions in which we are all deeply concerned, and for which women are perhaps at the present time more responsible than they imagine; for they are now the acknowledged mistresses of the home, and the welfare of the family depends largely upon their intelligent ordering of their work.

The family is the basis of the State, and every individual has a right to his place in his own family, and it follows, as a rule, that each family should consist only of its own members. It is evident we can not fall at once into this fashion. Our houses are not built for it, and our ways of doing our work are not planned for it; but if we keep it in view, and consider the unity and the seclusion of the family an essential element in our future civilization, we can accomplish much, and we can work toward it in a variety of ways. Much has already been done in this direction by the tendency of the farmers of late to hire help who board themselves, or who board with those that make a business of taking boarders, and so relieve their own families of the heavy work incurred by having large families of hired men during the busy season. Families in the city are getting some relief by living in flats with all their house-keeping arrangements on one floor, by favoring the employment of a charwoman who comes at certain hours in the day, or certain days in the week, and spends her leisure in her own family. We might have the bell of our flat in our own apartment, or a telephone at the door, by which a visitor might announce herself, while we, in return, might touch a knob at our elbow, which would open the door and close it after the visitor, if we could not afford to send down an elevator for her. The postman could drop our letters into a box at the same door, which we could draw up at our leisure. These are but specimens of many labor and time saving devices which would spring into being if we created a demand for them.

It is true that, with all these devices,

housekeeping would become much more of a science than it is now, when manipulated largely by peasants freshly imported from the huts of Sweden or the cabins of Ireland. It might even be elevated into a study, and young ladies would not consider their education complete until they had taken a course in Domestic Economy in some school, or should go through it in company with some friend recently married, and with leisure on her hands, or with some notable housekeeper, the mother of many children who needed help. By some such methods it would rise to its proper rank among the sciences; and I doubt if we ever become a strong and a healthy people until something of the kind has been done.

This entire subject, many parts of which we have not even glanced at, is one which commends itself to our investigation. Our fate is marching on, and it is ever better for us to meet it bravely and wisely, than to be driven to it blindly and ignorantly. Labor is king, but it is only intelligent labor among either men or women that will carry off the palm.

JULIA COLMAN.

FROZEN TO DEATH!

(THIS morning a tramp was discovered by the side of an old haystack frozen to death.—*News-paper paragraph.*)

Frozen to death!

Dead lies the Tramp, out in the drifting snow,
None cared for him—only to have him go.

Frozen to death!

Far from that home where once a prattling child,
His mother kissed her darling boy and smiled.

Frozen to death!

That outcast who but asked for bread—a crime
That resurrects the *lash** of olden time.

Frozen to death!

No loving friends to drop a parting tear.
Alone, unknown, the frozen ground his bier.

Frozen to death!

A brother man, a "Tramp," an outcast—well!
Our life's not ended yet, and who can tell?

Frozen to death!

This Freedom's Land? Oh, what a burning
shame!
To work† a crime? And *not to work* the same?

H. L. SKAVLEM.

Beloit, Wisconsin.

* The "whipping-post" of Wisconsin Legislature, 1879.
† Chinese labor.

NOTES IN SCIENCE AND AGRICULTURE.

Pure Cistern Water and How To GET IT.—Pure water for domestic use is of great importance. In most wells the water is more or less impregnated with lime, or other mineral or earthy substance, so that it is not so pure as rain-water. Wells are often so deep that it is hard drawing the water. For family use, I would recommend a cistern. Most places where a well can be dug, and where it is not so sandy as to cave, a cistern can be plastered with cement without walling with brick or stone. When I built my house, four years ago, I dug my cistern back of the house before I built the summer kitchen, so as to have it in the kitchen. The filterer is a small cistern, one or two feet from the other cistern, with a tile for a spout to connect them. The end of this pipe in the filterer is inclosed by a small circular brick wall, or a double wall of two inches each, with a space of two inches between, which is filled with pulverized charcoal. The surface of this filtering wall is scarcely a square yard, and that part of the roof discharging into the cistern is twenty-four feet by forty. Yet it is only the most violent thunder-shower that gives more than enough water to pass readily through the filterer. The main cistern is six feet in diameter and twenty-four feet deep. This gives us cool water all summer—as cool as well-water. We draw with a chain-pump, which keeps the air and water circulated, so that it is pure. I prefer to have the filterer outside the main cistern, and being shallow, it is easily cleaned. Both cisterns are covered with a brick arch. In the cistern of six feet in diameter, the arch is started with a groove cut in the earth for the bottom of the arch. The earth holds it sufficiently from where the cistern is plastered. The arch rises three feet, leaving three feet of earth over it.

Tree-Training—The cutting or sawing of large branches from trees is an injury that none ever recover from, although some endure it better than others. Our fruit trees have quite enough to contend against from the violent climatic changes to which they are exposed in nearly all the country east of the Rocky Mountains, without their owner and self-styled "cultivator" amputating their limbs—as an inquiring friend proposes to do—"to make them thrive and bear." A tree should be pruned as a child is trained. It must be treated when young with steady attention, and corrected before ill tendencies have hardened into the actual maturity of unyielded wood. It does not harm a child to cut its nails, or even to slap or pinch it a little if the trifling pain checks its taking further steps into some bad habit.

So with trees and vines. We can stop redundant growth that threatens to rob or choke bearing shoots, by a pinch or nip of the end on any summer day; but if we go to

cutting or removing leaves, we do as much harm as if we injured a child's vitals. The tree or plant is the more delicate of the two in one respect: its vital organs are not encased, but are open, external, and unprotected. This will explain why the orchardist should be very cautious in cases where total neglect for years has caused inveterate misgrowth. Any dead branches should of course be removed; and it is best, in that case, to endeavor to remove all wood that shows signs of decay, applying to the wound, as soon as the surface is dry, some water-proof coating to prevent a stoppage of sap circulation by drying from within, or chemical decomposition from admission of air; and not, as usually explained, to prevent the entrance of moisture from without. Beyond this all that can be done, with due respect to the permanence of the tree, is a thinning of the shoots, and this is the best done with pruning-shears.

Discovery of Gold in India.—It appears from the *London Mining Journal*, that rich gold deposits have recently been discovered in the district of South Wynaad, India. These deposits are spread over an area of 25 miles by 13, and no less than 90 outcrops of ore reefs, with a thickness of two to four feet, have already been located. The ore yields from a few pennyweights to 200 ounces of gold per ton. These veins are declared to be very similar to some of those most successfully worked in Victoria, Australia—abundance of visible gold, and the quartz stained with iron in just the same way. Other specimens show the gold in a nicely-decomposed matrix, while others consist of rich auriferous gravels.

The range of mountains on which the Wynaad district is situated is of very ancient date, belonging to the palæozoic period, more especially to that of the silurian formations. The highest peaks of the range are formed of hard, dense, dark crystalline rocks of the metamorphic series of granites, etc. The softer varieties of rocks are present, and form the valleys adjacent to the peaks. These latter are of a lighter color, and give a red-and-brown appearance to the country. The average altitude ranges from 7,400 to 8,400 feet. The whole of the formations are impregnated with black magnetic oxide of iron, which, after a shower of rain, appears as black sand on surfaces where water has run over in streams. The whole of the country is ramified with a run of bold quartz veins, which are true ledges. The general run of these ledges is parallel, the direction of the strike being almost invariably north and south. These ledges, which are met with in every part of the country, are often of great breadth—15, 20, and 30 feet in thickness—and are composed of white crystalline compact quartz, identical in every respect

with the vein quartz of Russia, Australia, California, and Nevada.

The Velocity of Sound.—A memoir is published by William W. Jacques, in the February number of the *American Journal of Science and Arts*, on the velocity of very loud sounds. The author gives an account of experiments, made at the United States Arsenal at Watertown, Mass., for the purpose of obtaining automatic measurements of the velocity of sound near a cannon. Behind the cannon—a six-pound brass field-piece—he placed, at distances of 10, 30, 50, 90, and 100 feet from its mouth, ingeniously constructed membranes, having an electrical connection with a chronograph capable of recording .00001 of a second. He found that the velocity of the sound was not greatest at the immediate rear of the cannon, but at some distance from it, where it rose to a maximum “considerably above the ordinary velocity, and then fell gradually to about the velocity usually received.” When the cannon was turned at right angles to the line of the series of membranes the distance of the maximum velocity of the sound came nearer the cannon. From these facts the author concludes that the velocity of sound is a function of its intensity, and that the experiments upon the velocity of sound in which a cannon is used contain an error, probably due to the bodily motion of the air near the cannon. The employment of a musical note of slow intensity is, therefore, recommended to correctly determine the velocity of sound.

Hints on the Use of Plaster-of-Paris.—The plaster may be made to “set” very quickly by mixing it in warm water, to which a little sulphate of potash has been added. Plaster-of-Paris casts, soaked in melted paraffine, may be readily cut or turned in a lathe. They may be rendered very hard and tough by soaking them in warm glue-size until thoroughly saturated, and allowing them to dry.

Plaster-of-Paris mixed with equal parts of powdered pumice-stone makes a fine mold for casting fusible metals; the same mixture is useful for incasing articles to be soldered or brazed.

Casts of plaster-of-Paris may be made to imitate fine bronzes by giving them two or three coats of shellac varnish, and when dry applying a coat of mastic varnish, and dusting on fine bronze powder when the mastic varnish becomes sticky.

Rat-holes may be effectually stopped with broken glass and plaster-of-Paris.

The best method of mixing plaster-of-Paris is to sprinkle it into the water, using rather more water than is required for the batter; when the plaster settles pour off the surplus water and stir carefully. Air-bubbles are avoided in this way.—*Boston Journal of Chemistry*.

Greek Bread.—The ancient Greeks used covered terra cotta utensils, called *cribanni*, which were pierced with holes in

their circumference, and were the prototypes of the modern “Dutch ovens.” After the dough was put in they were surrounded by burning coals; and the heat, penetrating by the holes, gave a more uniform temperature than an ordinary oven. After the reign of Pericles, Athens became renowned for the skill of its bakers and its cooks. They made 20 or more kinds of bread, some of which were very white and of excellent flavor. Plato reports that, a century before his time, a Sicilian baker, named Thearion, had made great improvement in his art. The Cappadocians made a very delicate bread, like Vienna rolls, by adding to the wheat flour a little milk, oil, and salt.—*La Nature*.

Solidified Hydrogen.—By the success which has been obtained in liquefying the gases thus far supposed to be permanent, it appears certain that not only liquefaction, but also solidification, has been achieved.

Pictet, in a very recent experiment with hydrogen compressed at 650 atmospheres, found, on opening the stop-cock, that the gas issued with a noise like that of a hot iron bar under water, and it had a steel-blue color. The jet suddenly became intermittent, and then there followed a sort of hail of the solid particles of hydrogen, which fell with violence on the ground, and produced a crackling noise. Afterward the stop-cock was closed, and there was evidence that a crystallization of hydrogen took place within the tube; but when the temperature was again raised, the gas issued as a liquid.

M. Dumas, the President of the French Academy of Sciences, accepts these facts as full of confirmation of the theory long ago advanced that hydrogen is a gaseous metal. As water is an oxide of hydrogen, it follows from this that when a person drinks a glass of water, he imbibes a metallic oxide. *Nature*, in mentioning these performances, coupled with them another, which it regards as yet more remarkable from a scientific point of view. M. Pictet has been able to measure, with a very close approach to accuracy, the volume occupied by a given weight of oxygen in the liquid state. By means of two Nicol prisms, M. Pictet observed the jet of liquid oxygen in polarized light, and found strong evidence of the presence of solid particles.

As, in the chemical nomenclature, the final ending “um” has been adopted for all metals, it is proper to call this metallic hydrogen “hydrium,” a name which has already been used even before hydrogen had been used, or liquefied or solidified.

The Planetary Conjunctions

AGAIN.—There has been a great deal of discussion lately with regard to the approaching conjunction of the four great planets, and not a little alarm is prevalent with reference to possible disasters to our own in consequence of the rare occurrence. Some writers have contributed to this alarm by predicting strange and awful events, as the accompaniments of the conjunction. Now

comes Mr. C. C. Blake, a well-known American astronomer, who publishes a long article in an Illinois paper, in which he demonstrates the influence of these planets upon our earth to be so infinitely small that we need apprehend no malefic effects therefrom. He even shows the very data upon which these alarming predictions are based to be grossly and strangely inaccurate.

In the first place, astronomers, in computing the perihelion of Neptune, differ as much as seven years as to the time when that event will occur. In regard to the perihelion of Uranus, these authorities are not agreed whether it will take place in 1881 or 1882. Saturn will not be in conjunction with the sun until the latter part of 1885, when the era of these dire calamities will be past and over. Jupiter, the largest planet in our system, being 1,387 times as large as the

earth, will pass its perihelion point in September, 1880. These great orbs in this matter of coincidence will, in fact, not act at all conjointly. Even if they were to do so no great harm would follow. The perihelion of Jupiter, Saturn, and Uranus all occurred in 1797, and yet that year was not distinguished for famine, tempests, plagues, or other great disaster. The perihelia of Jupiter and Saturn were again in coincidence in 1856, another year exempt from baleful influences and bloody events. If all the planets in the solar system were to pass their perihelion at one time and all in the same heliocentric longitude, such a conjunction would have no appreciable effect upon the climate or inhabitants of our globe. Doubtless persons who have been giving way to fears about these planetary movements, may safely dismiss the same.



MRS. C. FOWLER WELLS, *Proprietor*.

H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK, SEPTEMBER, 1879.

1839.	1879.	1919.
THEN I	NOW I	WHEN?

THERE are ten thousand historians to one prophet. Everybody, through memory, can look back, recall the past, live over their joys and sorrows, recount their hopes and fears, their successes and failures, and thus make history of their varied experiences. But who can look forward for a year, a week, or a day? Who, during the war, for example, could see a day into the future? Among the most sagacious men of the time, "ninety days" was the time allotted to see the end

of it. Who knew what kinds of property would rise or fall, or in what way to save a fortune or make one? Contractors, of course, fattened on the Government, and got rich without wisdom or merit; and thousands became poor without folly or fault. And there was not one prophet among all the people who could forecast events, or warn us what to avoid, or teach us the path to safety and success.

Let any one, however, listen to the conversation of fifty people, and he will discover at least forty-five, if not forty-nine, who think themselves prophets. Each man seems to know what is best for everybody else, and how their affairs should be conducted. Perhaps this is owing to the fact that eyes and ears were made to deal with the world outside of their owners. Burns noticed this tendency to objective criticism and lack of subjective introspection, and expressed it in the lines, made immortal by their truthfulness:

"O, wad the powers some giftie gie us
To see oursel's as others see us,
It wad frae mony a blunder free us,
And foolish notion."

In 1839, now forty years ago, the writer undertook to act as an agent for the AMER-

ICAN PHRENOLOGICAL JOURNAL, and as an occasional contributor to its pages, and wherever he lectured presented its claims to the public, and considerably increased its circulation. The JOURNAL was then a year old, and its young and hopeful friend had a limited constituency, and though quite as much inclined to exercise the gift of prophecy as others, he confesses that he did not see for himself, or the cause of the JOURNAL which he advocated, a promised land so bright, so broad and fruitful as the "forty years," since intervening, have opened to his view.

As the deep and permanent influence which Phrenology has gained in these forty years could not then be hoped for or foretold, neither to-day can we, in 1879, more than dream what it may be in 1919. When that day shall have been reached through labor, and the development which labor brings, the hundred books we now publish on the subject may be multiplied tenfold, as they have been since 1839. The AMERICAN INSTITUTE OF PHRENOLOGY, now in its fourteenth year, may then graduate two hundred students annually, instead of twenty. Our public schools and colleges may then openly recognize Phrenology as a co-ordinate branch of science with chemistry, mathematics, and physiology, and metaphysics be based upon and illustrated by it; and theology itself find a new and universal interpretation, as viewed in the light of the new physiology of the brain.

If we may judge of the future half century by the developments of the past, our anticipations will be more than realized. This conclusion we reach by the dry deductions of reason and history. If we could have one gleam of prophetic light from the glory-smitten mount,

our poor picture of the time to come might be lost in the splendor which would be revealed. The wonderful possibilities of the future will not be, as mainly heretofore, confined to material and physical advancement. More attention, let us hope, will be directed to mental and moral culture. The soul which subdues the earth, and trains the forces of nature to work for man, will become the subject of its own study, and then will there be progress and improvement in the right direction, worthy the seeking, and worthy of the race. N. S.

CULTIVATING CHEERFULNESS.

SOME one tells a story concerning a household wherein few of the amenities which contribute to render social life agreeable were ever illustrated. The wife had reached middle life, and performed her part as wife and mother in the too common spirit of necessity and subjection. The husband came home from his shop at night in that cool, indifferent, and half-sullen state which marks the man who no longer finds enjoyment in the home of his creation, and tolerates it as an obligation that he can not well shirk. One day the tired wife read an admonitory sketch in the local newspaper on the theme, "Make your Home Happy." The writer very sagely urged, as an important aid to the desired end, that the wife should always greet her husband with a smile, and speak in gentle terms to him. The poor woman was impressed by the advice, and determined to see what she could do toward introducing a little sunshine into her marital relations. When her husband's step was heard upon the front stoop, she hastened to open the door, and, as

he entered, she whispered, "Good-evening, dear," and bestowed upon him a smile that should have melted his heart; but he only stared at the unusual phenomenon, and strode by her and threw himself into his customary chair at the supper-table. The poor woman felt a little daunted by this disregard of her kindness, but followed her unappreciative partner into the room, and there essayed another smile and the question, "Are you tired, dear?" The fellow looked at her in further surprise, and replied, "Yes, and hungry, and want my supper just as soon as you can put it on the table."

"Yes, dear," the afflicted wife returned, at the same time looking upon the husband with all the tenderness she could command. She then brought the warm plates and dishes and set them one by one before him, accompanying each act with smiles. Finally, taking her own place at the tea-board, she glanced at her lord once more, with all the cheerfulness expressed in her countenance that probably remained in her composition. This proved too much for the husband, who broke out with:

"Look a-here, woman, I'd like to know what on earth you're grinning at? Can't you let a man eat his supper in *peace*?"

Poor woman! this outcome of her patient endeavor was disheartening enough, and she gave up the work of reform she had begun only a few minutes before.

The reason for her failure is apparent. She overdid the thing in the beginning; made herself ridiculous by the strained assumption of a part which contrasted too sharply with the demeanor her husband was accustomed to see. She was probably led to expect great results in the outset, by the writer whose advice

she sought to follow, for the time forgetting that old habits do not yield easily, and that we must begin the work of their modification or removal in a spirit of moderation, and make our advances slowly. Those reforms which are effected so gradually that the subjects of them are scarcely conscious of change are the most thorough, just as a slow recovery from a severe illness is usually the most substantial.

There is a great amount of romance indulged in by writers on social and domestic reform. Their sketches and suggestions are often written in haste, without due appreciation of the elements which make up character, and without a properly-considered method for prosecuting a reformatory undertaking. In most cases writers set before us certain very desirable aims, delineate a moral and intellectual character of poetic beauty and impracticability, and if they venture to suggest how harmony and propriety of thought and action are to be attained, can only deal in platitudes vague and commonplace. It is easy to say, "Be cheerful," "Be kind," "Be agreeable," but it is far from easy to point out the nature of special weaknesses, and to indicate their correction. The æsthetic writer can not do that. It is only within the power of the well-organized, well-cultivated, and much-experienced student of human character.

THE SPIRIT.

IN considering the nature of mind, or the thinking principle, one easily passes to reflections on the nature of spirit; but in the endeavor to discriminate sharply between the two as mere terms we find ourselves involved in perplexity.

How conceive an intelligent, conscious principle in the one case which shall differ essentially from the intelligent consciousness of the other! To be sure, we may assume that the mind is the instrument of the spirit; that it is to the latter what the machinery of a steamship is to the boiler. But such an assumption is futile when the relation of the thinking element to the brain is presented. Mind has a machine, an organism for its material expression, for translating its subtile impressions into words and deeds. And can spirit be more subtile than mind?

Perhaps spirit is a term by which we express a property of mind—a high function—which has its special connection with those organs we by habit term the nobler in the scheme of brain, the moral and religious. Perhaps it inspires those lofty emotions which make human thought so beautiful and so sublime. And perhaps it is that property which will survive mortal decay, or in the end will assert a grand transforming potency over the whole fabric of intelligence.

The severe logic of the late author of "Visions, or False Sight," was at fault now and then in the presence of death. He acknowledges that he had observed certain phenomena in a patient at the moment of death which could be explained only by the escape of something from the body. There was, as it were, "*a departing something*," which made itself conscious to the learned physician, and baffled all his ingenuity to explain its nature. Religious literature abounds with analogous incidents, which furnish an aggregate of testimony that can not be offset by the cynicism of the Huxley school of thinkers. The same phenomena, observed, if it were possible, in

brutes, would almost convince those scientific gentlemen of the transmigration theory of the ancients.

A recent incident, related by the chaplain of the prison at Auburn, N. Y., possesses features of more than common interest in connection with what has been intimated above. From his letter to the *Times* we quote:

"There died in this prison during the past week a young man of good parts, member of a highly respectable family in another land, and who became involved in the meshes of the law through moral irresolution rather than innate depravity. His thoughts, which had wandered much during the latter days, on the last one of all centered upon his home, and he imagined that the most eager wish of his heart in this extremity had been realized, and that his loving mother soothed his dying bed. A few moments before his soul took flight he raised himself slightly, and, extending his attenuated arm, drew down close to his lips the shadow conjured from his own fond affections, while with a look of ineffable content glorifying his pallid features, his last breath was surrendered (as he thought) to the parent who bore him."

Whether the "something" which produced this effect were simply an illusion of the *senses* or a manifestation of the triumph of spirit in the extreme hour, we must leave to the reader, and will be content if he determine it to his own satisfaction.

A LEAF OF EUROPEAN TRAVEL.

IT has been said often enough that constant surprises attend the movements of the traveler to whom the country of Europe is new. In the cities he will be charmed by the accumulations of art and industry, to which ages of civil-

ization have contributed; in the agricultural districts he will be delighted by the neatness, fertility, and thrift which almost everywhere appear. But side by side with the art and industry of the people he will observe, if an American, an apparent indifference to what he calls progress in matters which relate especially to convenience and comfort. Books of travel, familiar to American eyes, furnish hundreds of illustrations of this fact, and the reader will recall many of them. I would, however, note a few items of interest in this connection, which seem to have escaped the attention of the book-makers. If the traveler have taken a continental steamer, intending to land on the shores of France or Holland or Germany, and the tide as he approaches port be not favorable enough to allow the ship to enter her dock immediately, he will be amused and irritated by the method of landing passengers and their luggage. At the port of New York he is accustomed to see large and commodious steamboats in waiting for the purpose, if it be not convenient to land passengers directly at the dock. At European ports the "tenders" are small in dimensions, small in power, and with no provision for the comfort of the passenger. Every one, whatever his condition as to health and pocket, must take his chance in the miscellaneous open-air stowage, and wait upon the tedious movements of crew and boat.

In first-class railway carriages ladies are grouped by themselves, gentlemen not being permitted in France to ride with those of their own family; but a lady may ride in a compartment allotted to gentlemen, it being understood then that she will not object to the use of pipes or cigars on the part of her male fellow-travelers.

One will notice the almost dead flatness of the streets in the cities; some of the finest in Paris are marred by the lack of ready drainage, and during rain they become sloppy and dirty, owing to the friable nature of the paving—limestone and asphalt. I have been out dur-

ing a smart shower, and found it very difficult to pick my way along the sidewalk of a magnificent avenue like that of the Opera or of the Boulevard des Capucines, because of the puddles which had quickly formed. Out-of-door Paris, when dry and sunny, is indescribably bright and delightful; but when rainy and cloudy it is disagreeable enough to citizen and stranger.

I notice also the prevalence of the old-fashioned shutters with fixed slats. In America they are still found on some old building, but are deemed too unavailable for present uses. Handsome houses in Paris have them, and, indeed, shutters appear to be generally indispensable in the outside furnishing of buildings. Here and there the light Venetian blinds, depending on a cord, are seen thinly veiling broad windows. One thing which struck me peculiarly, and which, if the reader please, may be deemed a phase of one kind of progress, was the employment of shop-girls to put up the shutters in closing shops for the night. Woman as a clerk fills every capacity here.

The traveler with large Cautiousness at once observes the old-time or awkward catches, locks, bolts, and other apparatus for securing doors and windows. The locks I have met with generally are large, rough affairs, with great, heavy iron keys, and frequently without knobs, so that one must depend upon the key to open the door. And so it goes; a thousand and one little inventions, which American cleverness has brought into play for personal convenience, are unknown on the Continent. One is pleased by the ease with which he can travel from point to point. Cabs are ubiquitous, and railways numerous and luxuriously furnished; but the American will wonder that there is no "check" system for the safe and convenient transport of his luggage; and if he have brought a "Saratoga" he will heartily wish it at the bottom of the Red Sea before he has covered a hundred miles of territory.

But the intelligent and cultivated man who has come to Europe to see the in-

stitutions of the Old World, and takes the life, so far as it affects his personal comfort, as he finds it, will see on every hand prospects of beauty and material for his instruction. The lover of nature finds ample scope for admiration within small areas of territory, like Switzerland. If he would observe what may be accomplished in agriculture, pomology, and arboriculture, a tour through Normandy will read him many lessons. Even the ride by rail from Havre to Paris will supply him with a good stock of material for reflection. While going over that route I was struck by the absence of fences and by the extent of the forest growth. The differences in hue of long plats on meadow and hillside alone showed the different grains, roots, and vegetables that were growing, while the long and uniform lines of trunk and stem in the tree groups, whether large or

small, showed that they had not sprung up promiscuously. Wood is very little used for building purposes on the Continent. It is protected in France and Germany by severe yet wise laws of long standing. How the landowner may use his own timber, even for fuel, is prescribed by statute, and the result is seen in the tree growth, which is abundant and a conspicuous feature in the picturesque landscape. The contrast between the forests of our Atlantic States and those of the countries just named is so marked that the American who loves a tree can not help a sense of shame on account of the wanton destructiveness of his countrymen in their treatment of the magnificent growth which once mantled our hills and decorated our broad plains.

In appreciation of the products of the soil the European is yet our superior.

H. S. D.



"He that questioneth much shall learn much"—Bacon.

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 FAILS 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.

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. Anonymous letters will not be considered.

ORIGINAL RACES OF EUROPE.—*Question.*: Will you oblige a reader by giving a brief outline of the original races or nations from which the present inhabitants of Europe are derived?

Ans.: The three great divisions or races of the people contributing to the population of Europe are the Celts, Scythians, and Slaves; these all

belong to the Japhetic branch of Noah's family. These tribes are very distinctive in peculiarities and language, at the same time indicating a relationship, especially in the latter respect, to the people of India. At some unknown period in antiquity these tribes emigrated westward from Central Asia; the Celts formed the southern wing of the movement, the Scythians the center, and the Slave the northern wing of the movement. The Celts are now represented by the Gauls, or most of the people of France and the neighboring countries, and the Gauls or Gaiels of Scotland; their number is not far from fifty millions. The Scythians embrace the Cossacks of Southern Russia, the Germans, part of the English, and the people of the United States, numbering over a hundred millions. The Slaves are found in Western Turkey, Russia in Europe, Austria, and Old Poland. They number, in all, about eighty millions.

MOLASSES AND TAR.—A valued correspondent, C. M. A., writes us from a hotel in Ogden, Utah, something he wishes published in the JOURNAL, but the ink he used was so sticky, that in folding the pages the ink set off so badly,

that it is utterly impossible to read it. The next time he borrows ink at a hotel, he should see that it is not composed of molasses and tar.

INDIRECT MORAL TRAINING.—With Caution and Secretiveness large, please tell us how to use them in developing the moral and intellectual faculties.

Ans. : By an appeal to Cautionness we exert wonderful influence upon character by making the subject feel afraid to do wrong. This opens the way for a salutary growth of the strength of the moral forces, and of the intellectual faculties. In like manner, large Secretiveness may be led to minister to moral and intellectual growth by inspiring the feeling of cunning or policy, to evade or hide away from temptation. Ask a secretive person to join you in a secret campaign against wrong. Say to a culprit, "I will keep your secret from being known, only *go and sin no more.*"

MUSTACHE.—What are the best means of forcing and keeping a stiff, stubborn mustache in a decent shape?

Ans. : Let it grow long enough to keep its shape. The French cosmetiques, such as are made by Lubin, Piver, and other first-class houses, may be used without detriment.

PHRENOLOGICAL INSTITUTE.—When does the Institute open its next session; and is there more than one session a year, and what is the duration of the term and cost of tuition?

Ans. : There is but one session a year, and that opens on the first day of October. The session continues about six weeks. For terms, topics, and incidental expenses, send for Institute Circular, which explains everything in detail.

HOODLUM.—*Question* : Will the editor please to define this term.

Answer : The word is of recent Californian origin, and according to Bartlett's "Dictionary of Americanisms," is derived (1) from the warning called "Huddle 'em," used by street-thieves when danger threatened; (2) from a hood adopted there by rowdies; (3) from the reversed name of one Muldoon, the head of a gang.

ABOUT CHILDREN.—A friend sends us the following paragraph, but does not tell us from what work it is taken, yet asks our opinion on the suggestions contained therein.

"Children's walks should not be too long, because, from the exhaustion produced, growth and nutrition are arrested, and fever and protracted debility may be the consequences. Perambulators are unhealthy for children unless judiciously used; the convenience of them tempts nurse-maids to keep their charge out too long. When children are kept in the air for lengthy periods, the stimulus of light and air prove too much for them. Hence they fall into a state of

exhaustion and stupor, too frequently mistaken for sleep."

The writer says, children's walks should not be "*too long.*" Of course that point answers itself; nothing should be *too much.* But we would like to ask the writer, how it is when children are turned out into the open field, and permitted to play and run to suit themselves? We can understand that if a child were led out on a long tramp, with no other object than a long walk, it would be drudgery and weariness, but if a child be turned out with companions into the bright sunshine, where there are buttercups, butterflies, and all the glories of summer, he will run, jump, frolic, roll on the grass, dig, work, and have a royal time, and stop when he gets enough; and he will thus exercise four times as much as he might if he were taken on a long walk. But he says, "Perambulators are unhealthy for children unless judiciously used." That is doubtless true. He says, "When children are kept in the air for a lengthy period, the stimulus of light and air appears too much for them." A little infant in a perambulator is a prisoner, and he may be kept where the light and the surroundings shall attract his attention and keep him excited, and thus wear out his nervous system; but when a child can play and run on his own account, the light and the air do not prove too much for him. Children are dying for the want of light and air, and freedom to play and gambol as they will. Children of ordinary strength may be trusted in the matter of exercise, if their surroundings are right.

COMBINATION FOR LANGUAGE.—J. H. F.—For freedom and ease in the expression of thought, one should have pretty well developed perceptive faculties, fair Constructiveness and Ideality, good Comparison and good Language. To render the style harmonious, the temperament should be fairly balanced.

CABBAGE AND CURRANT WORMS.—H. F. S.—Several substances are in use for the purpose of destroying garden pests. A solution of white hellebore is effective as a wash for currant-bushes. A solution made of two teaspoonfuls of nitrate of potash to two gallons of water will be found effective also; this solution is harmless to plants, and quite thorough as an eradicator. It should be applied once or twice a day for a few days to be effectual.

TEMPERAMENT IN MARRIAGE.—*Question* : Would it be advisable for a person of light brown hair, gray eyes, and vital-mental temperament to marry one of light brown hair, gray eyes, and mental-motive temperament?

Answer : The association would not be injudicious, provided the lady has an abundance of vital stamina.

Several ANSWERS must be deferred to the next number.



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 OF RELIGION SCIENCE MUST RECOGNIZE.—From a very interesting lecture delivered last winter by Dr. Chadbourne, President of Williams College, we extract the following exposition of certain mental characteristics peculiar to man:

"As man is the grandest being on the globe, the center of the most intense scientific speculation, we will first consider his history. We study the religious element of man's nature as we study his appetites or instincts. We wish to know if what we call his religious nature belongs to him of right, is inwrought into his being as is the structure of bone, the arrangement of muscles, or the structure and service of the nervous system. The question must be settled anew whether that which we accept as religion is but the composite of baseless fears and hopes, the reflex of experiences in the childhood of our race.

"If we consider the condition of the important nations of the world to-day, it is safe to say that religion in some form, has been one of the most potent factors in making them what they are. The world has been shaken by religious wars, and there is not a nation to-day that would not fight for religious freedom. No nation has arisen high enough to form a literature, or to think of anything above their mere animal appetites and instincts, without revealing unmistakable evidence of a religious nature. It dawns among savage tribes—belief in charms and omens, in dread of the powers of nature, manifesting its instinct of worship in uncouth rites, and it mingles with the highest existing civilization. For such phenomena no accidental cause can be assigned. They are the result of some force essential to the very nature of man.

"If we seek for the cause or agency that calls out this manifestation as it appears in its greatest strength in the highest order of minds, there appears as the moving element, belief in a personal God. Religion, in its distinctive form, requires a being or beings to be feared and loved, to be worshiped and implored for aid and comfort. The data upon which Darwin, Lubbock, and others have denied the existence of some form of religion among certain degraded tribes are entirely unsatisfactory, while the existence of the religious nature is established beyond controversy, often by the very attempts to disprove its existence. While we shall begin, therefore, by taking for granted the simple

nature of the religious instincts, we shall bear in mind that this question of origin must be met, and in future lectures will be discussed the agglomeration theory of animal instincts, and of our moral and religious natures. If we study man as we do any other organism, we find religion as much provided for in him as the ear of corn or wheat is provided for in the full growth of the grain. Mr. Tyndall recognizes the power and universality of this principle when he says, 'The world will have a religion even if it goes to the intellectual whoredom of modern spiritualism.' This he is compelled to admit, after doing what lies in his power to caution us against recognizing a personal God."

THE PUBLISHED PHRENOLOGICAL REPORT of the Governor of New Hampshire, I think was generally satisfactory; the writer of it understands the science of character-reading *true to life*, and if I had not been a believer in Phrenology, I should have judged the writer to have had at least five years' personal acquaintance with it, and to be a keen observer of human nature. It was completely analyzed, and done in a scientific, impartial way, just as a report should be.

I will review but one point in your report of him (as I am aware editors want short letters). It was correct, perfectly, that he was built like his mother; think that I never saw a man that was more so; she is living with him, and is almost as large as he is, and his grandfather on his mother's side was noted for great strength, I think. With my respects to you,

I am respectfully,

M. A. HARREY.

LET US CULTIVATE IT.—The so-called precious metals are beautiful when artistically arranged, but this quality hardly compensates for the unhappiness produced by their manipulators. It is attempted to make them the measure or gauge of values. If those who claim the propriety of this proceeding are sincere and really believe the metals referred to, a proper gauge of values, let them act consistently, and treat this gauge or measure like all other standards of measure—make them absolutely immobile or unchangeable! But there is no consistency or humanity in the attempt to make these metals a measure of values; and furthermore, those who attempt it, know the absurdity of their pretensions. A measure, to be of any value whatever, must possess one quality, if no other; that is, immobility. There are substances the known value of which is exactly defined, as a bushel of wheat. It contains the elements of nutrition in certain proportions, easily demonstrable. Paper, made of linen or cotton, is a substance more stable in its value than the metals. In fact, there are many articles of prime

use and necessity, that are better representatives of value. However, it is not the intention to discuss the point, but merely to show the entire desirability of a different arrangement from the existing one for a measure of values. The first consideration in any view to be taken of the question, is the humane one. As the measure of value is now manipulated, it places all humanity out of the question. F. M. SHAW.

HAS PHRENOLOGY PRACTICAL VALUE?

"AN INCIDENT," by T. P. J.

I've been lying on the grass at home, this beautiful summer evening, for an hour, watching the birds and smelling the fragrance of the bloom-clad trees, and resting after the busy rush of the city, *and thinking*; but the sunset gun has just reminded me of a promise made you, and so I will think on paper once more, for the first time in months, for the readers of "Our JOURNAL."

A few weeks ago, while going down the street of an eastern city, thinking of my business, I was caught in the arms of a man in an unusual way. Looking up and at him, I did not recognize him at first, nor until he told me who he was, for fourteen years had materially changed us both, but him more.

So to-night "I've been thinking" of days, of that terrible 16th, 17th, and 18th of September, at Antietam; even now, my eyes moisten as I think of incidents that come to me as freshly as if only a week ago. South Mountain had been won; and our "dear old Abe" had sent a dispatch to brave little Mac, that made us all happy: "God bless you and all with you. Destroy the Rebel army, if possible." I forget the first phrase—we were weary and worn out.

The writer had been called to headquarters that night to receive a promotion; our regiment had seen hard service, and it was that night we took our papers, and in future were to say: "My Regiment;" we were to move at earliest tint of daylight, on the 16th, into position. Burnside and Porter lay near us; Franklin had moved forward toward Brownsville; Richardson had pressed on, and Sumner and Hooker were reorganizing, Mansfield just arrived.

It was late, and I had much to do, and in all the rest had to write to my good old mother at home, from whom I had that day a good long letter, and possibly I wanted to write to a little blue-eyed girl I hoped to call wife, away in the (to me) uncertain future; be that as it may, the letters were done, and I was on the point of turning in when my orderly came to me with some transfers: among them, one who was sent to me as a low case—willful, careless, drunkard—all *but* good; he was told to sit down, and all the rest sent to different companies.

I can remember just now, how sullen and defiant he looked as he sat there on a box wait-

ing for his orders. When all else but himself and the orderly had gone, I sent the orderly outside, and then for the first time looked at him squarely. He had a pleasant blue eye; a broad, high forehead, and a rather pleasant look than otherwise; and he was evidently steeling himself against his ordinary or usual reception. As I moved to sit down on my camp chair, unwittingly my letters—all sealed up—slid on the floor (or board used for floor), and mother's open letter fell near him; he picked it up—as her signature in a bold hand lay in his hand:

"God keep my boy,

YOUR MOTHER."

The poor fellow looked at it again, and then at me, and his lip quivered as he saluted me. "Colonel, I couldn't help it; them words looked good." These were the first spoken words since we were left alone. Somehow, my heart softened toward this outcast, and maybe mother's words did it for him. I asked him pleasantly to sit down and tell me his history; he did so; then I told him that he was capable of better things, and that his good old mother would live longer and die happier if he should be a man—let the liquor alone—be himself; and if he would only try to be something, he might yet get his commission, and go home a man and with honor. It don't matter *all* that we said, my heart strangely softened to that man. I was not twenty-one, and he ten years my senior; he finally promised me if I would write his mother for him, that he had repented, and if he lived, he would try to be a man, and to come back to her with her forgiveness for the wayward past; and I sat down and wrote his mother, and when done signed it, saying, if she would answer me, and he lived, he should next write her, but not until then, and he left me.

The man had been harshly dealt with, and he had plenty of spirit. Destructiveness was large, Combativeness larger, Self-esteem full, Firmness large: he instantly and deeply resented insult or comment in a dictatorial way; he was good steel, burned in the working.

The next day I was near the second of those stone bridges, Readysville and Sharpsburg Turnpike, and from that down near the rifle pits; and we were in the fearful clash of Meade's crossing of the ford, at near night, and the next day I was near Mansfield when shot, and in the heat of the carnage, where we finally rested on the night of the 17th, and commenced to see what had been and was to be done, and that night brought graver responsibilities in what was to be done on the morrow; but on the 18th we buried our dead, and slept on our arms, and the next A. M. the enemy had flown. My new friend was safe and rejoicing, and his Captain reported him for promotion. The rest is soon told; we followed each other to Appo-

mattox, and were discharged; but my eagle had given place to a Brevet, and his stripe to the "Leaf," so I was honestly proud of him, and the letter came from his mother long before that: "My boy he is and will be, while living. If I've anything to forgive, he is forgiven," and he answered her.

So fourteen long years rolled away, and he caught me in his arms. He exclaimed, "Well, Colonel, it's me;" and he continued: "You are just going home with me to see my wife and babies, and my old mother, for she loves you almost as much as me;" and so, dear reader, the day's work done, I met him and found his home and home treasures in a pleasant place. His wife, a quiet little woman, welcomed me as "his friend," with pleasant courtesy. Mother was found an old woman over eighty-five, and when she was seated he remarked, "Mother, this is the man who wrote you that letter from Antietam." "What, is that Colonel —?" asked the old lady. "Yes, it *was* him."

The welcome the old lady gave was a, "Well, God bless you now and ever;" and the little woman who had been standing by in amazement, came over to where I was sitting and gave me a kiss of welcome and a wife's blessing, and their two boys, of seven and ten, came in for supper, and, kind reader, we spent a pleasant evening.

After supper we chatted for awhile, and his story was soon told. On our way home, we parted in Washington; he went to New York and sought our dear friend S. R. Wells, and took his advice; he never touched liquor from the moment of his promise.

He went back to his mother, and she welcomed him and encouraged him; he went to work in earnest, and finally sought a wife. As years passed, he prospered; and the home was his, all paid for; his business cared for them all, and he steered clear of all shoals and rocks, and the best investment he ever made, to use his own words, were paid on a clear May day to Mr. Wells, for his "Chart and Compass," or Examination and Description, with hints of what to do and not to do, and he followed it just as thousands more might with comfort to themselves, and all who are of near kin or interest.

A KANSAS CORRESPONDENT SAYS:—"It seems to me, with the knowledge I possess of Phrenology, even now, that I have lived a life-time of ignorance, though only nineteen years of age. Each new work I read seems to act on my intellect in the way salt water does upon the throat of one who is famishing for want of water; it only increases my thirst for the knowledge of Phrenology. Every cent I send is hard-earned, though I am glad to know of a place to invest my mite so profitably, for

what I have received has profited both mind and body, and this expression of gratitude is due you, for somehow it appears to me as if I had been rescued from a deep gulf. Since I have studied the works sent me, it seems as if I had been living in a higher moral atmosphere, and on a different footing. This may seem sentimental, but it is only the plain truth as I understand it.

A. J. H.

ONE OF OUR STUDENTS, MR. MCLAIN, writes from Iowa that he has just returned from a short lecturing tour; that, though times are dull, nevertheless he has been able to clear "easily" from seven to ten dollars a day, and has the impression that he has done good work, *every case* in which his phrenological abilities were brought into exercise being entirely satisfactory.

HEALTH IMPROVEMENT.—MR. T. B. Y. writes from Augusta, Ga., that he is greatly indebted to the hygienic system for the benefit derived from a comparatively little application of it in his family. He says: "I used to be troubled with chills and fever, constipation, and dyspepsia, but for the last five years have had none of these complaints, and have had excellent health according as I observed the laws of health or ignored them. To what I know of Phrenology, I am indebted for many higher pleasures than I have ever known before; I believe that the phrenologists are on the right track, and bid them 'God-speed' in their work."

A CORRESPONDENT, MR. P. M. GIBSON, writes, with regard to the study of Phrenology, in terms like these: "Some persons maintain that it takes but a short time to become master of character-reading, while others consider it a life-time job. The length of time depends upon the circumstances. If he has large Perceptive organs, large Comparison and Human Nature, with good Continuity and Firmness, and will start rightly, he can soon be able to judge between extremes of character. To start right, he should get hold of some good text-books; the student's set, procurable for ten dollars, should be sent for. If one could not afford to spend that amount for books, let him buy one called 'How to Read Character,' and a large-sized bust. With these, he can soon learn to locate the organs properly; the book and bust will cost but \$2.50. We would next recommend one to read 'Combe's System of Phrenology,' also Spurzheim's and Gall's works, if he can afford to buy them. The Annuals of Phrenology, which can be obtained in a volume for several years, costing \$2.00, is a magnificent book for the student; then he ought to be a subscriber to the PHRENOLOGICAL JOURNAL, and renew his subscription at the end of every year, as it will keep him in-

formed in regard to the latest developments in mental science. We can not too strongly recommend the JOURNAL; and we think that every family from Maine to Mexico ought to read it. One word of warning against quacks and humbugs, the self-styled 'Professors,' who are going about deceiving the public in order to make money. There are too many so-called phrenologists who have probably only learned to locate the organs, not often that, with accuracy. With this little knowledge they practice 'Bumpology;' they are the great bane of the true practitioner of the science. I have occasionally fallen in the wake of one of these fellows, and conversed with their victims, and invariably found them disgusted with the science, calling it a humbug. These fellows are a great drawback to Phrenology, and so long as quacks continue to exist in their present numbers, the science will not be appreciated by the masses.

I AM VERY MUCH INTERESTED IN seeing your work forwarded to its utmost. I am a very strong believer in its doctrines, having had considerable experience therewith. I never fail to have an examination made by any professional phrenologist with whom I am thrown in contact, and I must say it is truly wonderful that they agree in every detail. W. MCA. G.

THE "STUDENT'S SET" OF BOOKS I procured from you meets every requirement, and fills a place in my library which no other set of works could. Phrenology will be a life-study and employment for me. I am almost afraid I will not be able to attend the course of lectures at the "Institute of Phrenology" this fall.

I. A. M.

S. R. WELLS & CO.:—I have been a reader of your publications for seven years, and believe no science is more calculated to benefit the human family than Phrenology. I am particularly interested in the subject, and wish to see a general knowledge of the science prevail all over the land, and for this purpose I write, requesting you to send some of your best lecturers on Phrenology to Texas, which is now a populous State, and I do not think there is a better field for lecturing in the United States.

W. R. V., Attorney-at-law.

A YOUNG LADY'S OPINION.—*To the Editors of the Phrenological Journal:*—When a new subject bursts upon your mind, you wonder how it is you never came across it before. A year ago, while visiting some of my girl friends on the southern coast, a rainy day detained us in the house. Debarred from our customary excursion over the cliffs, we turned for distraction to what books the house could afford. These were few indeed, and not of a sufficiently interesting description; but a few old musty volumes

were discovered in a darksome cupboard, mostly farm-books and romances, but among them a poor, abridged, paper-covered edition of Fowler's "Memory." I glanced over the leaves, surprised by the entire newness of the matter; then became absorbed, so much so I could not put it down; and, not liking to ask for the book, though I daresay it would have been freely given, because little valued, I got pencil and paper, and made copious notes; rising early, that in the quiet morning air I might the better understand these new, strange doctrines. I had been poring over the old metaphysical writers, and this cleared all the mists away.

How they laughed at my sudden liking for the shabby book, and wondered what I could see in it! On my return home, I copied my nearly illegible notes fairly into an exercise-book, and as soon as possible, after much trying obtained the book itself, seeing it, after I had given up hoping, in the window of a bookseller. I have loved the study ever since, and am ever thankful for that rainy day! Such chances do not come often, I think, and the best young years of my life might have lapsed, leaving me ignorant of the great truths so near at hand!

I have this year commenced to take your JOURNAL, and like it very much, ordering it through Gordon & Gotch, of this city. They have sent for my premium-book, and I expect it by next mail. Your liberality surprises me, and indeed your advertising columns give one the idea that America is a land of bargains.

Your works are very hard to get in this city. I obtained the "Self-Instructor," "Self-Culture," and "Memory," but had to send through the above-mentioned agents for the "Physiology" and "New Physiognomy."

Phrenology and its hopeful teachings are very dear to me. I am your sincere well-wisher, though too young and inexperienced to do you any good. * * *

MELBOURNE, Australia, 1879.

[The young lady's name, or even her initials, being withheld, is no indication that we fail to prize her cheering words. She is not too young to have clear and excellent thoughts, and a happy way of expressing them. We hope she will try her hand on something intended for publication. And then she must remember she will be growing older all the time; and, like wine, women, in our judgment, become the better for long keeping.—EDS. PHREN. JOUR.]

PHRENOLOGY IN THEOLOGY.—How pleasant it is to lovers of truth to see men of thought and literature imperceptibly agree to the sentiment uttered by Dr. Gail, "That Phrenology is true, though at enmity with the philosophy of ages." This thought has been strengthening with me for several years. Men

in all the walks of life are impelled by the very laws of Nature to read character in the face, walk, talk, laugh, gesture, etc. Said a man to me yesterday, upward of seventy years, who can scarcely write his name, who has never traveled, nor seen man only in his *imperfect* state, only now and then meeting a man of liberal education, "I allers look at a man's head when I meet him." This man never knew that there existed any man who could "feel" heads until he met me, never read a line upon the subject of Phrenology, and, as far as I know, never knew that such a word is to be found in our English vocabulary. Does this not prove that Phrenology is divine, and that God raised up Gall for the very purpose of introducing it to the world; made his massive intellect, his wonderful Reflectives, to trace effects back to their causes, and for Spurzheim, with his large Perceptives, to add new beauty to his Individuality?

Let the following lines from the pen of C. G. Andrews, D.D., of Jackson, La., in an article in the July number of the *Quarterly Review* of the M. E. Church, South, on "Individuality of Character," be read: "Experience and observation also confirm the suggestions of analogy, and show that each individual man is himself easily distinguishable in body, voice, habitudes, disposition, powers of mind, and propensions of soul, from every other specimen of the unnumbered myriads, of whom in many respects he is but the counterpart."

I might quote many paragraphs. Suffice it to say, that the article would do to be printed in the JOURNAL as an able one on the side of Phrenology. In the same number is an article by A. A. Lipscomb, D.D., LL.D., on "Shakespeare's Hamlet: A Study in Intellectual Philosophy," the perusal of which any phrenologist would relish.

In fact, what the clergymen need to complete their theological training is the study of Phrenology. I am glad to see that every year some ministers "take" the course in the American Institute of Phrenology. I recommend them to do it. I confess that Phrenology has been a great assistant to me, though I knew something of the science for a few years before I was licensed to preach. The text-books and the JOURNAL should be in the hands and library of every preacher in the land. Light is surely breaking, and the hand of our Heavenly Father is in it, and "Phrenology is true, though at enmity with the philosophy of ages." It will also help the pockets of poorly-paid preachers as well as their heads.—Yours, etc.,

A. A. ELLENWOOD,

Jessup, Ga., July 8, 1879. S. G. Conference.

OBSERVATIONS ON FEVERS IN AMERICA.—Being born when I should not, and

fed on catnip tea while a child, and drugged with poplar bark tea when grown up, together with the refinements of artificial life, and excessive ambition to do something, I found myself too feeble to stand the winters of Virginia, and now for ten years have been trying to find a good place to live in Florida and Alabama, and now am located six miles north of Mount Pleasant, in Monroe Co., Ala., two miles from the Alabama River, in the edge of a nice oak grove, with high pine land all around the cleared fields of some five hundred acres. A fine spring of pure water, some forty feet down the hill, supplies the water I use. I have located at eight different places in Florida, and found them far inferior to this. I have kept my eyes open all the time on the subject of health since I have been South, and I find much ignorance on the subject generally. When I lived at Fernandina, Oldtown, a place quite surrounded with salt marshes, that it is as much as one can do to stand it of a still morning, I was told by the son of one Dr. Lang that chill and fever was not known in Oldtown Fernandina before the new town was built, but after the railroad reached there it came. The Northern drugs, beef and pork, and bolted flour, were the articles that took the place of corn bread, Florida beef, and vegetables, with the absence of drugs. The same sea marsh gave off as much malaria as before, and no change in that matter is seen. An increase of the use of tobacco is also seen. Water used from shallow wells increase in the elements of impurity the longer they are used in a thickly-settled town. I find that malaria is not the cause of chill and fever, as is generally supposed, but that any air, no difference how devoid of decomposing vegetable matter, if not kept in motion in a warm climate, will become unfit to sustain health. Stagnant water, air, and food will soon produce disease in a feeble constitution. Running water, if pure, is to be preferred to still, and just so with air. Many of the nights are so still, after the breeze has blown all day, that the skin becomes burdened and fever is engendered; and in the morning often the air is so cool, if from the northeast or north, that one feels quite chilly without thick flannels on. Then the sun shines so clear before noon as to make one's head feel badly, and the eyes often get sore.

I find the uniformity of the climate of Florida produces more neuralgia than elsewhere. I could not find a woman grown that had not had a siege of it, if she had not some other standing complaint. One set of nerves used so incessantly tires out, as a horse traveling on a dead-level road can not endure as well as where there is variety in the road.

This weakening of the nerves produced by a mild climate has much to do in fever cases. The

warm, still air of nights causes all kinds of food to decompose so rapidly that it is unfit to be eaten if cooked many hours ahead. The great scarcity of fruits and vegetables for so many months causes the use of so much meat, that no sooner is one confined in a close room than the air is rendered impure by their own exhalations. More vegetables and fruit could be made to grow by continued culture, but one gets tired of the endless routine; and all the vegetables decay so soon, they have to be kept coming on to keep up a supply. The yellow fever is only an aggravated case of chill and fever, increased by a heated city of uncleanly habits and more excited lives. I find many cases of partial paralysis all through the warm regions; no doubt some cases are rendered worse by the use of tobacco, but more due to monotonous life. More anon.

O. TAYLOR.

PHRENOLOGY.—The examination of the head of Chastine Cox, the alleged murderer of Mrs. Hull, by the famous phrenologist, Prof. Fowler, has attracted the attention of many to this wonderful science who have never previously given it a thought. We would recommend to such a careful study of the publications of the house of S. R. Wells & Co., of this city, in which everything that is so far known of this philosophy of the mind is to be found. One of the most useful of these publications is the **PHRENOLOGICAL JOURNAL**, which is one of the oldest and most useful of American periodicals. It was established in 1838, and has been continuously published ever since. It has occupied, and still occupies, a high and honorable position amongst the educational forces of the present day, its influence, as we can personally testify, reaching persons and places and effecting valuable results of which its proprietors and publishers never attain the remotest knowledge. Conducted under the auspices of the same firm is the American Institute of Phrenology, which was incorporated by the State of New York in 1866. This institution is one of the most important ever founded, taken in regard to its influence upon the progress of civilization, and it has received the cordial indorsement of some of the profoundest thinkers of the age.

Its officers are: E. P. Fowler, M.D., President; Nelson Sizer, Vice-President, and H. S. Drayton, Secretary. Prof. Drayton and Prof. Sizer are the editors of the **JOURNAL**, and are both very prominent and able men.—*New York Mercantile Review*, July 19, 1879.

MESSRS. S. R. WELLS & CO.—Allow me to say, what I have often said in public and private, that **THE PHRENOLOGICAL** is the best magazine in the world. It not only treats of the science of mind and health, and their concomitants, but its pages sparkle with sound reading for the family. The farmer will also

learn useful hints. The questions answered and "What They Say" is a compendium of Knowledge. In short, twelve numbers bound make a book that would fitly adorn the library of the clergyman, lawyer, physician, school-teacher, and the student in general. I wonder why 100,000, nay, more, copies are not taken in this intelligent age.

REV. A. A. E.

JESSUP, Ga., Jan. 28, 1879.

SUMMER STORM SONG!

SING your storm songs, every breeze!
Now, my care, all from me flee!
Sing away, among the trees!
How they toss their arms abroad,
While their leafy heads they nod!
Bolsterous winds the song resound!
Join, ye trees and bushes round!

Oceans swell and lash the shore!
On the rocks more breakers—more!
Bounding billows, fiercer roar!
Now afloat, I love to lie
Gazing on the fitful sky!
Fuller now, the tones resound!
Chant, ye stormy depths around!

Where am I—ah, memory, where?
Where a child, unknown to care—
Breezes sporting in the hair—
Trips o'er shells and rocky maze,
Curls and sprays around her face!
Deeper now the notes resound!
Echo, shells and caves around!

Heavy clouds, be marshaled now—
Gloomy threatenings on your brow,
Lightnings flashing to and fro!
Thunder, roar! but not too hard!
Deep, but lenient, awful bard!
Louder now the chords resound!
Clash! ye thunder clouds, around!

Now fall down great drops of rain!
Cool and calm the weary brain,
Washing out each worldly stain!
Cool the withering, parching dearth
Of the dry and thirsty earth!
Thunder, winds and seas around,
Little brooks and rills resound!
Every living pulse rebound!
Shout, each voice of Nature round!

GRACE MORR.

PERSONAL.

MR. H. S. DRAYTON, Editor of the **PHRENOLOGICAL JOURNAL**, is traveling in Europe.

DR. JOHN L. CAPEN, of Philadelphia, has disposed of his cabinet to a Phrenological Society in that city, and accepted a promising field of medical practice in the country.

MATT. W. ALDERSON, a graduate of the **AMERICAN INSTITUTE OF PHRENOLOGY**, spent a summer month in New York, and had his bust taken for our cabinet. Though absent in person he is present in form.

REV. DR. NEWMAN, of this city, late of Washington, and Mr. Kimball, the church-debt extinguisher, and also Gen. Thos. Ewing, of Ohio, have recently permitted us to have their busts taken, and they will soon form an additional attraction to our cabinet.

HON. PETER COOPER, the late Judge Asa Packer, of Pennsylvania, and Hon. Chas. Foster, candidate for Governor of Ohio, have had life-size medallion busts taken at our office.

WISDOM.

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

NEVER despair; but if you do, work on in despair.—*Burke*.

OUR dead are never dead to us until we have forgotten them.—*George Eliot*.

VINELAND, N. J., a city of ten thousand inhabitants, has but one police officer, had but one violation of the law last year, and the pauper expenses were but four dollars. Cause, no grog-shops.

NEW truths are better than old errors. Fact is worth more than opinion. Certainty is more desirable than confidence. Progressive knowledge implies much useful learning.—*Prof. Winchell*.

MEN possessing minds which are morose, strong, and inflexible, enjoy, in general, a greater share of dignity than of happiness.

LET amusements fill up the chinks of your existence, but not the great spaces thereof.—*Theodore Parker*.

MANY a youth has ruined himself by forgetting his identity and trying to be somebody else.

MOST of us pass our lives in regretting the past, complaining of the present, and indulging false hopes of the future.

TEMPERANCE and labor are the two best physicians of man; labor sharpens the appetite, and temperance saves him from excess.

AFTER all, there is very much which is called courage which is nothing more than fear; we are afraid of being called cowards, and so we are very brave.

THIS world is full of heroes. I know thousands of them to-day, who are working hard for twelve dollars a week, to feed and clothe their wives and children.

THERE is no wise or good man that would change persons or conditions entirely with any man in the world.

BY honesty and integrity you will gain credit everywhere, and your word will be thought more valuable in any business you may be concerned in, than all the lawyers' bonds in the world.

NO man can be brave who considers pain to be the greatest evil of life; nor temperate who considers pleasure to be the highest good.

A GOOD HINT.—"Doctor," said a gentleman to his clergyman, "how can I best train up my boy in the way he should go?" "By going that way yourself," replied the reverend doctor.

AN honest man is satisfied with the approval of his own conscience, while a simply honorable man often only looks to the world for his approval.

MIRTH.

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

SELF-ESTEEM LARGE.—Monsieur Bilboquet, "I tell you, sare, zat ze secret of all true art is lost, and zat painting is a zing of ze past. Zere are not more zan *sree* men living who are worzy of ze name of painter!"

His Patron and Admirer: "Yes, yes. And who are the three men, Monsieur Bibloquet?"

Monsieur Bibloquet: "Vell, I am one of zem! I have forgotten ze names of ze two ozers."

Teacher: "What part of speech is the word 'egg'?" Boy: "Noun, sir." "What is its gender?" "Can't say, sir, till it's hatched." "Well, then, my lad, you can't tell me the case?" "Oh, yes, sir; the shell."

"No, darling," he said, as his wife asked for a new dress, "I can't afford it. I feel it my duty to help the yellow-fever sufferers," and then he went around the corner and the bar-keeper handed out the bottle and the glass and let him help himself.

THE following is posted in front of a grocery store near Harvard Square, Cambridge, Mass.: "Wooden pails, six cents each. Notice.—We did not steal these pails, but we think the man we bought them of did."

A CONGRESSMAN, tired, and feeling unwell after a long journey, stood before the bar of a leading New York hotel the other day and called for brandy, and was requested to pay for it before swallowing. "What!" remarked the gentleman, at the unusual demand. "Yes," replied the bar-keeper, "that's my order to strangers." "Gracious!" said the M. C., walking away, "if its fatal effects are so instantaneous I'll not take it."

"FAITH," said an Irishman who could not get into his cablu at Ballingary, his wife having turned the key upon him, "it's meeself that's regularly locked in." "In!" cried his companion. "In where?" "Why, in the street."

A GOOD-NATURED traveler fell asleep in a train and was carried far beyond his destination. "Pretty good joke this is, isn't it?" said he to a fellow-passenger. "Yes, but a little too far-fetched," was the rejoinder.

THE Irishman had a correct appreciation of the fitness of things who, being asked by the judge, when he applied for a license to sell whiskey, if he was of good moral character, replied: "Faith, yer honor, I don't sec the necessity of a good moral character to sell whiskey!"

ONE grocer asked another: "Is Colonel—a man to be trusted?" "I think you'd find him so," was the reply. "If you trust him once you'll trust him forever. He never pays."



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.

HOW TO GET STRONG, AND HOW TO STAY SO By William Blakie. Harper & Brothers. 1879.

This is an earnest, sensible book, written by a Harvard champion oarsman. Nor is this all he has done in the line of physical culture, having kept up his condition by judicious manly exercises daily. Though a successful business man, he carries his mental and bodily culture into daily life, and he walks forth a fine specimen of health and vigor, both in mind and body. We have looked for a passage to quote, but it is too good to be separated, and we commend the book to all who are in need of bodily upbuilding.

HYGIENE OF THE BRAIN AND NERVES; and Cure of Nervousness, with twenty-eight Original Letters from leading thinkers and writers, concerning their Physical and Intellectual Habits. By M. L. Holbrook, M.D. New York: pp. 280.

This work is full of solid facts and sound instruction. One-half the book is made up of letters and statements from some of the best-known names of this and other countries, which, by the wide variety of thought and experience, serve to awaken and sustain the interest of the reader, whether he be educated on the subject or not.

MEDICAL RECORD.—A weekly Journal of Medicine and Surgery. Current Nos. received.

We regard this as one of the more valuable of the serial publications on medicine available to the American practitioner. We like the tone of certain articles which have appeared lately in respect to quackery and pseudo-professional courtesy. Dr. Shady has been justly severe in his criticisms of the willingness on the part of some "doctors" to give certificates vouching for the healthfulness of certain summer resorts, and of certain mineral waters. It is quite evident that some eminent doctors are easily bought.

LITTELL'S LIVING AGE.

We have been pleased with the selections of this weekly during the past month or two; they furnish both information and entertainment.

CIRCLED BY FIRE: A True Story. By Julia McNair Wright, author of "Firebrands," "Nothing to Drink," etc. 18mo, pp. 91, price 40 cents. New York: National Temperance Society and Publication House.

We suppose that some success in the sale of the author's recent book, entitled "Firebrands," led to the publication of this little book, which has an analogous title. It is the fire of alcoholic drink, as can be easily guessed, which is the inspiration of the tale. A woman finds herself among mistaken friends, who endeavor to persuade her when in a condition of weakness, physically and mentally, to make use of wine or something stronger for solace and invigoration. Her principles are antipodially opposed to the use of alcohol in any form and under any circumstances, and she has a hard time to do as conscience and principle advise.

NO DANGER. By Mary J. Hedges, author of the "White Rose." 16mo, pp. 360. Price \$1.25. New York: National Temperance Society and Publication House.

A rather lively tale is woven on themes suggested by the title. Of course, it is the old protest of the moderate drinker, that he "will never indulge to excess," that finds illustration. Well adapted to the use of children, it will inculcate excellent principles at the same time it pleases their immature minds. And it is not wanting in suggestion for the earnest consideration of grown-up people, particularly those whose minds are not well settled with regard to what is proper as a beverage. It points very clearly to the moral duty of those who occupy good positions in society.

PUBLICATIONS RECEIVED.

WASHINGTON COUNTY Agricultural Society's List of Premiums, and Regulations for the 37th annual fair, to be held Sept. 3d, 4th, 5th, and 6th, 1879, near Sandy Hill, New York.

The Syllabus promises an entertaining exhibition.

T. D. KELLOGG's School Catalogue for the years 1879-80.

OUR FINANCIAL REVOLUTION. An Address to the Merchants and Professional Men of the Country, without Regard to Parties. By Cadmus.

THE AMERICAN ANTIQUARIAN for April, May, and June, 1879—an interesting issue. The article entitled "The Emblematic Mounds of Wisconsin" well deserves perusal.

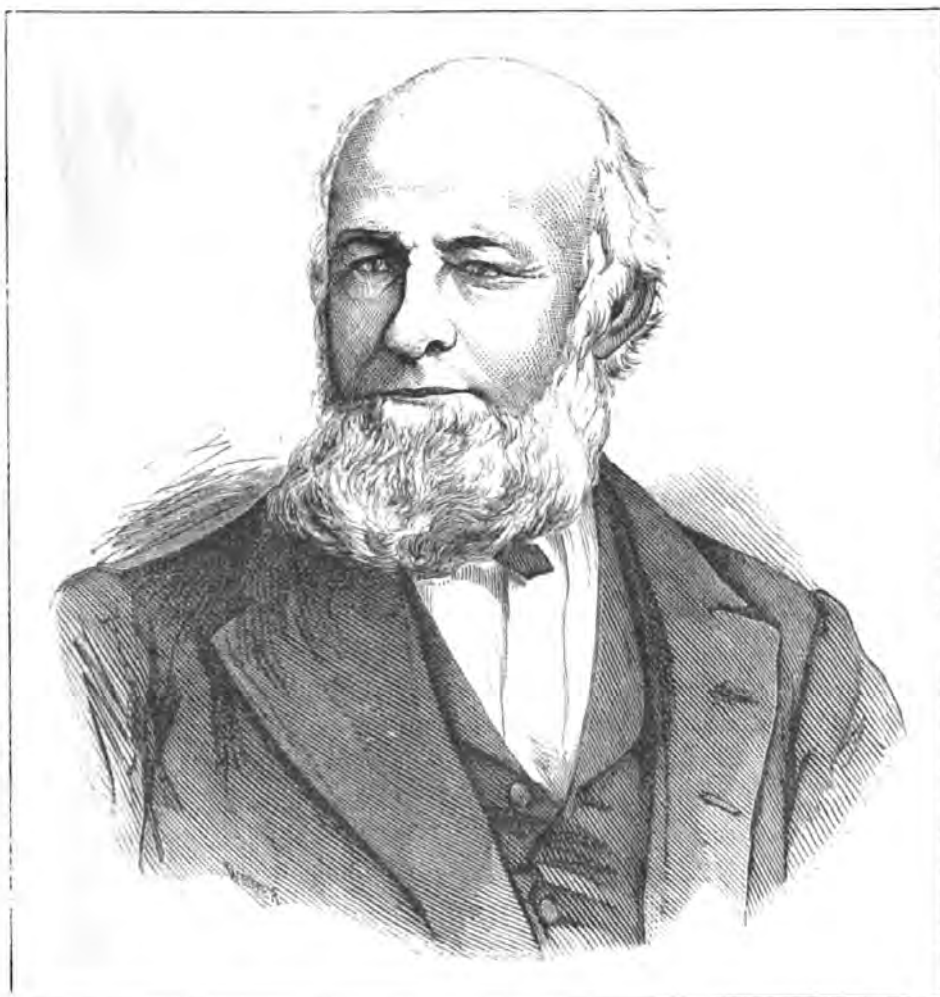
THE AMATEUR, a monthly journal devoted to Art in the Household; Montague Marks, Editor and Publisher, 571 Broadway, New York. Vol. I, No. 3. We like the aim and spirit of this new candidate for public favor. It seems replete with good taste, talent, and enterprise, and ought to have hosts of friends.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 69. 1879.

NUMBER 4.]

October, 1879.

[WHOLE No. 491.



DANIEL L. HARRIS.

PHRENOLOGICAL CHARACTER.

FROM the portrait before us, we infer two strong peculiarities: one is intensity and the other fineness. These qualities are combined in the violin string, which being strong, as a matter of fact, and very sensitive, is full of music. A

man with these qualities is full of life, very susceptible and excitable.

From the form of the head, and the general outline of the frame, we judge that he resembled his mother in two aspects: one in the quality of the organization which gives intensity to the feelings, and the other in intuitive perception. In the early history of such an organization, the mental life is mainly made up of intuition—the power to grasp the truth of things, without taking time to go over them in detail and reason out propositions. His first judgment of men and measures was generally his best, and when he had decided what to do, or not to do, he entered upon the duty with a firmness and vigor that gave warning to others to clear the track. As a boy he would lead in the game of marbles; when he became older he was one of the captains in the game of ball; and then a leader in the social party, not necessarily because he knew more than his associates, but because his knowledge came to a focus, his whole power came to a cutting edge, and he would decide what to do, and have it half done before the average had gotten ready to begin, or had their minds made up what it was best to do; thus he gained victories in business, in politics, in administration of affairs, not because he was stronger than the rest, but because his power was quick. He would have made an admirable physician; would have read disease, by the symptoms, at a glance, and he would have been more successful than most men, especially in acute cases. He was not so well adapted to foster slow interests. He belonged to the spirit of the nineteenth century; at the head and front of it.

As he advanced in years, we judge

the upper portion of the forehead became more massive. The region of the reflective and philosophical faculties being called into requisition in the administration of his complicated affairs, would promote the growth of the reasoning organs.

He was remarkable for memory; he got the advantage of men in controversy, because his memory was fact tight; he knew all about the case, could quote the history; those who knew him best accepted his version; people supposed he knew more than others about matters, not necessarily because he was wiser, but he had more facts. If he had been a lawyer, he would have been remarkable for his success in selecting juries and addressing them, in questioning witnesses, and in carrying the popular judgment.

This fineness of quality, this intuitive judgment, this centralization of thought, combined with his excitable constitution, rendered him sometimes domineering and bitter. His head was broad above and about the ears, showing large Destructiveness and Combateness. His firmness was strongly marked, the head being high at the crown; and his conscience was such, that when he believed himself to be in the right, he knew no other way but to push till he had reached the end. Compromise with him was not to be considered; he claimed that which was his right, yielded to others their just rights, and never compromised unless it was a question of mixed rights, where something was to be given and taken, as farmers sometimes do when they want to straighten a line fence, they cut the crooks and corners off; but this man would not compromise a principle, nor a right; he might ex-

change, give and take, but he must feel that it was a fair exchange.

He had Hope, which gave him confidence in himself and in his future; he had Self-esteem enough to be master of himself and his situation. He never hesitated to undertake heavy responsibilities, and felt the necessity of being in them himself. We doubt not, he spent more time near the workmen who were carrying out his plans, than any other man who could be mentioned, occupying such positions as he did. The colonel of a regiment is expected to go right into the thickest of the fight. A general may sit on his horse, or in his tent, a mile away from the center of hottest conflict, and coolly direct affairs. Our subject was one who would manifest the character of the colonel to mix in the hottest of the fight rather than like the general to stay aloof. He mixed with his business, and with the men who did the work. He wanted to see, and come in contact with points where decision rested: consequently he would make money in the administration of his affairs, because of his personal attention, his intuitive judgment, and his power to rule men. He was specially magnetic. Men learned to fear his displeasure, because when he thought a man to be in the wrong, he did not stop to measure his epithets; every word was like a scorpion against wrong or meanness.

He was generous and friendly; those who did right and served him faithfully were not forgotten. He had strong affection, loved ardently, and hated heartily that which he permitted himself to hate at all.

His large Constructiveness enabled him to see instantly what mechanical combinations and adaptations would secure the

best and readiest results. His energy of character set him upon the instant execution of what he wanted to do; his Firmness, self-reliance, Self-esteem, and Hope led him to expect much from his efforts, and he had the power to inspire other men with energy, ambition, and force. For instance, he could easily get a relay of hands to work all night at some work he wished to push. He would get good service and faithful co-operation, then he would pay and praise his men. He would be likely to have as adherents such men as he could trust and rely upon in intricate and delicate commissions, and thus he would hold the same men for years and years in his interest.

He had good Language, but it was more like a rifle ball than a charge of shot; he hit in one place and hit hard. When he undertook to make himself understood, no sensible man doubted as to his meaning. People who knew him best, who took in all his haste and hotness as well as his generosity and justice, liked him best. Those who came in contact with him only as opponents or delinquents, might entertain feelings of bitterness about him, but any man who worked with him in a common cause would not be likely to become his enemy.

He read men like a book, decided questions of importance promptly, and persisted in their execution till the last nail was driven. He was often, doubtless, considered rash because he thought more rapidly and executed more earnestly his purposes than most men, but a longer view of his career gave men the idea that he was lucky; that he happened to hit it right; and they would learn to trust him and believe in him, though they might not be able to follow his plans, and know that everything he did was in

pursuance of a clear, clean-cut, rigorous thought and purpose.

BIOGRAPHY.

[We are indebted to an extended sketch in the *Springfield Republican* for the foundation of our biography of Mr. Harris, and we quote literally or condense from that journal without giving further credit.]

Western Massachusetts, in the death of Daniel L. Harris lost a power for good, as a man of affairs; quick to see, and ready to resent and combat public wrong, even at great cost to himself. Springfield has no one to fill the place of him who has gone from us. It must be conceded that Mr. Harris, though he had temperamental and mental peculiarities, and mistakes of method which often belong to men of positive convictions, he was the best product of our sturdy New England life, living, and training, beyond any man who is left to us, of sterling strength, primitive honesty and honor, and a purpose and ability to display these old-fashioned prejudices wherever they would avail to protect public interests. He did not live a long life; but it was a sturdy, a worthy, and even a great one.

Mr. Harris was born in Providence, R. I., February 6, 1818, and died at Springfield, Mass., July 11, 1879. Young Harris worked in a mill to secure the means for self-education, attended the Plainfield, Conn., Academy, and then spent three years in the Scientific Department of the Wesleyan University at Middletown, Conn., graduating in 1838. He adopted the profession of civil engineering and was employed on the Norwich and Worcester Railroad; assisted in the early service of the Erie Railroad, on the Troy and Schenectady Railroad, and in 1843 came to Springfield to survey a proposed railroad to Hartford. He was scientific and accurate, ranking with the leaders of his profession. He was a self-made man, and the professional civil engineer developed into the railroad president, the financial and wealthy citizen, solely by the force of his own ability

and character. In 1843 he took a part in the building of the Hartford Railroad as contractor and bridge builder, and made his fortune. He was elected director of the Connecticut River Railroad in 1855, and, in the same year, its president, to succeed Chester W. Chapin.

He was equipped for his position by a thorough acquaintance with the "technique" of railroading, and brought to it also a mind broad enough to command its wider relations and complications. President Harris was economical, farsighted, failing, when he failed, on the side of cautious conservatism, rather than on the side of speculation; but his wise caution has been justified by its fruits, and the highest service which Mr. Harris rendered to his business associates over the country, and the best monument to his broad sagacity in railroading remains in the Eastern Railroad Association; the object of which was to combine, in reference to the adoption of patent improvements in railroading, and to guard against vexatious lawsuits in regard to infringement of patents.

He was able to meet such men as Commodore Vanderbilt, and the other great railroad magnates, in the discussion of great railway questions; and though Mr. Harris was hot-tempered, and imperious in the statement of his convictions, he generally succeeded in carrying the strong men with him. In all his career as a public man, and citizen with political duties, Mr. Harris was an admirable representative of the men who study to serve the people; he studied public affairs, made up his mind what ought to be done for the public good—often went in defiance of the suggestions of the people themselves, careless whether he met opposition or sympathy; and, firm in the consciousness that he knew better than those whom he would serve, in what they needed for their welfare. The people never know what such men have done for them until long after the strife and controversy, when they begin to reap the fruits of the superior foresight and bravery by which they had been reluctantly guided.

Mr. Harris served with credit in the

Legislature in 1859, '63, '64, and 69; also as Mayor of the City of Springfield, in 1860, ever since which time he has held important city offices, and been a leader in public affairs in Springfield. Mr. Harris was associated with the City Library, and president of the corporation. At the time of his death he gave \$10,500 to the Library Fund. He was a liberal contributor also to Wesleyan University, his *alma mater*, though he belonged to the

Congregational Church. He was never slow to aid in any public charity, irrespective of its sectarian character.

His system broke down through overwork, and manifested itself by an affection of the brain, which produced paralysis of that organ, and though suffering for months, with hope of recovery, he had a relapse, under which he quietly sank on the 11th of July last.

PRECOCIOUS CHILDREN.

BY NELSON SIZER.

THE child who is endowed with an uncommon amount of brain and nerve, with a sensitive, delicate constitution, a small neck, large head, thin body, pale complexion, small muscles, with brilliancy of the eye and excitability of temperament, is always considered very interesting to people who are not as well versed in physiology as they ought to be. Such a child is bright and quick to learn its books; wise and old of its age; listens to the conversation of adult persons and understands it; comprehends what it reads, takes high rank in the Sunday-school and day-school, and gives promise of wonderful talent if not absolute genius.

To one well versed in mental philosophy, who understands that the brain depends upon the body for support, and that the brain, like the wick of the lamp, drinks up the vitality and exhausts it, such a child is an object of painful interest and anxiety. The Romans had a proverb, "Whom the gods love, die young," meaning, of course, those endowed with eminent and precocious talent.

Some fifteen years ago I met one of these large-headed, precocious children. The boy was nine years old, and his head measured twenty-two and one-half inches, quite large enough for a man weighing 162 lbs. I advised that the child be kept mainly from school and from study for a year, and then permitted to study but moderately; that he be trained in such a way in physical exercise as to develop, without exhausting, the

strength; that he take to deep breathing and abundant exercise in free gymnastics, that is to say, gymnastics without dumb-bells or other apparatus; the use of the arms, shoulders, and spine in all free and generous motions. It was advised that the child be kept on lean beef and mutton, with milk, plenty of fruit, wheat ground without sifting, and oatmeal; because these articles furnish material for muscle and brain-tissue, so that the brain shall not by necessity drink up all the phosphorus that the body requires in order to sustain itself. We advised that the child be dressed warmly at the extremities, so that the blood should be invited to the feet, and a free circulation thus promoted, by means of which the lower half of the system would be induced to grow, and congestion of the brain, lungs, and liver be avoided.

About a year ago, this boy having attained the age of twenty-four, subjected his head to be examined, and we found that it had not increased at all; it was still twenty-two and one-half inches, but he stood five feet nine inches high, and weighed 155 lbs. He reported that all his friends congratulated him and themselves that, having followed our advice, he had been saved and built up into substantial manhood.

Only three days ago a man weighing 200 lbs. came into the office, having a head measuring twenty-four and one-half inches. He said that fifteen years ago, when he had left Columbia College with high honors, intending to study for the law, he came to our office for an examination, expecting that we

would send him straight to a literary pursuit, to the bar or the pulpit, but we told him that he needed to weigh fifty pounds more than he did to sustain that great brain, and in order to do this he must stop studying for a year at least, and advised him to engage in the profession of architecture and the business of house-building. He said that this was a wonderful snub to him, but that he followed our advice, and his health and vigor increased until he went from 150 to 200 lbs.; and, with a pleasant twinkle in his eye, he said that he enjoyed the business thoroughly and had made himself independent by its pursuit; had increased his bodily weight and vitality so that his great brain had enough to support it—that he had enjoyed health, and felt that he was now harmoniously developed. His literary culture qualifies him to move in the best society, and he surrounds himself with men of intellect and polish. He believes to-day that if he had entered the law or the ministry,

and devoted himself to brain-work solely, he would have been a wreck years ago, if he had not gone to the grave.

There are, then, precocious children, precocious young men, and not a few precocious girls and young women, whose lives are rendered miserable or utterly blasted because of their over-excitability of brain and deficient physical development.

Any parents having boys or girls who are inclined to extra brain development, should see to it that the children have something to do in the way of work, or amusing play, which will invite nourishment to the muscles, and build up the frame and the vital organs. I never deliver a course of lectures in a place that I do not meet a number of these large-headed, excitable, and sensitive children, and always entertain the feeling that if I can save some of them to the community, to their parents, and to themselves, my time and labor are not wasted.—*From the Winsted Herald.*

PHRENOLOGY IN THE NEWSPAPERS.

A GOOD EXPLANATION.

IN that spicy and vigorous paper, the *New York Sun*, of August 3d, there appeared an article describing an interview which occurred in our office a short time before.

The gentlemanly representative of the *Sun* strolled into our office, a stranger, as many others do, to examine the recent specimens in our large cabinet of busts, skulls, and portraits, when the conversation occurred almost *verbatim* as recorded below. It is a wonder to us that any person, without taking notes at the time, could reproduce so accurately the somewhat extended explanations and illustrations, and thereby do justice to a subject comparatively little known in its technical and scientific form. It proves, at least, that he is well adapted to his business, that he has a good brain and uses it, not to make a sensation without regard to truth, but to do justice to himself, to his paper, and to the public.

We copy the article as it appeared in

the *Sun*, with two engravings which we have prepared to illustrate brain development:

NOT BUMPS, BUT DISTANCES.

An Old Phrenologist Elucidates the Science of Craniology.

A white-bearded man with bright eyes, an intelligent face, and cheery manners was opening a letter yesterday as a reporter for THE SUN entered his office. Enclosed with the letter were two photographs, one showing a full-face view of a young man, and the other showing a profile view.

"You can not discover the size of all the bumps from photographs, can you?" the visitor asked.

"We don't look at the bumps on a man's head," the phrenologist explained. "We don't care much about bumps."

The Professor drew the outline of a head on the opened envelope, and made the half of an oval to represent an ear.

Within the curve he made a dot. From the dot he drew diverging lines to all the upper part of the head from the eyes over nearly to the back of the neck.

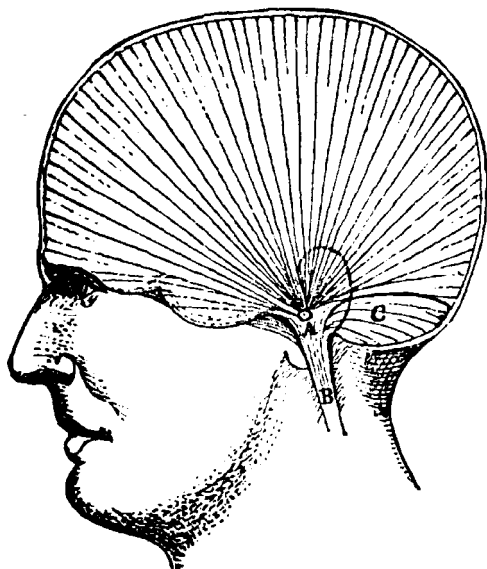


Fig. 1.—Brain Development, Length of Fiber, showing the Size of Organs. A. Medulla Oblongata, where the Fibers start. B. Spinal Cord. C. Cerebellum.

The completed figure resembled a fan spread wide open.

"Now," the Professor continued, "the ear indicates the position of the central base of every person's brain. These lines may be supposed to pass from the base upward and sidewise to each of the organs at the surface of the brain. They represent the brain fibers. Bumps are very well in their way, and sometimes we find them very large and prominent; but it is the length of these brain fibers that we try to discover. Do you see how far it is from the opening in the ear of this young man (taking up the profile photograph) to the upper back part of his head? He has large Self-esteem, yet there is no sharp protuberance. Firmness and Approbativeness and Continuity, kindred organs surrounding Self-esteem, are all tolerably developed."

"But can you read character with accuracy by means of photographs?"

"Why, five years ago, a man in Ohio sent me photographs of his daughter and of her suitor. He wrote that the young

man had been courting her for six months, that his business prospects and character were good, and that he gave promise of being an unexceptionable husband; but that, nevertheless, he wanted to know whether their dispositions and temperaments were such as would conduce to happiness in married life. I looked at their photographs and then wrote a reply. I informed the father that as regarded temperament and certain other inherited

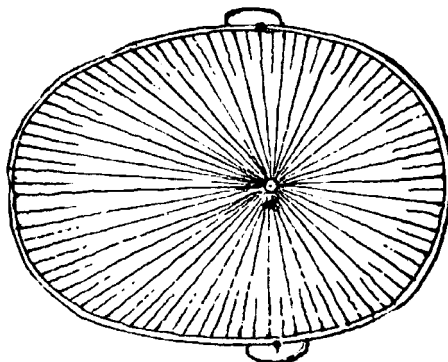


Fig. 2.—Base of Brain, showing Length of Fibers from the Center to the Circumference. An even head, with all organs of one size; shows no bumps.

characteristics the young people might properly be mated; but I also told him that the young man was lacking in Conscientiousness, that he was selfish, tyrannical, and inclined to immorality. Three years afterward the young woman called on me in New York to thank me personally for saving her from life-long unhappiness. At her father's request she had broken her engagement, and not long afterward the young man's true character was made plain to all. He robbed his employer of a large sum of money and ran away in company with a woman of bad character. After living with him a few months in Canada, this woman quitted him because he was in the habit of abusing her, and she returned home, her face still showing marks of his brutality. She betrayed his whereabouts to the police, and the young man was sent to State prison for the robbery."

"Of what classes and ages, and of which sex are most of your patrons?"

"Of all classes, ages, and sexes. Sometimes a party of men will come in after

dinner, when they are all feeling good. Their object is the fun to be derived from listening to what is said of each other. I generally manage to inject a great deal of wholesome truth into my remarks on such occasions."

"In your ordinary examinations can you afford to tell offensive truths about a person?"

"I always tell the absolute truth. There is something about human nature that may strike you as very peculiar. The truth about a man's character generally pleases him. For example, if you should tell a man who was selfish and brutal that he was so careful of the rights of others that he often sacrificed his own; or if you should tell a man in whom Conscientiousness and Agreeableness were largely developed, that happen what might he would always get every penny that belonged to him, each would be displeased, and the selfish man would be very angry. If, on the other hand, you should reverse the statements, each would be well pleased."

"But how is it when a mother comes to you bringing a stupid boy with evil propensities for examination? Suppose she is a good, tender-hearted, conscientious woman, will she be pleased with the truth about her child?"

"This," said the Professor, "is the saddest thing I have to experience. Many a time I have seen a woman, such as you have described, enter my office with an unruly child, whose selfish propensities were unduly developed. I would know well enough that the mother interpreted each piece of willfulness as evidence of her boy's smartness and energy. She could see in it only a sign that her boy would make his way in the world, and that some day he would be an honor to her, repaying her for all troubles and sacrifices on his account. In such a case, I do not, of course, tell the mother that her boy will be a thief or a murderer. I do not know that he will be. I tell her in plain, solemn language the tendencies to evil that I discover. I tell her the danger in which the child stands carefully

and specifically, so that she fully comprehends it. I point out to her whence the danger comes, and how it is to be met and conquered; if possible, by education. Then I give her what hope I can, based on the greater or less development of the mental and spiritual parts of his brain. I show her how she can make one characteristic operate to nullify another, and I make her understand how very great modifications of the brain may be brought about by education. This is all I can do, and I can do no less."

"Doesn't this often make the mother doubt the genuineness of Phrenology?"

"No. If her concern for her child were less, it probably would do so. Also when I describe characteristic after characteristic of the child she recognizes the truth of what I say, and feels that I have a knowledge surer and more penetrating than hers. I have no doubt that after she goes home she begins to persuade herself that I am wrong; but what I have said remains with her, and, if she is as wise as well as an affectionate mother, it aids her in bringing up her child. Too often it is the case, however, that she has terrible proof in after years of the truth of what I told her."

"I suppose you see some remarkable varieties of human nature?"

"Oh, yes. I remember, about fifteen years ago, a raw-looking youth came to have his head examined. He had very large Language, and large Mirthfulness; but, with Ideality small, he was talkative and humorous, without proper taste or good judgment in his fun. Yet, on the whole, he had a pretty fair character. I examined his head and gave him his chart."

"'Now, you say I am honest,' he said. 'Do you believe it?'"

"'Certainly,' I replied."

"'Very well, I will come in to-morrow and pay you for this examination.'"

"'All right,' I said, and out he marched. My amanuensis laughed, as much as to say, 'You are caught for once;' but I had no fear. His Conscientiousness was large, but I didn't rely on that so much as I did on his large Approbativeness. I knew

the prospect of gratifying his passion for praise would draw him back with the power of a six-mule team. Sure enough,

back he came the next day, and paid me the money. Then the laugh was on my side."

A PHRENOLOGICAL EXAMINATION FOR WHAT?

ONE of the most natural questions put by a person not a student of the science of mind, who is advised to seek the services of a practical phrenologist is, "What will be the use of a phrenological examination to me?" We shall endeavor to answer this important and pertinent query in the clearest and most convincing manner we can command, without a discussion of details not directly connected with the question.

The interrogatory is not only advanced by the disbeliever in the science of mind, but also by those who have a slight acquaintance with the subject, and consent to its truth, as far as their knowledge extends. The person who asks the question, generally does so in perfectly good faith, and from a desire to have it disposed of satisfactorily to his own understanding; and the probable result of producing conviction in his mind is, that he will, at the earliest convenience, procure that knowledge which we endeavor to impress upon him, and which will be of lasting importance.

After having met our advice and argument with his question, the objector usually goes on to say, "Don't you think I know as much or more about myself and what I can do, than a phrenologist can tell me?" and when we assure him that a skillful examiner can reveal to him more of his own mind, and his peculiarities and abilities than he is conscious of possessing, he either denies the assertion, or makes further inquiries.

The easiest and most obvious answer to the query is, that an examination will inform the person of something he did not know before. This summary disposition of it, however, is nothing more than an assertion, and the inquirer demands proof to sustain it. Of course we don't deny that every one knows a good deal about himself and his dispo-

sitions; but we do say that many of the estimates formed by young persons of their characters are extremely incorrect, especially as regards their intellectual capabilities, and are oftentimes defective and erroneous as regards their selfish, social, and religious feelings; for, until a standard of the mind, in all its aspects, is known or believed in, each individual embraces his own ideas of himself as in most cases paramount to all others. These obliquities exist more or less in all minds; for it is hardly possible that the judgment of any one upon himself can be correct except in a few particulars. Therefore, the knowledge of one's self imparted by a capable phrenologist, not only informs one of what he is, but, as he possesses in his mind information of the highest and best developed proportions that constitute a model, he is eminently qualified to instruct the person examined, and to correct his erroneous estimates of himself.

A person who is sick or indisposed is quite conscious of it, but may not know what parts are affected, or to what extent, or the best means to be adopted for recovery, and through this ignorance may aggravate his complaint; but the skillful physician can instruct his patient upon these points, and convince him of his mistakes. So the phrenologist is able to indicate the causes of mental deviations, such as extreme fear, bashfulness, cruelty, and excessive pride, with all the other peculiarities of an inharmonious character; and to point out the best means to attain a higher standard, which most right-minded people desire, but don't know how to compass.

The period of youth is the time most appropriate for the investigation and counsel of a practical phrenologist, for then the mind is least biased, and most willing to be led. But the importance of, and

the benefits which may result from, a full phrenological examination are not limited by age, unless we carry our discussion far into the decline of life, when they are of least moment, unless the individual has a good knowledge of the philosophy of mind.

It is almost superfluous to say that such an examination as we speak of, will be of the greatest use to one who is well read in the principles of Phrenology, but we intend our remarks more especially for those who have not studied the subject, and can not, therefore, know its virtues.

Although all knowledge is useful, unless it leads to evil, yet that knowledge is of pre-eminent utility which not only increases our mental possessions, but at the same time can be put into practice to augment our happiness, or abridge our discontent. We think this position will be accepted as self-evident, for the rational effect and end of knowledge seems to be to increase the happiness and usefulness of mankind. This is the knowledge which it is the glory of Phrenology to confer, for, like charity, "it blesses him that gives and him that takes."

The objector to a phrenological examination for his child, urges, as an objection, that if the child possesses natural tendencies to particular pursuits they are sure to make themselves prominent, and he concludes that an examination in this case would be of no possible use.

The objection, however, is only partially true; that is to say, if a child is endowed with some faculties predominantly active, they will be likely to manifest themselves, and even surmount great obstacles, but the majority of children are not born with genius thrust upon them, and it is to this class that our explanations here particularly apply. All children are more apt at some studies than at others, and most children can attain a proficiency in several subjects, and in these, if the faculties are exercised at school, they will display themselves.

But it must be remembered that there are many subjects which are never taught

at school, except in their rudiments, if at all. In all these cases an examination would reveal the fact as to how far a child would be capable of succeeding in pursuits that do not come into the ordinary curriculum of a school education. But even supposing the child to be led naturally to study at school those subjects for which it is best adapted, the intellect does not employ the whole of the brain, nor the principal part of it, but in this department the knowledge that certain powers were possessed, although the individual was conscious of his ability in these, yet a phrenological confirmation of their presence would be a very great support, and would inspire him with greater confidence. Besides, if the child or youth has an evenly-developed brain in the Intellectual region, the education he is then receiving may be only partially adapted to the circumstances in which he may be placed after leaving school, which in a great number of instances is discovered too late in life to be advantageous; whereas, a prior knowledge of his fitness or unfitness for certain pursuits would have enabled him to *choose* the circumstances best adapted to his capacities. This knowledge might thus be of inestimable value in the saving of time, means, and comfort, and often of reputation. So that a full phrenological examination would give definite information concerning the intellectual abilities, and what is of quite as much, or even more importance, it would also enlighten the individual, and his parents and teachers upon his moral, religious, and selfish feelings, capabilities, and idiosyncrasies; and teach him and them how to pursue the best methods for the reformation or correction of improper tendencies of the mind and character.

It can hardly be insisted upon too strenuously that childhood is the most appropriate time for the services of a practical phrenologist. Indeed the benefits that may accrue from his knowledge, imparted then, may be incalculable; whereas the later in life his services are secured the less may be their practical utility.

Concisely expressed, a phrenological examination (and we include in this the constitutional organization and its powers) would teach the youth in detail, and with great precision, his qualifications for the important duties of life, as an intellectual, social, religious, and physical being. And this knowledge will vastly supersede that possessed by a young person of himself, which at the best is fragmentary and partial, and very much of it is always erroneous; for all are blind to some of their own faults, and generally deaf to the monitions of particular virtuous emotions.

We shall now leave the period of school-days, and try to show the importance of a phrenological examination to those of maturer age.

Whoever has come in contact with many young people—young men especially—knows how often they are perplexed in selecting a profession, and how often after making their choice, and spending some time in it, they complain of their dislike, if not incapacity for it. Many mistakes are made in following a pursuit for life, because youths are frequently urged to it by the wish of their parents, and in numerous other cases the principal cause of selecting a pursuit, is the expectation of enormous gains, and the hope to amass wealth.

The application of a phrenological examination at this period of life would enable the individual to choose that profession for which he has been best adapted by his innate capabilities. The objector can not reasonably use the argument, as stated previously, that the natural capacities will be sufficient to direct the person into the proper sphere; for it is a notorious fact that in multitudes of cases, interest, inclinations, and influence are a fertile source of almost irreparable mistakes.

At this important and critical period, the practical application of a phrenological analysis of the character can not be overestimated, for it would supply definite information for indefinite, and put into the hands of the individual a chart by which

he might avoid many serious errors, which, under other circumstances, would be inevitable, and, perhaps, amount to a total shipwreck.

Lastly, having endeavored, upon rational grounds, to show the importance and advisability of a phrenological examination to children, and youth, when such knowledge of themselves is calculated to be of inestimable value, we shall conclude in more general terms, indicating the applicability of such a knowledge to every period of life.

We must candidly confess to the inherent difficulty of proving our position, owing to the fact that the unprofessional reader is unacquainted with the language of Phrenology, and the subject itself. So that what is most obvious to one with a slight knowledge of the question, especially if possessed of a delineation of his own faculties, becomes, under the circumstances indicated, a reversed picture. If it would strengthen the argument, testimony in volumes might be adduced in its behalf, but the fact is, no argument is so satisfactory as a thorough phrenological examination itself. I know many persons who have availed themselves of the skill of the practical phrenologist, and I never knew one who regretted it, but, on the contrary, they were not only delighted with the accuracy of his information, but were surprised at its comprehensiveness, as it made them intelligently realize many truths about themselves which, previously, were dark and perplexing.

In some respects the person possessing the mental portrait we speak of, is in a similar condition to that of a mariner, who has maps and charts of the course he intends to sail for a distant haven, and who possesses also a vast fund of information on navigation, astrology, and meteorology, by the aid of which, with a good ship and compass, and all the other necessary appliances, he is enabled to proceed with every reasonable assurance of safety; now avoiding adverse currents and treacherous reefs, and then proceeding cautiously in obscuring fogs and tempestuous weather—never neglecting the sun, the north

star, the sounding line, and the compass—and eventually reaching his destination. So likewise a phrenological examination will be found to be a map and chart of the individual, laid down upon the safest principles of projection, and dealing with the world of mind in both hemispheres. It really is a compass indicating in every position some quarter of the mental heavens, for it points to every degree of

the mind most minutely. It is not limited to any situation of life, but it embraces every faculty in the animal, moral, intellectual, and religious departments of the mind, and is the surest index we can possess to accomplish the purposes for which our natural endowments qualify us, as interpreters of, and co-operators with, the natural laws established by the Creator.
THOMAS TURNER.

INTERNATIONAL PRISON REFORM.

No. II.

Interesting correspondence between M. Charles Lucas, Member of the Institute of France, and Dr. E. C. Wines, Honorary President of the Prison Congress of Stockholm.

II. LETTER OF DR. WINES.

IRVINGTON-ON-HUDSON, N. Y.,
May 31, 1879. }

MY DEAR MR. CHARLES LUCAS:

A THOUSAND thanks for your kind and cordial letter of the 14th instant. Is it not curious that two persons, at the distance of three thousand miles apart, separated by the wide-rolling ocean, and without a word of consultation or even inter-communication, should propose, each to himself, a work, to a certain extent, of the same sort, and on the same general subject?

Well, I will answer my own question, and answer it in the negative: it is neither curious nor strange! There is a general progress of humanity, of such a character, and so potent in evoking thought and invention, that it is no longer a rare, but common fact, that different persons in the same and even in different countries, working quite independently of each other, discover the same things—the same secrets of nature, or the same truths in the realm of mind and morals. Who is ignorant of the controversy whether Newton or Leibnitz discovered the differential calculus? No doubt the discovery was made by both

those great men about the same time; it was a discovery born of the spirit and progress of the age.

We speak of men who advance their age, and impress their individual character on their generation. This is true in a certain sense and to a certain degree. Yet it is rather a popular than a scientific mode of speaking. The persons so described are but men, who have best comprehended and best expressed the dominant idea of their times. They have but brought to light and made manifest what their age carried in its bosom. They have concentrated, so to speak, in the burning-glass of their genius, some rays of truth which, previously dispersed through the world, had not yet been able to kindle it into a blaze. The whole world knows that Pascal discovered geometry as really as Euclid. True, these men were not contemporaries, and therefore the example is not exactly in point. But it is good to this extent: it shows that different minds, by their own independent action, may reach the same truths. So some of the most important principles of convict treatment have had discoverers in different countries and continents, working without knowledge of each other's labors. It would be easy to cite cases, but that would occupy both time and space unnecessarily, for examples will rise, unbidden, to every one familiar with the subject. In all antiquity I know of but one suggestion even looking toward the reformation of crim-

inals. It was from Plato, the thinker for all times; probably only a passing thought in his own great and noble intellect, without so much as stirring a ripple on the dead sea of human sympathy and effort in that direction. The world was not ripe for such an idea, and still less for the action required to give it effect. It was a proposition impossible to be realized, or even to be grasped, in the then condition of humanity.

Allow me to express to you the extreme gratification afforded by the assurance conveyed in your letter, that you propose an immediate revision, readjustment, and republication of your two great works, each in three volumes, published respectively in the years 1828 and 1836. It shows a wonderful courage on your part to begin such a labor on the verge, I think, of eighty, if indeed you have not already passed that limit. Fer-
 vently do I join my prayers to yours that it may please the good Lord to spare your life to complete this great undertaking. That the first of these works—*The Penitentiary System of Europe and America*—should need a reconstruction, after the lapse of fifty years, is by no means strange. But that the second—*The Theory of Imprisonment*—a work in the truest and highest sense monumental, should need material modifications, is, to my mind, not so clear. On the contrary, it seems to me that, since the appearance of this last-named work, France has not had, nor has it to-day, much to seek for in the way of light on the question of imprisonment.

In what you say of the comparative progress in penitentiary reform, both theoretical and practical, made severally by Europe and the United States, I am sorry to be compelled to agree with you. There is, unhappily for America, no question on this point. Yet I maintain stoutly, that there is no country in the world where prison reform *ought* to advance at a more rapid pace than in the United States, considering the nature of her institutions, the energy of her people, and the ready hospitality given by her to all

useful innovations—such, I mean, as may really claim the character of reforms. Why, then, has she been outstripped in this race by the Eastern world, which is so much less pliant and receptive, so much more wedded to the old and the traditional? The solution is not far to seek. The most formidable obstacle to prison reform in this country is one quite unknown to the experience of Europe: I refer to that pestilent political influence which dominates the penitentiary administration of all, or nearly all, the States of the Union. From this come incessant changes in the *personnel* of the prison, and thence an instability and fickleness of convict treatment, which is fatal to progress, and makes real and, above all, permanent penitentiary reform well-nigh an impossibility. But there is, on this point, in almost all the States, a healthy, though gradual, and therefore safer growth of public opinion in the right direction; a fact which is made abundantly evident in my chapters on the individual States of the American Union. Pennsylvania has never been much troubled with politics as a controlling power in her prisons. New York has of late made a notable advance in this regard. So have a few other States in a less degree. But California, that sits like a queen on the shores of the Pacific, has, herein, taken the lead of all her sister States. She has inserted an article in her newly-framed constitution which removes her prison administration from the political arena, and makes it permanent in the hands of competent officials. The tenure of office is during good behavior; that is, practically, for life. When this malign influence shall have been eliminated in all the States, as it ultimately will be by the force of public opinion, prison reform will, I am sure, advance in America with a rapidity and solidity thus far unknown in any other part of the world.

I was about to dissent from the next proposition in your letter, to the effect that *the sole theory of imprisonment is that issued by you in France, in 1836.* I

was going to contest that claim, by recalling the *Code of Prison Discipline and Reform*, with its explanatory introduction, published some ten years before yours by my countryman, Edward Livingston. But, on a closer inspection of your manuscript, I saw that the remark applied only to Europe, and that America was not comprehended by it. Nevertheless, since Mr. Livingston's name has thus been incidentally brought up, allow me a word or two on that eminent man and his immortal work. You, my dear sir, of all men, would be the last to detract from the supremacy of Livingston's genius or writings; for have you not embalmed both in your incomparable preface to the edition of his works, published in Paris in 1872? A half century ago, as you may remember, it was quite the fashion in Europe to decry America as in a condition of rapid intellectual decadence; a feeling that was crystallized in the stereotyped interrogatory which became a proverb in England, "Who reads an American book?" When that feeling was at its height, a European friend of this country, on hearing America reproached with this mental deterioration, defended her by pointing to two then recent issues from the American press—the work of Livingston on prison reform, and the proclamation of General Jackson, then President of the Union, on South Carolina's nullification of the national laws—not knowing that both were emanations from the same pen, propelled by the genius of the great American jurist and codifier! Your theory of imprisonment is broader and has more of a practical character than Livingston's code of prison discipline and reform: for Livingston was purely a thinker; you are a doer, as well as thinker. Livingston was a man of ideas; you are a man of action, as well as thought. Livingston theorized; your rôle has been to apply, at the same time that you made theories. Still, Livingston's system, with some omissions, was substantially complete; and it was the first complete system of prison discipline ever

formulated. What he himself says of it is as true as it is beautiful: "The recapitulation of the several institutions embraced by the code of reform and prison discipline," he says, "has been made to show their close connection, and that each part is necessary to carry into effect the great object of the system, that an omission of any one would, in a great measure, defeat the good effect that might be expected from the others. If we mean to guard the community from the inroads of crime, every avenue must be defended. A besieged city, fortified on one side, leaving the others open to hostile attacks, would be a just image of a country in which laws are made to eradicate offenses by punishments only, while they invite them by neglect of education, by toleration of mendicity, idleness, vagrancy, and the corrupting associations of the accused before trial, as well as after conviction. Yet such is the lamentable state of criminal jurisprudence, that all nations are more or less in this state. Here great severity is used to punish offenses, but no means are provided to prevent them; their mild punishments and a reformatory discipline are applied after judgment; but severe imprisonment and contaminating associations are indiscriminately inflicted on the innocent and the guilty before trial. Between some States the contest seems to be, which shall raise the greatest revenue from the labor of the convicts; in others, the object is to degrade and make them feel their misery. Nowhere has a system been established consisting of a connected series of institutions, founded on the same principles and directed to the same end; nowhere is criminal jurisprudence treated as a science. What goes by that name consists of a collection of dissimilar, unconnected, sometimes conflicting expedients to punish different offenses as they happen to prevail; of experiments, directed by no principle, to try the effect of different penalties; of permanent laws to repress temporary evils; of discretionary power, sometimes with the blindest

confidence vested in the judge and at others with the most criminal negligence given to an officer of executive justice. All these and other incongruities would cease, were the lawgiver to form correct principles; announce them for his own guidance and that of his successors; and, with them constantly before his eyes, arrange his system of criminal jurisprudence into its natural divisions, by providing for the poor, employing the idle, educating the ignorant, defining offenses and designating their punishment, regulating the mode of procedure for preventing crimes, and prosecuting offenders, and giving precise rules for the government and discipline of prisoners." The aim of all this would be, that instruction might be promoted; idleness prevented; vice repressed; vagrancy abated; crimes diminished; and the sum of human happiness increased.

The fame of Edward Livingston is cherished by America as one of her richest treasures, her most precious jewels. She feels that penitentiary science owes an inextinguishable debt of gratitude to this great expounder, discoverer he might almost be called, of the humane principles which have since been everywhere accepted as their true and best guide by reformers of criminal jurisprudence and prison administration. Mr. Livingston, by his genius and moral elevation, anticipated by half a century the ideas which are now beginning, thanks largely to your own wise and persistent labors, to assert their force with some degree of energy, in a practical application to prison organization and prison discipline. The work of this great American is a monument of broad learning, profound thinking, lofty sentiment, and practical wisdom; an honor to the country of which he was so distinguished a citizen, and to humanity itself, to which he furnished so noble an example.

In his historical notice, prefixed to the French edition of Livingston's work, M. Mignet has referred to the destruction by fire of the original manuscript. His statement is in part defective and in part

erroneous. Even the account of this calamity by Mr. Hunt, the American biographer of Livingston, is meagre and without details. I venture, therefore, to give you the recital, as I received it from the lips of the late Mrs. Barton, daughter of the illustrious jurist. Mr. Livingston, with his wife and his daughter, then just approaching womanhood, were guests at the Astor House, New York. He had worked late that night, giving the last touches to his book. Having completed this task, he returned, after midnight, to the apartments of his wife and daughter, and announced that all was done, and the manuscript would be placed in the hands of the printer early on the morrow. All hearts were filled with gladness, and warm congratulations were interchanged. They retired, but had scarcely fallen asleep, when they were aroused by the cry of fire in the corridors of the hotel. Remarking that he feared that his manuscript might be burned up, Mr. Livingston hastened to the room where he had left the work (original draft and engrossed copy), only to find that all had been consumed by the flames, to the last word and letter. He returned to wife and daughter with the sad tale. Both ladies were filled with anguish, and wept bitterly. Mr. Livingston embraced them tenderly, soothing their grief and drying their tears with the remark, made in all the brightness and gentleness of his nature, "You will see it rise again, like the phoenix from her ashes." The next morning he arose quietly at an early hour, went to a stationer's shop, purchased the necessary materials, and set himself to the task of reproducing, "with improvements," his burnt essay. When Mrs. Livingston and daughter arose, he had already made a fair start in the work. He justified to them this early beginning by saying that if he postponed a commencement, he feared that he would never have the courage to begin at all. Well does M. Mignet remark on this wonderful display of energy. Faint hearts regret; strong wills rebuild." [*Les ames faibles regrettent, les volontés vigoureuses réparent*].

As regards precedence among European nations touching the matter of theories of imprisonment, I will not enter the lists. Belgium seems to have yielded the point at the mouth of her representative man, by the extract which you offer from the speech of M. Stevens at the meeting of the 5th June, 1878, of the general prison society of France; a speech which, as you notice, I had myself the pleasure to hear. I do not know what response Sweden might put in on behalf of her royal philosopher and prison reformer, King Oscar I. England would, perhaps, have something to say on the Maconochie-Crofton plan, by way of protest and counter-claim. But I will leave those countries to speak for themselves. At all events, when you read the historical introduction prefixed to my "State of Prisons," I think you will admit that I have done justice to France as respects her studies and her efforts in this field of social science and reform.

I am in entire accord with you in what you say of those excessive agglomerations of convicts, which are the disgrace and the bane of so many prisons in so many lands. This abuse is kept up on the plea of economy. When will nations learn that there are economies which are immensely costly; nay, more, and worse, economies which cost souls as well as money? But this abuse will come to an end—must come to an end—or the work of prison reform will never be completed. Five hundred in one prison is the highest maximum that can be tolerated; and three hundred would be better.

Your speech, pronounced at the organization of the National Prison Society of France, as the veteran in this work, and that of Mr. Dufaure, as president of the society of the first stated meeting, I had already read before you called my attention to them—read them more than once—with equal interest, instruction, and delight. They are incisive, eloquent, and ringing, in the highest degree. Of M. Dufaure's, as of all his oratorical efforts, it may be said that it is so exact in expression, and so perfect in construction,

that if there had been one word more, it would have been too much; if one word less, too little.

What you say of the ill effect that would ensue, if public opinion should come to look upon us as *competitors*, rivals, in the two works which we have severally in hand, is no doubt just and true. But since we are *not* competitors and only earnest and loving co-workers in the same great cause, I do not believe there is danger that public opinion will make that mistake.

You have with perfect exactness stated our relative position as authors, in these essays, by saying that we have "identity of aim, without identity of plan." My work will be essentially descriptive, and only incidentally and to a very limited degree, historical, except so far as the introduction is concerned. Yours will be essentially historical, and your descriptions will come in only as incidental to the history. Mine will be a study of the present; yours a study of the past, with occasional incursions, so to speak, into each other's domain.

Yours, with sincerest respect and friendship,
E. C. WINES.

ACCORDING to Sir William Gull, Queen Victoria's physician, and of course eminent in his profession, it is better, in case of fatigue from overwork, to eat raisins than resort to alcohol. In his testimony before the Lord's Commission in London, a few months ago, he affirmed "that instead of flying to alcohol, as many people do when exhausted, they might very well drink water, or they might very well take food; and they would be very much better without the alcohol." He added, as to the form of food he himself resorts to, "in case of fatigue from overwork, I would say that if I am thus fatigued, my food is very simple; *I eat the raisins instead of taking the wine*. For thirty years I have had large experience in this practice. I have recommended it to my personal friends. It is a limited experience, but I believe it is very good and true experience." This is valuable testimony, we know of none better from medical source, and we commend it to the thoughtful consideration of all those who are in the habit of resorting to "a little wine for thy stomach's sake, and thine often infirmities."

THE UTILITY OF PHRENOLOGY.

[AN oration delivered at the annual entertainment of the Ciceronian Literary Society, of Denison University, Granville, Ohio, March 21, 1879, by L. D. ROGERS.]

AS we look around us what a variety of mental manifestations we behold ! In one the love of glory is the dominant feeling ; another is deaf to the voice of censure, and callous to applause. The soul of one melts with softest pity at a tale of woe ; while the eye of another never sheds a sympathetic tear. One spends his life in the eager pursuit of wealth, which he stops not to enjoy ; while another scatters in wasteful prodigality the substance of his sires, and perishes in want from a mere incapacity to retain. One vast intellect like Newton's, fathoms the profundities of science ; while the mind of another can scarcely grope its way through the daily occurrences of life. The towering imagination of a Shakespeare or a Milton soars beyond the boundaries of sublunary space ; while the sterile fancy of a clown sees no beauty in the heavens, and loveliness on the earth. The mind of one, the embodiment of Christian virtues, rises into the ethereal realms of the pure, the good, and the true ; while that of another, the very opposite, descends into the debasing channels of vice, wickedness, and crime.

In view of these and many other peculiarities of mind and heart, some interesting and important questions arise. What is the source of this wide diversity of mental characteristics ? is a question of deep interest to the scientist, as well as the Christian philanthropist. No great part of this diversity can be attributed to education and external influences alone. For education, under the most trying circumstances, could never transform a mediocre into a Newton, a Franklin, or an Edison ; and all the religious influence in Christendom could never make a Nero, a Bunyan, or a Howard. This diversity is of profounder origin, and, until that origin is fully determined and gener-

ally understood, the influence of education and religion must be limited, and all efforts of humanity to rise to a higher moral and intellectual plane must be for the most part unsuccessful.

To know the moral and intellectual peculiarities and tendencies of persons before becoming the victim of their passions and incapacity, must be inestimable knowledge to every intelligent being.

How much value is it to you, business man, to know whom to trust, and whom not to trust ? How much does it add to your success, physician, to always know the mental peculiarities of your patients ? How much more easily can you carry your point, lawyer, if you know just what to appeal to in each juror to win him to your side of the case ? How much, minister of the Gospel, does it augment your power, and extend your influence for good, to know the most accessible avenues to the hearts of your hearers ? How much happiness would it be to you, fond parent, to know the peculiarities and special tendencies of the mind of your darling offspring, that you might be able to check the evil tendencies, and cherish the good before they become permanent and fixed in their natures ? How much, educator, would it add to your power to instruct, to know the moral and mental peculiarities of your pupils ? How much importance is it to you, young lady, to know the disposition of him who seeks your heart and hand ? How much will it affect your success, young man, just entering upon the active duties of life, to see yourself as others see you ; to know your strong points and your weak ones ; to know in what pursuits you will succeed, and in what others you will fail ?

No one will deny that such knowledge is essential to the successful leader of men in any sphere of life, and that it is of the highest importance alike to the business man, the physician, the lawyer, the clergyman, and the educator.

The next question that naturally arises is, where can such knowledge be found ?

Search the curriculum of every institution of learning throughout the land, from the lowest grade to the highest, and you find it not. Scan the field of ancient and modern philosophy. Search the philosophies of Locke and of Hume, of Reid, of Stewart, of Brown, and of a host of others, and you search in vain. Read the pages of Shakespeare, of Addison, of Scott, and of Dickens; you may, indeed, find there the lineaments of mind traced with perfect tact and exhibited with matchless beauty and effect. You may, also, find correct and striking pictures of good men, and of bad men, but they do not enable us to discover, previously to experience, whether any particular individual belongs to the one class or the other—a matter of extreme importance—because, in the course of gaining experience, we encounter the risk of suffering the greatest calamities. In short, poets and novelists describe men as they do the weather. In their pages they make the storm rage with terrific energy, or the sun shine with the softest radiance. But they do not enable us to discover whether to-morrow the elements will war, or the zephyrs play. And, without this power, we can not put to sea with the certainty of favoring gales, or remain in port without the risk of losing winds that would have wafted us to the wished-for shore.

There is, however, one system of mental philosophy which claims to furnish this most desirable knowledge, one which has been almost universally misinterpreted, and likewise almost universally ridiculed—that one founded by Dr. Gall, known as Phrenology.

But the criterion by which to judge of the merits of any system of philosophy is not its popularity or unpopularity. This is evident in the history of every great discovery. The earth revolved upon its axis as surely in the days of Galileo as it does now, but for advocating such a theory Galileo was charged with promulgating heretical and unphilosophical ideas, and was condemned by a council of cardinals. The only way, therefore, to arrive at a correct view of

any system of philosophy, is carefully to ascertain its claims, and impartially compare them in the light of admitted truths, regardless of popular opinion.

Phrenology is a system of mental philosophy founded upon the structure of the brain. It claims to unfold the relations of the mind to its physical instrumentalities; to reveal the disposition of natural talents, and special tendencies of mind from the form, quality, and size of the brain.

The metaphysicians have rejected Phrenology upon the erroneous ground that it materializes mind; while, on the other hand, the physiologists have not accepted it because they are unable, with their present knowledge of the functions of the brain, to prove or disprove it, absolutely, from a purely physiological stand-point.

But another decade, however, fraught with as many discoveries in mental physiology as the one just past; a few more experiments of the electric excitability of the brain; and a few more discoveries like that of aphasia, must compel the most obstinate opponents to accept it, as a true and established science.

But let it be remembered that Phrenology does not owe its origin to physiology, but was discovered by the observation of the correspondence of certain developments of the brain with certain mental manifestations. By this method of observation and deduction, the sciences of botany, of chemistry, of geology, and of astronomy have been evolved. "Phrenology, then," as Silliman says, "stands exactly like the other sciences of observation, upon the bases of phenomena, and their observed correspondence with a theory which is deduced from them."

If, therefore, Phrenology be true, as we think we have good reasons to believe it to be, it must, eventually, take its rank as the science of sciences, and the philosophy of philosophies — as a science which, not only, furnishes the correct physiology of the brain, but embraces the entire ground of mental and moral

philosophy, and forms the basis of education, legislation, and jurisprudence—a science pregnant with more important influences than all the revelations of Galileo, Harvey, or Newton; unfolding as it does the secret springs of thought and revealing man's mixed moral and intellectual nature, enabling us, as it were, to throw our own and external nature into one mighty syllogism, and educe human duty, human rights, and human destiny.

If Phrenology be true, then justly does the eighth edition of the *Encyclopædia Britannica* state that to it must be conceded the grand merit of having enforced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundation of a true mental science; and correct, then, were the views of Horace Mann, when he said that he looked upon Phrenology as the guide to philosophy and the handmaid to Christianity.

GERMAN TYPE OF HEAD.

IT is a principle in Phrenology that the size of the head, other conditions being equal, is a measure of mental power. And it is also a principle that the size of different parts of the brain indicate the strength of certain characteristics of the mind. The German type of head is round, showing a large amount of brain in the basilar region, and middle section of the head, above and about the ears. This form is noticeable from Luther down to Bismarck. And when this form of head is combined with strong intellectual faculties, it gives indomitable power over the empire of mind, and the ability to conquer opposition, and sway the destiny of nations. Especially does this form of head give precedence to the possessor when contending forces meet on the field of battle; and England to-day looks with well-guarded suspicion, if not with fear, upon the military power of Germany. This form of head also leads to a love of witnessing deeds of violence, and when unduly excited, gives an inclination to destroy life. Dr. Gall mentions the case of a clergyman, a native and resident of Germany, who was so fond of public executions, that he on one occasion walked twenty-five miles to see a man hanged.

The round head gives great breadth between the ears, indicating a large development of the organ of Destructiveness; and when this faculty is unduly excited, or morbidly active, it leads to murder and suicide. Two cases of this

kind have occurred in the county of Hampden, State of Massachusetts. The first one occurred in Westfield, in December, 1857, when a German, named Stoub, killed his wife and two children by cutting their throats, and then committed suicide by drowning. This occurred in the hard times of that period, and Stoub was out of employment, being a cigar-maker, and fearing poverty, committed the crimes of murder and suicide; caused, doubtless, by a diseased state of Destructiveness, producing partial insanity. Another case, of recent occurrence, is that of Kemmler, who killed his two children in Holyoke, delivered himself up to the authorities, and is now in the Springfield jail, awaiting his trial for murder. We have examined the heads of these murderers, and both indicated a large development of Destructiveness. Both, we think, were partially insane, and having this form of head, their impulse led them to commit the tragical deeds above alluded to.

P. L. BUELL.

THE PRICE OF BRAINS.—Judge Comstock, of Syracuse, who was counsel in the famous Vanderbilt will case, charged \$50,000 for his services, and Mr. William H. Vanderbilt promptly sent a check for that amount. Henry L. Clinton, who was attorney in the case, sent in his bill for \$250,000, and Mr. Vanderbilt declined to pay such an extravagant amount.

BREAKING A CHILD'S WILL.

"I HEARD much in my childhood about the importance of 'breaking a child's will.' The human will was regarded as something essentially bad in itself, and therefore to be broken down and subdued, as a colt is broken to the harness, before the work of culture and of building up by education could fairly be commenced. This, also, is the view and practice of many teachers. They enter the school-room rod in hand, and break down the obstinate will before commencing to educate. As a teacher myself I acted upon this theory for many years, but gradually discovered that the rod was not the most efficient agent in school government. The most forcible suggestion I ever received upon this subject, however, was from a father who remarked, concerning the training of his son, that his first care was to cultivate and maintain in the boy *a strong will*. Knowing the boy as I did, I felt an interest in watching his future development under such a theory. He had inherited a very strong will, which he sometimes manifested in a disagreeable way; but the father, while governing him sternly in matters of great importance, was careful to do it in such a manner as to strengthen rather than crush out his obstinate temper. At the same time his physical health received the greatest attention. He was educated at home in order that there might be time enough for recreation, and the whole summer was spent at the sea-side or in the country. There was thus produced one of the strongest, ruddiest, most enterprising, and most obstinate boys ever raised in a great city. Finally, at the age of thirteen, this little Hercules was sent for the first time to school—to a public school, where there was no favoritism or indulgence of childish obstinacy. I watched the result with interest. Such a boy would not cease to be obstinate; but to what good or bad use would his obstinacy be turned? Would he prove the leader in mischief, or in scholarship, for a leader of some sort he must be.

Proud, ambitious, plucky, and obstinate, what would he be or do in the school-room? I can answer this question. He threw himself into the work with all the energy and obstinacy that had characterized him in his sports, and took and maintained the front rank in a class of fifty, passing at each examination to a higher grade. His unconquered nature could not submit to take a second rank, and so he bravely stepped to the front and maintained himself there, and this not only in scholarship, but in deportment. He was never tardy, never absent, and always at or near the head of every class. This is but a single example, it is true, and from it no general conclusion can be drawn; but it has served to strengthen my own faith in the sterner elements of human nature, and to make me respect even the obstinacy of undeveloped childhood. It is not badness, it is the *iron* in the blood that is needed to give consistency and durability to the whole constitution. Alas, for that nature from which the iron has been eliminated! Let us have rather the obstinate will, the ambitious spirit, the soldier fit for battle."—*Herald of Health*.

The foregoing is full of good sense, judged according to the usual idea of the *will*. "Breaking the will" is really breaking down the child's self-hood, his resolution, courage, dignity, and making of him a craven. Sometimes the attempt to break the will in boy or horse, produces not a yielding, graceful surrender, but a hard, dogged, reckless obstinacy.

In fact, the will of man or child grows out of intelligence or choice. A strong will comes from the decisions of a clear knowledge and judgment, backed up by courage, stability, and dignity.

What headstrong children or horses need, is instruction and guidance, with proper liberty to go ahead in right directions, and in the right way. We put a halter on a young, sucking colt, and hitch him to the harness so that he can trot by the side of his mother at her work on road

or field, and reach the source of sustenance, but not with a halter so long that he can run under her neck. This trains him to obey the action of the halter in checking him, if he attempts to leave the mother, which, of course, in general he does not wish to do. If he wants to go too fast he is checked, if he inclines to lag he is pulled along. He is with his mother, precisely where he wants to be, and is only restrained when he undertakes, by fright or carelessness or tardiness, to stray. Shortly he becomes so accustomed to the government of the halter, he starts and stops, he turns this way and that, and yields to the gentlest

constraint and restraint, until it is as natural to obey the dictates of the halter, as it is to follow his mother from choice. Then he is said to be "halter broken." He can be led anywhere, and he learns to obey the rein before he is really harnessed. Afterward part of the harness is applied, then more of it, and finally the whole of it. He learns to pull and be driven in concert with a mate that knows how to obey and to draw, and who is able to draw the whole load; and thus the colt is broken to work without having had his will broken—he has had it instructed, guided, trained, but not broken.

EDIN FAXON.

APPLICATION OF PHRENOLOGY.

ALL things at first are a theory. It was so with the Jewish and Christian religions. At length the Jews were taught to embody in their faith and practice certain injunctions and precepts. In the beginning it was only required that an individual believe that Jesus was the Saviour. Ere long, believers were shown the manner of life to be expected, to organize into societies, and maintain definite and characteristic relations with the outside world.

Democracy was once only a conception, next an agitation, now a United States Government. First the thought of a sewing-machine; now they are going into the habitations of the civilized world. After getting the true theory of heavenly bodies, we can have instruments and tables constructed and improved by which to guide the ships on all seas.

Now it is time to systematically put the great, central, far-reaching science of Phrenology into universal practice. It has had its discovery, existed as a speculation, a wonder, a diversion, a source of secret inspiration, a theme for lectures, a name and matter for books and periodicals, and it is high time that denominations and parties and general society adopted and used it. What sect shall first say, We will ordain no man whose temperament, brain, physiognomy, and entire list of traits do not mark

him a minister? That first, the usual preliminaries of ordination next. What town, city, or county shall be "No. 1" in ordaining a marriage commission, to consist of experts of both sexes, whose permission must be secured and full indorsement before a legal marriage can be celebrated? Oh, the unspeakable good of such a commission!

I want to read of a bank whose directors will not elect any officer, especially a cashier, who has not procured from Nelson Sizer, or a graduate of the American Institute of Phrenology, a certificate that he is naturally competent for the office, and incorruptible.

Let parties be expected to placard the phrenology of the candidates. "Your phrenology" should be the beginning of the examination of a teacher. We *must* come to this. We have already delayed too long. No more giggling, caricature, sneering, or skepticism.

All who care for Church or State must combine to encourage the study of physiology, biology, psychology, and phrenology—everything that can reveal character—and soberly, sternly, and thoroughly apply. The approbation of the Most High will smile upon such concerted movement, and the terribly angry clouds now frowning so fearfully will disappear.

PRACTICABILITY.

BRAIN AND MIND.

CHAPTER XVI.—*Continued.*

THE PHYSIOLOGISTS AND THE CEREBELLUM.

PROBABLY no point in the system of Phrenology has been more opposed and berated than that with reference to the location of the sexual principle in the cerebellum. Physiologists speak of it as a "center presiding over equilibration and general muscular co-ordination," and, at the same time, their experiments on living animals exhibit phenomena of a most confusing and contradictory nature. From Flourens' early experiments to those of the latest investigators, the results which have been published well sustain the statement by Dr. Flint in one place, that "There are still the widest differences of opinion among physiologists with regard to the functions of *the cerebellum*."* Although, in another place on the same page, he uses language like this: "There is now no difference of opinion among physiologists with regard to the general properties of the cerebellum." An examination of authors such as Hitzig, Foster, Ferrier, Budge, Schiff, Pinel, Dalton, Carpenter, and others of reputation, with the view to obtaining some definite conclusions on the special office of the cerebellum, has resulted in complete failure. We have found variations and inconsistencies of statement in the same volume, and emphatic expressions of disagreement of one author with another. The fact appears to be, in brief, that many results of the electrical excitation of the cerebellar lobes simulate results which follow such excitation when applied to different parts of the cerebrum, and of the upper extremity of the spinal cord. Dr. Dalton

summarizes his views in a fashion which tallies with this opinion:

"Everything which we know with certainty, therefore, in regard to the cerebellum indicates its close connection with the power of co-ordination over the movements of the body and limbs. It can not be regarded as exclusively presiding over this function; since there is strong evidence that the posterior columns of the spinal cord are in great measure devoted to the same purpose, and their morbid alteration necessarily induces in man the disease known as locomotor ataxia. . . . The spinal cord itself is, of course, essential to the co-ordinated motions of the body, arms, and legs, since its posterior columns are for them the direct agents of control and communication, but the cerebellum may also be regarded as a focus or nervous center of reflex action over all the more vigorous and complicated movements of the trunk and limbs."*

But could it be ascertained by the mechanical processes of experiment that the cerebellum is a specific center for certain physical movements, such a fact would not invalidate the claim of the phrenologist with respect to the location of Amativeness, or the sexual instinct in the cerebellum, for the simple reason that just as mental impulse and physical action are inseparably interblended in human life, so the nervous centers and processes which belong to each are associated in the encephalon. Parts which co-ordinate in the production of external manifestations are inti-

* Text-book of Human Physiology. By Austin Flint, Jr., M.D. Page 708.

* "Human Physiology." By J. C. Dalton, M.D. Page 499.

mately associated in physical structure. This is a law of nature, and the discoveries which have been made, with the assistance of the electrode, by Hitzig, Ferrier, and the other experimenters, so far as they go, are in accordance with it.

From observations of his own, made on a very large number of animals, Prof. J. Vimont, of Paris, derived the following: "In all the animals which multiply rapidly, and which propagate several times a year, the cerebellum is, in general, very largely developed. . . . It may also be asserted that in the *Rodentia*, which is precisely that class of animals that multiplies most rapidly, the cerebellum is found largely developed, regard being always had to the size of the brain."

"The carnivorous animals which present a great development of the cerebellum, such as dogs and cats, are very ardent in love. Among more than two hundred skulls of cats in my collection I have examined the brains of upward of thirty, and I have constantly found, in all the very ardent females, a voluminous cerebellum."*

The eminent physiologist, F. J. V. Broussais, a member of the Institute of France, in discussing the cerebellum and its functions, before his classes in the University of Paris, emphasizes his opinion in the following language: "These observations of Dr. Gall have been subsequently confirmed by all inquirers who have studied the subject with due attention, and especially with impartiality; and phrenologists possess considerable collections of skulls and casts which support them. The evidence is thus conclusive that the generative function is ascribed to the cerebellum, but without being able to affirm

that it executes no other functions. Nevertheless, some individuals who are opposed to Phrenology, maintain that the generative propensity has been observed very powerful in persons who had scarcely any cerebellum, or whose cerebellum had been destroyed, or in whom only the rudiments of it existed. I do not know to what extent such alleged facts merit our confidence. For my own part I declare that they will inspire me with none until they shall have been verified by phrenologists. It is necessary to be on one's guard against facts which are attested only by the adversaries of a science; because it is well known to what extent the spirit of speculation may lead to falsehood in assertion. We exhibit collections of positive facts; and we daily repeat our observations. If some exceptions exist, we do not deny them, but set them down as points to be explained. It is not sufficient to show us merely single cases. Our opponents must make collections in contradiction to ours, and the histories of the individuals must be completely authentic. This has not been done; and we are justified in doubting the truth of these assertions. I defy those who advance them to produce proofs—I shall not say *superior* to those which we exhibit, but at all events *equal* to them. For my own part, whenever, since I knew the system of Gall, I have been consulted by individuals who complained of the inactivity or infidelity of the generative organs, I have always directed my attention to the cerebellum, and I have always found it very depressed. When children have been presented to me who, before the age of puberty, have manifested an extraordinary propensity toward the sexual act, and who had divined the process supplementary to it, I have always found the cerebellum

* "Traité de Phrenologie Humaine et Comparée." Vol. II. Edition 1835.

very largely developed. This has never failed. I defy the opponents to produce pathological facts which can be weighed in the balance against those which I possess of this description."*

Prof. Broussais's reasoning is pertinent to much of the criticism which opponents at the present day are given to indulging in. Indeed, with authorities like Vimont, Elliotson, Caldwell, and Broussais at command, the science of Phrenology has that (objective and subjective) support which should elicit the sober consideration of the learned of the present day, and compel the silence at least of superficial dilettantism.

But there are physiologists not committed to the side of Phrenology who incline to the belief that both the center of the sexual instinct and that of muscular co-ordination may lie in the cerebellum. Among these is M. Serres, contemporary with Mr. Combe, who was of opinion that the median lobe may preside over the generative instinct, and the lateral lobes over muscular co-ordination. Another is Dr. W. B. Carpenter, who has been conspicuous in his antipathy to the doctrines of Gall and Spurzheim, yet "is far from denying *in toto* that any peculiar connection exists between the cerebellum and the genital system," certain facts having come under his personal observation which force him to that avowal.†

Dr. J. C. Dalton thinks that a certain part of the interior median region of the cerebellum may be related to the sexual property; his reviewal of the phenomena of pathology, and the data of vivisection, leading to such an inference.

* "Cours de Phrenologie." Page 167, etc.

† "Principles of Human Physiology." Smith's Edition. Page 521.

SOME GENERAL OBJECTIONS CONSIDERED.

Perhaps it would appear to the learned reader somewhat evasive were we to pass over the last-named author without an allusion, more or less particular, to the broad criticism of phrenological doctrine, which appears in his "Treatise on Human Physiology." Dr. Dalton has evidently been at some pains in writing out his views, as they cover about two pages, and are concluded thus:

"While Phrenology, therefore, is partially founded on acknowledged physiological facts, there are essential deficiencies in its scientific basis, as well as insurmountable difficulties in the way of its practical application."

Now, Dr. Dalton has not, so far as we can learn from his published statements, attempted to reduce the data of Phrenology to practice, and therefore has no apparent experience with regard to the "difficulties" in its application, and we can not but regard his assertion with respect to their "insurmountable" character as entirely gratuitous. What he offers in the way of special objections indicate a practical ignorance of the uses which phrenological science subserves. These objections may be summed up thus:

1. More observations, more data are required to establish the science than Gall or Spurzheim could have made or acquired in a lifetime.

2. The gray matter of the brain has no anatomical divisions or limits, corresponding to the supposed phrenological organs.

3. The convolutions of the gray matter of the brain penetrate deeply into the central portions of the brain, and can not, therefore, be measured by external manipulations.

The learned and well-known medi-

cist, Dr. Russell T. Trall, a few years ago reviewed Dr. Dalton's objections, and exhibited, in a clear light, their futility. And we can scarcely do better than to use his own words on these and other points of importance. Dr. Trall very aptly says: "If Prof. Dalton wants to read the historical data (of Phrenology) for himself, he has only to look through Dunglison's 'Physiology,' a contemporary work, in which he will find ample evidence that the needed observations have been accumulating for more than two thousand years. For conclusive evidence that different portions of the brain exercise different functions, I will refer Prof. Dalton to his own book. On page 426 is a cut representing two Aztec children, a boy and a girl, aged respectively five and seven years. Their foreheads are so low and sloping that any phrenologist would, at the first glance, pronounce them idiotic in the reflective intellect—reasoning powers—while the perceptive range is quite prominent. Now, mark what the professor says of these children: 'The habits of these children, so far as regards feeding and taking care of themselves, were those of children of two or three years of age; they were incapable of learning to talk, and could only repeat a few isolated words. Notwithstanding, however, the extremely limited range of their intellectual powers, these children were remarkably vivacious and excitable. While awake they were in almost constant motion, and any new object or toy presented to them immediately attracted their attention, and evidently awakened their lively curiosity. They were accordingly easily influenced by proper management, and understood readily the meaning of those who addressed them, so far as that meaning could be conveyed by gesticulations and the tones of the

voice. Their expression and general appearance, though decidedly idiotic, were not at all disagreeable or repulsive; and they were much less troublesome to the persons who had them in charge than is often the case with idiots possessing a much larger cerebral development.'

"Idiots may possess a larger cerebral development, that is, a larger mass of brain, and yet have smaller intellectual organs than the Aztec children; they would be more idiotic intellectually, and less idiotic affectionally. They might have normal feelings, emotions, sentiments, and passions; yet not intellect to guide and direct them, their manifestations would necessarily be to a great extent abnormal and erratic. Dogs, cats, sheep, horses, cattle, monkeys, elephants, whose reflective organs are small or merely rudimental, answer precisely to Prof. Dalton's description of the Aztec children. They have a comparatively large development of the merely observing portions of the brain, but are idiotic (compared with men) in the reasoning powers.

"The Aztec children were fairly developed in the perceptive intellect; hence their vivacity and curiosity. And now, when Prof. Dalton will find any person whose head is very small in the region where phrenologists locate Causality and Comparison (no matter how much brain he may have elsewhere), and who is a good reasoner, then he has one fixed fact to urge against Phrenology. If he had found the Aztec children capable of reasoning, destitute of vivacity, and the disposition to notice things, he would then have had a fact against Phrenology; but as the case stands, all his facts are, 'on the contrary, quite the reverse.' " *

* "Annual of Phrenology and Physiognomy." for 1873.

As for the second objection, it entirely falls to the ground, in the light of recent investigations of brain functions through the instrumentality of galvanism. Simply accepting the claims of the experimenters themselves is sufficient; the physiologists offer to the scientific world, as has been already stated, tabulated results, with diagrams of the brute and human encephalon, in which many points or places in the brain substance are specified as having direct relation to certain muscular phenomena. In other words, they have found special centers of mechanical impulse; yet they can not indicate any lines of separation in the anatomical structure. Dr. Trall said, on this point: "The brain, as an organ of mind, is a unit. The brain, as related to different objects and diverse functions, is a plurality of organs. The ganglia of the nerves are appropriated to various organs of different functions, or serve as reservoirs and distributors of nervous energy. The vital organs are not intimately associated in functional action as are the mental. The nervous ganglia may be compared with ten thousand electro-magnetic batteries, scattered all over the world, each managing the telegraphic wires in its own vicinity. The brain may be likened to a telegraphic headquarters, or general office, where the ten thousand batteries report and concentrate; and the brain organs to the persons or officers who manage the general office. It is no objection to this theory that we can not see the functional divisions of the brain anatomically. The anatomy is too fine for our vision, as is the constitution of protoplasm, or the structure of the primordial cell, or the shape of the ultimate atom of matter." . . .

"The skin is a unit—a homogeneous structure; as a whole it is the organ of

touch. There are no anatomical limitations or divisions anywhere to be found, yet its feeling or sensibility is very different in different parts, both in degree and kind. The sensibility of the scalp is very different from that of the soles of the feet; and the sensibility of several other parts of the surface is different from either, and from each other. . . . Now, although the skin is the general organ of touch, to prove that different parts of it exercise particular kinds of sensibility, one has only to manipulate his own surface in different places. And although the brain is the general organ of mind, to prove that different portions of its substance perform different functions, one has only to manipulate the head (or body even) so as to call different parts of the brain into exercise." It is not claimed by intellectual phrenologists that the science of Phrenology is perfect or complete in all respects any more than other sciences are complete. And as for mistakes in observation, there is a margin for error; the scope of the science is so great that no one can avoid occasional errors of estimate. Nevertheless the rule will be found universal and invariable, that a large development of a given part of the skull is attended, other things being equal, with a corresponding manifestation of mental power, whose peculiarity accords with the function predicated of that part of the brain.

The third objection, to one who is not well informed in Phrenology, appears very formidable, but it has been answered many times. Prof. Dalton himself, in its discussion, indicates a want of familiarity, not only with the phrenological authors, but also with the latest showings of his contemporaries in physiology. This objection weakens at once when the law of de-

velopment in vital organisms is considered. The framework of the body in all stages of growth, corresponds with the organs and structures; the bony walls or coverings are adapted to their contents; so the bones of the cranium are developed with the brain and increase with the dimensions of its various parts; unfolding from their central points the convolutions enlarge the whole skull according to the size of the whole brain; and special parts of the skull indicate fullness or prominence according to the size of the brain within. Experimental science has confirmed the phrenological doctrine, that functional expression is on the surface, in the cortical layers. It has been shown that development of any one part has to be estimated by its radial distance or extension from the *medulla oblongata*, the common center of the brain. It has been shown, in the order of our treatment of the subject, that the constitution of the brain in its fineness, density, etc., depends upon the quality and temperament of the individual. Education

has its influence and is a factor in nervous growth, which must be considered if an accurate judgment is to be formed by the observer. A pertinent remark by Dr. Trall is not out of place here: "Were the brain divided into distinct portions anatomically, as Prof. Dalton seems to think should have been the arrangement if the organs were intended to be multiple, the unity, harmony, co-operation, and intimate association of the mental operations would have been destroyed. For the purpose of human life it is often important that one organ or mental power should be exercised alone and intensely; on other occasions two, five, or ten may be associated in action; and these actions, singly or variously combined, must be rapidly changed. And for this purpose—to allow the greatest action with the least possible friction—the brain substance is semi-fluid, eight-tenths being water. Were the more solid structure—the muscles and nerves, for example—subjected to such rapidity of action they would soon wear out."

ADVANTAGES AND DISADVANTAGES OF AMERICAN NOVELISTS.

NO. III.

WE have seen that novel-writing is but poorly remunerative, and in many respects unsatisfactory to the man of genius. Because, therefore, science and journalism are more profitable and satisfactory than novel-writing, our Scott is editing a morning paper, and our Thackeray splitting the sunlight. Leslie Stephen has even suggested that novel-writing would ultimately pass into female hands. Be that as it may, it is evident that for the most part second-rate writers will remain in the field—they who are willing to write carelessly and hastily. Surely it would seem that the prophecy of Maga would be realized: "Without some protection, the fairer and better portion of

American literature will fail; and its place will be supplied by a rank and unwholesome growth, offensive to the senses and noxious to social life." To these novelists the question still lies between writing hastily and starving.* Any wonder, then, that they keenly watch the shifting tastes of the public? Any wonder that they write carelessly and inartistically? Surely these conditions are hardly favorable for the success of the American novelist.

In the absence of dynamic restraint upon the novelist, it is natural to look for restraint of a more mechanical nature—the restraint of a learned body com-

* Holland.

posed of the foremost minds of the nation, exacting reverence from the people and imposing conditions upon literary productions. In France, such a sovereign organ, in matters of literary opinion, has taken the form of a national academy. Novelists are surrounded by severe traditions, and they are appealing to a trained and relentless dikastery. They are not contending immediately for the approbation of a prurient public, but indirectly for the approval of a people content to abide by the decisions of a learned and an acute body. Among no people, therefore, do form and substance have so close a relation as among Frenchmen; and if their literature be artificial, it is because there is so little poetry in the French character, and not because of the mechanical influences of the Academy. As for us, we have certain traditions in certain centers; but our leaders are not agreed, and the traditions are not enshrined. The individual speaks with the influence attaching to his personality merely. Centers of authority are widely separated, and at war with each other. Criticism has little weight with writers, and it is because Americans do not regard personal opinion as an expression from the national mind. Therefore novelists, who understand, as Holland must, the true province of fiction, choose to follow the adventurous trend of their natures—well knowing that they will meet a response in some prevailing taste of the public. They not only follow up propensities against their more sober reason, but full of the chase in the absence of restraint, they run down the most paltry game with unmitigated ardor. And how honest soever they may be, in considering one side of a question, they are inclined to forget the other. They give themselves to thought and are careless of style, or, like Addison, concern themselves with style to the neglect of thought. They become careless of detail—they are rugged and harsh like Tourgènieff, or, inclined to be scientific, they become pedantic investigators, who never rise to contemplate the universal. They are not sym-

metrical—they all need a curbing hand. The curse of the American novelist is his proneness toward provincialism. Hitherto the reading public has been content to abide by the decisions of the English taste. It was against this tendency that Simms and Paulding rebelled with so disastrous a result to themselves. At length a reaction has come. The poem "Deidre" received the applause of the nation ere it had reached its transatlantic audience. Too great self-reliance becomes dangerous. It is accompanied by a silly conceit that whatever is American is praiseworthy—a more poetic version of the stump orator's scorn for every other country on the planet. In the heat of our patriotism, we are coming to ignore whatever of value there may be in foreign impulse. Confining our sympathies and our emulation to that which strikes us as peculiarly American, we become provincial instead of artistic. So long as there are isolated centers, each will be tainted by more or less provinciality. Our greatest artists need the restraint of association. Kant received a mighty awakening at the hands of Hume. In fine, we all need the consciousness of speaking before severe and learned judges. So shall we curb our solecisms. We shall not smother our individuality, for that is our most valued possession: but we shall watch it, guard it, educate it. Yet even an approach to the Academy of France is repugnant to the national mind. We are possessed of an idea of individual impulse—a sort of autonomy—which we maintain no less stubbornly than did the little town of Platæa so long ago, with much the same result. Fostering the principle through long generations, no people on earth are more impatient of restraint than we. From our principle of universal license, from our habit of unrestrained censure of authority and of independent thought and action, we have become a most laughably conceited nation; and it is no more likely that such a people will set up an institution to fix laws to its judgment and determine standards to its taste, than that Rhada-

manthus and Eacus will give way to the Electoral Commission in the ages to come.

Thus we have sought to show that the American novelist is writing inartistically, and according to a philosophy of expediency; that the reading public, untaught in taste and careless of critical standards, is applauding the vicious and provincial; that novelists are adapting their thinking and writing to shifting conditions—urged by a desire for fame, and driven by physical necessity; that science and journalism, popular and remunerative, are attracting from novel-writing those who, under other conditions, would have been eminent among writers of fiction; that men without conviction or discipline are filling up the ranks where warriors have fought; that under present conditions the learned and far-seeing men of our country can exercise but little restraining influence upon the novelist, who, with mincing gait, proceeds along his career of folly neglectful of sublime possibilities. But all these tendencies of the American character are not permanent. Our utilitarian spirit, our æsthetic ruggedness—these are offshoots of conditions which time will remove. They are not born with us—they are heirlooms—family estates. But we have an energy and a susceptibility that are inborn. Matthew Arnold asserts that energy is genius, and that poetry is genius embodied. Our sensibility will ultimately result in the most acute artistic sense; and our art will neither be chilled by the gloomy realism of Tourgenieff, nor will it be deadened by the languor of sense; we shall require purer qualifications of heroes and heroines than did the English people of Fielding's and Smollett's day. We shall want no Academy then; for deep down in the American character there is a voluntary principle which effects more than any coercion. We are being already set free from the restraint of poverty; we need to be more reverent of each other; we need to be released from the bondage of practical thinking. Then even the ruggedness of our external life will be an advan-

tage to the novelist. He can not absorb the airy sweets of an atmosphere teeming with fable and fancy; but will be compelled to draw the soul of his romance from human passion and sorrow. Our national literature is yet in its infancy. It will be accommodated to social forms; and these are not yet permanently established. The day when the novel will reach its highest mark is yet in the future—the day when the novelist will meet with fewest limitations to his success. We believe that America is to produce a literature vigorous and untrammelled. There are physical conditions in America such as never yet have shaped a literature. Already have they begun to find expression as in the poetry of Joaquin Miller—a poetry forceful in its fund of impulsive spirit; a poetry suggesting a shaking off of antique forms, and a breaking forth from restraint. Is it not possible that here, in the heart of the new continent, fiction may find a grander type, enthusiastic and comprehensive? The vigor and buoyancy of the American climate, and the adventurous nature of the American novelist, are not in any manner hostile to the possibility. We are repeating in our national progress a period through which, in turn, the nations of the earth have passed. With Greece the commingling of races crystallized in the tragedy of Æschylus, and in the philosophy of Plato. The Gothic hardihood of the North had only to be engrafted upon the mercurial stock of the Italian race that a wonderful fruitage might come with Giotto, with Dante, with Michael Angelo. The old Saxon soil of England, enriched with the blood of the Norman French, gave a rich inflorescence of wit and genius. Among none of them all was there a more extensive commingling than is just now progressing in America. It is but fair to suppose that a great creative period for American literature is before us. When it will come, we may not foretell. Its characteristics we may not definitely foresee; but suggestive it will be of boundless freedom and of limitless power. Meanwhile, it is still possible for him to

succeed most grandly who can escape the deciduous tendencies of the time, and can feel only the permanent in the American character pulsating within him. Schmidt, the German critic, accords to Henry James a remarkable artistic faculty; but if Howells and James are artists, it is because the low undertone of the national life is in them become so full

and strong as to sound the master-expression. Even now, as Whipple has suggested, if only a sudden upward, ideal turn were given to our life, men would relegate the energy and thought they are expending upon material good to the achievement of more subtle, though less quickly fading, results that should hallow and purify the life of the world.

LEVI DANIEL TEMPLE.

EXPERIMENTS IN MAGNETISM.

No. V.

AS the investigator of whom I have been writing in previous articles, pressed his researches farther and farther into the mysteries of magnetism, he became satisfied that other developments more unaccountable than any he had yet witnessed awaited him. He was unable longer to put a person into a mesmeric sleep, or to exercise his power of magnetic healing, without feeling an impulse to give expression to certain words or sentences which seemed to frame themselves without his volition. Sometimes a strong impression of the truthfulness and importance of these words would so affect him that he could not rid himself of the feeling until he had given them utterance. It was an experience of this character which so affected him in the fatal illness of his little son.

At the time he was trying to cure the arm of Mr. Bowen, an impression came to him something after this wise:

"I can cure the arm, but I can not quite cure the first finger." Yet this finger indicated no more serious difficulty than the rest of the hand or arm. Now, after the lapse of sixteen years, Mr. Bowen will tell any inquirer that this man cured the arm as he said he could—but that neither he nor any other person had ever succeeded in removing a slight numbness from the first finger, though in appearance it is perfect as the others.

In the fall of 1867 this gentleman's second daughter was taken ill with what the doctors called a malignant fever. The father being very sick at the time,

was unable to do anything for her, and she died after eight days' illness.

Upon the first appearance of disease in the young lady she went to her father to know what she should do. Being the personification of health hitherto, it did not seem possible that anything serious could be the matter with her; but her father, who, though ill, was not yet confined to his bed, seated himself beside her, and taking her hand, waited quietly for any words or impressions which might fix themselves in his mind to give him light upon the subject. One word at first was all he was conscious of receiving. "Worms" was the word; next came the sentence, "Her disease is liable to take a malignant form, in which case she must die."

Alarmed at this, he ordered everything done for her that his love and wisdom could suggest; at the same time he sent for an experienced physician, and bade him do his best, calling his attention to the idea that possibly worms might be the cause. The father grew worse, and was unable to visit his daughter's room until after the lapse of five days, when it was too late for anything to help her. Meantime the best of counsel was employed, and the decision was "malignant fever," while the father on his bed said, "I believe it is all caused by worms." Upon the afternoon before her death a worm crawled out of her mouth, and was taken alive upon a napkin. Each succeeding instance of this character led him to feel more and more the importance of cultivating this remarkable gift.

At one time a nephew, who was stopping with him, was taken sick with typhoid fever. The father of the young man being an old-school doctor of great skill and large experience, the magnetizer did not think best to make any suggestions; in fact he had great confidence in his brother-in-law's medical ability. The boy lingered for many weeks before he could be moved to his own home; and he never entirely recovered from the effects of that illness, but died after a time with consumption. The magnetizer's mother, the grandmother of the boy, came and took care of him for some time, then went home, was taken sick and died in three weeks of the same fever. She had in constant attendance one of the most skilled homeopaths in the country. Her son was too far away at the time to render her any service. But during her stay with the grandson, previous to her return home, the magnetizer's eldest daughter was stricken down with the same terrible malady, and though his regular business was very pressing, he resolved to take her case into his own hands. Several times each day he gave her magnetic treatment, and he listened carefully to the impressions which then presented themselves. The suggestions which he thus received he confided to Dr. Perry, the aforesaid brother-in-law, with the request that in his absence he (the doctor) should see them carried out. This request the doctor conscientiously fulfilled, watching with deep interest the result. In two weeks she was able to sit up, and from that time rapidly recovered.

Now those two persons were similarly attacked, and neither more violently than the young lady. All received the most careful and loving attention, but she alone was fully restored to health.

This man numbered among his intimate friends a learned physician of the eclectic school. One day this doctor said to him, "I wish you would take the hand of a patient I will bring you, and I shall not say to you anything about him, and he shall tell you nothing of him-

self, then tell me what you can make of his case." "Very well," responded his friend, "I am willing to try."

The stranger was brought. He was a large and vigorous-looking man, bearing no external marks of disease. After holding his hand for some five minutes the magnetizer gave utterance to the words which seemed to be presented to him, as follows:

"You have an affection of the heart, which causes you great trouble; you are taken suddenly and fall like one in a fit."

The stranger answered that this was true. The same doctor brought him other patients, whose cases he described with equal accuracy, suggesting treatment and remedies when requested.

Afterward medical terms would present themselves, the significance of which he was at the time entirely ignorant, yet upon examination he found the terms were never misapplied. He never lost consciousness, or in any way appeared other than in a normal condition.

As he watched the unfoldment of this singular faculty he discovered a new phase of the phenomena gradually revealing itself.

Something like a human skeleton appeared to his mental vision. Upon portions of this skeleton a shade of darkened coloring would indicate the parts diseased of the person whose ailments he was trying to trace. In this way he could accurately locate their difficulty; then words would follow to explain details, causes, remedies, etc. At one time a physician asked him if he would be kind enough to look into the case of his sister, whose disease had hitherto baffled his skill. As was his custom he took the patient's hand for a moment, until this skeleton made its appearance; then watched its change of color until he saw where the disease was located; next words came like this, "An ovarian tumor."

No external signs of such a trouble had been discovered, either by the lady or her brother, yet a few months sufficed to prove the statement correct.

MRS. H. M. SLOCUM.

CHASTINE COX, THE MURDERER OF MRS. HULL.

THIS case has excited a profound and painful interest among all classes of people. The quiet and innocence of the home which was invaded, the respectability of the victim, the shadow of mystery which hung over it all, and the

and the newspapers in the city published such varied accounts of the description of character, that we sent to the *New York Herald* the verbatim report of the examination, and the editor kindly published it as it is herein given below :



CHASTINE COX.

final full revelation of the facts, have served to make it a celebrated case.

We succeeded in taking a cast of his head in the Tombs to place in our collection, and made a phrenological examination of his head. The reporters who managed to get hold of some of the statements at second-hand, wrote up the matter from memory as well as they could,

737 Broadway, NEW YORK, July 7, 1879.

TO THE EDITOR OF THE HERALD :—

The report in your paper of the phrenological examination of Chastine Cox (in connection with the taking of the cast), being necessarily cursory, it was in some points inaccurate, and has given rise to much conflicting comment. To give the public an opportunity to know just what we did say of his character and natural impulses, we would respectfully tender to you a transcript of the examination as made by Professor L. N. Fowler, and trust you may give it

space in your columns. Subscribing ourselves, very truly yours,
S. K. WELLS & CO

CHARACTER OF CHASTINE COX.

[Published in the New York Herald, July 8, 1879.]

You have a powerful constitution, are much stronger than the ordinary run of men, are able to do more, put forth more effort and more continuous manifestation of strength than most men.

There is a predominance of the motive or muscular temperament, while the vital and mental are fairly represented. Your powers are much concentrated, your continuity is large. You are able to give your undivided attention to a particular class of subjects, are liable to be absent-minded, can be thoroughly absorbed in a subject when any one thing occupies your mind, and when you have formed a desire you retain that desire until it is gratified. Your head is strongly marked, some organs being particularly strong, while none are very small.

You are characterized for great independence, self-reliance, willfulness, and have the disposition to take responsibilities, have always been in your element when at the head. You are not so polite, pliable, easy, and showy as you are proud, independent, and anxious to be your own master.

Firmness is very large, giving uncommon perseverance, determination, and disposition to carry your purposes to the utmost, and you could be exceedingly stubborn. You have great presence of mind in times of danger, were born to be a head man somewhere, would have succeeded as captain of a ship, as officer in the army, or as overseer in some employment. You are remarkable for your watchfulness, guardedness, suspiciousness, reticence, and you keep your own affairs to yourself. You may talk with some freedom where your own matters are not concerned, but you develop only so much as you please, and no one can get from you that which you are disposed to keep.

You have always had a desire to acquire property, to have money, things; as a boy, were filling your pockets, picking up and accumulating in one way or another, but the specialty of your desire in this respect was to keep your things under lock and key, and not allow others to know anything of your affairs. This tendency of your mind is very great, must have had an influence upon you when you were very young.

You have very large Combativeness, are truly courageous, and, although cautious, disposed to measure your difficulty, yet, having made up your mind, you persevere to the end. You are not necessarily cruel or revengeful, but you are bound to overcome and be master. You are some time in becoming angry, but a long time in getting over it or forgetting it. Are quite strict, and often rigid with others in matters of engagement, whether you are rigid with yourself or not; are severe on those who fail to keep their promise, or are dishonest. If you were a preacher you would consider that you had discharged your duty when you had told a sinner three times to repent, and if he failed after that you would give him over.

You have a good appetite and enjoy your eating.

You love women and children, but are not so mindful of kin. You have but few particular friends, and even with those you are not very familiar; in fact you must have isolated yourself from the majority of mates and companions and lived alone within yourself.

Hope, Spirituality, and Veneration are not specially developed, and although not defective they would require considerable encouragement to have much modifying influence in your character.

Benevolence is not large, though not small. There are cases where your sympathies would be manifested, and at times you might be liberal, but they are special cases. You mind your own business and wish others to mind theirs.

You have a favorable development of thought, judgment, and understanding, but are not characterized for quick perceptive power, ready memory, or scholastic ability. You could have succeeded in the study of figures, mixed mathematics, so as to become a surveyor or navigator. Your memory of events is but ordinary, but you can plan quite well.

You love fun, although you do not let yourself out

often to the free expression of wit; but you enjoy it highly when you are where there is plenty.

All things considered, you should be noted for will power, independence, suspiciousness, reticence, and for your determination to overcome and conquer, for your concentration of mind on any one thing that occupies it, desire to acquire and hoard property, and for your planning talent.

You have not the qualities which would necessarily make a bad man of you, but you are capable of carrying your designs and desires so far as to render you bad, if not properly controlled. Favorable circumstances and good culture might have done much for you, as you have the natural capacity to be improved; but bad habits and unfavorable associations would be likely to pervert so strong a nature as yours, and, once off the proper track, you would be liable to great excesses.

Our exchanges made comments on the description of Cox, some of which were sensible, humane, and fair. Others took pains to warp the facts or color them with a prejudice, which is both pitiable and contemptible.

There seemed to be an almost universal expectation that Cox was to be made out by Phrenology a fiend incarnate; that his head was to reveal only the baser animal and selfish elements, and that he must be denied every vestige of morality, taste, or decency.

It is a little remarkable that people persist in holding every man equally responsible for his conduct, and insist on imprisoning or hanging every one who offends; yet when Phrenology undertakes to reveal the character of one who has committed a crime, they cry out, "He can not possibly have a trait which is not of the darkest description." If he have no trait but badness, why blame and hang him? They practically say that all badness of conduct must arise from organic conditions which forbid any act that is even decent, not to say good. Some say Phrenology means fatality, because they think men must manifest character always, good or bad, according to their organs; and then when they find a man who is criminal in one direction they insist that he must be thoroughly bad, and they are not willing Phrenology shall find one redeeming trait in him. Such persons are really the fatalists, while phrenologists recognize some forty faculties, each of which may be acted upon like a piano-string, separately, rendering the man liable to commit error or crime under peculiar excita-

tion, who may be in the main correct in his purposes and conduct. St. Paul felt the drawing of different faculties when he said, "When I would do good, evil is present with me," and "The evil which I would not, that I do." He felt "the warring in his members" as thousands of others have before and since his day.

Now let us come to the point: Cox, for instance, like everybody else, has different groups of organs, which are full of energy if called out, but he is not always excited with hope, fear, vanity, anger, cruelty, generosity, love of gain, or lust. Do men need to be told that one may carry a magazine of powder for years and never meet the temptation to commit overt acts? How many men of rank and respectability, and even religious character, are able to carry themselves for forty years above reproach, and even above the inward thought of doing wrong; yet even the temptation to speculate may lead them unawares to use trust funds with a conscious certainty of being able to replace them. But let failure of success in the venture sweep away the amount used, and at the same time let general depression of affairs shrink their real estate so as to bring them to the verge of bankruptcy—a chance offers, as they think, to cover their losses, retrieve their condition, and come out all right—forgery offers itself as a door to daylight; in a frenzied moment they commit the crime, and the public is appalled, and so is the offender; he is called a hypocrite and a knave—all his previous good conduct is counted as chaff, all his worthy thought, purpose, and work are cast overboard. Such people forget King David, and also Peter and his pardon.

The human organism is complex. Different faculties are acted upon by circumstances which arise without our knowledge or consent, and taken unawares; sometimes even good men do wrong; and a good man regrets it, and tries to amend; while one who is preponderantly bad braves it through, and tramples on his weak yet struggling conscience.

There is no doubt that many persons "overtaken in a fault," very unexpectedly and against their average state of mind, spend the balance of life wondering how they were "left to do the wrong act." Such persons need to use and heed that part of the great prayer, "Lead us—not into (or near) temptation, but *deliver* us from evil."

Cox is not made a saint by his phrenological examination, nor is he denied such faculties as would have made him a man of average propriety of conduct if his circumstances had been favorable. He is the son of a white man, and has much of the white man's pride; but being stained with the color which, in this country at least, crowds him out of reputable circles and dooms him to shake carpets and do other menial work; carrying also one-quarter of Indian blood, which is proud and capable of treachery and cruelty, while his one-fourth negro blood gives him a love of finery, show, and display, we have conditions not favorable to self-denial, patience, and consistency of character.

Besides, Cox can not read even, and has not been in the habit of learning from the papers all the devious ways of criminals, otherwise he would not, with his Cautiousness and Secretiveness, have supposed he could go to Boston and pawn Mrs. Hull's jewelry and not have it leak out. It is not known that he has before been accused of crime, and he did not enter the Hull mansion intending to commit murder, and went away supposing his victim was only in a swoon. Still the law holds him responsible. Our question is simply this: Had he any traits which were not malign? One provincial paper claims that we made his "Conscientiousness very large," which is quite incorrect and purposely gratuitous. We are not partisans of the unfortunate man, but insist upon it that many men now respected, if obliged to take his impediments, would do no better than he has done.

Now the reader is prepared to understand our description of him as published in the *Herald*.

EDUCATION.

DEVELOPMENT OF INDIVIDUAL TALENTS.

IF there is any one sovereign balm that will cure or alleviate all the ills that flesh is heir to, it is education. By this statement we mean not education in any narrow sense, but in that broad, cosmopolitan sense whereby the mind is expanded and developed in all that pertains to the lifting up of the individual to the best use of his best faculties. Although we are all built upon the same general plan, we widely differ in details, and this difference in details readily accounts for the diversity in human nature. Though this applies to special things, it is a general law, and is just as much of a general law as the general fact that we are all similar. It seems a queer statement when put in contrast, yet it is true. And here is where Phrenology comes in and shows why this should be—why we are so different as individuals, while so similar in our general shape and organization. We are generally similar as a whole and generally dissimilar as to parts, and this dissimilarity of parts overcomes the similarity as a whole and makes our distinct personal individuality as well-defined toward each other as our general similarity establishes us as a class distinct from those below us, and from those above us if there be any. In many respects we are much like a “combination lock;” a very little change in a minor detail makes quite another individual of us. A little width added to the side of the head, the fraction of an inch added to or taken from the height, makes two individuals who, but for this, might be similar in taste, inclination, etc., so different in their nature, that no one but a phrenologist, who was able to see both the similarity and the difference, would think of speaking of them as resembling each other.

This dissimilarity of individual talents should in itself prove that our education should be in harmony with it. Generally our education must be similar, for it would not be practical to have a method for each individual; but while we follow the general plan, we should do so with consideration. One scholar will learn one branch and will

be more proficient in certain parts than another. One may have large “Language,” and, therefore, learn with hardly any effort the lessons under this head; while another may have “Locality” and “Perceptives” generally large, and take quickly to geography, history, etc.—a little balance here and there, sending the mind in quite another direction in order to obtain the satisfaction that it demands. But this diversity of talent alone should not entitle one scholar to be ranked in ability above another who could not possibly be as proficient in those parts or branches, but who has talents particularly strong in another direction. In life we all have separate positions to fill; it is, therefore, right that we should be dissimilar, and that education should take hold of this idea and develop it. All men can not be alike, neither can all scholars. The scholar will retain that best which his or her mind holds with the greatest tenacity. When young, scholars are more generally alike—yet even then there is a great difference. The more the mind is developed, the more it begins to diverge and to establish its own peculiar individuality. The more nearly perfect the mind, the more this peculiar part, which we in a general way term individuality, asserts itself. The higher the grade of the animal, the more peculiarity and diversity it shows. The higher the human race, the more this idea asserts itself, even in young children. This being such a positive fact, it would seem that education should heed it. It is strange that there should be so much narrowness, yet we see it on all sides.

One man has a special talent for being a lawyer, so he thinks that the study of law is the climax of all studies; another is a minister, a doctor, engineer, and so on—all on the same basis think that they have the most ennobling pursuit, and that the education that develops their peculiar study is the education that should be adopted in all the schools of the land as the very best to develop mankind to the greatest advantage. But such narrow education we want not—

ing to do with—at least so long as there is and can be something higher.

We are all parts of one stupendous machine, and it seems as absurd to have us all alike as it would in a piece of machinery to have all the wheels, pullies, or axles of one size, make, etc.

Perfection, as we understand it, consists in perfecting our abilities in harmony with the natural laws that gave us those abilities, and not in striving after something in direct opposition thereto—at least so long as those inclinations are in accord with the moral code. There is a man whose talents best fit him for a lawyer, let him be a lawyer; he whose inclination bids him preach, let him preach; but let not the individual man be puffed up with the conceit that his calling is the most noble, and that this should entitle him to the most respect and honor. If the individual man is to be respected and honored, let him be respected and honored for those higher qualities which are independent of all professions or trades. The noble soul is not patent to any class or grade—all professions and trades have their mean as well as their good men. Education is a broad question, and can probably never be exhausted, but in this short article the special point we wish to touch upon, is, that education, while it must necessarily teach after a general manner, should not enforce that manner too rigidly, but endeavor as much as possible to develop the individuality of man. By education we

mean, not that which is confined altogether to the school-room, but as it applies to men and women at large, and the education and development that comes from the contact with the culture of the world. Let our charity be as broad in this respect as in any other, not regarding our fellow-man, who is striving for more and more intelligence, as uneducated or beneath us, simply because he has not been educated after the same approved manner as ourselves. Let us look beyond the mere method and see the individual as a whole, and even endeavor to discover the peculiar talents with which he was intrusted. By so doing we may even develop ourselves in a direction which we had not heretofore dreamed of. Let our natures be generous, and let generosity enter into our education; for certainly education is the sovereign balm that will, if rightly attended to, cure the ills that human flesh is heir to. By education the world advances to higher and higher degrees of perfection, and thereby humanity reaps the reward—and we partake of it. Let not our education be confined to narrow spheres, but be extended to broad principles, from whence come the highest good—the development of all the talents with which we, as created beings, have been endowed. On this basis only can we attain unto those higher degrees of perfection that have been the earnest desire of the good of all ages, and discover that balm that shall fulfill unto the world the dream of the philosopher's stone.

I. P. NOYES.

A TERRIBLE WARNING.

AN American physician, who has given careful attention to the study of alcoholism, said, in the course of an address recently delivered before a learned society: "There are constantly crowding into our insane asylums persons fifty to eighty years of age, who in early life were addicted to the use of alcoholic liquors, but who had reformed, and for ten, twenty, or thirty years have never touched a drop. The injury which the liquor did their bodies seemed to have all disappeared, being triumphed over by the full vigor of their full manhood, but when their natural force began to decrease, then

the concealed mischief showed itself in insanity, clearly demonstrating that the injury to their bodies was of a permanent character."

We are not constitutionally inclined to dwell upon the horrible, and would ask to be spared from presenting so terrible a fact as this, did we not feel that our duty to our neighbor and fellow-man requires it. How many thousands of the bright and beautiful youth are to-day sowing in their own organisms the seeds of decay and misery by their daily visits to the wine-room and their social tippling! Oh, that Dr. Chenery's declara-

tion were pressed home to the conviction of each one !

How insidious and implacable that poison which lurks in the ruddy wine and the amber beer ! The man may reform after a career of lax morality and intemperance. He may shake off the chains of a habit which rendered him often an object of ridicule to the careless, and of grief and shame to his friends, and may once more claim the place of honor and usefulness which was his before the fall. He may even exhibit the energy, ambition, and fire of his early years, and win fame and fortune in the business

of life ; but when old age is creeping on, all at once his brain gives way, and the living death of insanity supervenes. Thus we realize the truth of that wonderful Book which prophecies : " At the last it biteth like a serpent and stingeth like an adder."

We are not surprised that the learned physician, in contemplating the wide-spread ruin attending the drinking habits of the public, is moved to say : " These things being so, we, as physicians and promoters of good health, are bound to set our faces against every species of dram-drinking, by both example and active precept."

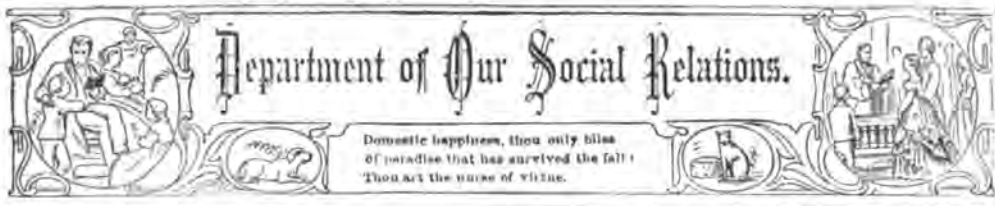
LONGEVITY IN DIFFERENT OCCUPATIONS.

THE *American Miller*, with a view of showing that millers outlive other mechanics, gives some interesting statistics. It is probable, let us say, that none but robust and very healthy persons would engage in milling, because in Massachusetts the mills do only custom work, which requires the miller to carry the heavy bags in and out by hand. Millers may, therefore, be presumed to stand with stronger constitutions than the average of men. We quote the article referred to :

" During the thirty-four years and eight months from May 1st, 1843, to December 1st, 1877, there died in the State of Massachusetts 161,801 men over twenty years of age, whose occupations were specified in the registry of their decease. The average age at which they died was about fifty-one years. The number is so great, and the period covered is so long, that by the study of the classification of the employment of those who died, we can get a very good idea of the comparative ages at which men in different occupations and in an ordinarily healthy community are swept away by death. The deaths in only six different occupations were at an age, on an average, above sixty. They were—1st, the gentlemen, sixty-eight ; 2d, the farmers, sixty-five ; 3d, the judges, sixty-four ; 4th, the light-house-keepers, nearly sixty-three ; 5th, the basket-makers, sixty-one ; and 6th,

the pilots, over sixty. Clergymen lived a little over fifty-nine years, professors over fifty-seven years, lawyers about fifty-six years, and physicians fifty-five years. The active mechanics died on an average at the following ages : Millers, rope-makers, and wheelwrights, fifty-seven years ; clothiers, pump and block makers, and tallow chandlers, fifty-six years ; potters, fifty-five years ; hatters, fifty-four years ; blacksmiths, fifty-three years ; calico printers and wood turners, fifty-two years. All other occupations fell below the above enumerated classes, brakemen dying earliest of all—at twenty-six years of age. It will thus be seen that millers are among the longest lived men of the community, following closely after professional men and gentlemen of leisure, who are the longest lived men in every country. The millers lived six years longer than the average, and twenty years longer than the class denominated as factors laboring abroad (baggage-masters, brakemen, engineers, firemen, soldiers, etc.), who died at an average age of thirty-seven years."

A SINGULAR HOUSE.—A live fish inhabiting a human skull was taken from the bay of San Francisco near the Indian dock one morning lately. The finny tenant must have had a liking for its strange quarters, as it had grown too large to make its escape.



THE WOMEN OF ITALY.

TRUE it is that half the world knows not how the other half lives. The ordinary woman of our clime, with her thrift and cares, and also with her wide intelligence, and the Italian peasant, are as far apart as though each occupied a different planet, and looked at each other across star-strewn space. In the cities of that beautiful peninsula, which the sun kisses so lovingly, the *contadina* only touches the hem of civilization; yet their youthful faces are so attractive that artists cross the ocean to paint their loveliness. The requisite contour of the face, set off by large, liquid eyes, which have the dumb, haunting sweetness of a deer; the dark, rich, peachy bloom; the soft, rounded lines that seem covered with satin and filled with pulp, with advancing years grow into yellow, withered, hideous outlines, expressing neither wit nor intelligence. And all for the lack of proper habits of life, and that intellectual fire which molds the most ordinary features into something which bears the marks of the divine. Then they sit upon sheltered places near the studios, waiting for their daughters, who are models in turn, spinning meanwhile upon the distaff, which is their constant companion.

These peasants universally dwell in little towns or hamlets, perched upon heights, from which the eye commands a landscape of unsurpassed beauty, traveling as it does over ground of historic interest.

Her skies of softest blue, and air
Reposeful, steep the heart in balm,
And sheds o'er scenes divinely fair
A tender calm.

Only on these mountain fastnesses is continuous life possible, in many parts

of Italy, especially in the vicinity of Rome, since *foetid malaria* broods over its poisonous lowland.

But what a landscape is before them! There are the plains of Etruria, over which broods the mystery of the "lost arts" of a wonderful civilization; here Romulus and Remus, scarcely less mythical, founded the walls of that imperial city, where long afterward ruled the august Cæsars; yonder is the broken outline of the Coliseum, the grandest ruined pile on this round globe. And that dome of amethyst, delicately, yet clearly carved out of the opaline sky, is the crowning glory of St. Peter's, that masterpiece of architecture and of art, the last, loveliest blossom of the regnant city. Within the circle of Rome's broken walls is one vast theater, in which has been enacted tragedies without number, with scenery fashioned and colored by the genius of many ages. Over the Campagna stretches in sinuous, graceful lines, the Claudian aqueduct to the Sabine Hills, which melt into the boundless sky so tenderly. And all the land on every side is bestrewn with fragments of marble, still symmetrical in their beautiful broken outlines. The very soil over which they pass to daily toil, is made of dust crumbled from the chisel of some cunning workman, or yet, mayhap, the dust of the workman himself. And yet the dominant chord in all this music is a minor one; for woman is hardly better than a slave, and intelligence is not. Women, rude and strong as men, work in the fields beside them, with faces stolid and worn, for the barest pittance. They are sometimes even harnessed with mules, and so drag the plow or draw the cart—merely beasts of burden.

In many cases, particularly upon the slopes of the Apennines, the contadina never leave their native hamlets, though the men wander far and wide; they even become image venders in our cities. Her dull interest extends no farther than the olive or chestnut grove; her religion consists in telling the beads of her rosary, and saying her simple prayer at the foot of the wayside cross. Through the year she is beating, or carding, or spinning flax for their scant clothing. This latter is done by means of a rude distaff, which is twirled in the left hand, while the flax is held in the right. If she works in the fields, she goes miles over the country, spinning as she trudges; indeed, the distaff seldom leaves her hands, unless for more pressing household work. In winter she weaves this in her hand-loom, into coarse but strong, even cloth, from which all clothing is made, save the coats of men. In the same manner silk is made by hand, after being dyed in brilliant colors, and Roman scarfs are justly admired for their durability, flexibility, and brilliancy.

During the vintage, or olive, or chestnut gathering, as the case may be, her

labor varies from its monotony. Chestnut gathering lasts about a month, and impresses into service all the youth, who greatly enjoy the pleasant autumn rambles. The chestnuts are then boiled for daily use, or dried and shelled and ground into flour for the winter. The vintage has a rude poetry of its own, but much more of prose in its labor; and the olive-gathering is the pleasantest of all. These fantastic trees seem dryads, frozen into vegetation while in a grotesque dance. They are caricatures of eerie creatures.

In their small, square houses, pierced by one or two windows at most, without ventilation, convenience, or comfort, these sisters of ours live and die. Let us hope the spirit of progress may not stay her course too long without lifting upon the contadina of Italy the light of her countenance!

"Italy, what of the night?
Ah, child, child, it is long!
Moonbeam, and starbeam, and song
Leave it dumb now, and dark.
Yet I perceive on the height
Eastward, not now very far,
A song too loud for the lark,
A light too strong for a star."

HESTER M. POOLE.

HOUSE CLEANING.

IN these October days there is many a housekeeper who is looking forward to the fall campaign of house cleaning; and preparations have even been commenced for its thorough prosecution ere the pleasant days of early autumn have gone. We find in the *Mother's Magazine* a few words by Mrs. A. S. Roe, which are appropriate to the subject, and to be commended to the thoughtful reading of our "good housekeepers:"

When a child, how I used to hate the semi-annual house-cleaning time! I can remember with what a heavy heart I went to school, in the morning, when I heard my mother say, "We will clean this or that room to-day;" and with what rejoicings was the finishing day hailed! My spirits, which, at the beginning of the siege, were below zero, rose

gradually until the last day of house cleaning found me dancing around—for what? Why, because the house, having been scrubbed from top to bottom, there was no earthly reason why we should not have a good square meal the next day.

As a child, I thought a great deal of good things to eat. I do not mean to intimate that I do not care now what I eat, for I do not believe there lives a person who is utterly careless of their food, unless it be some of the Digger Indians, who would eat anything but shrimps.

But we have wandered too far from our subject. We all know that the bill of fare, during the time of which we are speaking, is not so varied as at other times. Why, I have known a family to live on eggs, boiled or fried, during the

time of which I write! Not that eggs are not good enough in their time, but for a steady diet for two weeks we would, it seems to me, get tired of them. Does it not seem as though something must be wrong when the girls all take their dinner to school, the boys all dodge off as soon as they can possibly swallow enough to keep them alive till tea-time, and the father gets out of the house as quickly as possible after the noon meal? Does it not seem as though the wife and mother thought more of getting her house in order than of the welfare of her family?

Is all this bustle and flurry and confusion necessary? Can not a longer time be taken to do the work, and why need it all be crowded into a few days? You may say, "It's only just for a little while," but the little while ought to be pleasant. We might do the main part of a room in one day, and if we left a door or casement, who would notice it? I know that old saying, "Never put off till to-morrow what can be done to-day," is a good one; but, in house cleaning, it seems to me, it would be better to put off that work which we could only do by the utmost

exertion. In this, as in everything else, we notice that system is needed, but how few housekeepers use it! Very few lay plans overnight. If this were done, much time might be saved that is now lost. Then we hurry so in this work. A woman always looks two years older when the season is over! She has no time to go out anywhere, or, much less, to receive a visitor, so tired is she, that trifles vex and "nothings" disturb her temper, and all this is because of the constant hurry she is in to get through cleaning before Mrs. So-and-So does. "Haste makes waste" in this as well as in other things. We think it better to save our strength, and these spasmodic hurrying spells are surely a waste of strength. One overworks, then what a long time it takes to bring back all those wasted powers! How many have we heard say, "I can not do now as I could once, but I worked too hard the year we had no servant;" or, "I hurt myself once, lifting, and I have never been as well since."

The house cleaning must be done, but do not try to do it all at once.

THE DIFFERENCE.

YOUNG Mrs. Grey was in the dumps. There was a grieved look about her mouth that spoiled its pretty curves, and a scowl marred the smoothness of her white forehead. What was the matter? Everything about her was bright and attractive. There were flowers in the window; vines drooped and trailed from brackets and pictures; a bird sang in the sunshine that streamed through the eastern window. The lady cared for none of these things. Her pet dog, a lovely little Italian greyhound, tried in vain to win her notice; and she scarcely smiled when a two-year-old baby toddled into the room and pulled at her dress, and called her "mamma." How could anybody be sour and sullen with such possessions? Ah, there is the secret. Her very wealth was her bane—the riches of affection that had been bestowed upon her had temporarily

spoiled her. There are some hearts that love so passionately, so wildly, that love becomes to them a snare. They concentrate all their force of feeling upon one object, and then exact an equal return. Failing to receive this, they are miserable. They are, perhaps, equally miserable if they fancy that they are not loved enough. It all amounts to the same thing.

Mrs. Grey had a husband, upon whom she lavished a world of romantic feeling. She thought of him day and night; all her actions related to him; he was her sun, and she rarely looked beyond or above him. This kind of idolatry, by and by, produced its natural effect. Mr. Grey had something to do besides make calls, do fancy-work, and think of his wife. He had real work on hand; he lived a real life with real men, in a real

world. So, when the wife, overflowing with unused feeling, came to him for sympathy, they met on unequal terms; and soon it became the habit of her soul to say, "He don't love me as I love him." Then followed a train of doubts and morbid fancies, and degrading fears, till the heart was disturbed, the face distorted, and the temper soured.

Mrs. Grey had a cousin, famous among her acquaintances for practical wisdom. She happened upon the scene on the dumpish morning here described.

"What is the matter?" she asked, making a face in imitation of the pouting wife.

At this plain question Mrs. Grey burst into tears, and said in broken words:

"Oh, it's the same old story; life is so wearisome and dull. Arthur doesn't love me as he used to, and without his love I don't care to live."

"Suppose you try loving him," said the visitor.

"I love him! why, I love him so much that I am miserable."

"No, my dear; love never made any-

body miserable. You have an intense desire to be loved; an appetite for love that has come to be morbid. There is an immense difference between loving and wanting to be loved. When the flame of love burns clearly, we forget self and think of the happiness of the loved one. Suppose your husband should be taken away from you; how would all this nonsense about being loved seem to you then?"

Mrs. Grey became thoughtful. She stooped to the little child and took him upon her knee. The words of her cousin kept repeating themselves in her thoughts:

"There is an immense difference between loving and wanting to be loved."

"I imagined that I was loving," she said, at last. "Instead of that, I have been a beggar for love—always hungry, and always demanding more."

"You use the right word," was the answer. "They who give love are princes; but they who ask for love are beggars."

MRS. M. F. BUTTS.

PLAIN TALK FOR YOUNG MEN.

REMEMBER, my young friend, that the world is older than you are, by several years; that for thousands of years it has been full of smarter and better young men than yourself; that when they died the old globe went whirling on, and not one man in ten million went to the funeral or even heard of the death. Be smart as you can, of course. Know as much as you can; shed the light of your wisdom abroad in the world, but don't try to dazzle or astonish the people with it. And don't imagine a thing is so simply because you may happen to think it is. Don't be too sorry for your father because he knows so much less than you do; he used to think he was as much smarter than his father as you think you are smarter than yours.

The world has great need of young men, but no greater need than the young men have of the world. Your clothes fit

you better than your father's fit him; they cost more money; they are more stylish. He used to be straight and nimble, and, perhaps, thought his father old-fashioned. Your moustache is neater, the cut of your hair is better, and you are prettier, oh, far prettier than "pa." But, young man, the old gentleman gets the biggest salary, and his homely, scrambling signature on the business end of a check will drain more money out of the bank in five minutes than you could get out with a ream of paper and a copper-plate signature in six months.

Young men are useful, and they are ornamental, and we all love them, and we couldn't engineer a picnic successfully without them. But they are no novelties. They have been here before. Every generation has a full supply of them, and will have to the end of time; and each crop will think themselves quite

ahead of the last, and will live to be called old fogies by their sons. Go ahead. Have your day. Your sons will, by and by, pity you for your old, odd ways. Don't be afraid that your merit will not be discov-

ered. People all over the world are hunting for you, and if you are worth finding, they will find you. A diamond isn't so easily found as a quartz pebble, but people search for it all the more intently.



SOMETHING TO AVOID.

YOUNG man! do you doubt that the effect of the use of tobacco is demoralizing? Go to the club-house, that gilded threshold to a life of degeneracy and degradation, where the card-pack takes the place of the catechism, and the average topics of conversation are the latest horse-race, walking-match, prize-fight, billiard or sparring exhibition. You will find there every individual to be an animated miniature volcano, breathing forth fire and smoke, and at intervals belching out a defiling lava-stream. Take the next step down to the wine and sample-room, where the fashionable rowdy and professional gambler robs night of its peaceful quiet, and under its cover fills the pages of life's record-book with words of blasphemy and deeds of infamy. Go to the gambling table where one is robbed of his money, and his moral life crucified, and you will find that tobacco holds high carnival. Go to the grog-shop where manhood is so swiftly wrecked and the Divine image obliterated, and it is tobacco smoke overhead and tobacco juice underfoot. Go into every haunt of sin on the face of the whole earth, and tobacco, alcohol, and curses are the nefarious and diabolical trinity—the great

triple enemy of the human family. Question every young man you meet, with cigar or quid of tobacco in his mouth, and he will be found to have strayed away from the protecting care of a mother's influence, and the shadow of the church and Sunday-school.

It has been discovered upon investigation, in the Polytechnic Schools of Paris, that the non-smoking boys are decidedly superior in general scholarship and mental vigor, to those who smoke; and the German Government, appreciating the injurious effects of tobacco on the physical constitution, has made smoking on the streets by boys under the age of sixteen, an offense punishable by fine and imprisonment.

Smoking or chewing tobacco is a process of distilling or extracting an oil which is so deadly a poison, that two drops placed on the tongue of a cat will produce death in four minutes; will take the life of the largest-sized dog, and by a puncture in the nose of a squirrel with a pin dipped in it, will cause death in six minutes. The sudden deaths of Gen. Dakin, of Brooklyn, and of Dr. Hallock, of New York city, was due to the paralysis of the heart, caused, there is little

doubt for thinking, by tobacco poison, for they were inveterate smokers; while a *great* many lives are closed prematurely through its influence, and hundreds of thousands are daily living on the verge of the same probability.

If you would not destroy your health, and deaden or callous your moral sense; if you would not acquire a habit which is generally contracted in boyhood, and of which the testimony of unnumbered thousands of men is, that they would "*so gladly* shake it off if they could;" a habit which is a constant, and which becomes an incalculable drain upon the pocket as well as the constitution; a habit that has not one single virtue that can plead in ex-

tenuation for its existence; then live in the purifying atmosphere of the church and Sunday-school, and under the influence and council of a mother's unselfish and devoted love, which is ever watchful to guard you against evil. Despite the lamentable spectacle and truth that very many ministers and churchmen defile their bodies, yet strangely enough expect pure water from muddy fountains—who daily outrage and defile God's human tabernacle, while in the same breath invoking His blessing upon it, the grateful fact is prominent, that in the churches will be found the best standard of morals and correct habits, and the best examples to emulate.

E. W. AUSTIN.

THE TEA AMERICANS DRINK.

MUCH attention has been given in these pages to the physiological effect of tea-drinking, and argument and illustration have been used to show how it injures those who make it one of their daily habits. Another method of treating the subject, and one, perhaps, as likely as the physiological to produce some good result in the tea-toper, is suggested by an article we have lately met with in the *San Francisco News Letter*, on the adulteration of food, and of the many costly articles employed as accessories of the table. If the tea-drinker can not be moved by an exhibition of the ravages made upon his nervous system by tea, perhaps he may be persuaded to reduce the number of his cups, when he learns that the stuff called tea is largely composed of refuse matter, colored by a chemical process.

According to the *News Letter* the adulteration of tea is carried to such an extent that it is doubtful if any, except, perhaps, one or two kinds, arrive in the United States free from the "most abominable" manipulations. Green teas may be condemned wholesale; scarcely a brand arriving here in even a moderately pure condition. Mr. Davis, an English expert in the examination of tea, writes: "Certain rumors being afloat concerning the

manufacture of green tea from old black leaves, I became curious to ascertain the truth, and with some difficulty persuaded a Hong-Kong merchant to conduct me through the place where the operations were being carried on." Entering one of these laboratories of fictitious hyson, the parties were witnesses of strange scenes. The damaged black tea-leaves, after being dropped into a cast-iron pan and placed over a furnace, were stirred rapidly with the hand, a small quantity of tumeric in powdered form having been previously introduced. This gave the leaves a yellowish or orange tinge. Then some fine glue was added, and a substance in powder, which from the name given it by the workmen, as well as its appearance, was known at once to be Prussian blue and gypsum triturated together with a small pestle, in such proportion as to reduce the dark color of the blue to a light shade. A quantity equal to a teaspoonful of the powder being added to the yellowish leaves, the whole mass was stirred as before over a fire until the leaves had taken on the fine bloom-color of hyson, and very much the same scent. To relieve from all possibility of error as to the substance used, samples were brought away from the place.

Mr. Bruce, another high authority, states that in the last operation of coloring green teas, about half a teaspoonful of a mixture of sulphate of lime and indigo, very finely pulverized in the proportion of three of the former to one of the latter, is added to a pan of tea containing seven pounds, and rubbed and rolled with the tea for about an hour to give the tea a uniform color. The indigo is the color, and the sulphate of lime is used to fix it.

Many competent authorities testify that very few of the leaves of the tea drank in China are thrown away, but carefully preserved for foreign export; and it is unnecessary to add that the leaves of many plants that have no relation whatever to the tea-plant, are prepared and sold as tea. Besides the poisonous earthy substances mentioned, as adulterants of tea, there are others, viz.: chrome-yellow, chalk, carbonate of magnesia, steatite, soap-stone, and mica.

Perhaps it might be well to suggest a method or two in regard to the detection of the adulterants; supposing that the reader, after the warning given, will persist in using his favorite beverage. If the leaves are coated to any considerable extent, a magnifying glass of one inch focus will show the coloring matter in minute specks or particles, each reflecting its special tint. Another way is to scrape gently two or three of the leaves with the point of a knife, when the foreign matter may be detected in the powder that has been separated. Still another method is to place five or six of the leaves on a slip of glass, and then moisten them with a few drops of water, and after the leaves have become softened, firmly squeezing the water out between the thumb and finger, which will be found to contain more or less of the ingredients forming the coloring, if any have been employed.

GRAHAM BREAD HISTORICALLY.—During the administration of Wm. Pitt, in England, there was a great scarcity of

wheat, and in order to make it go as far as possible, Parliament passed a law that all the bread for the army should be of unbolted wheat meal. History states that the result was such an improved condition of health among the soldiers as surprised them, and also their officers and the surgeons. The latter declared that never before were the soldiers so robust and healthy; and that disease had nearly disappeared from the army. For a long time this kind of bread was used almost exclusively, but when wheat became once more abundant, its use was discontinued.

ONLY TO THINK!

"THERE are more romances in real life than in fiction."

I.

ONLY to think—
Never on earth
To see him more!
All life a dearth

Henceforth! Heart-sore,
Heart-broken in useless strife
With self, to silent live a life
Severed-sudden, rude in twain,
And moans and tears are all in vain!
Eternity for him has just begun;
For me life's troubled sands must run!
Now, in trilling serge, despairing;
Saddest gloom and tears prevailing.
To one bereft—"with sorrow laden!"
How long the journey seems to Heaven!
And death's mysterious realm between.

Only think!

II.

Only to think—
Life is not life
Itself alone,
With sorrow rife
For half that's gone;
Is all that's left for hopeless mortal
This mourning for the dear immortal?
That other self—that mystic self—
That wandering, weird, spirit elf,
Which stirs, in aching, pulsing throbs,
And broken, stifling, whispering sobs
To misery complete,
And agony replete
The thought—he is forever gone!
And I, alone, must live forlorn
With death's cold journey still between!
Only think!

LISLE LESTER.



MRS. C. FOWLER WELLS, *Proprietor*.
H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK,
OCTOBER, 1879.

BRAIN-GROWTH.

THE question is often asked—"How long does the brain of an individual continue to grow?" Some have an idea that it attains its full growth at the age of twenty years; and we have seen assertions, professing to be from medical authority, that the brain attains its growth at about fourteen years; but no close observer, no phrenologist who has had opportunity to measure thousands of heads, and to measure not a few of them, say once in five years for twenty-five years, will believe a word of it.

In many cases the brain will increase in size till a man is sixty years of age, provided he have a healthy, vigorous body, and live correctly, so far as diet and labor are concerned, and the mind be kept in an active, but not over-excited state.

Any sharp observer may enter fifty churches in succession, when the congregations are full, and he will readily see that the gray-headed father, sitting at the head of his family with his son twenty-five years of age by his side, will have a considerably larger head than his son.

In numerous cases this can be remarked in looking up and down the aisles. The old gentlemen's heads are the largest. If we revisit the same church thirty years afterward, we will find the energetic son with gray hair sitting at the top of the pew, and *his* son at his side; and the older man will have a head larger than the hopeful son—showing that it had been growing up to fifty years of age or beyond. We have just received a letter from Mr. L. N. Fowler, of London, which contains one remarkable passage. Mr. Fowler says: "I shall send you soon the phrenological character of Sir Josiah Mason, of Birmingham, England. In 1864 I measured his head, which was twenty-three and a half inches; in 1869 it measured twenty-four inches; and now, in 1879, it measures twenty-four and three-quarter inches, plump; and he is now in his 85th year."

The law of growth, in respect to the brain, is the same as that relating to growth of body. If a muscle, or set of muscles, be called into frequent and efficient exercise, they become thereby hungry for nutrition; and when the blood is passing those parts, the nutriment carried in the blood is absorbed by the parts needing it, and they become enlarged. A broken bone needs at the point of fracture bone-making material, and the blood which carries nutrition for every part, as it passes the region of the fracture, loses by affinity the material which the bone wants to repair the fracture. As the blood passes a flesh-wound, that part of the blood adapted to heal the wound is taken up and used where it is required. Let a person exercise the brain in the intellectual or thinking region and the forehead will grow, while other parts remain stationary. Persons engaged in

rough, laborious business need the exercise of the base of the brain, and that part of the head will grow; but if the labor require also the active exercise of the intellectual organs, the two regions will become enlarged accordingly. Those who devote themselves mainly to moral and esthetical subjects will be found with a larger top-head; and those who have body enough to give adequate support to the whole system, including the brain, will be able to increase the size of the brain year by year by the general exercise of all the faculties until old age. The body increases in size in old age, why not the brain? Generally there is not vigor enough in the vital system to sustain the body, and push the development of brain beyond the age of fifty; but there are cases which we happen to know, proving brain-growth until after sixty years of age.

Some persons think it impossible for the brain to increase in size after the bones of the skull have become hard and strong. When the brain requires more room in any part, the bone material of the skull is gradually absorbed or dissolved, and, like lime-water, is taken up by the circulation to be reorganized into new adjustments of the skull, large enough for the brain. The clam shell is as thick as a human skull and much harder, yet a clam will double his size in two or three years, during which time the entire shell will have been reconstructed on a larger pattern in every direction. The clam is never imprisoned or cramped by his shell; he is, like the brain, simply protected and shielded as by a friend. The shell is alive, and so is the human skull, like the finger nails, or the hoofs of animals, and capable of rapid growth, though the process be to us imperceptible.

s.

SOLDIER BOUND!

A CONFUSED roar breaks upon my sleep-benumbed senses. I listen. The sound approaches, and soon I distinguish the roll of drums and the shrill whistling of fifes. "Surely it is early morning yet," I mutter to myself; for through my open window I see no ruddiness in the sky—no sign of sunrise. I glance at my watch; it is twenty minutes after four. Now I hear the tramp, tramp, tramp of many feet in harmony with the drum-beat. I go to the window and glance down the street, and see a long line of helmeted soldiers moving briskly southward. I reflect a moment. Europe is at peace? Yes; then why this martial array, whose clangor disturbs the early morning air, and light-sleepers like myself? Ah! I am in *Imperial* Germany, where every phase of life is tinctured with a martial spirit. The nation is at peace? Yes; but "in time of peace prepare for war," is the proverb which the German government constantly illustrates.

Soldiers on every hand! In the crowded marts of the city, in the peaceful hamlets of the mountain we meet the tinselled dress and sword of the officer, the spiked helmet and bayonet of the private. Young men they are all, in the freshness of their strength—gathered from valley and hill for the camp and barrack. When I see heavy columns of these deploying in the outskirts of Mayence or Cologne, I wonder not that the women of Germany labor in the fields and perform the drudgery of the houses and the shops; for the flower of the German home is in the Emperor's army training for possible strife with neighboring nations, or for the suppression of revolutionary disorders which the Imperial Council knows are only la-

tent in the intelligent, liberty-loving masses, and which wine and beer-drinking habits help greatly to quicken.

"You have no army!" was the contemptuous remark of a German; and he added, "Just look at ours!" "No; we have no such great military establishment as you boast, my friend. But should there come the need, in a moment a million lion-hearted soldiers would be arrayed under the colors of our Union."

The man looked at me; the curl of contempt but a moment before wreathing his lip had been transformed into an expression of admiration, and he warmly exclaimed:

"Ah, you Americans are a wonderful people!"

D.

HOW NOT TO GOVERN.

AN anxious mother desires to know what would be the effect upon the moral nature of a child "if compelled, by parental authority, to do that which he feels certain is wrong."

There are two ways in which the child might be affected. He would learn to doubt the wisdom or the justice of the parent, or his moral feelings would be outraged and blunted. Though most parents, in their cool moments, desire to do right by their children, they often become angry, and compel them to do that which both parent and children know to be wrong. This blunts if it do not uproot a child's moral susceptibilities. It also arouses its anger, stirs up and strengthens the baser emotions, and tends to harden him in disobedience until he is regarded as utterly depraved. It would also blunt his filial affection, and thus disturb his social as well as his moral feelings, and if he were not a strong character it would

make him spiritless and discouraged. If the child had enough of moral stamina to prevent him from being utterly ruined until he reached the age of maturity and personal independence, he would be likely to ignore and condemn every thing he had thus been taught, and thereby repudiate much that was perhaps really valuable in his early instruction.

Children, in their training, should be permitted to have all the liberty which they can take without abusing it. This will awaken and establish in them a spirit of self-government, individual responsibility, and an awakening of Conscientiousness which gives a moral sanction to all their decisions. If they are acted on as mere machines, and bidden to do this, and to refrain from doing that, with no reason given or suggested, and none being apparent to their minds, they become mere slaves to parental authority and muscle, and of course never learn to feel individual accountability for conduct. If they are naturally too strong to be utterly crushed, they revolt and cast off restraint so soon as they are old enough to run away or become strong enough to confront the arbitrary injustice.

Children are but men in miniature, without possessing the judgment to reason as soundly, and they are affected quite as badly as adults are by arbitrary injustice from their rulers, and this, as all history attests, makes the people slaves, or arouses a spirit of revolution to throw off the unrighteous yoke. S.

FINAL WORDS.

BEFORE the issue of this number will reach distant readers the class of the "American Institute of Phrenology" for the year 1879 will be in session. The first day of October we hope to witness the meeting of the largest and best class that has ever assembled. The harvest of practical Phrenology is broad, and beckons the hands which can garner it. Ten million men, women, and children need the council and guidance which the phrenologist can impart, and would promptly recognize that need if the subject were properly presented to their acceptance.

Thousands of people have acquired a prejudice against the subject because they have seen some person who had little knowledge of it try to explain and apply it. But when any person appears in the field of Phrenology who is well versed in its doctrines, and has practical skill in applying it, especially if he have a fair education and agreeable manners, there is no subject which commands more intense interest, certainly none which is capable of being made more useful to all who think, and to those who desire to do and be all that it is possible and desirable.

Mothers are puzzled by the peculiar dispositions and tendencies of their children; they desire to do whatever is best to promote their happiness, and to guide them to virtue and usefulness, but they are so unlike in some particulars that no mode of treatment seems adapted to all. One needs encouragement, another restraint; one is brave, selfish, headstrong, and overbearing; another is timid, retiring, modest, and morbidly sensitive; others partake of both types of character, in some respects, and no rule seems adapted to all. Here it is that Phrenology becomes the guide and helper. It teaches the expert how to touch the keys of the mental qualities so as to bring out harmonious little dreamed of by those whose minds have not been illuminated by the light of Phrenology.

We desire to educate many who shall disseminate the good seed widely. We desire that all ministers of religion shall acquire a knowledge of this science of the mind; all teachers, all legislators, all who administer justice or treat

the insane, all who have the charge of factories, workshops, and stores, or wherever human nature is to be guided, managed, and governed. Merchants should send out as traveling agents those who are expert in reading character. A man so prepared will do twice as much business as another, and will do it more acceptably. One who has to feel his way among men, making mistakes in his method of address, will work hard to accomplish little. No matter how much he may know about the articles he seeks to vend, if he has no ready method of understanding his customer he will be but a "botch" at his business. A man long in business learns much of character, how to treat it and mold it; but it is merely intuitive, or the result of observation. But who is willing to fill up life with blunders till the age of forty, learning by the hardest, without a rule, when by reading during the spare hours of six months, and then taking six weeks of instruction, he might start well equipped at twenty and do better in six months than his father can do who has followed the same business for twenty-five years.

It is not the professional phrenologist merely that the Institute is engaged in developing. It would lend its aid to every class of persons who have to deal with mind and character in the school-room and family, the pulpit, the hall of justice, in the spheres of business or of command; wherever human nature has to be led, molded, guided, or controlled, this comprehensive science of first principles offers its aid and claims recognition.

a.



"He that questioneth much shall learn much"—*Damon*.

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 FAILS 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.

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. Anonymous letters will not be considered.

CAPILLARY CONGESTION. — *Question*: An hour or two after I have had my meal, my

head begins to feel heavy and dull, and I do not feel like doing anything; and three or four hours after my meal I begin to feel hungry again. Before this trouble came on me I could study and never get tired, but now I am too thick headed to do anything. Can you tell me what is the reason of this?

Answer: We presume that the immediate occasion of the congestion, which induces the uncomfortable sensation you complain of, is a sluggish liver. You should regulate your diet so as to promote freedom in the action of the stomach and liver. As a general thing, soon after one has eaten a full meal there ensues a sluggish, nervous state. Blood is drawn to the stomach, and the forces of the system are occupied with the work of digesting mainly, hence the brain and nervous system become more or less depressed, and one can not think and act very effi-

ciently. The trouble you are suffering, we think, is mainly due to a sluggish circulation induced by a torpid or congested liver.

MOLES!—The moles you speak of are due in a great measure to the same cause which has been hinted above. Your blood is reduced in tone and quality, and the moles indicate that. An invigorated, purified circulation will have a marked effect upon the skin, cleaning and renewing it.

OLD STYLE AND NEW STYLE.—If you will consult an encyclopedia you will find this whole matter clearly explained. In brief, it may be said, that in 1582 Pope Gregory XIII. sought to regulate the Roman calendar so that it should accord with astronomical time; and it was then ordered that October 5th should be called October 15th. This regulation was adopted in England, but not until 1752, when the 3d of September was called the 14th. As a general rule to change old style to new, we add eleven days. If the revolution of the earth around the sun occupied exactly 365 days and six hours, the Calendar would not require correction. As it is, the period of revolution is about eleven minutes shorter. To compensate for the quarter, a day is added to February once in four years; and to compensate for the loss of the eleven minutes per annum, an extra day is allowed once in a hundred years.

PRIZE ESSAY.—J. O. R.—The offer of a prize for the best essay discussing the relations of Faith and Reason, was carried into effect in due time. A scientific gentleman of this city and a Western clergyman were awarded the prize, and it was divided between them, each having discussed the subject from a different but equally important point of view. We can supply a pamphlet which contains the first prize essay, which is entitled, "Psychological Basis of Religion," at twenty cents.

PIMPLES AND SORES!—The condition of the skin is an indicator of the functional states of the stomach, liver, kidneys, etc. When any of these organs are impaired, sickness is the result, and the kind of sickness is dependent upon the organ which is deranged. Dyspepsia, so common in society, is indicative of irregularity or disease in the stomach. Sores and pimples show that the skin does not act its normal part in throwing off the effete matter or waste of the system; its pores having become clogged, different forms of illness result; fevers, colds, rheumatism, etc. Sores and pimples show congestion in the part where they are situated, and the breaking out which constitutes a sore, is an effort on the part of Nature to relieve the system of corrupt material. One who is troubled with these disagreeable things, should not apply medicated washes or swallow drugs for their

eradication, but seek to improve the general health, eating good food, particularly fresh vegetables and fruits, articles which serve to cool the blood and soothe the nervous system.

FETICHISM!—*Question:* In one of your late numbers, some mention is made of fetichism: will you be kind enough to give me the definition of the word?

Answer: Fetichism is the lowest form in which man indicates his natural disposition to worship. The miserable half-savage Hindu, the barbarous native of Central Africa, the fierce South Sea Islander, bow to stones and reptiles, and deem no object too mean for consecration by some mysterious, supernatural influence. Fetichism is a rude form of Pantheism, or the existence of God in all the objects of Nature. The term itself is derived from *feitico*, which is borrowed from the Portuguese *feitico*, and is used by the negroes of Senegal to denote an instrument of witchcraft. The term *feitico* means an amulet or talisman, something that has been blessed, and is thought to possess magical powers.

LAWS OF COLOR.—A work of considerable size has been recently published, called "The Color Sense," in which the supposed origin of color is sought to be explained and the phenomena of its observation described. The author is Mr. Grant Allen. Price \$3.50.

HAIR FALLING OUT.—Subscriber may be informed that the best method of treating the scalp for falling hair is its thorough cleansing. If the hair and scalp be washed every day with tepid water and fine toilet soap, and after having been well dried by the application of a soft towel, it be gently rubbed with a soft brush, the hair-cells, if not too much diseased, may be stimulated to renewed activity, and the hair take on a fresh growth. Baldness in most cases is constitutional and seemingly unavoidable; this may be the case with you.

PAWNBROKERS' BALLS.—*Question:* Will you be kind enough to give me an explanation of the three gilded balls one sees hanging out from the pawnbrokers' shops?

Answer: We have answered this question once or twice before, probably not within your time as a reader. The sign was taken from that of the Lombard bankers of Italy, who were the first to open loan-shops in England for the relief of those in distressed circumstances. The greatest of the Lombards were the celebrated Medici, of Florence. On their armorial shield were engraved pills, in allusion to the origin from whence they had derived the name of Medici, or physicians. Their agents in England and other countries placed their coat of arms over the doors of their loan offices as a sign, and after a while it became customary for those in similar business to put up the same token.

TEETH OF CHILDREN.—*Question*: Is there any way of overcoming a tendency to defective teeth in a very young child? My boy, hardly two years old, has teeth which show signs of decay.

Answer: Some children inherit poor bones and teeth. Some teeth are poor because their food lacks phosphate of lime; some eat sugar, which not being digested promotes acidity. Let the child's teeth be kept clean, and avoid vinegar and sugar, cake and fine flour. Let him eat oatmeal, cracked wheat, Graham bread, and avoid hot drinks and ice water. Promote the general health, and the teeth and all tissues will be improved.

PHRENOLOGY AND PHYSIOGNOMY IN-HARMONIOUS—*Question*: One of the fundamental principles of Phrenology is that the mind has a special organ, viz., the brain; and that it (the mind) does not reside in the whole body. For instance, if the hands or feet possessed mind, this would give to them the power to think and reason, which they do not possess. The very soul of Physiognomy lies in the principle, "All shape and form indicate character, and all shapes and forms originate in mind." That is, each body has its own specific form, because its mind gave it such; or, in other words, each mind forms just such a body as it needs for itself. Now, how can the mind shape just such a body as it needs for its use if it does not occupy the whole body?

Answer: You know that the nervous system, throughout the length and breadth of the body, is connected directly with the brain, just as the telegraph wires of the country center in one common focus, the general office of the company which owns and operates the lines; and the wires are dependent upon the grand central battery for their usefulness in the transmission of intelligence. In the brain resides the mind, or thinking principle; the body is its servant. The nervous system makes every part of the body intimately related to the mind. It is not necessary, then, that the mind should occupy the great toe of the right foot to have that member move in accordance with its will, any more than the mind of the railway manager should reside partly in the brain of the locomotive engineer in his employment. The engineer does the work of the manager responsively to his bidding. A well-organized railway works throughout its length responsively to the manager, who sits in his office, and with the assistance of bell and telegraph, keeps the whole concern in motion, joining the work of transportation for a State. The evidences of the mind of a man like Vanderbilt could be seen all along the four or five hundred miles of railway, yet as an independent entity, that mind resided in the head of Mr. Vanderbilt. It is necessary to separate between ef-

fects and causes in discussing the phenomena of thought. The inconsistency or inharmony to which you allude is scarcely more than constructive.

H. P.—*Question*: Can I write for the JOURNAL?

Answer: You had better not write poetry. Save the piece you sent us for ten years, and then, if you think it will do, we will publish it.

IS IT A SWINDLE?—*Answer*: We know nothing about the concern. If it is an advertising affair it is very likely a puff-ball. If you had given your name and address, as you should, we could have answered you by mail. Write somebody in that town, inclosing stamp for reply.

MEMORY.—*Question*: I am troubled with a very poor memory. How can it be improved?

Answer: This question can not be fully answered in this department of the JOURNAL, as there are many phases of the subject. Many things tend to injure the memory. Tobacco, alcoholic stimulants, fine flour, which starves the brain, coffee, greasy food, and sugar, which tend to clog the liver and cloud the brain; too little sleep, excessive indulgence of the social instinct, etc. If all these causes are absent, or shall be avoided, and the memory still remain poor, we shall be ready to look for other causes.

PSYCHOLOGY.—**L. B., JR.**—The work you refer to would not help you in the study of Psychology, as we understand and use that term.

TELEGRAPHY.—*Question*: What phrenological organs are necessary to become a good telegraphic operator, and how much would it cost, and how long would it take, and how would it pay to be an operator?

Answer: One should have large perceptive organs, including number, good memory, a mental temperament, large Firmness and Continuity, and sharp hearing power. The tuition varies from \$25 to \$100; and the time required, according to the pupil's facility, is from three to twelve months. The pay depends on the person and the place he gets.

"HONOR AND SHAME."—*Question*: I have seen this form of the quotation, "'Honor and fame' from no conditions rise." Which is correct?

Answer: "Honor and shame" is the true quotation. The poet intended a broad contrast of extremes, to show that conduct, not conditions, is the foundation of either honor or shame. Men are sometimes honored without merit, or derided and crucified without demerit.

J. R. V.—The conditions stated are about right. If you had given your address and

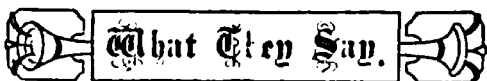
sent a stamp we would have written to you, as the matter is strictly personal.

HAIR FALLING OFF.—*Question:* Is there any remedy for the falling off of the hair?

Answer: That depends upon the age and constitution of the person. Some persons become bald early; others of no stronger constitution never lose their hair. Some naturally come to baldness sooner or later. We know of no remedy for this. Early and abnormal baldness occurs through overwork of brain, sickness, or wrong articles of diet or luxury. If one stimulates or eats in such a way as to keep the system feverish, no doubt nature will give evidence of abuse, among other methods, in the falling of the hair.

CATARH.—V. F.—Your trouble is catarrh, the proper treatment for which you will find in "The Health Almanac for 1875." Price, 10 cents.

Several ANSWERS must be deferred to the next number.



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 PRIVATE LETTER.—The following letter, recently received from an excellent friend, though intended as private, is in such sympathy with our objects and life-long labors, that we venture to share its sentiments with others to whom the cause of human science is as dear as it is to us:

NEW YORK, Aug. 14, 1879.

MY DEAR MRS. WELLS: I can not see you to-day; but I must express to you in some way that my pleasure and surprise were great indeed when I accompanied you through your *Artistic and Literary Laboratories*. My hurry was so great that I could only see and then disappear, without giving vent to my joy and gratitude, and all that—for I had no idea of the extent of your establishment at 737 Broadway, though I had long been aware of the fact that your Phrenological Institute, with its excellent professors, lecturers, and writers, and extensive cabinet of interesting busts, skulls, and portraits, was doing a vast amount of good in the world; and since seeing the beautiful library and all the systematic details of your publishing department, from the editor's chair, before which I always bow in profound reverence, to all the minor parts, I feel a still greater interest in your earnest desire to perpetuate your institution, with all its advantages, for the welfare of future generations, and I deem it laudable in

you to wish to do so by erecting a "Memorial building," that those whose lives have been given in the promulgation of the noble science of Phrenology, may never cease to live in the memory of humanity. I regret my inability just now to contribute to your dear enterprise, but I promise you that if the solitary dollar I gave you some time since as a fund-germ for the same object, be not soon augmented by contributions from other friends, that I will add to it so soon as my means may permit; which to me will be a duty as well as a pleasure, for I owe much to that science which first taught me to know myself, as I consider that my first *impulse to growth* commenced with its study, and I have no doubt that there are thousands who feel as I do about it. If these would only give according to their means—twenty-five cents, a dollar, ten dollars, a hundred, a thousand, or ten thousand dollars, from the able and willing, you would soon be able to realize your "ever present dream" (as you once expressed yourself in regard to it), and I believe you *will* have sympathy and aid from all friends, with means, who "love their fellow-men."

Lovingly yours,

SOPHIE W. KENT.

A WOMAN'S TROUBLES.—*Mister Editor:* I am in grate truble and I want some advise. When I was young I was teached that a woman's bisness was to be agreeable, ornymental and affecshunt. They sed that kind of a woman could get the smartest husbands and I gess thats so for my husband is a very smart man and he used to say I was as hansum as a pitcher and stlicish as a fashion plate and lovin as a dove. Hes a grate deel smarter than Mister Dawkins our next door uabor, but Missis Dawkins knows everything and my husband seems to think more of talkin to her than of lookin at me and she don't like it because her husband sits and looks at me instead of lookin at her while shes talkin to my husband. At least I dont think she does and this is part of my truble but not the worst. Missis Dawkins is as homely as a hedge fense and dont know this years fashions from last and I made some remarks on her looks one day and my husband said and said it very expresive to, that folks isnt to blame for not bein hansum but they was to blame if they didnt know nothin because they could learn if they wanted to. I shall think to my dyln day that he ment me and it made me feel bad so I thot I'd try to lern somethin. Missis Dawkins and my husband used to talk a grnte deel about the daly papers so I looked in them and I saw a place that sed Notes for the fair sex and if I dont know much I knew that was for wimmin and kept readin it but all there was to it was about dresses and fashions; and got another paper and that had a column of W-o-m-

n-u-l-t-e-s that was just the same. And I got another that had a place in that sed for and about wimmin and 'that wasnt much better. Once in a while they told about some womman that had painted a pitcher or killed a bare or shot a man or how old some womman was who made a speech but mostly twas all the same. All they had for wimmin was about clothes and hair and such things so I begun to think I was teachted rite after all. But it seems to me my husband aint satisfied and I saw one of your papers one day and it sounded so kind o' sensible that I thot I'd rite and ask you if you think as all the other editers seem to that a womman dont need to know nothin only how to be agreeable and affeckshunt and fix herself up nice. I shall wait for your answer with great angziety. I spose my spellin aint hardly good enough for a Editor for I didnt go to schule much, but you must excuse it and remember how little I was teachted. Yours, very truly,

JOSEPHINE JACKSON.

Blinton, Oct. 1st, 1867.

I CAN NOT DO WITHOUT THE JOURNAL. I like it above all other publications. Its pages are brimful of good, sound reading matter, so different from the *trash* so prevalent in these times.

H. E. S.—ILL.

THE TIMES CAN NOT GET SO HARD but what it would be harder to do without the JOURNAL, and hard times or no hard times I must and will have it.

W. C.—PA.

EDITOR PHRENOLOGICAL JOURNAL—

Dear Sir: So laden with good things is the JOURNAL each month that after reading all the numbers for a year, it is difficult to say which number is best. When I took my pen to write I was going to tell you I never read a number with so much interest as the August number for 1879; but maybe I've forgotten about other numbers.

There is one thing, however, in the August number which has a special intercat for me, and I dare believe it has the same for hundreds of others, namely, the letter from J. O. Clark, Hopkins Co., Texas.

If I can judge from what I've heard from health-reform friends and my own feelings, I believe there are a great many longing for a chance to go where other health reformers are, that they may be enabled to carry out their convictions to a greater perfection. What are most of our popular social gatherings of to-day but death to health?

I say let the friends of a better and higher life get together in colonies, that they may be enabled to work with more effect against the evil practices of to-day, and for the elevation of the whole human family. We must concentrate our

forces if we shall win. We must work systematically, and this we can not do, scattered, so well as we could in companies. The JOURNAL, ever for progress and reform, will aid us.

Let each reader therefore try to widen its circulation. Now is the best time to begin. Few that subscribe for the JOURNAL will ever drop it again while they live. So if we get a subscriber for it we have done something by which the world is bettered. We frequently hear people say "What good can I do?" Here is something most every one can do, and doing it you are doing good.

H. A. ANDERSON.

Pigeon Falls, Wis., Aug. 29th, 1879.

PERSONAL.

"IN MEMORIAM."

DR. JEROME VAN CROWNINSHIELD SMITH died at Richmond, Berkshire county, Mass., on the 20th of August last, aged 79 years. Dr. Smith was born at Conway, N. H., July 20, 1800, and was graduated at Brown University in 1818. He was the first Professor of Anatomy and Physiology in the Berkshire (Mass.) Medical Institution, and in 1868, '69, and '70 held the same position in the New York Medical College for Women. He established in Boston the *Medical Intelligencer*, which he edited in 1823-'24. For a short time he edited the *Weekly News Letter* (1825-'26), and for thirty years was the editor of the *Boston Medical and Surgical Journal*. He was also the editor of other periodicals and the contributor to several publications. He was Port Physician of Boston from 1826 to 1849, and in 1854-'55 was mayor of the city. He was the author of many scientific and miscellaneous works, including the following: "The Class-Book of Anatomy" (1837), "Life of General Jackson," "Natural History of the Fisheries of Massachusetts" (1833), "Economy of the Honey Bee," "Mechanism of the Eye," "Pilgrimage to Palestine" (1851), "Pilgrimage to Egypt" (1852), "Turkey and the Turks" (1854), and two annual messages as mayor, and various addresses, orations, etc. Dr. Smith was a very learned man, especially in languages and literature; was plain, polite, and genial in his manners, one of the easiest and most intelligent of public speakers, and full of interest in all modern scientific developments. He wrote and read without glasses, and in his appearance and looks might have passed for sixty. We treasure his memory as a beloved friend. He has gone to his rest, and left no enemy, but hosts of friends.

PROF. L. N. FOWLER and daughter sailed from New York for London, in the steamer *Victoria*, August 23d. His stay in the United States was brief, not quite two months, yet he visited

friends in New England, western New York and in this city, deriving as well as giving thereby eminent satisfaction. During the nineteen years of his absence, time has whitened his locks, but it has not impaired the clearness of his mind or his bodily health.

FIRST COLORED LADY GRADUATE OF A MEDICAL COLLEGE IN AMERICA.—Miss Susan Smith, now the wife of Rev. W. G. McKinney, graduated from the Woman's Medical College of New York as valedictorian of her class in 1870. She is a native of Brooklyn and is the wife of Rev. W. G. McKinney, a former missionary to the freedmen in North Carolina. Previous to her career as a medical student, she was a teacher in a colored school in this city. Her college expenses she paid out of her own earnings, and she very sensibly prides herself now upon the fact that she has been self-sustaining from the time she started out in her career. Her father is a man of means, and she might have been a belle in the best circles of the colored people in this city, where there are a number of wealthy and very many well-to-do families. But her thoughts and aspirations were of a different life, and she set about self-improvement as her first duty. She has succeeded in winning her way to a good practice, and to a high place in the confidence and respect of the public.

WISDOM.

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

PEACE is such a precious jewel, that I would give anything for it but truth.—*Matthew Henry.*

THE man who can be familiar with every one he meets, and preserve their respect, and does not lose his own, is a very uncommon character.

THE man who has got so low down that he can't be flattered, has got so low down that he can't be abused.

BETTER than grandeur, better than gold,
Than rank and titles a thousand-fold,
Is a healthy body and mind at ease,
And simple pleasures that always please;
A heart that can feel for another's woe,
And share its joys with a genial glow,
With sympathies large enough to enfold
All men as brothers, is better than gold.

NEVER does a man portray his own character more vividly than in his manner of portraying another's.

"**WHATEVER** crazy sorrow saith,
No life that breathes with human breath
Has ever truly longed for death."—*Tennyson.*

THE world was never intended for a house of

mourning. The flowers are not painted black, nor is every bird a crow.

WE can do more good by being good than in any other way.

GRAVITY is only the bark of wisdom, but it serves to preserve it.—*Confucius.*

MARRYING a man to save him is "played out" among sensible girls.

YOU can not dream yourself into a character; you must hammer and forge yourself one.—*Froude.*

SOCRATES called beauty a short-lived tyranny; Plato, privilege if natural; Theophrastus, a silent cheat; Theocritus, a delightful prejudice; Carneades, a solitary kingdom; Domitian said that beauty was better than all the letters of recommendation in the world; Homer, that 'twas a glorious gift of nature; and Ovid calls it a favor bestowed by angels. But then they didn't understand anything about false teeth, curls, calves, etc.

MIRTH.

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

HOMOEOPATHY.—"Similia, Similibus Curantur."—A gentleman who suffered from palpitation of the heart was relieved by applying another palpitating heart to the region affected. Pellets of sugar indeed!

HOW many thousands there are who live out a whole life, and have nothing to prove it by, only that they have had the mumps, the measles, and perhaps the chicken-pox.

A FELLOW wrote to a down-town store as follows: "Dear sir: if yew hev gut a book called Daniel Webster on a brige, please send me a copy by Pyscr's express c. o. d.—I want to git it ter-morrer if I kin, cause my spellin'-teacher says I oughter hev it."

"**THERE** are too many women in the world; sixty thousand more women than men in Massachusetts," growled the husband. "That is the survival of the fittest, my dear," replied the wife.

AN Irishman went to the theater for the first time. Just as the curtain descended on the first act a boiler in the basement exploded, and he was blown through the roof, coming down in the next street. After coming to his senses, he asked: "An' what pece do yez play nixt?"

A good square kick will sometimes help a man further along in this world toward independence and prosperity than a dozen pulls by the

hand.—*Derrick*. We know several men whom we would admire to help along toward independence and prosperity.

MRS. PARTINGTON, in illustration of the proverb, "A soft answer turneth away wrath," says that "It is better to speak paragonically of a person than to be all the time flinging epithets."

THIS world would be a dreadfully silent place if people talked as little as they thought.

THE leaves of trees, like summer boarders with bills unpaid, take their departure, leaving their trunks behind them.

"WHAT's the matter, my dear?" said a kind wife to her husband, who had sat for half an hour with his face buried in his hands, and apparently in great tribulation. "Oh, I don't know; I've felt like a fool all day." "Well," said his wife, consolingly, "you look the very picture of what you feel."

THE *Boston Transcript* gives the following account of the origin of a word: A great many years ago, a poor beggar explained his ragged appearance by observing: "I have no money to buy new clothing, and mend I can't." And his class have been called mendicants ever since.

HENRY ERSKINE, happening to be retained for a client by the name of Tickle, began his speech in opening the case thus: "Tickle, my client, the defendant, my lord," and upon proceeding, was interrupted by laughter in court, which was greatly increased when the judge, Lord Kames, exclaimed: "Tickle him yourself, Harry; you are as able to do it as I am!"



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 HISTORY OF THE ORIGIN OF ALL THINGS: Including the History of Man. By L. M. Arnold, of Poughkeepsie, N. Y. 1852. Now published by Annie Getchell, M.D., Boston.

This is an octavo volume of nearly five hundred pages, purporting to be "Written by God's Holy Spirits, through an Earthly Medium," viz., L. M. Arnold. The work was published in parts, in 1852, and pretty widely circulated, but for many years it has been out of print, and is now

revived by Dr. Getchell, as a work full of interest to all who find comfort and upbuilding in what is called "the Spiritual Philosophy." There seems to pervade the whole work, whether it come from the author, or those who, it is stated, spoke through him, a highly moral and religious spirit. Of course the framework of the doctrine would not be accepted by evangelical teachers, though many passages would grace any discourse on piety and religion. Price, \$2. It may be ordered through the JOURNAL office.

HOW TO BE WELL; or, Common-Sense Medical Hygiene. A book for the people, giving directions for the treatment of acute diseases without the use of drug medicines; also hints on general health care. By M. Augusta Fairchild, M.D. S. R. Wells & Co., Publishers. 1879. pp. 180. Price, \$1.

This is a crisp, earnest, straightforward work, simple and plain enough in its style to be understood readily by common people, yet full of that medical culture which comprehends the principles, and lies at the foundation of successful medical practice.

The author has been graduated for many years, and in active practice, and brings to the work in hand experience, and facts which have grown up under her own inspection; therefore she is able to understand what topics to treat and how to treat them, in order to make a book for the people, which shall lead towards health, and in thousands of instances obviate all necessity for the delay and expense of obtaining medical advice. The people are trying to know something about themselves and how to cure for the health of the family, avoiding thereby serious illness, by avoiding the causes, and nipping in the bud attacks of disease before they become unmanageable.

The book before us undertakes to teach the common people—those who have no technical knowledge of Physiology and Hygiene—how to treat themselves and their families according to the true healing art. It opens with an explanation of the Hygienic medical system, gives the philosophy of the two grand remedial agents—water and movements. We have a chapter showing how to apply the wet sheet; abdominal bandages; wet compress; fomentation; sitz bath; foot bath; and everything that relates to the application of water for the cure of disease.

There is a chapter on the general character of fever; its nature and how to treat it; another chapter on typhus fever; another on eruptive fevers, such as chicken-pox, measles, and scarlet fever. The subject of the throat and lungs, and their diseases and how to treat them, is an interesting chapter, especially to those who have children afflicted with the liability to croup, quinsy, inflammation and irritation of the lungs; another form of fever is inflammation of the stomach, which is presented in all its varied

phases, with the proper suggestions as to treatment. We have also a chapter on the nervous system, which explains that mysterious difficulty called nervousness, and shows how health must come to the people of this country, through Physiological living, not by means of anodynes and tonics. The great subject of indigestion and all the symptoms which belong to that central trouble. Its phases are numerous, and its treatment really simple, when properly understood. Millions of people are dragging out a miserable existence, through the want of knowledge of the proper kinds of food, who have indigestion, and all the evils that grow from it; whereas, a little information as to the selection and preparation, and use of food, would obviate their troubles.

A chapter is devoted to food, and true Hygiene, as it relates to diet, and is plainly and forcibly set forth. Dress, or the proper method of clothing the system, a most important subject, is treated with plainness, and illustrated by engravings.

This book, *How to be Well*, is written in the interest of the public, not of physicians. If people would learn to live rightly, and learn something of disease, and the proper method of obviating it, the public health would be thereby greatly enhanced, and physicians would find little to do.

This work seems to go right home to the subject for which it was designed, and we are mistaken if it does not command a large circulation.

A MAGNIFICENT REPLY TO COL. ROBERT G. INGERSOLL'S ATTACK ON THE BIBLE. By S. V. Leech, D.D. J. K. Funk & Co., 21 and 23 Barclay Street, New York, Publishers. Price, 10 cents.

This work of Dr. Leech is an able effort in the right direction. In the Bible we have the soundest morals, the tenderest affection, the most loyal patriotism, the grandest poetry, the best history of the human race, and the basis of the richest civilization known to mankind. The blemishes which skepticism claims to have found in its narratives, is one of the best evidences of its genuine character; for it does not conceal the shortcomings, when they exist, of its chief characters. Where the Bible is widely read we have the best general ethics; society is safest, and the highest type of civilization is found. In spite of the errors and weaknesses of religious men, the general integrity and moral worth of those who believe in the God of Abraham, Isaac, Joseph, and Paul, stand peerless upon the records of the race. Hence, we say the work of Dr. Leech is in the right direction, able and satisfactory.

LIFE OF T. DE WITT TALMAGE, D.D.; and the History of the Brooklyn Tabernacle, with Specimens of his Oratory. Edited by John

Lobb, F.R.G.S., of *The Christian Age*, London, 107 Fleet Street. 1879.

This is a handsomely printed volume, of 192 pages, giving a history of Mr. Talmage, his talents, peculiarities, and labors, in an interesting and racy manner. The editor had the good sense to quote liberally from the speeches and writings of Mr. Talmage, so that the book is not the editor's opinions, but the life and labor of the man himself; and one who reads it becomes intimately familiar with his style of thinking, and the moral and spiritual tone of the subject of the biography. In the preface page of the second edition of the *Life of Dr. Talmage*, we find these words: "Three thousand copies of the *Life of Dr. Talmage* were sold within three hours of its publication." So it would seem that Mr. Talmage is reaping a harvest of popularity in England, quite equal, if not superior, to anything which has attended him in his own country, indicated in the rush to hear him, and partly by the sale of this book. The work contains a phrenological description of Mr. Talmage by Prof. L. N. Fowler, now of London, formerly of New York.

MONEY: Its Definition and Tests, etc. By John S. Bender. Plymouth, Ind. 1879.

This is a well-printed pamphlet of 84 pages, and presents the Greenback phase of finance in a clear and strong light. The author is sincere, thoroughly in earnest, and evidently writes to be read and believed; and this fact alone would make the book worth reading by any man, no matter if he were a "gold bug" or a "bloated bondholder." The financial question seems to be thoroughly understood by so many people it is a wonder we do not all learn to "see eye to eye." It is a marvel that good men and strong thinkers should be so diametrically opposed as they are on finance. All being sincere, each knowing it all, yet squarely opposed. Is finance an insoluble mystery? Time, common sense, economy, and industry seem to be settling it, while gold and greenbacks "are kissing each other."

FACTS ABOUT TOBACCO.—Compiled by Professor Edward P. Thwing. N. Funk & Co., Publishers, New York. 25 cents. May be ordered from this office.

Prof. Thwing, as is usual with him, talks strongly on nearly every phase of tobacco and its use. No analysis of the book, for which we have room, could do it justice. Every person who uses tobacco, or who is likely to form the habit, should spend the cost of three cigars for "Facts About Tobacco." The use of tobacco is the crying evil of the time, and the matter is all the more sad because its use is considered respectable, and by very many is supposed to be harmless. Twenty million people in America used "Facts About Tobacco."

PUBLICATIONS RECEIVED.

THE DAISY: a Journal of Pure Literature, conducted by John Lobb, F.R.G.S., managing editor of the *Christian Age*, editor of "Uncle Tom's Story," and of the "Life of Rev. T. De Witt Talmage." London, 1879. This is a handsome quarto weekly, full of living literature, largely drawn from American sources, which must tend to infuse into the minds of the more wide-awake English readers the spirit of progress, which grows out of the wonderful agencies at work in this new pioneer country, rich in lands and mines, and broad enough to absorb and employ the surplus labor of the world. The selections are excellent, and the entire spirit of the work is admirable.

THE YEAR-BOOK OF EDUCATION FOR 1879: A Dictionary of Information for the Use of Teachers, School-officers, Parents, and others. New York: E. Steiger. London: Sampson Low & Co. The 566 large octavo pages of this work are packed with statistics of schools and colleges in the different States and Territories, school legislation, educational publications, and general information on topics relating to Education. We see in this year's book an encyclopedia of school knowledge, and wonder how it could be collected and so admirably arranged.

AMERICAN MACHINIST: This bright, spicily, sensible quarto weekly, devoted to practical mechanics and engineers, is one of the best, carefully written, well illustrated, and full of real merit. An article, "Use and Abuse of the Engine-lathe," is worth a year's subscription. Its editorials also have the true ring; one in particular, "Kid-Glove Naval Engineers," is a sharp criticism, and overhauls without gloves the U. S. Naval academicians.

UNITED STATES MEDICAL COLLEGE OF THE CITY OF NEW YORK, incorporated May, 1878. Second Annual Announcement, 114 and 116 East 13th street, New York. This college has a strong faculty, which is much in earnest for thorough medical culture. Prof. Robert A. Gunn, M.D., Dean; Prof. Alexander Wilder, M.D., Secretary.

NEW YORK MEDICAL COLLEGE AND HOSPITAL FOR WOMEN, 301 Lexington avenue, corner 37th street, New York. Annual Announcement. Mrs. C. S. Lozier, M.D., stands at the head of the faculty, and is well sustained by excellent names.

THE SPIRIT RECORD, AND OTHER POEMS. By H. Clarence Gibbs. This handsome book of 76 pages contains sixty poems, always elevated in sentiment and often flowing with smooth and easy measure. The author was a pupil of ours, and we shall treasure his book of poems as a souvenir.

BEER AS A BEVERAGE: an Address of the Rev. G. W. Hughey, A.M., in Reply to the Annual Address of H. Rueter, President of the Nineteenth Annual Convention of the Beer Brewers' Congress. Published by the National Temperance Society, 58 Reade street, New York, 1879. Price, 10 cents. This is an able and much-needed effort, and deals effectively with the false claims of the beer brewers, and the erroneous pretensions of their customers and apologists. Let it be widely circulated.

HISTORY OF THE DISCOVERY OF ANÆSTHESIA. By J. Marion Sims, M.D., LL.D., of New York, with a likeness of Crawford W. Long, M.D. Richmond, Va., 1877; New York, 1879. This appears to be an exhaustive history of the subject of the discovery and use of agents to obviate pain in surgical operations, and should be in the library of every physician and dentist.

NEW YORK PRESS ASSOCIATION.—Twenty-third Annual Convention at Rochester, N. Y., June 17 and 18, 1879. This handsome pamphlet contains the proceedings of the convention. The address by Hon. Whitelaw Reid, of the *New York Tribune*, is a masterly affair, full of clean-cut common sense, and valuable to the editorial fraternity. The poem by George Alfred Townsend is excellent.

"PLANT Sweet Flowers on my Grave." A new song and chorus, by E. Fox. F. W. Helmick, Cincinnati, O. 40 cents.

STATE ARMS (Vol. I, No. 1.), Springfield, Ill. —This is a large three-column quarto weekly, very handsomely printed on large type. Its vignette is the State capital and nine portraits of distinguished Illinoisans, with Lincoln at their head. This first number bristles with talent and spirit, and we welcome, with pleasure, the new candidate for fame and fortune.

THE MUSICAL TRADE REVIEW, weekly, 23 Union Square, N. Y. \$4 a year.

THE ART AMATEUR: a Monthly Journal, devoted to the Cultivation of Art in the Household. Montague Marks, publisher, 571 Broadway, New York.

THE NEW ERA, Columbus, O.: an independent temperance advocate, published weekly, by T. J. Wycarver, Esq. A. J. Bowen, editor. We wish it abundant success.

CONCERT EXERCISES for Sunday-schools and Juvenile Organizations. No. 1. The Christian's Journey. No. 2. The Story of Redeeming Love. 16 pages each. Price, 6 cts., or 60 cts. a dozen. J. S. Ogilvie, publisher, 29 Rose street, New York. These are well adapted to make the work of the Sunday-school easy, popular, and very interesting, and should be widely used.

THE
PHRENOLOGICAL JOURNAL
VOL. 69. LIFE ILLUSTRATED. 1879.

NUMBER 5.]

November, 1879.

[WHOLE No. 492.]



JOHN HALL, D.D.

IT is nearly eleven years ago that John Hall preached his first sermon in the Fifth Avenue Presbyterian Church, New York, as the pastor of its large and influential congregation; and the favorable impression which he then made has

been strengthened with each succeeding year of his continuance in that relation. The visitor to the Fifth Avenue Church during service on Sunday, will see a man of large and powerful frame, considerably above average in height, and with sho-

ders broad and stooping. His hair is thin, originally light in color; it is now plentifully sprinkled with gray, and his eyes are clear and keen, imparting a lively and pleasing expression to the strongly-marked outlines of the face.

From the portrait of this gentleman we make the following inferences: that he is large and deep in the chest, broad in the shoulders, has abundant vitality, a plenty of bone and strength, and the basis of a very strong character for health and harmonious manifestation. With such a body he should not be nervous, excitable, or erratic, but calm, strong, steady, and earnest. He should carry himself with steady strength through the difficulties and labors of life and come out victorious. The reader will observe that the face is uncommonly large; it is broad outward from the nose, particularly at the cheek bone, which is in harmony with the great chest, and extraordinary breathing power. Outward from the mouth, also, there is breadth and fullness and strength to the lower jaw and chin, and these would indicate excellence of the digestive and circulatory systems; the vital elements, as they are called. The largeness of the face renders the appearance of the head relatively small, yet the head is large. Where the face is small and thin the head appears pyriform, and strikes the observer as more largely developed in brain than is the case where the face is relatively so large. We could mention perhaps a dozen public men with enormous weight of face and neck who pass for having small crania, whereas the head is really larger than many whose face is too small for the size of the cranium.

With this royal health, this deep-toned vitality, there ought to be uncommon mental vitality, richness of thought and

earnestness of feeling. Some human beings are like some birds: they can do nothing except on the wing. Other human beings are like other birds, whose home is on the earth, but who can fly on the approach of danger. Our subject is more like the latter than the former. He has sympathy with daily life, with common things, and common people; is not dainty, distant, critical, or mincing in his mode of thought and social life.

He is inclined intellectually to the sphere of facts, and whenever he soars to the realm of philosophy and logic, he will always be found to have solid facts for his foundation; and when the tower rises high it may be known that he has an immense amount of fact in the base of the structure. He would do well as a scholar in natural history, as nothing escapes his attention in the world of matter. He would enjoy mineralogy, geology, chemistry, natural philosophy, entomology, and as a writer he would excel in biography.

He has a systematic cast of thought; he builds an argument tier on tier, as he would build a wall, with a solid foundation.

His memory of places and historic events is excellent, and his Language being large, he is able to explain and expound his ideas. We who write this delineation have never heard him preach and not even read a sermon of his, but we judge that his style is clear, simple, well imbued with facts, full of sharp analyses and clean-cut inferences, until a common-sense and logical conclusion is reached, and when that is done the course that he has led his hearer is so open and natural that it seems to have been an easy ascent; it is not mystical and theoretical and speculative.

He has natural constructive talent,

and, like the late Dr. Chalmers, in weaving his argument, its parts revolve upon each other with the smoothness of well-constructed machinery. He will be likely to make illustrations from mechanical sources, and especially to make an argument that will seem clear and conclusive, pointed, yet smooth; in that way, Order and Constructiveness, large Perception and Comparison, may be used, even in the pulpit.

His Veneration being strong, gives him a grasp on subjects of a sublime and sacred character. He is firm, steadfast, thorough, and executive, which makes him strong in his purpose and efforts, and he will move in such a way as to inspire the observer with the idea that he is master of himself, of his subject, and his situation. He knows how to come clear down to the commonest thinker, and talk in a way that will enlighten him, and when he reaches the domain of culture his excellent memory and scholarly talent will be manifest in the sharpness of his analysis, the fullness of his illustration, and the vigor of his logic.

His Language enables him to say anything he wishes to say, and that in the best manner. We do not see in him the tendency to a florid style, or the tendency to dwell in the realm of romance. He moves in the domain of fact and logic, rather than in the realm of fancy. A congregation trained under such a teacher will generally know what they believe, and why they believe it; they will not be drifted away on the current of every new fancy or fanaticism, but will be well grounded in their belief.

JOHN HALL is of Irish birth; he first saw the light in the County of Armagh, July 31st, 1829, and is, therefore, but fifty years of age, and in the full tide of his

intellectual vigor. His ancestry is Scotch; his forefathers having emigrated from Scotland to the north of Ireland in one of those colony movements which gave a Protestant character to the province of Ulster. The house in which he was born had been occupied by his family for six successive generations. At thirteen years of age he was entered at Belfast College; passed through the course successfully; studied for the ministry, and at twenty began his career as a preacher of the gospel of Christianity. He devoted himself at first to missionary service in the west of Ireland; but in the year 1852 he accepted a pastorate in his native county. His abilities soon won respect, and six years later he was found in charge of the church of Mary's Abbey, then an important parish in the city of Dublin, and now known as Rutland Square. Here his strong and growing mind found scope for the exercise of its faculties, and his reputation soon extended beyond the borders of his island home. He was appointed Commissioner of Education for Ireland by the Queen, and performed the duties of the position without pecuniary compensation until he left Dublin for the United States. He labored in that relation to secure to his countrymen an unsectarian education and literature.

In 1867 he was selected to perform the duties of a delegate from the General Assembly of the Presbyterian Church in Ireland to the Presbyterian Churches in the United States, and during his visit made the strong impression which led to his acceptance of the pulpit of the Fifth Avenue Presbyterian Church. His success is evident in the fact that in a comparatively short time after his settlement the congregation had so increased that the old edifice could not accommodate the audiences which waited on the Sunday ministrations, and it was determined to provide for this quite unexpected tide of prosperity by building a new one. This was done, and the handsome structure in brown-stone on the corner of Fifth Avenue and Fifty-fifth Street, which cost more than half a million dollars, is now

a conspicuous mark of his energy as a clergyman, and of the esteem in which he is held by what is probably the most influential Presbyterian society in New York. The audience numbers between two and three thousand usually, on Sunday, an indication in itself of the strong public appreciation of the big, earnest, large-souled, clear-speaking Irishman.

Dr. Hall has not the fluent rhetoric of a Beecher, nor the impetuous eloquence of a Chapin, nor yet the nice æsthetic culture of a Storrs, but he has a certain strength, coupled with simplicity; a clear grasp of the subject, and a close, intelligent comprehension of what human nature needs in the way of admonition and illustration. He speaks from the heart to the heart, and aims but to convince the reason by argument, whose directness is one of its most conspicuous features. Sophistry, turns or twists of definition, are entirely foreign to his language. A careful observer of the American pulpit has written of him:

"When the sermon is done you will look back and wonder wherein the power of the preacher lay, for you will be able to recall no brilliant figures of rhetoric, nor wild flights of oratory; but the sermon will be stamped upon your mind. You will remember some very simple illustration which may seem childish, and may provoke a smile now, but you remember that it had no such effect when spoken—there was no time for smiling then. The whole discourse has been very simple, very plain, very practical."

The same writer confirms our impression that one important cause of Dr. Hall's success is his thorough belief in his Christian mission and duty. His sermons are not delivered for effect; he prepares no interesting essay on ethics for the delectation of his congregation; and he never trifles. He is the opposite of what is called a "fashionable preacher." One can not study him long in the pulpit without concluding that he has little regard for his personal elevation in the sight of the public, and that his aim is to declare the faith and purpose of the scheme of Christianity. In his prepara-

tion for the work of Sunday he is very thorough. He is not gifted with genius, unless it be the genius of work. This is shown in the writing of his sermons, which are usually begun early in the week and finished before Saturday night. He is called an extemporaneous preacher, but not with his own sanction. He writes out with much care and fullness what he intends to deliver, and may on Sunday morning read it thoughtfully for the last time, and then enter the pulpit without a scrap of paper. This method of preparation has, in the course of years, given him a habit of thinking with exactness, and of speaking with a ready clearness, which few extemporaneous orators possess.

The following, taken from a sermon or address delivered a few years since, illustrates his manner; and its matter is as fresh now with reference to debated questions in religion and science, as it was at the time of its utterance. We think, however, that Mr. Huxley has somewhat modified his attitude toward the Church, and is less defiant:

"If a good lawyer had cross-examined the witnesses against Christ, the charge of blasphemy could not have been sustained. The prosecution showed a strong animus; the points made against Him were frivolous; and if the evidence had all been true, it was not incompatible with His innocence. Likewise the present hostility to Christianity shows an animus. Professor Huxley teaches contempt and hatred of the Bible, and his animosity springs naturally out of his position. He starts out in his theory with an assumption, the sustaining of which necessitates opposition to the Word of God. Mr. Huxley and his kind must therefore be antagonistic. The Bible assumes that mind and matter are essentially separate; and if this be true, the Huxley men must go down. If Christ's claims stand, they must fall.

"The recent attacks on Christianity take the form of questioning the truth of the Bible. There has of late been no attack on Christ. On the contrary, good words are often spoken of Him by unbelievers,

for the blamelessness of His life and the purity of His teachings. Also, the Bible pronounces directly on most moral questions, and as to that there is no criticism. The attack is on Genesis. The record of facts before the creation of man is but a small portion of Bible truth, yet upon that the current opposition is centered. We have competent geographic explorers, and their examinations in the Holy Land sustain the Bible. The antiquarians have been industrious and generally fair investigators, and their work brings corroboration of the Bible. The historians learn from the Bible instead of confounding it. The ethnologists' studies result in nothing not in harmony with the Bible. All the delving among ruins brings forth corroboration, and not opposition. Thus we see that only against the Mosaic account of creation is the assault made.

"Scientific opponents of Christianity do not agree among themselves. The hostility of the eighteenth century is not like that of the nineteenth. The criticism of only a few years ago is not current now. Darwin claimed a demonstration, but Huxley says that Darwin's theory is not positively proved. Huxley asserts that man is an automaton, yet talks of man's duties. An automaton with duties! When we are tempted to make an escape for our consciences, let us think of this conflict among the op-

position. They are false witnesses, because they do not agree among themselves.

"The facts adduced by these men are susceptible of being construed in harmony with the Bible. It is painful for Christians to stand in opposition to public-spirited men, but when the gauge is thrown down it is a comfort to know that the arms of the assailants are not dangerous. 'The constancy of nature,' for example, is one of their favorite phrases. That is no discovery of modern science, but a fundamental principle of the Word of God. Miracles are a proof of 'the constancy of nature,' because for their performance they require Divine interposition with the natural course of things. The creation of the world in six days is questioned; but there is nothing in the Bible account that can not be harmonized with all the demonstrations of science. Spontaneous creation was a theory largely maintained, but Mr. Huxley repudiates it; and when there is more definite knowledge, and less animus, all these arguments will turn for the truth. As in the trial of Jesus, the animus is strong, the array of facts is partial, and the witnesses do not agree. The assault upon a single point negatively proves the truth of all the rest. Do not reject Jesus. The Jews by doing so came to destruction. Do not be deterred from making your peace with Him."

A NEW LYCEUM.

PLEASANT among the memories of the past, are the debating schools of our early days. There callow youths measured mental weapons with each other as they framed ponderous Resolutions affirming, perchance, what no one believed, merely to secure the opportunity of disproving the assertion; making "Points of Order" and maintaining the claims of the "Affirmative" or of the "Negative" with as much zest as if they were tilting at a tournament.

And then the delicious air of mystery; the dignity of holding office; the charm-

ing advantages of private meetings to shield them from the outside spectators who might detect the shallowness of their arguments; and the *éclat* of a "public" where parents and sisters could witness their intellectual gymnastics, and applaud their improvement.

What has become of these old gymnasias; or, why have they been discontinued? Have they been profitably replaced by the billiard-room, the club-room, the rowing-match, the skating rink, or the military parade of these modern days? Fashions will change, we suppose; but

why should we permit the rage for muscular development to quite replace mental gymnastics? Should not the training under teachers, of which we have an abundance, be supplemented by voluntary exercises in which the contestants shall try what they have to depend upon for themselves before entering the battle of life?

We could bring many instances to show that this kind of preliminary skirmishing has often proved of great practical benefit to the individual. Many a youth who had read history only just enough to locate principal events and characters, has made his first real studies when appointed to lead in a debate on, "*Resolved, That Bonaparte was a greater General than Washington;*" and the moral stamina of many whose first adherence brought victory to their country's flag during the late civil war, was built up by similar comparisons of war with slavery, or of slavery with intemperance.

We also know of cases where proofs of the value of this sort of mental discipline can be demonstrated on a large scale. There is, for example, on the eastern end of Long Island, a somewhat isolated community which fifty years since was noted mostly for its poverty and its drunkenness, if we are to credit those among them who now compare the past with the present. It so happened in the good Providence of God, that their minds were aroused to serious inquiry as to the nature and the effects of the drink they were taking so freely, and its influence upon their moral and religious character, as well as its relation to the losses they were sustaining in an economic point of view. Some of them began to meet together to talk these matter over, and to ascertain the facts and their bearings. From the first, these meetings were open to all who wished to attend, and all were free to participate in the discussions, temperance topics being uppermost. Gradually, the meetings came to be conducted like a debating school, following the then prevalent custom, and young people were encouraged to become officers, in order to give them practice and mental train-

ing; the older ones, however, still continued to attend and participate, and at last these meetings became an element of power which they could not afford to neglect. The spirit of investigation there fostered, extended to all their public interests; and since they found intemperance to be their greatest and most insidious enemy, their principal efforts were directed against that, and the meetings came to be called "The Saturday Night Temperance Meetings."

The results are simply marvelous. Instead of being a poor community of drunken fishermen, they are now a community of ship-owners, and about every second man you meet bears the title of "Captain." Their crews are shipped from less fortunate localities. Their young men, instead of playing billiards and sowing wild oats, frequently, by the time they come of age, have from \$1,000 to \$5,000 invested in different vessels, this being their favorite mode of insurance. But they have very few disasters, only one shipwreck having occurred during the first thirty years of the existence of their shipping, doubtless because it is officered by total abstainers. The number who have entered the learned professions is far above the average in other communities. You find some one or more of them, ministers, lawyers, doctors in almost every town in Long Island. The post-office in this place, which serves a population of about seven hundred, delivers a larger proportion of postal matter than any other in the Empire State. This desirable condition of things, of which I have given but a hasty and imperfect outline, was brought about mostly by the effective manner in which topics of general interest, and especially temperance topics, were handled in this well-conducted debating school.

I am not, however, intending to suggest the general adoption of the old-style debating school. I have given details of this, which was somewhat unique, to illustrate what elements of power are wrapped up in the candid public examination and discussion of live questions. Indeed, I have one very serious accusa-

tion to bring against the usual style of resolution and debate, in that it involves the practice of arguing for argument's sake. To many of the resolutions one of the two sides is morally right, and the other morally wrong; and it frequently happens that some one espouses the side of wrong for the sake of showing his skill in argument, considering his skill all the greater if he can make the worse appear the better side. In trying to accomplish this he often says "I believe," when he does not believe; "it seems to me," when it does not seem to him. He tries to make seem true to others what he knows is not true, until he half convinces himself; and he puts himself in false positions which he is often called upon afterward to defend, until he hardly knows what he does believe; in short, without intending to do so, he tells falsehoods, and makes others believe them in order merely to show his skill in argument.

Such mental acrobatics (if I may coin a word) do not tend to bring out the truth, nor to strengthen the mind; they rather tend to develop skepticism in the hearer and in the speaker; they place triumph above truth, and sophistry above reason. They confuse rather than clear the intellect. They prepare lawyers to justify themselves in clearing the guilty, and in placing their own success above the well-being of society. Hence, too, we hear people say unblushingly, "I was just arguing for argument's sake," or "to draw you out," which insincerity we have a right to resent. This serious allegation against the old debating school does not apply to all cases. The greater the desire to seek the truth for its own sake, the less would be these evils, and this was a prevailing element in the case above detailed. Still the abuse is easy and common, and we can not but believe that it had something to do with the decline of that institution in general public favor; but we do not consider that element an essential ingredient. Let us see how the good can be retained and the evil dismissed.

If the search after truth be made the

ruling motive, the question could be differently framed and differently treated, with no abatement of interest; but with the added ability to see the truth, which is always an element of power. Suppose, as an illustration, we take up the possible treatment of some temperance questions, for example: "How does the Use of Alcoholic Liquors Impoverish a Community?" A leader and a second, perhaps, also a third and fourth debater should have been appointed at a previous meeting, and after these have spoken, others may have an opportunity. It should be the aim of the leader to make his statements so clear and so comprehensive as to leave as little as possible to be said by those who follow, while the latter must use their best efforts to add something of importance, or to detect some error in the leader's statements or arguments, the audience to decide by ballot who has made the best argument, if it be necessary to do anything more than to leave it to the spontaneous judgment of the audience. Another method would be to require the leader to have at least the outline of his argument in writing, with the statements numbered; and this, or a duplicate of it, being placed in the leader's hand, the latter may, in summing up, decide which have been established and which have been lost. In any case, the credit each one receives should depend upon the truth he may develop, and not on the sophistry of his arguments. This places the truth in the exalted position to which it has a right, and both participators and audience would feel very much more certain of understanding the subject under discussion than they would under the old method.

The range of profitable discussion would also be greatly extended by the adoption of this method, as will be shown by the suggestion of a few subjects, such as—"What is the Origin of Alcohol?" "Is there Alcohol in Cider?" "What is the Process of Manufacturing Beer?" "Is Alcohol a Poison?" "What is the Average Mortality resulting from the use of Alcoholic Drinks?" "What does the Drink in our Drinking

Communities Cost those who do not Drink?" "What are the True Relations of Temperance and Christianity?" In fact, it is principally for the benefit of the temperance work that we would suggest the revival of the lyceum with this improvement, and it might appropriately be called "The Temperance Lyceum."

We are already having a very successful movement in the direction of temperance schools (weekly), planned after the general model of the Sunday-school, including primary classes and advanced classes with text-books suited to all grades. The children and teachers take hold of this eagerly, and manifest much enthusiasm in the studies there prosecuted. Indeed, it is the natural element of children to study and learn, and these schools are likely to be not only more profitable, but more permanent than the juvenile "Societies" of different sorts, which have not the educational element for a leading feature.

But we can not expect our young people to take them up very largely unless they enter as teachers. There is at present abroad in the community, too much of the notion that anything of the "Band of Hope" sort is for the infant-class grade. We hope they will outgrow this in time, and come into the temperance school very much as they now come into the Sunday-school. But this must be looked for more in the next generation of children. Those already grown up can not largely be reached by this institution; but they might enter a temperance lyceum with some enthusiasm, if they understood how practicable and enjoyable it might be made. Such a temperance lyceum as we have been describing would just meet their wants.

There are now, as never before, books which can be made available for thorough investigation of these topics in a very satisfactory manner, among which we may mention Dr. Richardson's "Temperance Lesson Book," recently published in this country; "The Juvenile Temperance Manual," also published within the last year; Dr. Story's powerfully written work on "Alcohol and its Effects," in

very popular style, and Brown's "Physiology," which contains four chapters on brain poisons; just what we hope to see yet in all our school physiologies. A knowledge of these would help systematize and utilize the various items of information afloat in the papers and other temperance literature. Indeed, we can not now think of any popular movement which would more promptly induce a study of the very valuable additions which have been made to temperance literature within a few years, and give people an understanding of the true nature and effects of alcoholic drinks, as they must understand them before they will fight them effectively.

Once commenced, there is very little doubt that such lyceums would be kept up. The boys and girls who graduate from the temperance schools now getting under prosperous headway, will start such debating schools if not already started, and they will be well prepared to sustain them too. We believe, however, that many of our young people of the age "now left out in the cold" by our temperance societies, will take this matter into consideration, canvass their several localities, and be ready, when longer evenings come, to occupy some of them weekly with a "Temperance Lyceum."

JULIA COLMAN.

SELFISHNESS.—When selfishness creeps into the bosom it is more terrible than white weed or the Canada thistle on a farm. There is no rooting it out. You may preach and pray, talk and scold, but the selfish man will not hear you; he feels poor, and gaunt poverty stares him in the face—years ahead, perhaps, when he will be in the dust.

We are confident, if mankind would cultivate benevolent feelings, they would be doubly blessed in this life, and make thousands around them happy. Men who live to do good—who are kind and benevolent in their feelings—are always remembered with affection when they are dead. Who does not revere the name of Howard? Wherever the English language is spoken, his name is heard and his memory cherished. We might mention the name of Homer, the gentleman who died in Boston some thirty or forty years ago. The poor, the aged, and the infirm shed tears when they heard of his death. A thousand instances of his benevolence could be related; but they are written in warm hearts on earth and treasured in the archives of heaven. If you wish to be happy, and to be affectionately remembered, we pray you to cultivate benevolent and charitable dispositions.—D. C. COLESWORTHY.

BRAIN AND MIND.

CHAPTER XVII.

PHRENOLOGY IN GENERAL LITERATURE.

WITH the lapse of time, the efforts of those who have made Phrenology their vocation, and by tongue and pen taught its principles, have succeeded in imbuing the thought of the present with many of its practical truths. When George Combe, more than fifty years ago, fearlessly published to the world his "Constitution of Man," and explained in terms of limpid clearness, the influence of organization upon human conduct, the religious community drew back in amazement and taunted the great author with impiety and presumption, and heaped derision upon all who approved his opinions. But now, those very opinions are, for the most part, accepted wherever the sun of science illumines the land. The medicist, the economist, the public teacher, the pastor, all who add liberal learning to intelligence, agree in the belief that qualities of mind and peculiarities of body are transmitted from parent to child; that "the tree is known by its fruit," and that grapes can not be gathered from thorns, or figs from thistles. These simple deductions from the common phenomena of human life, asserted by the early phrenologists, raised cries of "materialism!" "fatalism!" "infidelity!" and even now, the same cries are reiterated by some inconsiderate persons, and furnish serious obstacles to the labors of many a devoted humanitarian. To the objector of to-day, we would address language similar to that of Spurzheim when, on one occasion, he said to an assembly in Boston, Mass., shortly before his memorable death in that city: "I do not want you to believe what I propose to you; I only want you to hear what I have to

say; and then go into the world and see, and judge for yourselves whether it be true. If you do not find it true to nature, have done with Phrenology; but if it be true, you can not learn it one minute too soon."*

No matter what the department of literature, phrenological truth now pervades it, and is essential to its practical appositiveness where it concerns education and moral reform. The reader who is familiar with the writings of our most eminent essayist, Emerson, will recall many passages in which doctrine is introduced like that enunciated in this book. For instance, "People seem sheathed in their tough organization. Ask Spurzheim; ask the doctors; ask Quetelet, if temperaments decide nothing? or if there be anything they do not decide? . . . How shall a man escape from his ancestors, or draw off from his veins the black drop which he drew from his father's or his mother's life? . . . At the corner of the street you read the possibility of each passenger, in the facial angle, in the complexion, in the depth of his eye. His parentage determines it. Men are what their mothers made them. You may as well ask a loom which weaves huckabuck, why it does not make cashmere, as expect poetry from this engineer, or a chemical discovery from that jobber. Ask the digger in the ditch to explain Newton's laws; the fine organs of his brain have been pinched by overwork and squalid poverty, from father to son for a hundred years."†

Mr. Alexander Bain has devoted a

* "Biography of Spurzheim." By Nahum Capen, LL.D., p. 147. Ed. 1833.

† "The Conduct of Life—Fate." By Ralph Waldo Emerson.

volume to the consideration of Phrenology—and he discusses it as a metaphysician—as a rationalist, not as an observer of the actual phenomena of mental action; not as a recorder of objective data—yet he finds much to approve in the phrenological system, and is at least willing to admit its claim to be “a *science of character*.”* As a metaphysician, he finds occasion here and there to criticise the Phrenology of Mr. Combe, in his ascription of certain properties, or modes of activity to a faculty or organ, and often it seems to us he merely adopts the method of old philosophers who differ so much in their definitions and reasoning, and formulates opinions which appear to be founded chiefly upon his own mental introspection.

Our intention in this concluding part of our treatise is to show by a few examples how very common the use of the terms and philosophy of Phrenology has become in the writings and sayings of those who supply our reading matter. Just as the books and publications of Greece, two thousand years ago, when letters reflected the high culture of her people, contained frequent allusions to the characteristics symbolized or indicated by face and form in man or woman; when artists, poets, and essayists illustrated the prevailing belief of the people in a science or system of physiognomy: so to-day, our best general literature abounds in interpretations of the appearance and conduct of men which are referable to standards whose demonstrations may be scarcely found outside of phrenological formulas. Many authors hesitate not to use the terms and *ipsissima verba* of Phrenology; but most are contented with drawing from the resources

of its philosophy without repetition of its special technology.

An eminent American thinker and clergyman, James Freeman Clarke, recently said in a lecture on Self-Knowledge: “I recommend the phrenological arrangement of human powers simply as a convenient one in self-study. If a man wishes to know what he is fit for, and capable of, this gives him a useful method of investigation. It divides, for example, all our powers into mental, moral, and passional; intellect, morals, and affections. To the intellectual region belong, first, the perceptive faculties, by which we take notice of outward objects; notice their size, form, weight, and color. Then the reasoning powers, by which we compare objects to see if they are alike or unlike, if they are cause and effect, if they are congruous or incongruous. Then there is the imagination, which makes a picture of the whole while examining the parts. Then, again, come the moral qualities—sympathy, reverence, conscience, firmness. Then follow the passional and energetic powers, which supply movement and force, as self-reliance, the desire of approbation, the desire for home, the love of family and friends, the passion for battling with difficulties, the passion for destroying evils, the passion for collecting property in all its forms, the desire of construction, which is the basis of all art. Now, this may be, or may not be, the best classification of human powers; but it is, at least, an exhaustive classification.”

Another American divine whose eloquence has long placed him among the few who occupy the front rank of American oratory, often imparts special vividness to his illustrations by the employment of figures and metaphors derived from the philosophy of Phrenology. In a discourse whose theme was “The Higher Uses of Destructive-

* “On the Study of Character.” Alexander Bain, M. A., p. 24, *et. seq.* Ed. 1861.

ness,"* he reasoned after this manner : "Combativeness and Destructiveness are the architects, the engineers, the mechanics of human society. Men plow through the very rock-ribbed hills; and by their explosive powder they drive their way through mighty mountains, that a path may be made for commerce. They make new rivers where they please. They shut off the sea from its accustomed haunts. They pierce the heavens and the earth. They go here and there with saw and chisel and plane, changing the primitive form of nature to adapt them to the wants of human life and civilization. Thus they become men's engines. They are the propelling forces of men of thought and enterprise. They are the power that lies behind men to enable them to execute. They are the bow by which, in the affairs of life, the arrow is made to fly swiftly to its mark. They do not die. They live on and on. There is thunder in the soul of every highly organized man; but they have risen a step higher than the lowest sphere.

"As society advances and its material wants in its higher estate are relatively supplied, Combativeness and Destructiveness, though they never cease, rise to yet higher functions. They lend themselves to the reason, to the will, to the affections, and to the moral sentiments. And here is a very subtle and transcendent fact to be observed. If you find a man without Combativeness and Destructiveness, then you find a man that is like grain which has not stiffness enough in the stem to enable it to stand up, and which will break and fall down and rot on the ground. A man must have Combativeness and Destructiveness if he is going to have any backbone. That affection is of little value which has no power to send it with

force. Love ought to fly like an arrow from a strong bow. It ought to speed like lightning. It ought to have intense power. Benevolence that has no energizing principle under it, is moonshine in which nothing grows; but benevolence that works into philosophy, and defends the unprotected, and slays the malignant enemy, and carries blessings to the needy, and compels machinery to work for benevolent ends, and builds ships to circumnavigate the globe for the good of mankind, and tears down mischiefs, and overcomes the devil—that has substance in it. The benevolent man that cuts off the leg that is diseased, that would destroy the life of a fellow-man if it were not cut off, and who has the energy which enables him to destroy for the sake of saving—he is a truly benevolent man; but the sapless man of benevolence, who faints when he sees a drop of blood—what use is he for a surgeon or anything else? You want to give a man a great deal of thunder if you are going to make much of him in the direction of benevolence.

"The man, therefore, who has Combativeness and Destructiveness in him, and knows how to use them so that they shall give vigor and intensity to his affections, so that they shall make the will well-nigh omnipotent, so that they shall quicken the understanding, so that they shall propel the sentiments by which he, as an orator, affects his audience, destroying error, driving away darkness, lighting up hope, and inspiring right purposes in them—that man has power to benefit his kind as no other man has."

We can not ask for a clearer exposition in brief, of the action of the two faculties named in the mental life than this, and it points unmistakably to no merely superficial glancing at an author or two, but to deliberate study and

* Preached in Plymouth Church, Brooklyn, N. Y., Dec. 29, 1878, by Henry Ward Beecher.

thought in connection with the system of which the terms used are a technical part.

A brief survey of current scientific literature on the European side of the Atlantic, finds in the foreground other appropriate illustrations of the fact stated at the beginning of this chapter. In a lecture before his class, in the medical department of the University of Edinburgh, Professor Gairdner discussed at some length the alleged phenomena of Spiritualism, and expressed certain personal convictions in such definite terms as these:

"I have never gone into this matter professionally, or even as a scientific man; but I have always, on the other hand, held that the duty of a physician toward these things was to have as little as possible to do with them. But still, in my career instances have come to my knowledge, and it was in consideration of all these, that I was led to attempt to formulate, a few nights ago, the state of my mind upon the subject by saying—and it is something like a distinct, and I think not an untrue, and unintelligible definition—that I call the state of mind of people inclined to Spiritualism, *a diseased condition of the faculty of Wonder*. I hold that the faculty of Wonder, or Reverence, if you will call it so, is an innate and necessary part of the human mind. Nay more, it is one of the most essential, one of the most beneficial of our endowments—that faculty by which we grasp; by which we strive, to a certain extent, to comprehend, and if we do not comprehend, to submit ourselves to, and even delight in, the unknown—by which we strive to apprehend that which we can not comprehend. You will easily see that the higher aspect of this faculty of Wonder is the basis of the whole of our religious aspirations. Therefore, it can not be

that I mean to denounce it—to speak ill of it. But like all our other faculties, this part of our mental constitution is liable to abnormal action; in fact, to get into a state of disease.

"What I said of this faculty is, that when it is rightly applied by a fairly healthy mind to the connection between the spiritual and the material world, it does, or should, find abundant opportunity for its exercise within the realms of strict law. I do not mean here to touch or raise the question whether there are what are called miracles connected with the spiritual world any more than in the physical world. That is beside my argument. My argument at present is simply this, that within the realm of law, clearly understood as such, there is food for the faculty of Wonder in all its aspirations, far more enduring, far greater, and far grander than anything that can be developed in the way of these communications of table-turnings, table-rappings, or anything of the kind." *

In France the multiple organization of the brain claims many advocates of eminence in physiological investigation. We have already had occasion to refer, with some particularity, to Prof. Charcot, chief physician in La Salpetriere, Paris, whose views with regard to localized mental function, carry high authority. The name of Dr. Guetan de Launey, too, has been mentioned elsewhere, but not with that emphasis which it deserves. He has given much attention to the study of the heads and intellectual character of different classes in the Paris population, and the data which he has obtained and published have excited great interest in learned circles.

* *Journal of Mental Science* for April, 1879. London

Do something, ere thou do bequeath
To worms thy flesh, to air thy breath;
Something that may, when thou art cold,
Thaw frozen spirits when 'tis told;
Something that may the grave control,
And show thou hadst a noble soul;
Do something—to advance thy bliss
Both in the other world and this!

MONARCHS OR SUBJECTS.

WHETHER we regard man as the highest type of animal, or sprung, fully endowed with kingly attributes, from the mighty "King of kings," he seems to be fitted by his very nature to rule, to conquer.

We speak exultantly of the progress of the last two or three centuries, with their wonderful discoveries and achievements. And yet, as far down the vista of time as the mind can reach, we behold monuments of man's handiwork looming grandly out of the *débris* of years.

Let the stupendous works of Egypt, the sublime architecture, the life-imbued canvas of the old world, the glorious songs of Homer and Virgil, testify to the truth of this.

And if the Darwinian theory be true, he must be of a kingly blood who could thus raise himself into the reasoning, thinking being needful to accomplish all this.

A little over two centuries ago, a wide, wide forest, and vast plains extended from ocean to ocean. Dusky forms flitted hither and thither like grim specters; and the mighty-rolling Mississippi reflected the birch canoe of the savage as he floated with the tide, and re-echoed only his hoarse guttural or wild death-song.

A few years—the mighty arm of man has reached across the world of stormy waters; wherever his magic footstep has fallen, there spring up in their stead the farm, the village, the city; and the voice of prayer and praise rises like the mists of morning to heaven.

And while his giant arm has wielded this power, the brain has achieved still greater wonders. From shore to shore the electric tide throbs with its intelligent pulsations. Like a winged creature, he traverses the airy deep at his will. He plucks, as it were, the stars from the sky; and calling them by name, marks out their paths and even measures them, as they whirl in brilliant phalanx of worlds before him. He holds the waters in the "hollow of

his hand;" and, bringing the fiery element to aid him, chains them to inanimate objects, and they become endowed with life. Like a king, the earth is but his footstool; and with eagle eye, he pierces the forest, the dimmest depths of space, and his invincible will brings earth, and air, and sky into subjection. A being seemingly omnipotent, invulnerable, eternal, he is who can thus achieve such miracles. Yet, like the hero of old, there is a vulnerable point in all this armor which encases these giant forces. Like the coral-builders, his works are his monuments, standing while the frail casket crumbles into dust.

The years sweep swiftly by while these works are approaching completion, and men fade as the flowers. The higher the rock, the greater front it presents to the storm. The waves of time rise higher and higher, the years roll on, and soon the firm step grows tottering, the strong hand feeble, the piercing eye dim, and the energetic mind fails of its quick intelligence.

From out the dim dark future comes the tread of phantom feet. Ever and anon a faint warning cry is heard upon the air like a foreteller of doom. And, in the still night, a ghostly form stands beside us, and smites us with a cold white hand. The morning comes, and, fast locked in icy fetters, our hands are stilled and our voices silent evermore.

Ah! 'tis the king of terrors; and we, like helpless slaves, crouch under his triumphal car as it moves relentlessly onward.

A sad ending indeed for such an one. But look! Far off in the east arises a star. It glows and brightens with unearthly radiance as it comes softly nearer. A still small voice breaks upon the listening silence: "It is I."

A form of wondrous beauty comes from out the radiant glow, and, stooping over the fettered, inanimate clay, and opening the prison doors, bids the lifelong prisoner arise.

Clad in armor of wondrous brightness, the newly-freed mind wings its way unscathed past fire, and flood, and thunderbolt—past world and star—far beyond time, into infinity itself; an heir to a throne eternal. MRS. E. R. BARLOW.

YOUTHFUL TRAINING IN CRIME.

THE following reflections, which are taken from the *Philadelphia Times*, are well worth pondering, as they indicate in very clear terms the tendency of our school systems to ignore *practical* methods.

Illiteracy, in the strict sense in which statisticians use the word, does have an obvious relation to crime. A person who can neither read nor write begins the battle of life at a disadvantage. His opportunities of earning an honest living are limited, and he naturally tends to idleness, the parent of crime. Moreover, he is shut off from many of the helping and elevating influences which his fellow-men enjoy, and thus they push beyond him and leave him more hopelessly in the dark. Naturally, therefore, the army of common criminals is largely recruited from the ranks of the illiterate. Of 478 convicts admitted to the Eastern Penitentiary last year, 195 were almost wholly untaught, 79 of these being absolutely illiterate. If we compare these figures with the percentage of illiterate persons in the entire population, we shall find that the proportion is a very large one.

It is this obvious relation of illiteracy with crime that has called our common schools into existence. Not for the sake of the individuals, but in the interest of the mass, the community undertakes to educate the individuals. It does not and should not undertake to make them professors and philosophers, or to give them all that is called a liberal education; it simply affords them an opportunity of acquiring so much rudimentary knowledge as will enable them to get on in life without a resort to crime, and to acquire for themselves more easily the general information which every citizen needs. If we attempt to go beyond this, the problem becomes indefinitely complicated. We are no longer dealing with the common wants of all the people, but with the separate interests, desires, and capabilities of the few, with interests, that is, which lie beyond the natural jurisdiction of the State. What we need to consider, therefore, in connection with public education, is the kind of instruction which will best meet the conditions of public utility already named, which will, in other words, do most to diminish crime, and to promote morality, industry,

and good citizenship. Here the prison statistics will be found instructive.

Of the 478 convicts received into the Eastern Penitentiary last year, 108 had never been to school; but on the other hand, 371 had attended public schools, and their average age on leaving school was over 17 years, showing that their instruction had not been confined to their childhood. The statistics of the prisoners from Philadelphia are even more disquieting, for of a total of 179, no less than 139 had attended the public school, 17 had attended private schools, and only 13 are set down as never having been to school at all. It would be manifestly unsafe to conclude from these figures that our public schools exert no restraining influence upon crime, but they suggest very grave doubts as to whether the instruction afforded by these schools meets as it should the essential conditions of their existence.

And these doubts are deepened by some other statistics which we find in the same report. Of the 179 Philadelphia prisoners referred to, though 135 had attended school, only 96 had ever learned a trade. Here is food for serious reflection. The occupation of every convict is carefully noted, and yet of this whole number, nearly one-half could claim no knowledge of, or connection with, any useful calling. Years ago, before there were such things as public schools, boys were bound out as apprentices to learn a trade. Nowadays we teach them everything but how to earn an honest living, and it is small wonder that so many of them find their way to prison. Of 200 convicts received between the ages of 18 and 25, there were just nine who had served an apprenticeship. All the others had been brought up in idleness, and left to pick up a trade as they could, and their schooling proved of little avail to keep them in honest ways.

If those who are interested in public education will reflect upon these figures, we think they can reach but one conclusion—that our school system needs to be developed, not upward, but downward, to be broadened at the base, but not at the top. We do not need to educate the minds of our children less, but we do need to educate their hands more. If instead of perplexing them with a mass of useless information, we should try to teach them some useful industry, then we should indeed be helping them to become good citizens, and our public schools would begin to fulfill the purpose of their existence.



THE COCKCHAFER.

FURTHER STUDIES IN ENTOMOLOGY.

FROM time immemorial, men have been making scare-crows and placing them in their corn-fields to scare away their best friends, the birds, while armies of insect larvæ, too minute to be discovered by eyes less sharp than those of their natural enemies, ravaged undisturbed among the roots of their growing vegetables. The more valuable the nature of the crop, the more foes it seems to have among the insect tribes, whose taste would seem to be as discriminating as that of man, and in many cases their appetite for good things quite as keen. The cereals are the most valuable of all the crops which are raised by cultivation, and from the time the seed begins to germinate, until the golden grain is stored away in the granary, it is pursued by a succession of persecuting foes, each of which appears commissioned to injure some particular part of the plant. The slug (*Limax agrestis*) and the wire-worm feed upon the newly-germinated seed. The latter is the larva of a beetle of the genus *elater*, and does great mischief.

The wheat midge (*cedonia tritici*) destroys the flower. The *Aptus granaria* selects the floral envelope. The ear-cockle (*Vitrio tritici*), within a fungus-like appendage, conceals an innumerable host of tiny thread-like larvæ which devour the growing plant. The saw-flies (*charops glaboa*) lay their eggs below the

first node, or knot, of the young plant, and as soon as it is hatched, the grub begins to feast upon the interior substance of the stem, which becomes white and dry, and soon breaks off entirely. Thus, every stage of growth seems to have its peculiar danger. Before the true causes of these phenomena were known, such affections of the grain were called blight, and very generally attributed to the state of the atmosphere; and even now that the matter ought to be better understood, gross ignorance with regard to the nature of the evil still prevails among those most interested, and old traditional errors hold their own with persistent obstinacy, in spite of microscopes, and the whole range of the sciences arrayed against them. It



WHEAT MIDGE.

only remains for those who have eyes, to insist upon using them, and having gained a thorough knowledge of the foes to be met, to go about seeking wise means of defense.

It is eminently needful that those who wish to circumvent the ingenuity of insects, should know all about their habits and modes of life. We must not only be able indisputably to identify the *imago* or perfect insect, but to recognize, and this is much more difficult, the larvæ, and the pupa, for the wonderful transformations of insects make it impossible to identify the young by any resemblance to the parent. Indeed, naturalists are often puzzled, and farmers are seldom trained to habits of accurate observation. I give below one or two figures of the insects which are most troublesome among grain.

The wheat-fly or midge (*Cedonia tritici*) is another of the great gnat family, and almost as destructive as the well-known Hessian fly. It is armed with a sharp saw, extending from the abdomen, with which it makes an incision in the calyx of the bud; so that when the egg is hatched, her infant progeny will find it-



WHEAT MOTH.



LADY BIRD.

self in the middle of the flower. Several will sometimes lay their eggs upon the same ear. The larvæ are yellow with sharp heads and truncated tail, and have a quick wriggling motion, soon recognized under a good magnifying glass; they go down into the earth and remain through the winter. They come out in great numbers in the evening and fly in little clouds near the earth. We have all seen them between us and the sunset, of a bright evening in July; they look very pretty and innocent, and we should never suspect them of destroying, as they do, thousands of dollars worth of grain.

To make a smoke of old damp rubbish on which some dry sulphur has been thrown, is the best remedy for the gnats; for the larvæ, ashes and lime, plowed into the ground, are as effectual as anything.

The *Tinea Granella*, or wheat moth,

reserves its powers for the grain which has been cut and stored. It is a small, pale-buff worm, with a dark head. It gnaws holes in grain after grain, and spins little threads of silk wherever it goes, so that whenever a tangle of fine silky webs is seen among the grain, we may know that there is mischief brewing. It makes a cocoon about the size of a grain of wheat, of bits of wood, mingled with the silk, and does not burst its prison until the ensuing summer. It has much the appearance of the common clothes moth, to which it is closely allied.

But it is not only grain that suffers from the depredations of insects; the commonest and most hardy vegetables are not safe from their attacks. The *Melodontha vulgaris*, generally called cockchafer, belongs to a family which have very strong mandibles, and the outer lobe of the maxillæ is strongly toothed. They are easily recognized among the beetles by the pointed projection at the end of the abdomen. The cut at the head of this article gives a portrait of the full-grown insect, which is pretty well known to our people generally. These creatures seem made for destruction; the young grubs feed upon all kinds of roots, and the full-grown insect upon leaves of trees. The female deposits her eggs in the ground, and the grubs, as soon as born, commence feeding, and they continue to pursue this profitable employment, at the expense of everything within their reach for the space of three years, increasing so greatly in size that their skin seems likely to burst, so tightly is it stretched by the industrious exercise of their gastronomic powers.

A single insect will, as has been proved by experiment, consume an incredible quantity of roots. They are not very dainty, but when they are tired of grass, they attack any succulent roots they can find, and if they get into the kitchen garden, make sad havoc among the young and tender vegetables. Potatoes are great favorites, and when they enter a field of this vegetable, they destroy both roots and tubers.

We have next a figure of the grub well known to all farmers and gardeners, who are careful of their young plants. It is called in England the "white worm," and in America the "cut-worm." When the stalks of the young growing corn, which has attained the height of two or three inches, are found lying flat on the ground, cut at the root, if diligent search be made early in the morning, before the



THE CUTWORM.

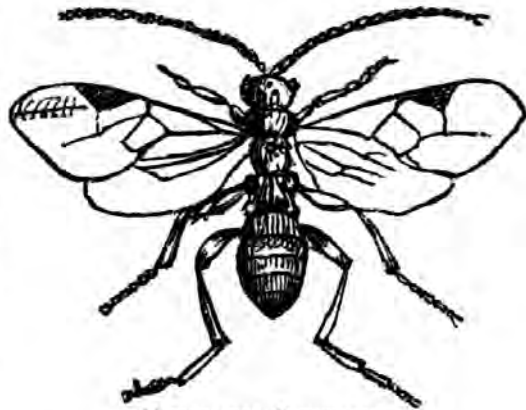
sun is up, and while the herbage is drenched, indeed, the worms can generally be found lying near the scene of their devastation. If one wishes to know where to look, let him watch Robin Red-breast where he alights upon the field. If you are a wise enough farmer to be on good terms with him, he will give you a nod with his wise little head and proceed to point out the ambush of the enemy with unfailing accuracy. A farmer who has not learned that the birds are among his most efficient helpers, has hardly commenced his education. Next to the robin, the crow and the black-bird are the most active destroyers of the cut-worm, and the quantity of corn that they consume should be considered as only fair wages for good service, for the voracious beetles of which the cut-worm is the grub, will destroy more vegetation in a single season than an army of crows or blackbirds will in many, for the birds prefer an animal diet, and will only add a few seeds, or a little fruit as a *bonne bouche*.

The amount of insects which are consumed by the denizens of a single rookery has been estimated at 468,000 tons.

Yet I have been kept abundantly supplied with an abundance of the pretty shoulder-straps of blackbirds (which I used in making feather flowers) by my farming neighbors, from the wings of birds which they had shot in their corn-fields—a suicidal policy which they had learned from their fathers.

Birds are almost their only hope; the grub being generally hid in the earth and by no means easily destroyed. When full-fed, the grub makes a cocoon of earth, and when it attains its perfect form, emerges to a new field of destruction among the leaves of trees, often stripping whole districts of foliage, and leaving the trees as bare as in mid-winter.

In Europe, entire crops have been destroyed by the larvæ. A naturalist with the organ of Hope largely developed, expresses the faith that it may yet be found to be of use to mankind, but we fear there are few that will be persuaded to regard it as anything but an unmitigated pest. All insects, however, are not to be regarded as injurious; there are many which are not only of great benefit, but



MICROGASTER GLOMERATUS.

absolutely indispensable to vegetation. Among these may be reckoned the lady-bird, which destroys millions of aphidæ and numerous insects which are parasitic upon others. Among the latter is the *Microgaster glomeratus*, an exceedingly small, but very useful insect to the farmer, since often on this tiny creature depends his winter supply of cabbage. It is a parasite upon the cabbage caterpillar, and

annually destroys large numbers of that pest, fixing itself upon its body, and depositing its eggs beneath the skin, where the grubs live upon its substance until the larvæ are full fed, when they pierce the skin, escape in great numbers, and leave it to die. The figure we give is greatly enlarged. When free, the larvæ begin to spin for themselves little cocoons of yellow silk, which may be often seen on the palings of fences adjoining the garden or field where they were hatched. It is bad policy to destroy them.

I will add two other figures of destructive insects. They are both weevils, and belong to a large family, all of whose members have a disagreeable reputation, and not certainly without reason. Farmers whose orchards are ill-kept, are apt to be visited by the apple weevil (see cut). The creature finds good hiding-places in any loose branches or rubbish which may lie about the roots of the tree during the winter. The egg is deposited in a hole in the calyx, for she uses her beak, as the



APPLE WEEVIL.



NUT WEEVIL.

saw-fly does her saw, to make a fissure large enough to hold her eggs, and the little creature wakes to life curtained royally in crimson and gold, but his palace is soon to be destroyed, for the life of the grub is fatal to the life of the flower. Exactly the same office is performed for the hazel-nut by the nut weevil (*Balaninus nucum*).

It will be seen from the preceding sketch of the methods of life of a very few destructive insects, what importance the subject assumes, and how inadequate will be all efforts that can be made by man to destroy them without calling in the aid of checks provided by nature to maintain the balance of power.

The birds are the most effectual de-

stroyers. It is said they detect the slight sound made by the strong mandibles of the cut-worm, as it severs the grass roots. At any rate, they go straight to their hiding.

Next to the birds rank parasitic insects, and beside these natural agents, the aid of chemistry may be employed in applying further substances to the haunts of both insects and grubs. But beyond these the neatness of the farm, like that of the house, is a great security, as all litter and rubbish provide ambush for the armies which the summer heats bring forth to forage upon garden and field.

THE FLAMINGO'S NEST.

In search of a place to build her a nest,
Walk'd out Lady Flamingo ;
A duck saw her pass, near her nest in the grass.
And made bold to propose,
Underneath a wild rose,
There would nothing disturb her,
If she could sit low.
Flamingo "No," replied,
"I can not sit double,
My legs 'mong the eggs
Would cause me some trouble
That a duck can not know."

Returning to feed, Flamma spied little Grebe
On her nest floating out,
Which she paddles about,
Who offered to show
All she happen'd to know ;
How the reeds should be laid,
And a nest neatly made
That would float like a boat.
Flamingo replied, "To you, little Grebe,
Such a nest may belong ;
But for me—why, my legs are too long,
For though I can straddle,
I never can paddle."

From a plan of her own,
To Duck and Grebe quite unknown,
Flamma built her a nest
In a way she liked best ;
A mud and clay throne,
With a place for the eggs,
Just the height of her legs,
Where she sitteth astride,
Out of reach of the tide,
With her wings glossy black,
Folded o'er her red back
So here ends my ditty,
Flamma, 's wise as she's pretty
Not to mimic a neighbor,
And thus lose her labor,
But to suit her own legs,
To a nest for her eggs.

E. G. D. POWELL.

SHORT WORDS.

THE great Daniel Webster was once asked the secret of his wonderful power, in carrying everything before him, as an orator.

He replied that whatever of success he had been able to achieve as a speaker, was due to the fact that he tried to choose plain words of Saxon origin.

In contrast with this we may repeat the story of the good brother who visited a Sunday-school by request to make an address. He commenced by saying :

"My young friends, I shall endeavor, in the brief period allotted me, to give you a condensed summary of the principal evidences of Christianity."

The superintendent, sitting behind, spoke to him, when the speaker resumed.

"My good brother, your excellent superintendent, suggests to me that, peradventure, some of you may not comprehend the signification of the word 'summary.' The word 'summary,' my young friends, means a digest, a synopsis, a compendium."

The following quotation from Rev. Robert Collyer shows a sharp contrast with the folly of using long *words* :

This world is a great school-house, in which through life we all teach, and we all learn. Here we must study to find out what is good and what is bad, and what is true and what is false, and thus get ready to act in some other sphere. What we are at the end of this life we shall be when the next begins. We must spare no pains, then, when we teach others or ourselves. We must take care that we think and speak in a way so clear that we do not cheat ourselves, or mislead others. We must put our thoughts into words, and get in a way of using these in thought with the same care we use when we speak or write to others. Words give a body or form to our ideas. When we put them into a body of words, we will, as a rule, learn how much of truth there is in them, for in that form we can turn them over in our minds. If we write them out, we find that in many cases the

ideas we thought we had hold of fade away when put to this test.

We must not only think in words, but we must also try to use the best words, and those which in speech will put what is in our minds into the minds of others. This is the great art which those must gain who wish to teach in the school, in the church, at the bar, or through the press. To do this in the right way, they should use the short words which we learn in early life, and which have the same sense to all classes of men. They are the best for the teacher, the orator, and the poet. If you will look at what has been said in prose or in verse, that comes down to us through many years, which struck all minds, and that men most quote, you will find that they are in short words of our own tongue. Count them in Gray's "Elegy," which all love to read, and you will find that they make up a large share of all that he uses. The English of our Bible is good. Now and then some long words are found, and they always hurt the verse in which you find them. Take that which says : "Oh, ye generation of vipers, who hath warned you to flee from the wrath to come?" There is one long word which ought not to be used in it, namely, "generation." In the old version the word "brood" is used. Read this verse again with this term, and you feel its full force : "Oh, ye vipers' brood, who hath warned you to flee from the wrath to come?"

William H. Maynard, a very able man who stood high in his country and his State, once wrote out a speech for the fourth of July in words of one syllable, save names. His strength was very much due to the fact that in thought and speech he made it a rule to use as few words as he could, and those that were short and clear.

I do not mean to say that the mere fact that the word is short makes it clear ; but it is true that most clear words are short, and that most long words we get from other tongues, and the mass of men dc

not know exactly what they mean, and I am not sure that scholars always get the same ideas from them. A word must be used a great deal, as short ones are, before it means the same thing to all.

Those who wish to teach or to lead others must first learn to think and speak in a clear way. The use of long words which we get from other tongues, not only makes our thought and our speech dim and hazy, but it has done somewhat to harm the morals of our people. Crime sometimes does not look like a crime when it is set before us in the many folds of a long word. When a man steals, and we call it a "defalcation," we are at a loss to know if it is a blunder or a crime. If he does not tell the truth, and we are told that it is a case of "prevarication," it takes us some time to know just what we should think of it. No man will ever cheat himself into wrong-doing, nor will he be at a loss to judge of others, if he thinks and speaks of acts in clear, crisp terms. It is a good rule, if one is at a loss to know if an act is right or wrong, to write it down in short, straight-out English.

He who will try to use short words and to shun long ones will, in a little while, not only learn that he can do so with ease, but that it will also make him more ready in the use of words of Greek and Latin origin when he needs them.

Dr. Johnson loved long words. But when he wrote in wrath to Lord Chesterfield, he broke away from the fogs and clouds and roar of his five-syllable terms, and went at his lordship in a way so terse and sharp that all can see that he felt what he said.

Love, hate, and zeal, never waste their force by the use of involved or long-winded phrases. Short words are not vague sounds which lull us as they fall upon the ear. They have a clear ring which stirs our minds or touches our hearts. They best tell of joy or grief, of rage or peace, of life or death. They are felt by all, for their terms mean the same thing to all men. We learn them in youth; they are on our lips through

all days, and we utter them down to the close of life. They are the apt terms with which we speak of things which are high or great or noble. They are the grand words of our tongue; they teach us how the world was made. "God said, Let there be light, and there was light."

The tendency of poets to use Anglo-Saxon words is a familiar fact; but the following striking examples may be new to some :

"The bell strikes one. We take no note of time.
Save by its loss; to give it then a tongue
Were wise in man."—*Young's Night Thoughts*.

"Good friend, thou hast no cause to say so yet,
But thou shalt have; and creep time ne'er so slow,
Yet it shall come, for me to do thee good,
I had a thing to say—but let it go."—*Richard III.*

Byron's "Destruction of Sennacherib" furnishes illustrations of the same in many lines; as beautifully as in these :

"And the sheen of their spears was like stars on the sea,
When the blue waves fall nightly on deep Galilee."

Further examples may be culled in great number from the poets, and also from the Bible, which has seventy-eight per cent. of Anglo-Saxon words, or from Spurgeon, who uses seventy-one per cent., or from Dickens, Froude, Bret Harte, Gladstone, and others, who, like those named, use over fifty per cent. of the monosyllabic element. The most remarkable example, perhaps, is presented by the little poem of the late Dr. J. Addison Alexander, entitled "Monosyllables." It is highly expressive, though not apparently spontaneous like the rest :

"Think not that strength lies in the big round word;
Or that the brief and plain must needs be weak.
To whom can this be true who once has heard
The cry for help, the tongue that all men speak
When want, or woe, or fear, is in the throat,
So that each word gasped out is like a shriek
Pressed from the sore heart, or a strange wild note
Sung by some fay or fiend? There is a strength
Which dies if stretched too far, or spun too fine;
Which has more weight than breadth, more depth than
length.
Let but this force be mine of thought and speech,
And he that will may take the sleek fat phrase,
Which glows and burns not, though it gleam and
shine;
Light, but no heat; a flash without a blaze!
Nor is it mere strength that the short word boasts.
It serves of more than fight or storm to tell—
The roar of waves that clash on rock-bound coasts;
The crash of tall trees when the wild winds swell;
The roar of guns, the groans of men that die
On blood-stained fields. It has a voice as well
For them that weep; for them that mourn the dead;
For them that laugh, and dance, and clap the hands
To joy's quick step, as well as grief's slow tread.
The sweet plain words we learnt at first keep tune;
And though the theme be sad, or gay, or grand,
With such, with all, these may be made to chime
In thought, or speech, or song, or prose, or rhyme."

THE LATE JOSEPH P. THOMPSON, D.D.

FEW Americans who have lived but sixty years have impressed themselves more upon the literature of their country in its higher spheres of ethical and political philosophy than the Rev. Dr. Joseph P. Thompson, and the announcement of his death in Berlin, on the 20th of September last, was received on both sides of the sea with earnest expressions of regret in religious and literary circles.

Intuitive intellect. In morality, sympathy, religion, his views were almost as broad as the scope of his intellect. He had few prejudices on account of religious or secular usages of others, viewing mankind from the point of view of the humanitarian, rather than from that of the sectarian. Always observant, he nevertheless digested the accumulations of his senses, and applied the product in his



THE LATE JOSEPH P. THOMPSON, D.D.

He was a man of very strongly marked organization. Nervous activity, executive capacity, earnestness of endeavor were written upon the lineaments of his face, and manifested in his every movement. His immense perceptive faculties led him to extraordinary effort to accumulate knowledge in almost every direction. The data of theology, of science, of philology, formed a rich store in his highly cultivated and nicely discrimina-

work. Hence, as the minister, the orator, the author, his thoughts attracted by their freshness, and instructed the intelligent. He commanded too wide a field of information to be commonplace, and his style was too highly finished and vigorous to be prosy. He was the man to address audiences of the best culture, and it was by them that he was the most appreciated.

Joseph Parrish Thompson was born in

Philadelphia on the 7th of August, 1819; received his collegiate education at Yale, from which institution he was graduated in 1838, and subsequently pursued a course of theological study at the seminaries of Andover and New Haven. In October, 1840, he became pastor of the Chapel Street Church in New Haven, Conn., and in April, 1845, was called to the Broadway Tabernacle Church in New York. The effort to establish this, the first church of the Congregational order in New York, was attended with much social and sectarian opposition for several years, and at the time of Dr. Thompson's acceptance of the call the society had not altogether emerged from a condition of embarrassment. The new minister, although but a young man of twenty-six, exhibited so much energy and sound practical judgment that he became a most powerful auxiliary in building up the church. The old Broadway Tabernacle was purchased in the outset of his ministry, and proved a valuable investment in a pecuniary way, when the encroachments of business and the numerous removals of members of the congregation rendered it necessary to change the site of the church building. He originated the well-known weekly paper, the *Independent*, and for twelve years was its principal editor, with Rev. Drs. Leonard Bacon, R. S. Storrs, and Joshua Leavitt as associates. He early took an active part in the anti-slavery movement from a religious point of view, and was especially conspicuous by his opposition to the Fugitive Slave Law. He was the prime mover in bringing about the first great Congregational Convention, held in 1851, at Albany. In 1859 the Tabernacle church was removed to its present site, on the corner of Thirty-fourth Street and Sixth Avenue, where a handsome edifice was erected.

The relations of science and religion possessed a deep interest for him. He traveled in the East for the purpose of studying the countries of Syria and Egypt geographically and historically, that he might the better understand the

Bible accounts. One of the products of such study is "Man in Genesis and Geology," in which he argues in behalf of the harmony of true science with the Scriptures.

He is known as the author of several other volumes, among which are "The Theology of Christ," "The Memoirs of David Hale, and of David T. Stoddard, the Missionary;" "The Christian Graces," and "Love and Penalty." Several of his orations and occasional discourses have been published, the principal of which are "Christianity and Emancipation," "How to Build a Nation," "Revolution against a Free Government a Crime." During the war the Union League Club Society and the Loyal Publication published several of his addresses for general circulation.

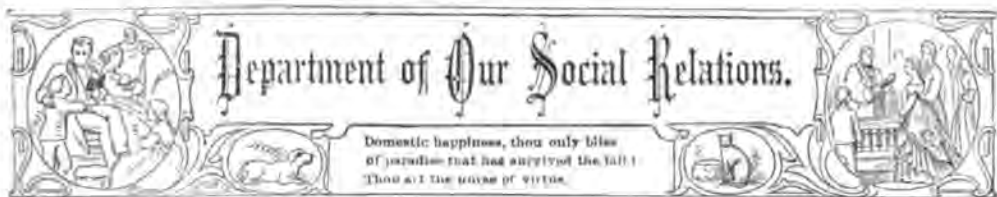
In the latter part of October, 1871, Dr. Thompson, to the great regret of his large and prosperous New York congregation, resigned his charge. His reasons for this somewhat unexpected step are definitely stated in his letter of resignation. "Sudden as this announcement," he said, "may be to you, with me this is no sudden decision. More than three years ago a physical infirmity, induced by exposure in the army, and in its nature beyond remedy, had become so aggravated and so complicated that the highest medical authority ordered me to withdraw from the pressure of public responsibilities if I would save my life. I should then have done so had not a sense of honor, in view of your recent indulgence and liberality in sending me abroad, and certain cherished projects for the welfare of the church, restrained me. I therefore chose to endure in silence what it could not profit any one to know. But I can no longer hope to satisfy my conscience in the discharge of my duties as a pastor, when life is a constant care and an almost constant pain; and when symptoms not to be mistaken threaten, if not the seat of life, what to me is more serious, the seat of thought."

Shortly after this retirement Dr. Thompson sailed for Germany, and took

up his residence in Berlin, where he hoped to complete his Oriental studies. He became a leading figure in the American colony of Berlin, and much respected by the learned world of the continent. Our portrait was engraved from an excellent photograph of him, taken at the time of his withdrawal from his old church. Between the publishers of the PHRENOLOGICAL JOURNAL and Dr. Thompson there existed a very cordial acquaintance. He saw much in mental science to esteem, and considered it one of the agencies by which society would be elevated and purified. His work, "Man in Genesis and Geology," was introduced to the public by the late Samuel R. Wells.

Dr. Thompson's last published work, which discusses the relations of the working classes and their improvement, appeared but a short time before his death, and he has doubtless left manuscripts of value relating to Ægyptology and physical science.

He would have been a delegate to the London Convention on International Law, and the Evangelical Alliance, but ill health prevented his attendance in both cases. A paper which he had prepared on "Religious Liberty in Turkey" was read at the meetings of the Alliance. He was at one time personally thanked by the Emperor William for having published his views on the "Relations of Church and State."



AN ITALIAN GIRL'S PRANK.

I HAD been wandering about in that much modernized city of the Italians, Turin, on a sultry day in July, and stopped at the very charming Public Garden to rest upon one of its inviting benches. While there, my attention was drawn to a little girl of ten years or so, playing with her doll at times, and at others, running over the graveled walks with a speed and an abandon which seemed quite marvelous, as she wore those high-heeled sandals, commonly used by the lower classes in Italy, and which cover little more than the toes.

She was one of the most graceful little urchins I ever saw, and her large head impressed me at once as a suitable object for study in graver moments. As it was, a few minutes' observation convinced me that whatever might be her station, she possessed a brain much above the average, and it would be a grave misfortune did she not receive opportunities for its

development and training commensurate with its capability.

On the bench next to mine, puffing lazily his pipe, reclined a man of perhaps fifty. Evidently he was a relation to the sportive child; perhaps an uncle—at least there was nothing parental in his demeanor toward her, as he gazed indifferently upon her gambols, and gave no heed to her chatter as she toyed with her doll.

All at once a thought struck her, and away she ran down one of the winding alleys out of sight. Soon she reappeared with a paper, folded, funnel-like, in one hand, apparently filled with something. Her eyes sparkled with fun; her whole face glowed with expectation. This time she walked quietly; her slippers made no clatter upon the ground. Softly approaching the man from behind, she raised the paper, and when near enough, poured its contents, sand and gravel,

upon his head, and then sprang back. The man did not appear to feel the sand at first, but after a second or two, shook his head as if to dislodge a leaf or twig that might have fallen upon it from the branches above. Then the gravel fell in a little shower down his face and neck. How angry he became at once! Turning to the child, who was dancing with delight at the effect of her experiment, he began to berate her in loud, strong tones, and struck her with his open palm. This conclusion was altogether different from what the girl had expected. She burst into tears, but in another moment had forgotten to weep, and was scolding back with astonishing force and facility. After a minute or two, she turned away to weep again with convulsive violence, appearing then to be overcome with a sense of humiliation. The next minute, tears were forgotten, and she was scolding as fiercely as before.

Did the man show a disposition to leniency in language or expression, her face would light up and she would approach him, look with great tenderness into his face and plead excuse after excuse for her act. Was his manner stern and rebuking, she would at once respond with angry tones and gestures, for a minute, then turn to her doll, and folding it closely to her breast, sob piteously. At times she would run fifty feet or more, then return to the bench of her relation, and sit down as far as possible from him; then hitch up toward him, all the time watching his face closely, until she had gotten directly under his eye. If still harshly received, she would draw up her little symmetrical body to its utmost height, and reply with sharpness for a moment, and away she would run again. Sometimes returning to the bench, she would throw herself down, and weep piteously, as if the humiliation of her chastisement or the sense of grief for her impropriety were intolerable; but in a half-minute tears were forgotten, her eye blazed with anger and pride, and she was ready to continue the lingual conflict with unabated energy.

For fully fifteen minutes this dramatic scene continued, and was exceedingly entertaining. Never before had I seen a more charming exhibition of graceful movement in a child; never so diversified an expression of the various emotions. Every attitude and gesture harmonized with her feeling for the moment, and even more strikingly indicated the thought of her excited mind than her words. A Parrhasius, a Meissonier, or a Brown would have enjoyed with infinite unction the little drama which the girl performed.

The little maid was evidently a much-indulged child at home; but I inferred that the man had so little sympathy for the indulgence, that he could feel no forbearance toward her when her mischievous pranks touched him. To be sure, in this instance, her conduct was highly improper, and there was room for some wholesome discipline; but the man was not the person to administer it; indeed, he was in organization the girl's inferior, and probably there were circumstances in his relations to her and her family which, if known, would have softened the judgment of any discreet mind upon this outcome of the girl's mischief-loving spirit.

D.

THE BUTTERFLY.

LOVELY, light as cloud in sky,
Butterfly,
Over flowers thou flittest free,
Dew and blossom, food for thee,
Thyself a blossom, flying leaf;
Who purpled thee by rosy fingers'
Touch so brief?

Was it a sylph, that thy sweet dress
Did so impress?
Of morning odors molded fine
Thy beauty for one day to shine;
Oh, little soul, and thy small heart
Beats quickly 'neath my fingers there,
And feels death's smart.

Fly hence, oh, little soul, and be
Bright and free;
An image of that later birth,
When man, the chrysalis of earth,
Like thee, a zephyr shall become,
And kiss, in odor, dew, and honey,
Every bloom.

—Good Words.

FRANCES RIDLEY HAVERGAL.

VERY early in June of this year, died a lady who by her life and her authorship, although she had scarcely reached forty-five, has written her name upon the moral and religious literature of England, and so impressed it, that she will be remembered for many years to come. If we are to believe the statements of some scientists that force or energy, what-

ment; disposition to observe. She was inclined to gather data for herself, and possessed an excellent memory. Facts and incidents were not loosely thrown together in her sensorium, but grouped, organized, and made serviceable for definite purposes. Her intuitions also were strong; so, too, she possessed in a large measure the sentiment of Benevolence.



ever be its character, once set in motion, goes on forever in one form or another, Miss Havergal's influence, which was ever exerted for good purposes, will be indefinitely in exercise, and be productive of more and more excellent results.

The portrait, as we have it from a drawing by Mr. T. C. Scott, of England, shows a lady of strong mind, or strong organic tendencies. The intellect shows practicality and criticism; clearness of discern-

The organ of Faith appears to be rather large in the portrait, and that in alliance with Benevolence, gave her mind its strong bias toward spiritual reflection.

The strength of the character is evinced in the lines of the face; the Motive temperament being well indicated. She possessed no small degree of executive energy; liked work, and hesitated not to enter into the current of practical affairs, to put her own hand to the plow

and help forward the measures she would have set in motion.

She possessed a good degree of self-reliance; believed in her ability to accomplish her purposes. Her sympathies and religious trust so co-operated with the practical cast of her intellect, that she was led to convictions of the harmony existing between the individual and society, and of the utility of working for oneself through others. She was a strong believer in charity, in the largest significance of that term.

The artist has given her a rather marked expression of fullness in the side-head. Ideality appears well marked, and we do not wonder that her poetry should be so thoroughly of the religious or spiritual order.

Her organization, as a whole, partakes much of the masculine type. She must have been very like her father, inheriting a good degree of his intellectual and æsthetical nature. He was considered one of the finest musicians in England; an author both of verse and music, particularly in the religious line. The tune called Evan, one of the most popular in use in our churches, was written by him. Miss Havergal was also an excellent musician and a good singer. Her first volume of poems is entitled "The Ministry of Song;" her second, "Consecration," and "Under the Surface;" the third, but recently finished, "Praise;" she was a very industrious worker. To the last she was engaged in writing and in charitable work. Her home, near Swansea, South Wales, was a quiet, retired place, where she could pursue her literary labors and think out measures of philanthropy.

The prelude to "The Ministry of Song" expresses her high desire to be of service to others. In it these lines occur:

"Oh, be my verse a hidden stream, which silently may flow
Where drooping leaf and thirsty flower in lonely valleys grow;
"And often by its shady course to pilgrim hearts be brought
The quiet and refreshment of an upward pointing thought;

"Till, blending with the broad bright stream of sanctified endeavor,
God's glory be its ocean home, the end it seeketh ever."

Here is an expression of her feeling that making poetry was a mission by no means low or unimportant, and that to speak earnestly through the rhythmic line, she must utter her own experiences:

" 'Tis the essence of existence,
Rarely rising to the light;
And the songs that echo longest,
Deepest, fullest, purest, strongest,
With your life-blood you will write.

"With your life-blood! none will know
You will never tell them how.
Smile! and they will never guess it
Laugh! and you will not confess it
By the paler cheek and brow.

"There must be the tightest tension
Ere the tone be full and true:
Shallow lakelets of emotion
Are not like the spirit ocean,
Which reflects the purest blue.

"Every lesson you shall utter,
If the charge indeed be yours,
First is gained by honest learning
Carved in letters deep and burning
On the heart that long endures."

The strength of her spiritual nature, the depth of her feeling of dependence upon the ways of Providence, will be apparent to the sympathetic mind in the "Moonlight Sonata," of which this is one verse:

"He traineth so
That we may shine for Him in this dark world,
And bear His standard dauntlessly unfurled;
That we may show
His praise by lives that mirror back His love—
His witnesses on earth, as He is ours above."

Another charming sentiment occurs in "One Question":

"What wouldst thou be?
A blessing to each one surrounding me;
A chalice of dew to the weary heart,
A sunbeam of joy bidding sorrow depart:
To the storm-tossed vessel, a beacon light,
A nightingale's song in the darkest night,
A beckoning hand to a far-off goal,
An angel of love to each friendless soul;
Such would I be;
Oh, that such happiness were for me."

ABOVE AND BELOW:

OR THE TWO LIVES PHRENOLOGICALLY CONSIDERED.

IN that master-piece of speculative inquiry, "The Philosophy of Religion," by Thomas Dick, LL.D., the argument for the reality of a future life is predicated upon the universal *belief* in a future life and the common *hope* of immortality. It is argued that Deity would never have implanted the hope of eternal life in the human soul without also having made provision for its realization—that man's faith in the everlasting continuance of his life is founded on an innate feeling, and is a part of his divine inheritance. And there can be no escape from these conclusions by any just process of reasoning; they are as unescapable as the result of a mathematical process. They can no more be avoided than that two and three make five. There is no other way to account for the universality, the steadiness, and the persistence with which the human race has embraced that faith, and clung to that hope in all ages and through all time than on the hypothesis that they are rooted and grounded in a basilar instinct of the soul itself, instead of being, as some affirm, the inculcation of false religious teaching. Yet it is far from sufficient for the purpose of the student of mental philosophy to learn and to know that the hope of eternal life is one of the divinely implanted inherences of the human soul. He must know to what province of the soul to refer this feeling, what faculties give rise to it, where to place it, and how to estimate its strength in particular instances. He knows as well that the reasoning faculties, the social feelings, etc., are divinely implanted inherences of the human soul, and while they may fully answer the purposes of theological speculation, it does not meet the demands of the science of mind. Where, then, shall we look for the primary source of the feeling that we are immortal? from whence does our faith derive the substance of the thing hoped for? For the reason that religious sentiment is in-

involved with this feeling, and because the universal instinct of eternal life is usually denominated a "faith" and a "hope," the idea has become current, even among professors of mental science and philosophy, that it arises directly from the spiritual region of the soul; that it is primarily a religious sentiment. It does indeed ultimately expand and rise to the height of religious feeling, and is at last incorporated into the body of religious belief. The hope and the faith of the human soul in the beyond and the forever are, in truth, twin spiritual lights—lamps of heaven; but the oil that feeds their heavenly flame is drawn up from the fountains that lie far below in the still, deep places of the earth. When men see a great tree spreading its superincumbent mass of foliage above and around, shedding its beauty and fragrance on all below, they look only at the top, forgetting that deep down in the earth there is a root that draws from the earth the substance that forms the tree. So they have viewed the tree of eternal life; they have seen it exhaling its fragrance heavenward, and putting forth blossoms of faith and hope, and have never sought below the heavens for its root. Yet the circumstance that while everywhere and always human faith in an endless futurity assumes an infinite variety of forms, many of them fantastic and strangely absurd, everywhere and always the faith itself abides, unvarying and irradicable at the root, shows that there is a common source that supplies the material for this infinite variety of spiritual foliage, that is drawn from below the region of the religious sentiments, and below the intellect even, and one of that primary, elemental character that can not change or be changed. As there is but one way to account for the vast diversity of beliefs and notions as to the superficial conditions of a future state of existence, and that is by the ever-varying and innumerable combinations

of the intellectual faculties with each other and with the religious sentiments and emotions—so there is but one way to account for the unchanging steadfastness and uniformity of the faith, in the essential and simple fact that there is such a state of existence in store for us, and that is on the hypothesis that there is, common to the human family, a deep-rooted instinct of immortality, not subject like the religious sentiments to distortions and variations of form and expression through the influence of various teachings, and not capable, like the intellect, of proving that it exists or does not exist, but that simply and forever feels immortality. It never could and never can be taught to feel otherwise. Yet were man's faith in his own immortality primarily the inculcation of religious teaching, he could quite as easily have been taught to believe exactly the reverse; it would have been an equally facile operation to make men believe their souls mortal or immortal. An able and eloquent teacher like Swedenborg could make men believe that in the spirit world there was a north, a south, an east, and a west; and that these terms meant as much or more than in the natural world; that there were spiritual marriages and offspring; or believing it himself, he could have made them believe something entirely opposed to all that, or entirely different from that, just as others have done. But neither he nor they nor any other ever had or will have the power to persuade many men to renounce their own immortality; for it is not of the intellect, and is inaccessible to argument; it is not primarily of the moral or spiritual elements and can not be subject to moral or spiritual dictation; it has no temporal interest and can not be swayed by policy. These conditions have given man's faith in his immortality an unimpregnable position. In its pureness and simplicity it subscribes to no dogma and owns no formula. Its creed, if it had one, would be: "Behold! I am alive forevermore." Groping and blind in the human breast,

like the unborn, the intellect directs its way, while the spiritual gives it upward aspiration and outward expansion. It springs primarily from that blind, instinctive feeling of life, known in phrenological parlance as "Vitativeness." This is the root of the tree whose top touches heaven above, and whose boughs reach out into infinity around. The vitative instinct simply loves life, and grasps it and holds it; loves it for its own sake rather than for any blessedness it brings. When brought to the test the majority of mankind will yield every other thing for life. "Skin for skin, yea, all that a man hath will he give for life." The conclusion that Vitativeness is the root of human faith in a future life is drawn from both general and particular observations, as well as that the religious aspect of that faith is not its primary one, but its subsequent development—its heavenward expansion and aspiration—just as the trunk, boughs, and foliage of a tree or flower are the skyward reach of the upward groping root. First, those nations of people in whom Vitativeness is feeblest hold their faith in a future life with the feeblest grasp, and cling to it with the least tenacity. Notably the Chinese. While the theory of a hereafter receives sufficient attention in the higher walks or flights of their literature, there is probably no nation on earth so lightly affected by the theory or so slightly impressed by the feeling that there is a state of existence for them in the future, as the Chinese. Neither are there any who relinquish their grasp of the present life so readily and easily as they. This latter circumstance can not be accounted for by the poverty and general degradation of the masses of the Chinese. Other people are as poor, and many of them as low in the scale of being as the average Chinaman, yet life is as dear and as sweet to them as to the most opulent and highly cultured members of society. The criminal classes in all civilized, and in most uncivilized, countries cling to life with a desperate tenacity. Had they a

thousand lives to live, there is little doubt that a large majority of them would prefer to spend them all in State prison rather than to die once for their crime. On the contrary, multitudes of the Chinese commit "hari-kari" out of sheer indifference to life; or rather because they prefer death to life. This is proof conclusive that Vitativeness is below par with the Chinese, which, taken in connection with their well-known average stolidity concerning the future life, argues some relation of the vitative instinct to the religious faith concerning futurity. As to particular observations, I have found it over and over a matter of comparative indifference to the individual, of whatever nationality, who is scant of vitality and feeble in Vitativeness, whether or not there is any future life for him; and this, irrespective of the strength or weakness of his religious sentiments. Hope may be never so bright and faith never so serene, but he will be exercised mainly on other themes, rather than on the perpetuity of his own existence. He has not found life so full of blessedness and sweetness that its everlasting continuance is a matter of so very much importance or so very desirable a thing in his estimation.

"Thou art so full of misery,
Were it not better not to be?"

is full often the burden of his reflection. Life has been a weary load to such an one, rather than a round of joy, and to drop it off and lie down in an eternal and unbroken sleep may be after all the one great compensation for all the weaknesses and miseries of human life. But out of the robust heart of the man of strong, full Vitativeness, comes the passionate cry for continuance—continuance of life—on any conditions, rather than be blotted out of existence forever and be no more. That is the one thing too dreadful for endurance, even in contemplation. To live, to be, is the sum of all blessedness; and to die, to cease to be, is the horror of horrors. Is it reasonable that it should be so? he queries; is it consistent to suppose that the cup of life, full

and overflowing with sweetness as I have found it, will be dashed from my lips forever by the hand of death, while I have yet only begun to taste it? Then Reason replies: "It is not reasonable, it is not consistent." Then Faith answers: "Believe and doubt not; you shall live forever." Hope finishes the scene by flinging sunshine on the land of the hereafter, and the soul is assured of its immortality not only, but charmed with the prospect. Then:

"Oh, life! Oh, beyond!
Thou art strange, thou art sweet!"

is its exulting cry. Nevertheless, when the sky of hope is overcast with clouds, as it often is; and when faith fails to support, as it sometimes does; when reason staggers under the powerful blows of the skeptic, the final refuge of the soul, its last and sole unimpregnable stronghold *is in that innate feeling that it can not die*, which neither reasons nor believes nor hopes, but simply feels that its grasp of life is too strong ever to be relinquished. It can be made to fly from its faith in the revealed word, to forsake its hope of heaven, and to admit and give intellectual assent to the doctrine of annihilation; yet that root will live and again give forth its blossoms of spiritual faith and spiritual hope. That innate feeling is always in proportion to the strength of that fundamental principle of life which we call Vitativeness. When the foundations of the universe were laid, it was there, and became a part thereof. It is planted a natural feeling; it rises a spiritual faith. It is sown in the lower earth a simple instinct; it blossoms in the upper heaven a spiritual hope. Although the foliage of that faith, which is its literature, its creeds, and its formulas, its thousand theories and speculations, its fancies and superstitions even may be torn away and scattered in the whirlwinds of theological and anti-theological strife and contention; although the blossoms of that hope, which are beautiful and special anticipations, may be ruthlessly cut off and killed by the cruel frost of skeptical criticism; yet, forever,

that innate feeling, that root of the whole matter will survive, and "through scent of water it will bud again." Germane to this subject is the question, Is the soul of man immortal in all its parts, or only in part?—if the latter, what ascends to the upper life and what is dropped with the lower; which do we keep in the hereafter, and what cast off as no longer useful? The coarse and savage mind, which can conceive of no nobler employment than hunting to death his fellow creatures, must needs retain his butchering propensities.

"And thinks, admitted to that equal sky,
His faithful dog shall bear him company."

The more advanced philosopher thinks we drop off those faculties which relate strictly and exclusively to the lower life, and retain those only which belong to a higher sphere of action. This sounds extremely plausible; but is it true that we possess any faculties which relate us strictly and exclusively to our present state? It may be regarded as quite certain that some of the faculties perform certain *functions* below that are not necessary above, as the physically reproductive, or the bodily alimentive functions. Nevertheless it is not impossible, or not improbable, that the faculties themselves are retained for the performance of a more refined yet analogous function in the higher life. The ugly caterpillar crawls to and fro on his stubby feet, and feeds on the fiber of plants. Resurrected, he still travels, not on the earth, but in the air; no longer condemned to creep, he is enabled to fly. His slow and clumsy method of locomotion is translated into swift and graceful aerostation. He still feeds no longer, however, on coarse leaves and stalks, but on the delectable dew they distill. He still has a system to nourish and to transport, and he has lost no faculty, only each has changed its function. He is still related to the new world about him through his old faculties, only by the new functions. There are also innumerable hints in human conduct and phases of human character that point

to the conclusion that every faculty of the human mind possesses within itself the capacity of a double function—an out-reaching function and an up-reaching one—an earth-sphere and a heaven-sphere. This is as true of the lower range of the human propensities as of the higher endowments of the intellect, and of the moralities, and it indicates that the soul will retain its present symmetry in the future life. The reproductive and sustaining forces of the physical system will be retained, only there will be no physical system like the present one to reproduce or sustain. They will be employed in some higher, yet analogous function. They are primal and eternally continuous forces, and not merely temporary manifestations, as we are apt to look upon them to be. The reproduction and sustentation of organic growth, like the human body, is but an incident in their vast and varied relations to the universe. The amative propensity is undoubtedly the inspiration to the marriage of men and women; otherwise men would marry each other, and women would do the same just as readily. Yet we have named this principle and judged it by one manifestation solely: the sexual, which is temporary and transient, and have leaped to the conclusion that its use and duration are but temporary and transient in the economy of creation. And even in this manifestation, in our haste and carelessness we have judged it superficially. Men regard the sexual relation as a physical one, and the sexual rite as a purely physical act, because it is performed through the sexual organism. As well say the calculation of an eclipse or the construction of the *Novum Organum* was a physical act, because it was done through the mediumship of the cerebral organism of its author and calculator. The impulsions of sexualism are of mind—the Eternal Mind, and will operate in the eternal mind, the human soul, so long as it can give that glow to the mind, that lift and inspire the whole moral and spiritual nature, that in its

higher and more refined manifestations it can and does, even now and here. Few thoughtful and observant persons will deny, I think, that the benevolence, kindness of feeling and of conduct shown by each sex to its opposite, is of a warmer, richer, and deeper quality than that shown by each sex to its own. The experience of sick and maimed soldiers in hospitals illustrates it fairly. The ministrations of women-nurses and attendants fall with a sweetness and power on their subjects that never could proceed from the hearts and hands of men. The incident of the wounded soldier turning to the wall and kissing the shadow of Florence Nightingale is in point. Had it been the shadow of a man he never would or could have kissed it, no matter how kind that man had tried to be. Yet it was an expression of pure gratitude, reverence, and love—holy emotions all—intensified and raised to a greater height, because his benefactor was a woman. Say not, then, that the sexual principle ascends not into heaven and has no place in the future life. The veneration of the sexes, each for its opposite, is higher, more profound than either is capable of for its own. Say not, then, that sexuality has no religion, no faith, no future life.

Here I am likely to be met with the saying of the greatest of authorities, that "in heaven there is no marrying, or giving in marriage." Yet this text can not fairly be construed to mean anything more than the abolition of a function, not the destruction of a principle of sex. The distinction of sex has more than the material purpose of procreation. That, however, was the sole conception of the sexual principle on the part of his querists, and the teacher was obliged to address himself to their understanding of the subject or remain silent. Marrying meant, in their estimation, a physical union of the sexes for the purpose of procreation, and he answered them accordingly. Had they understood that the distinction of sex meant, on the one side, the incarnation of the divine idea of

beauty, love, and pure devotion, and on the other, of conquering strength, creative wisdom, and constructive skill, and that marriage meant the blending in a perfect one of all these elements, then the answer to their question: "Whose wife shall she be?" might have been different. As it is, no more is indicated than the abrogation of a rite and discontinuance of the physically procreative function. That the distinction of sex is a mental distinction, is clearly shown by the fact that we know the sex of the writer of an article by its mental tone, whether male or female, without any other indication.

But the most potent illustration—because unpurposed and unconscious—of the power of the sexual principle to permeate intellectual methods and to modify spiritual conceptions, is seen in our sacred literature. Not only is it plainly evident that all the books of the sacred volumes were written by persons of the masculine gender, from the intellectual tone and method of each, but the greatest, grandest apprehension therein recorded, that of a sole, infinite spirit, is shaped by it. The loftiest, sublimest idea of the Divine Being ever cherished on earth, that which the Christ carried in His breast, could not transcend the principle of sex. He was the Heavenly Father. Everywhere the Infinite is denominated "Him" or "He," never her or she. This is significant in the highest degree, if not an actually existing distinction within the world of spirits, at least of the impossibility of the human mind, even in its most ethereal flights and most sublime conceptions, to ignore that distinction. It would seem that if such distinction were not as peculiar to the intellectual and spiritual powers of the human mind as to the physical frame, and therefore to perish with it, some conception might have been had of spiritual beings that would recognize the fact. Nay, that some one of the favored few who have seen God, and "have spoken face to face with God as a man speaketh with his friend," as the Scripture affirms, and have seen and

conversed with angels, would have informed us had they found the distinction of sex to be abolished in spirit life. On the contrary, it is unvaryingly maintained in every authoritative communication we have ever had on the subject.

That each and every faculty of the human mind, and every instinct of the soul is primarily endowed with the capacity of performing a twofold function—one that might be termed the upper, and another that of the lower, or earth—life function, thus relating the soul of man to two lives. The present and the future life may be partly inferred from the relation of the different parts of the brain to each other. First, it is true of the brain, as a whole, that it has a summit and a base; and this, every mental scientist is aware, means that the soul has a sky-light and a basement. Through the upper brain is performed the higher, the moral and spiritual processes, and through the lower brain, the lower, the animal functions and feelings. It is also equally well known that through the intermediate portion of the cerebral mass are performed those mental offices that are intermediate in kind between the moral and spiritual above, and the animal or physical elements below. Thus brain and function are graded together as high and low in an uninterrupted course from crown to base. Therefore the same significance must attach to the circumstance that each distinct organ has a summit and a base that attaches to the same circumstance regarding the brain as a whole. We can not limit the application of the law relating structure and position to function, to the subdivisions of his substance into groups of organs. It applies to each individual organ of each individual faculty as well. If the upper portion of the brain as a whole performs a more exalted office than does its lower portion, and if the upper half of each group of organs performs a higher range of functions than does its lower half, both of which propositions are well known to be correct, then it follows inevitably and unavoidably, that the upper and lower parts of each individual organ perform, if not distinct and different functions, at least differing grades of the same function; one relating to the life that now is, and the other, though analogous, as the aërosation of the butterfly is to the locomotion of the caterpillar, looking to the life that is to be for its full unfolding.

tion of the caterpillar, looking to the life that is to be for its full unfolding.

Every phrenologist of extensive experience in handling the human head must, I think, have been struck by the occasional unequal development of the different parts of the same organ. In some instances the upper portion will be found shrunken in appearance, partially hollowed out and depressed, while the remaining portion will be round and full; or *vice versa*. If it means something to the phrenologist to find one part of a forehead or a backhead, or any other division of a head, full and another part empty, it should also mean something to him to find one part of a particular organ full and another part empty. "As full, as perfect in a hair as heart," is the application of the law. Finally, the dual character of the faculties has often been recognized by inspired teachers, without the aid of science. "Lay not up for yourselves treasures on earth," and "Lay up for yourselves treasures in heaven," are a recognition of the twofold function of "Acquisitiveness," its natural function and its spiritual one. Also that never-solved problem in moral mathematics: "What shall it profit a man to gain the whole world and lose his own soul?" is predicated on the same principle.

The spiritual functions of "Combativeness" and "Destructiveness" were powerfully illustrated in the lives and deaths of the early Christian martyrs, the "weapons of whose warfare were not carnal, but spiritual." In addition to the testimony of the innate feeling and of the religious faith to the reality and certainty of a future life, we put in evidence the circumstance that we find within, or superimposed upon, each and every faculty of the human mind the germ of a new function, looking to the future for its perfect unfolding, a preparation for a higher flight, begun and indicated by the structure of its material organ, as well as by actual, though partial and occasional, manifestation. Though not as palpable to the senses, evidence of this kind ought to be as conclusive to the reason as when we cut through the wrappings of the chrysalis and come to wings in embryo, that it is conclusive that a future and a finer state of existence is waiting for the unconscious thing. May it not be added that if this circumstance has any power to give fresh confirmation to our faith in a future life, it also suggests as to the conditions of that life that to enter upon them may be, rather than the loss of any faculty, the gain of new functions.

H. P. SHOVE, M.D.



THE WEeping SOPHORA.

AMONG trees which are used for ornamental purposes on the lawns of suburban villas, there are few which can surpass in beauty and interest, the Weeping Sophora of Japan. When well developed, it is attractive throughout the year. The engraving shows it as it appears when full grown. It is more picturesque than the weeping willow of our own country; the shoots hanging most gracefully. The growth it makes in a

season is small, which is its only objection, but it thrives well on dry soils, according to the *English Garden*. There is no fairer object for contemplation in the simple, quiet beauty of the lawn or pleasure ground, than this curious tree. It should never be grouped in a plantation or with other trees; its character being such that it should be quite isolated, or be placed with plants of a smaller growth.

SAYINGS, AND WHO FIRST SAID THEM.

THIS language of ours! It is enough to transform the firmest-minded of foreigners into a confirmed and hopeless state of lunacy, if not of idiocy, be he so rash as to undertake its subjection. And yet, let him hint to our mother-tongue-loving hearts that it is not the most sublime, beautiful, perfect language on earth, and we will hurl at him the time and world-honored names that have given it and themselves immortality. Every generation needs a dictionary of the speech of the preceding one; each epoch of literature needs in the next an interpreter.

The beautiful prayer we learn to lisp at our mother's knee, and that trembles on our lips when we are upon the borders of the unknown kingdom that comes to us at last, is a strange and unfamiliar petition couched in the form and language of the year 1258, when it was written:

Fader ure in heune, haleeweide beoth thi neune, cumen thi kunerche thi wille beoth idon huene and in. The ewerych dawe bried gif ous thilk dawe. And worzif ure dettes as vi vorzifen ure dettours. And lene ous nought into temptation, bot dolyvorof uvel. Amen.

Fifty years later the language had changed it to this form:

Fadir our in heven, Halewyd by hi name, thi kingdom come. Thi wille be done as in hevene and in erthe. Oure urche dayes bred give us to-day. And forgive us oure dettes, as we forgive our dettours. And lede us not into temptation, bote delyvere us of yvel. Amen.

And in 1611 it had come to this:

Our father which art in heauen, hallowed be thy Name. Thy kingdom come. Thy will be done in earth as it is in heauen. Giue vs this day our daily bread. And forgiue vs our debts as we forgiue our debtors. And lede vs not into temptation, but deliuer vs from euil. For thine is the kingdome, and the power and the glory for euer. Amen.

Many of our common sayings, so trite and pithy, are used without the least idea from whose mouth or pen they first originated. Probably the works of Shakespeare furnish us with more of these fa-

miliar maxims than any other writer, for to him we owe: "All is not gold that glitters," "Make a virtue of necessity," "Screw your courage to the sticking-place," (not *point*), "They laugh that win," "This is the short and long of it," "Comparisons are odious," "As merry as the day is long," "A Daniel come to judgment," "Frailty, thy name is woman," and a host of others.

Washington Irving gives us "The Almighty Dollar," Thomas Morton queried long ago "What will Mrs. Grundy say?" while Goldsmith answers, "Ask me no questions and I'll tell you no fibs." Charles C. Pinckney gives "Millions for defense, but not one cent for tribute." "First in war, first in peace, and first in the hearts of his fellow-citizens," (not countrymen), appeared in the resolutions presented to the House of Representatives in December, 1790, prepared by Gen. Henry Lee.

From the same we cull, "Make assurance doubly sure," "Christmas comes but once a year," "Count their chickens ere they are hatched," and "Look before you leap."

Thomas Tasser, a writer of the sixteenth century, gives us, "It's an ill wind turns no good," "Better late than never," "Look ere thou leap," and "The stone that is rolling can gather no moss." "All cry and no wool," is found in Butler's "Hudibras."

Dryden says: "None but the brave deserve the fair," "Men are but children of a larger growth," and "Through thick and thin." "No pent-up Utica contracts our power," declared Jonathan Sewell.

"When Greeks join Greeks then was the tug of war," Nathaniel Lee, 1692.

"Of two evils I have chosen the least," and "The end must justify the means," are from Matthew Prior. We are indebted to Colley Cibber for the agreeable intelligence that "Richard is himself again." Johnson tells us of "A good hater," and Mackintosh in 1791, the

phrase often attributed to John Randolph, "Wise and masterly inactivity."

"Variety's the very spice of life," and "Not much the worse for wear," Cowper. "Man proposes, but God disposes," Thomas à Kempis.

Christopher Marlowe gave forth the invitation so often repeated by his brothers in a less public way, "Love me little, love me long." Edward Coke was of the opinion that "A man's house is his castle." To Milton we owe "The paradise of fools," "A wilderness of sweets," and "Moping melancholy and moonstruck madness."

Edward Young tells us "Death loves a shining mark," "A fool at forty is a fool indeed," but, alas, for his knowledge of human nature when he tells us "Man wants but little, nor that little long."

From Bacon comes "Knowledge is power," and Thomas Southerne reminds us that "Pity's akin to love." Dean Swift thought that "Bread is the staff of life." Campbell found that "Coming events cast their shadows before," and "'Tis distance lends enchantment to the view." "A thing of beauty is a joy forever," is from Keats. Franklin said, "God helps them who help themselves," and Lawrence Sterne comforts us with the thought, "God tempers the wind to the shorn lamb."

Even some of the "slang" phrases of the day have a legitimate origin. "Putting your foot in it," is certainly not a very elegant mode of expression, but according to the "Asiatic Researches," it is quite a fine point of law; when the title to land is disputed in Hindostan, two holes are dug in the ground and used to incase a limb of each lawyer (?), and the one who tired first lost his client's case. Fancy, if you can, some of our famous "limbs of the law" pleading in such a manner! It is generally the client who "puts his foot in it"!

When things are in disorder they are often said to be turned topsy turvy; this expression is derived from the way in which turf used for fuel is placed to dry, the turf being turned downward—and the

expression then means, top-side-turf-way.

"To lam," is found in "King and no King," by Beaumont and Fletcher, and "Go snacks," in Pope's "Prologue to Satires." Even "He's a brick," is really classical slang.

Plutarch, in his life of Argesilaus, King of Sparta, gives us the origin of the quaint and familiar expression.

On a certain occasion an ambassador from Epirus, on a diplomatic mission, was shown by the king over his capital. The ambassador knew of the monarch's fame—knew that though only nominally king of Sparta, he was yet ruler of Greece—and he had looked to see massive walls rearing aloft their embattled towers for the defense of the town; but he found nothing of the kind. He marveled much at this, and spoke of it to the king.

"Sire," he said, "I have visited most of the principal towns, and I find no walls reared for defense. Why is this?"

"Indeed, Sir Ambassador," replied Argesilaus, "thou canst not have looked carefully. Come with me to-morrow morning, and I will show you the walls of Sparta."

Accordingly, on the following morning the king led his guests out upon the plains where his army was drawn up in full battle array, and pointing proudly to the serried hosts, he said:

"There, thou beholdest the walls of Sparta—ten thousand men, *and every man a brick!*"

ALMA L. ROCKWOOD.

TO KEEP GERANIUMS OVER WINTER.—Geraniums, fuchsias, salvias, and other plants that you may wish to keep over winter without any care of them, may be taken up with a ball of earth attached to them and placed in one corner of your cellar, provided it is warm enough not to freeze potatoes; pack them close and bank the earth closely about the roots. In January or February you can bring the fuchsias to the window, and they will form beautiful flowering plants in about six weeks' time.



SUPERIORITY OF MIND OVER MATTER.

DURING a flying visit to Waukesha, Wis., Dr. Robert Boyd related to us an incident from the life of that prince of preachers, Robert Hall, which is one of the finest illustrations of the power of mind over matter we have ever known.

As it is well known, Dr. Hall was hardly ever free from suffering. His disease, so obscure as to baffle all physicians, steadily tightened its hold upon him, and many of his great sermons were preached under circumstances that would entirely have prostrated a man of feebler nerve. One Sunday morning when, as usual, the church was packed to hear the great preacher, one of his deacons, entering the room at the rear of the pulpit, found Mr. Hall lying on the floor enveloped in a perfect cloud of smoke, by which he was endeavoring to deaden the pain. A student went into the pulpit to conduct the opening services. Mr. Hall lingered in the vestry till the very last moment, wrestling with excruciating pain. At length, as the last hymn was being sung, he rose, or was lifted from the floor. His eye was heavy with narcotics, his cheek hung flabby, and his whole expression was lifeless. The sexton put his coat on him and opened the door. Slowly and laboriously pulling hand over hand, he climbed the pulpit stairs. With one hand pressed on his side and the other grasping the pulpit, he announced his text: "The Father of Light." He looked more like a dead man than a living one.

With slow and mechanical utterance he began. Without motion or gesture, save a feeble occasional movement of his right hand, he went on. He first described, as only he could, the glories of the natural heavens, and then exalted God as the "Father" of all these lights. He then called a graphic roll of the world's intellectual masters. God was also the Father of all mental greatness. And then he dwelt on moral and spiritual greatness, and traced it all to God.

As he proceeded, a wonderful change came over his face. The flabbiness passed away from his cheeks, and the heaviness out of his eyes. His face shone like an angel's, his eye blazed with unnatural brilliancy, and his voice, losing the huskiness with which he began, rang like a trumpet. A great change also came over the audience. As he went on from picture to picture, and poured out on that audience, accustomed indeed to eloquence, but now astonished, his wonderful wealth of word and thought, the people leaned forward in their seats, hardly daring to breathe, and finally, fully one-third of them, unconscious of what they were doing, rose up and leaned toward the pulpit as far as they could reach. Many left their seats, and with unconscious steps silently, stealthily crept down the aisles, until they found themselves standing entranced directly in front of the speaker, so irresistible was the magnet that drew them.

When the sermon was over, the giant disease again claimed its victim, the eyes sank and the face fell. But during that glorious hour, when "great thoughts struck along the brain," the mind was supreme. It spurned weakness and death, and claimed its birthright. Such an hour as that will forever disprove the current materialism. There are times when man can "above himself erect himself." Such times prophesy the permanent triumph of the immaterial part

of our being. If the mind be but the happy collection of physical atoms, then the eloquence of a physically broken and dying man is an unexplained and anomalous thing. But if the mind be a separate and immortal entity, using the body as its servant, then we can understand how it can climb sometimes to its grandest achievements along the rickety and crumbling stairway of an enfeebled and decaying physical nature. —*Interior.*

HEALTH IN HONDURAS.

LIVING at an elevation of 3,000 feet above sea-level, with the thermometer always between seventy and eighty degrees Fahr., and breathing day and night the pure mountain air, one would suppose this sufficient to prolong life indefinitely, and to enable him to live free from the pains and aches of sinful humanity. This calls us back to Adam, and makes him shoulder all blame for having permitted a woman to tempt him; but what man is there who is invulnerable to the wiles of a woman? But I am digressing from my first thoughts. I was saying that with the many elements necessary to good health as are found in Tegucigalpa, one should also find good health generally, but it is to the contrary. The men are robust and healthy, but the women and children are delicate and sickly. One could hardly expect to find men of robust constitution whose mothers are feeble, yet that is what we find here. I speak, however, of the better classes. As to the inferior classes, the women are very powerful, sinewy, and masculine. This then being the case, we must look to a difference of living as the cause of the feebleness of the women of the better classes. The customs of the country, which are descended from Old Spain, impose upon the women such restraints that they not only enfeeble their bodies, but endanger their lives.

By the rules of society, a lady can not go out of doors unless accompanied by an *attaché* of the family. This causes

few of the promenades so necessary to health. Then the houses are very badly ventilated. Indeed they have no ventilation at all. The houses being of mud and the floors of brick, built upon the ground, cellar-like rooms are the result, which with us would be considered a very dangerous abode. Then the effects of the rainy season, during which rain falls every day, render such rooms even worse than a cellar. The hydrometer in the driest season only indicates an evaporating power of five degrees, and in the wet season, some days none at all, showing the perfect saturation of the atmosphere with moisture. The diseases peculiar to such habitations are those affecting the muscles and the lungs. Of these, phthisis ranks first in the causes of death, then affections of the muscular tissues, particularly the muscles of the alimentary canal.

A peculiar kind of fever, which they call *calentura*, is a most common malady, but never dangerous. It is caused from indigestion, and an emetic followed with light purging usually places them on their feet in a day or two.

In our walks in the streets, or visits among friends, we may find about every other female affected with headache or toothache. Their teeth are generally bad, caused of course from the feebleness of constitution and incapacity to supply the necessary constituents to the teeth. The common headache is caused by want of proper exercise, and its necessary result-

ants, inertia of the alimentary canal, impairment of the digestion, and inequality of the circulation. Sporadic cases of typhus fever appear, but from the common treatment in vogue, nearly all such patients die.

A few months ago a form of sore throat appeared, which they called scarlatina, but was only tonsillitis. Throat affections and nasal catarrhs are very common—more, however, from imprudence than climatic. The common people, with only a light cotton covering about the waist and lower extremities, shoulders bare, sleeping nude, wrapped up in a sheet only, and making their bed on the paved court or floor of a room, are hardly ever afflicted with any disease, while the better classes who live with the comforts the country affords, are most generally ailing from one source or another. Hence we

see that it is not the country or the atmosphere which is responsible for the ill health.

The rock hereabouts is of volcanic origin, with a light covering of vegetable soil here and there, not sufficient, however, to produce miasmatic vapors to affect the atmosphere, while the trade-winds which blow from over the mountains are fresh, though when from the North, contain much moisture. There is hereditary consumption, but those families who are suffering with it are not of the country, and therefore brought the disease with them. There is no reason why with proper hygienic measures adopted in this city, the sporadic cases of lung affections and catarrhs, as well as the frequent cases of muscular affections, may not be entirely avoided.

J. RADIX.

CAUSES OF STAMMERING.

DR. J. SCHRANK, of Munich, in a recent work, alleges stammering to be the result of disease of the cortical portion of the brain. It is brought about through mental influences. Speaking requires a succession of acts of volition; but with the stammerer the behests of the will are hindered by anxiety or doubt as to his powers of execution of the words to be uttered. Undue attention is thus thrown upon the special acts of pronunciation. The stammerer is, therefore, one placed under the influence of dominant ideas, having especial reference to his capacity for articulation. He thus belongs to the same class as those suffering from agoraphobia or ataxia muscularis.

Dr. Schrank rejects Kussmaul's view that stammering is owing to a born weakness of the apparatus by which syllables are co-ordinated. If this were so, stammering ought also to occur in reading and singing, which is not always the case.

The author would seek for an anatomical basis of stammering in the parts around the island of Reil, where the so-

called motor speech centers have been located. Stammering appears to be hereditary. Colombat found it to be inherited in two-fifths, and Coën in one-fifth of his cases. Dr. Schrank gives an instance where stammering ran through four generations, originating from the mother's side. In those cases where there was no direct inheritance of the disorder, other diseases of the nervous system, such as epilepsy, hysteria, or chorea, were frequently found. The author sees a confirmation of his theory in the treatment which has been found most efficacious in removing stammering. This consists in different devices and exercises to increase the strength of the will, and to diminish anxiety in speaking. Electricity has not been found of any efficacy in the treatment of stammering.

Very great success is reported as attending the treatment of stuttering by purely physiological training, according to the system of M. Chervin, of Paris. Three types of stuttering are distinguished. First, that occurring during the inspiration; second, stuttering dur-

ing expiration; third, stuttering during both these periods, and between breaths. The first involves various respiratory exercises, and the pupil is first taught to make long, full inspiration, and follow it by regular, forcible expiration. Then the respiratory movements are made with various rhythms until they become full, regular, and easy, instead of being jerky, labored, and fatiguing. In the second stage of treatment, exercises with vowel sounds are substituted for the previous mute breathings, giving to each vowel the various modifications of tone, pitch,

duration, etc., heard in conversation. The third stage comprises exercises on consonants alone, and in combination with vowels; at first slowly, then rapidly, varying the duration and pitch of each syllable, and passing from words of one syllable to those of two and more syllables. Prepared by these exercises, the pupil learns to articulate slowly and methodically short sentences, then longer periods and paragraphs, separating sentences, and always beginning with a deep inspiration. Twenty days of this treatment usually suffice for a perfect cure.

JOURNAL OF A RESIDENT OF THE YELLOW FEVER COUNTRY.

OCTOBER 15th, 1878.—The last six weeks have been so full of experiences and varied feelings to me, that they seem a little life-time. My mind looks out upon the horrors of this awful pestilence as one might do from an insecure ledge of rock upon a world of rushing water, rising and threatening, and in all probability destined to engulf the precarious foothold, and the desolate waif clinging to it. In just such fair former autumns as this, how have I sunned myself in the luxuriousness of life's absorbing dream, and wondered how any one could despair in a world so beautiful. Now my own life's current eddies and whirls and foams in a maelstrom, foreboding disease, disaster, death! Everywhere, in the golden atmosphere, among the foliage, opalesque and bronzed under the heavens blue and cloudless and smiling, looms the Omnipresent Terror, "The pestilence that walketh in darkness and wasteth at noonday." Every hour falls a victim of the remorseless Reaper, whose scythe turns not aside from the noblest, the bravest, the best. Yesterday it was the young editor, whose wit was polished as the finest blade of Damascus, whose eloquence roused and thrilled, quickened and exalted; the day before it was the kind spiritual father, whose prayers made a halo about the gloomy death-beds. To-day it is our physician—one of the grandest souls that

ever lay down life to save others! What a man he was; beautiful as Achilles, skilled as Æsculapius, pitiful as a St. John, impetuous as Peter. His life for years had been a double one—that in his *practice*, grand for its tender self-sacrifices; that in his family, miserable for heart-burnings and misunderstandings. His warfare is ended; he has given his own life; a pitiful Saviour *rests* him.

Oct. 20th.—The country is shuddering over a *new* disease, a something only less terrifying than yellow fever, because not so contagious. It is called malarial hæmaturia. The victim has a chill, then continuous fever and pain in his limbs for six or eight hours, a discharge of blood from the kidneys, vomits something dark and offensive, and becomes the color of an orange, death ensuing in about forty-eight hours. Yesterday I saw a poor woman who had just been attacked with it the day before at noon. She was a deep saffron color, and death showed itself in her poor distorted face. To-day I saw her buried; not a word of religious service; no book nor beadle; only a hasty burial in a lonely, unkempt family graveyard. I have seen half a dozen burials since I have been in this part, and this has always been the way. There is no religious ceremony over the corpse, or at the grave, and the body is laid away, in ordinary times, in six hours after death.

Oct. 22d.—This is a genuine October day, cool, crisp atmosphere; wintry sunshine, and winter clothes comfortable—a prelude to frost, I hope, and death to the horrible fever-germs that have depopulated the land. A strange result of the terror is the demoralization it has caused; men are wild after whisky and brandy, and all fever-breeding, intoxicating drinks. Certain merchants have set up a “store” in a negro church, and there, on the strength of a *physician's* prescription, they sell hundreds of gallons of whisky a day. The physician's prescription is given to any buck negro who can pay two dollars for it, and is equivalent to the physician's oath that “whisky is necessary to the preservation of the *patient's* (bearer's) life. These are issued, *undated*, to hundreds of stalwart negro men, who have *no* ailment, and shown by the merchant as his *warrant* for retailing spirits. The negro women are fully as mad after

drink as the men, and their orgies are as heathenish as any Stanley ever saw on his passage across the “Dark Continent.”

Nov. 6th.—I look appalled at Present and Future. The graveyards of the fever-smitten towns, even now, since there has been several frosts, emit a terrible stench, showing the faithless manner in which the grave-diggers performed their task of putting away the dead. A great tidal-wave of wickedness is abroad—men swear recklessly, vehemently, and continually. Sabbath restraints are scarcely known or thought of; those who a few months ago even arrogated to themselves *ministerial* authority, now blaspheme the name of Jesus. It is one dark night of woe, but far away, like the faint glimmer of coming dawn, we see the light of our deliverance, and prayerfully lift our hearts to Him, who is mighty to save.

VIRGINIA D. COVINGTON.

DRINKING AT MEALS.

ANOTHER OPINION.

A WRITER in the *Rural New Yorker*, who evidently knows what he is talking about, expresses an opinion which is apparently opposed to the common view of hygienists on the same subject. As he is far from unreasonable in his way of discussion, we give him space here.

“We were once told by a shrewd old college professor that the most foolish thing a man of intelligence can do—from the worldly point of view—is to ‘butt his brains out against a popular prejudice.’ Still, we are sometimes dreadfully tempted to pound our cranium against a hurtful notion, and have never been more so than while reading the advice so often insisted on in the papers against drinking water at meal-times. The chief and most plausible argument against this practice is that it dilutes the gastric juices, and so delays digestion. It is not often in a scientific discussion that we can so easily as in this case appeal to the individual consciousness of the uninstructed reader in proof of the fallacious character of the

assumption in question. Who that reads this has not had a thousand proofs forced upon his attention that water taken into the stomach remains there but a few seconds, is quickly taken up by the blood-vessels, and, if in excess, almost as quickly thrown out of the blood again through the kidneys? Yet there is a small grain of truth in the midst of this gross error. Large draughts of very cold water taken into the stomach with the food, by chilling the stomach during its rapid progress through the walls of its vessels, do arrest the secretion of the digestive fluids until the proper warmth is re-established. Large draughts, also, of tea and coffee, by the astringency of the former and by the nervine action of the theine they both contain—as well, also, as by the peculiar narcotic action of coffee—derange and hinder digestion. Alcoholics, however diluted, have a like effect. With these limitations, we but declare the consensus of all physiologists when we say that a full response to the calls of thirst, at meal-

times as at other times, is wise and proper. And for these reasons: The sense of thirst is given to us not only that we may keep the fluids of the body duly supplied with solvent and diluent material, but also that, through the excretory organs, all soluble offensive substances may be quickly washed away. In the digestive process the demand for water in aid of both these necessary purposes is urgent. In nearly everything we eat there are soluble substances that are in excess, and this excess should be promptly carried out of the system. Perhaps the most abundant among these, usually, is the common salt so freely taken. It is, however, by no means the only one; and they all, unless promptly removed, act as irritants. Their action upon the stomach will in a very short time decrease and soon arrest the flow of the gastric fluids and disturb the muscular action by which the stomach 'churns,' so to speak, its contents, that every portion may receive its due admixture of digestive material. This disturbance of muscular action is seen at its highest in vomiting, by which the offending substance is ejected summarily, together with all the contents of the organ.

Now, it is best not to over-eat, and it is best to eat simple food, with as little excess of seasoning or of objectionable elements as possible. But, under all circumstances, it is both wrong and dangerous to give refusal to nature's call for nature's remedy in such cases. Plenty of drink is what is demanded, and a free supply of fluids must be given, if serious consequences are to be avoided. The consequences of refusal are not all immediate. The irritation from lack of drink, as well as that from improper drinks, becomes in time chronic, passing to inflammation, the result of which is dyspepsia and the symptom of which is pain. Then, for want of diluent fluid by which offending soluble substances are quickly removed, these often assume insoluble forms, and are deposited in various parts of the body, to remain there, constant sources of pain and danger. Gravel and stone in the urinary organs, biliary concretions in the liver, calcareous deposits in the joints and elsewhere, and possibly tubercular deposits in various organs, are, we may say with much certainty, due in some degree to a foolish fear of water-drinking."

NOTES IN SCIENCE AND AGRICULTURE.

Distance of the Stars.—Prof. C. A. Young has an article in the *Boston Journal of Chemistry*, on "Measuring the Distance of the Stars," in which he says:

"Every star in the sky seems, when seen from the earth, to describe each year in the sky an orbit precisely the same as that of the earth herself seen from the star, an enormous circle more than 180 millions of miles in diameter, which, as viewed by the stellar observer, will be more or less elliptical according to the angle at which he looks down upon the plane of our movement. Of course, as the motion of the star in this apparent orbit is continually contrary to the real motion of the earth, the star must always be in that point of its path just opposite to the earth's position, and it will take six months for it to go from one side to the other. The radius or semi-diameter of this apparent annual orbit of the star, expressed in seconds of arc, is called its *parallax*, and when this is found it is a perfectly simple thing to compute its distance. Now, at first, one would think there ought to be no difficulty in detecting a motion of 180 millions of miles in six months; but such are the celestial spaces that even

this distance, vast as it is, shrinks almost to nothing. In the case of our nearest neighbor, a *Centauri*, before mentioned, the whole annual displacement amounts only to 1" .80, and its parallax is 0" .900. The pole star, on the other hand, has a parallax of only 0" .046. Of the minuteness of this angle, very few persons have any idea. At a distance of twenty miles, a second would be a little less than six inches, so that at that distance the pole star's parallax would be but a little more than a quarter of an inch (more exactly, 0.28 of an inch). An ordinary human hair would subtend the same angle at a distance of a quarter of a mile."

Ments Cooked by Cold.—It seems unlikely at first thought, yet it is a fact that extreme cold produces in organic substances effects closely resembling those of heat. Thus, contact with frozen mercury gives the same sensation as contact with fire; and meat that has been exposed to very low temperature assumes a condition like that produced by heat. This action of intense cold has been turned to account for economical uses by Dr. Sawiczewosky, a Hungarian chemist, as we learn from *La Nature*. He

subjects fresh meats to a temperature of minus 33° Fahrenheit, and having thus "cooked them by cold," seals them hermetically in tin cans. The results are represented as being entirely satisfactory. The meat, when taken out of the can a long time afterward, is found to be, as regards its appearance and its odor, in all respects as inviting as at first. A German government commission has made experiments with this process, and in consequence two naval vessels dispatched on a voyage of circumnavigation were provided with meat prepared in this way. Hungary has an establishment for preserving meats by this process.

The Black Mildew of Walls.—Professor Paley attributes the blackness of St. Paul's Church, London, mainly to the growth of a lichen, and Professor Leidy recently stated to the Philadelphia Academy that his attention was called a few years ago to a similar black appearance on the brick walls and granite work of houses in narrow, shaded streets, especially in the vicinity of the Delaware River. Noticing a similar blackness on the bricks above the windows of a brewery, from which there was a constant escape of watery vapor, in a more central portion of the city, he was led to suspect it was of vegetable nature. On examination, the black mildew proved to be an alga, closely allied to what he supposed to be the *Protococcus viridis*, which gives the bright green color to the trunks of trees, fences, and walls, mostly on the more shaded and northern side, everywhere in that neighborhood. Professor Leidy thinks it may be the same plant in a different state, but until proved to be so, he proposes to distinguish it by the name of *Protococcus lugubris*. It consists of minute round or oval cells, isolated or in pairs, or in groups of four, the result of division; or it occurs in short irregular chains of four or more cells up to a dozen, occasionally with a lateral offset of two or more cells. The cells by transmitted light seem of a brownish or olive-brownish hue. In mass, the algæ appears to the naked eye as an intensely black powder.

Loss by the Cotton Worm.—Professor Riley calculates that during a year when the cotton worm is prevalent in the Southern States it may injure the crop to the extent of \$30,000,000. The average actual annual loss during the fourteen years since the war, has been about \$15,000,000. Its injuries were equally severe before the war.

Cheap Rubber Shoes.—Rubber is at present largely adulterated so as to make it cheaper. The overshoes and boots made of this material are adulterated with finely-ground burned potter's clay, of which it can stand as much as 65 per cent. without losing its fitness for the purpose. The adulteration is harmless, only the material is not so strong, and the shoes or boots, instead of lasting several seasons, as the old-fashioned little or non-adulterated material, scarcely last one season, as they tear very easily and

holes soon wear in them. While the pure rubber is stronger than the best leather, the adulterated rubber is less strong than the worst leather. Rubber hose and sheet rubber are usually adulterated with soapstone. This gives a lighter color to the material, while the burnt clay adulteration leaves it dark colored, which is preferred for shoes.

How they Cook Rice in Japan.

—A traveler in that country writes: "They do know how to cook rice here, though, and for the benefit of grocers and consumers in the United States, I investigated the matter. Only just enough cold water is poured on to prevent the rice from burning to the pot, which has a close-fitting cover and is set on a moderate fire. The rice is steamed, rather than boiled, until it is nearly done; then the cover of the pot is taken off, the surplus steam and moisture are allowed to escape, and the rice turns out a mass of snow-white kernels, each separate from the other, and as much superior to the soggy mass we usually get in the United States as a fine mealy potato is to the water-soaked article. I have seen something approaching this in our Southern States, but I do not think even there they do it as skillfully as it is done here, and in the Northern States but very few persons understand how to cook rice properly. I am sure that, if cooked as it is here, the consumption of this wholesome and delicious cereal would largely increase in America."—*American Grocer*.

A New Cement.—Asbestos powder made into a thick paste with the liquid silicate of soda, according to a leading English authority, is stated to be found to be of great advantage for making joints, fitting taps, connecting pipes, and filling cracks in retorts. It is said to be of great service in the manufacture of nitric acid, sulphuric acid, and other products, because it can be as easily made as applied, hardens rapidly, and prevents the escape of acid vapors.

Poultry Keeping.—Some excellent suggestions on poultry houses and fowl-keeping are given in the *Poultry World*. We extract these concise paragraphs:

A very simple mode of ventilating the hen-nery is to have an opening in the end of the fowl-house, ten or twelve inches square, with a sliding door for use in extremely cold weather. Thorough ventilation is an absolute necessity; poultry breeders who confine their choice fowls during the winter find that if they consider this vital provision promptly they will have less disease and drooping among their fowls than is usual after a season of close confinement. The interior of the house may be very simply arranged; roomy roosts, a row of box nests, a covered feed trough and water vessel, and a wide, shallow dust box to roll in when limited to close quarters. For the heavier classes of fowls, such as Brahmas, Cochins, and Dorkings, the roost and nests should be set low in order that these clumsy birds may find no trouble in ascent or descent. Be sure that

the nests are roomy and clean ; carbolic nest-eggs are recommended by many breeders.

Fowls do better if they are constantly running on the ground, so we would advise, in building the hen-house, that the walls or frame be set upon a stone or brick foundation, a foot above the surface of the ground. Leave the inside door open and let your fowls have the benefit of the earth, so far as they can in cold weather. There is no expense in this, and it is far more healthful than a plank floor would be. Whitewash thoroughly before the fowls are put into the house ; a little powdered sulphur should be added to the wash while the lime is hot ; washing the roosts in kerosene, will, it is said, keep lice at a distance. Be sure that drinking-water for your birds is plentiful and easy for them to reach.

Enormous Extent of a Baleful

TRAFFIC.—The total amount of manufactured tobacco and snuff produced in the United States for the year ending June 30, 1878, was 119,406,588 pounds, of which 10,581,745 pounds were exported. The total number of cigars and cheroots, etc., produced during the year was 2,082,356,362, being an increase of 123,964,874. There are in the country 15,992 cigar manufacturers, and 1,049 tobacco manufacturers. The average product of cigars, cheroots, and cigarettes, for the last five fiscal years, is 1,960,709,213, and the average annual product of manufactured tobacco for the same period, 122,769,654 pounds. The average quantity of leaf tobacco consumed in the manufacture is 193,453,806 pounds, and the average annual export of leaf tobacco is 260,674,102 pounds. The value of the combined products of manufacturers of tobacco is \$75,000,000 exclusive of the tax. The tax amounts to \$40,084,732.37, making a total cost of tobacco as reported by the commissioner of \$115,084,732.37.

Soil for Quinces.—A subscriber writes to the *Herald* to know what kind of soil is best adapted for quinces, and what rules are to be observed for its cultivation. As we are personally interested in this query, we are pleased to note the answer of the agricultural editor.

"The quince should be planted in deep and good soil, kept in constant cultivation, and should have a top dressing of manure every season if abundant crops are desired. It grows naturally in rather moist soil, by the side of rivulets and streams of water, and it is a common idea that it should always be planted in some damp, neglected part of the garden, where it usually receives little care, and for both of these reasons produces only knotty and inferior fruit. No tree is more benefited by manuring than the quince. In a rich, mellow, deep soil, even if quite dry, it grows with twice its usual vigor, and bears abundant crops of large and fair fruit. It requires very little pruning or other care, an occasional thinning out of crowding or decaying branches being quite sufficient. When

there is an over-crop, thinning the fruit will improve the size of the remainder. There are only three varieties worth enumerating. The apple-shaped quince is the most popular. It bears large, roundish fruit, shaped much like the apple ; stews quite tender, and is of excellent flavor. It also bears abundant crops. The pear-shaped quince is dryer and of firmer texture than the foregoing ; is rather tougher when stewed or cooked, and has lighter-colored flesh. It is less esteemed than the apple variety, but ripens a fortnight later, and may be preserved considerably longer in a raw state. The Portugal quince is rather superior to all in quality, but not being a good bearer has never been generally cultivated. The flesh turns a fine crimson or deep purple when cooked, and it is therefore much esteemed for marmalade or baking. The growth of the tree being very strong, it is preferred by many gardeners for stocks on which to work the pear."

Efficiency of Steamboat Inspection AS PREVENTING ACCIDENTS.—The following is a comparative statement of the number of lives lost from various causes on steamboats during the years ending June 30th, 1878, and 1879 :

	1878.	1879.
From fires, - - - -	22	1
From collisions, - - -	31	12
From explosions, - - -	33	28
From snags, wreck, and sinking, - - - -	104	51
From accidental drowning, - - - -	18	8
Miscellaneous, - - - -	4	5
Totals, - - - -	212	105

The number of accidents resulting in loss of life ashore were :

	1878.	1879.
Explosions, - - - -	10	8
Fires, - - - -	3	1
Collisions, - - - -	16	3
Snags, wreck, and sinking, - - - -	5	8
Accidental drowning, - -	9	6
Miscellaneous, - - - -	4	5
Totals, - - - -	47	31

The above comparison shows a reduction of nearly fifty-one per cent. in the number of lives lost, and about thirty-four per cent. reduction in the number of accidents causing loss of life. The increased efficiency of steamboat inspection service is better shown by the following comparative statement :

In 1875 the number of lives lost on steamboats was 607 ; in 1876, 394 ; in 1877, 224 ; in 1878, 212 ; and in 1879, 105.

Optical Phenomena in Railroad TRAVEL.—A Dr. L. P. Thompson, who has been observing the curious phases of railroad affairs, tells us that when a landscape is observed from a moving train, all objects to the remote horizon appear to be passing in the contrary direction, those nearest having the

greatest velocity. Consequently, if the attention be fixed upon any object at some distance from the line, all objects beyond will relatively appear to be moving forward with the train, while objects nearer appear to be moving backwards. The combined effect is to make the landscape appear to be revolving centrally around whatever point we fix our attention upon. Rain seen from a moving train always seems to be falling obliquely (except in a very strong gale in the direction of the train's motion) in a direction opposite to that of the motion of the train. But if another train happens to pass in the opposite direction, and we look out at

this and follow it with our eyes, raindrops falling between the two trains will seem to be flying forward with ourselves. If we stand upon a platform of a station and watch a train approach, the end of the engine appears to enlarge or swell as it approaches, and occupies a larger area of the field of vision. Conversely the end of the last car on a retiring train appears to shrink down and contract as it diminishes in apparent magnitude. An observer at some slight elevation above a railroad, seeing two trains pass along simultaneously in opposite directions, will receive the impression of one long train moving round a circle.



MRS. C. FOWLER WELLS, *Proprietor*.
H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK,
NOVEMBER, 1879.

REFINEMENT.

WE have concluded that this term as applied to human conduct is far from easy to define, with anything like human exactness. It looks simple enough when written or printed in black upon white paper, but, on reflection, we are disposed to give up the attempt to illustrate it by special references, and only to discuss it negatively. We know what refined gold is, refined iron, and other refined articles of commerce. The metallurgist calls that which is the purest, or the least alloyed, the most refined. Can we, on the same principle, esteem the most human man or woman the most refined, when it appears to be the aim of civilization to suppress the natural in

human organization, and to produce a something whose action will be mainly automatic, in other words, conventional? We admire and love the graceful child, whose griefs and joys are read in the frank, innocent face, who is delighted by every phase of the beautiful, and shocked by everything ugly; but as the child grows up, pains are taken to repress the buoyancy, to dam the tide of feeling and emotion, whose expression in word and act were thought so becoming in him. Society appears to be pretty well agreed upon the propriety of repressive measures, but it is far from agreed as to the nature of the system which should be employed, consequently the results of effort on the part of parents and teachers to mold the nascent mind are wonderfully various.

There is, to be sure, a sort of definiteness in the purpose. Each father and mother, each guardian and teacher, have before their eyes a symbol of perfection, but it is like the dumb, inanimate, Corinthian pillar, or the Pythian Apollo, a thing of beauty in form, a well-cut image, of which the proportions are small in comparison with the marble block from which it was chiseled. They would dwarf the natural by pruning away parts in the physical and mental mass, and obtain a symmetrical figure whose chief quality is subservience to convention

This once obtained, we are asked to contemplate a model of refinement.

Training is essential to refinement, but it is not the sort of training that dwarfs faculties; rather it is that which regulates and harmonizes faculties. A high order of refinement is consistent with strong Combativeness, Destructiveness, and Firmness. Indeed, such forces in normal exercise are stimuli to the performance of the noblest acts of which the human mind is capable. The names of Havelock, Vernon, Spurzheim, Jefferson, Washington, awaken emotions of deepest respect, and their noble faces appear before the mental vision as models of grace and power. The well-rounded character of each of these great men owed its individuality mainly to the elements which we are wont to deem physical, those which have been named especially contributing to its vigor.

In certain classes of society, forms of vice are deemed consistent with a high order of refinement. The German smokes and drinks in all situations; the drawing-room, the first-class traveling carriage, the public promenade, reek with the vapors and odors of his exhalations and potations. In England and France the presence of ladies does not prevent men from indulging their appetite in these respects. We have ridden in the small compartments in use on the railways of those countries, and been almost stifled by the smoke of several cigars. A protest in behalf of my lady companion, made in the kindest manner to my next neighbor, to forbear pouring his stream of sickening smoke into her face, would have been received as an indignity.

On the Continent it is no breach of good manners to frequent drinking-halls, or cafés, and spend hours in sipping wine

and gossiping. The *best* people do these things. It is not a breach of "good form" in Europe for ladies to attend horse-races, and to bet on the result. Some efforts are made by "gentlemen" of the turf in this country to make the custom popular here. It is also "quite proper" in England for young men who enter into competition as oarsmen, to exhibit themselves in a semi-nude state to the thousands of both sexes, who line the banks of the river or lake on the occasion of a race. We have seen young men connected with "high-toned" boat clubs disporting in a like condition on our own rivers.

Now all this smoking, drinking, horse and boat-racing, is an expression chiefly of faculties in the base of the brain, or rather an indication of their predominance in the mental life, and therefore is foreign to that harmonious, balanced state of the mind which is essential to true refinement. When the animal forces are in excess, the product is coarseness. Delicacy, one of the most essential elements of refinement, is the product of a nice intellectual judgment, allied to a sympathetic, respectful, generous disposition. One must not be wanting in self-respect, however, for steadiness of will and self-command are prime factors in the desirable compound of refinement.

The decrees of fashion, mannerisms, "good form," which tolerate habits unquestionably vicious and perverting, can not be accepted as indications of refinement.

Politeness and suavity may veil to some extent vulgarity, but can not render it chaste and delicate.

That man's pretensions to refinement are absurd, who is given to habits which are disagreeable or painful to others.

Delicacy in the consideration of others' opinions and feelings is one of the tests by which we may try him or her who aspires to place in the ranks of refinement.

PHRENOLOGY IN SCOTLAND.

WE awoke one morning in August last and found ourself in the land of Burns, Combe, and Mackenzie. It was an unexpected experience to be in Edinburgh, but being there we determined to use our opportunity in visiting the chief features of interest to a stranger, and as a phrenologist, to make some inquiries into the state of mental science in Scotland. We consulted a guide-book, and glanced through the list of things historical and monumental which it described, and finally came to the subdivision headed "Museums," in which the item "Phrenological Museum, Chambers Street," caught our eye. There was no description of the nature of the collection, but at once we began to conjecture as to probabilities. Might it not be an heritage of the old Phrenological Society of Edinburgh? If so, how valuable it must be to the science! and how interesting to the true disciple of Dr. Gall!

Before noon of that day we had found our way to Chambers Street, and to the building in which the museum is stored. On the right as we entered the broad hall-way, we noticed a neatly printed card admonishing the public to the effect that on Saturdays the admission is free, but on other "lawful" days an entrance fee of sixpence is charged. On opening the inner door we were pleased to find ourself on the threshold of a large, well-lighted room, on whose walls are lines of shelving running its whole length, and all filled with objects relating to phrenological science, each object having a label on which a brief description is written.

There are several hundred casts, busts, and crania, besides many masks of the faces of men eminent in European history

in this collection. In some cases two, three, and even four representations of the same individual, taken at different periods in his life, stand upon the shelf, affording most valuable material for the student of character in its relation to cerebral development. For instance, there are two heads of Coleridge, one taken in 1810, the other in 1834, two of Sir Walter Scott, bearing very marked differences in physiognomical marking, two or three of George Combe, two of Dr. Gall, one representing him in the prime of life, the other as he appeared just after death. There are several casts which are rarely to be met with, some of which we had never seen, viz.: of Sir George Mackenzie, Sir John Ross, Charles J. Fox, Sydney Smith, Harriet Martineau, Sir John Bowring, Oliver Cromwell, Mungo Park, and Sir William Herschel.

The collection of human crania is very extensive and represents civilized and barbarous man in all parts of the world, and of both ancient and modern time. The specimens are very neatly arranged according to nationality, and the labels state in most cases the circumstances of their procurement, and the names of the donors.

Besides these, there is a considerable exhibit of animal and bird crania grouped according to species in glass cases, and it adds much to their value in the esteem of the phrenological visitor to know that many of the specimens were collected by Dr. Spurzheim; while the museum, as a whole, after the suspension of the Edinburgh Phrenological Society came into the hands of Mr. George Combe, and was carefully preserved by him, and at his death specially intrusted to certain gentlemen, with a fund to provide for the expense of its proper maintenance.

The present trustees are persons of high social and professional position in Edinburgh. Among them Dr. Arthur Mitchell, of the Board of Lunacy; Charles Henderson, Esq., of the Supreme Court; Dr. Findlater, editor of Chambers' Encyclopædia; and Mr. J. R. Findlay, editor of *The Scotsman*, the same newspaper which once served as a medium for the publication of letters by Dr. Spurzheim, the brothers Combe, and Sir William Hamilton in the celebrated controversy of fifty years ago, concerning the merits of Phrenology. These gentlemen have each important and pressing professional connections, but they have given of their time to the prudent management of the Combe fund, so that its increase has enabled them to carry into effect several measures of no small interest to phrenologists. They have removed the museum from its old and obscure quarters into its new rooms, where it is very accessible to the public. In the choice of a location, they have exhibited discretion, for directly opposite is one of the most interesting features of Edinburgh, the Museum of Science and Art, a very comprehensive affair, and similar in general plan to the great South Kensington Museum of London. Just below, on the same side with the phrenological collection, is the Medical School of the University of Scotland, with its anatomical treasures.

Furthermore, the trustees have placed a gentleman, Mr. John Henderson, in charge, as curator of the phrenological collection, whose scientific habit of mind and studies in comparative anatomy fit him for the position. The very neat arrangement and classification of the materials, which probably came into his hands a mere conglomeration, do him

much credit, and compare favorably with the arrangement of anthropological material in institutions like the British Museum, as any one conversant with anatomy and ethnology, who has visited both places, will readily admit. There is a library in connection with the museum which contains many volumes now scarcely to be found elsewhere. It is not as large, however, as the library of the Phrenological Institute in New York City, but sufficiently comprehensive to give visitors an impression of the extent of phrenological literature.

The trustees have shown not only more than usual fidelity in the performance of the request of Mr. Combe, with respect to the collection which he left the world, but also an interest akin to enthusiasm, in the life and work of that eminent teacher; for it is by their auspices that the recent biography prepared by Mr. Charles Gibbon was published; and they have just completed a large volume to which the attention of the public in Europe and America will be invited.

An examination of those writings of George Combe, which were mainly preserved in pamphlets and occasional contributions to periodicals, convinced these gentlemen that the cause of popular education demanded a wide publication of the great phrenologist's views on the subject, and they concluded to apply a part of the income derived from the trust estate to such publication, and to this end have employed a gentleman of superior literary ability, and also given their own personal assistance in the prosecution of the editorial work.

The biography of Mr. Combe was discussed in the pages of the PHRENOLOGICAL soon after its appearance, and we

are pleased to say that its sale on both sides of the Atlantic has been very gratifying to the trustees. The new work is more voluminous than it was at the start deemed expedient to make it, but such has been the wealth of material, that the book grew into large proportions in spite of the editor's efforts at condensation. However, as Mr. Henderson remarked to us, it has so much excellent matter, that they who are interested in matters of education will not find it too bulky. The editor in his prefatory note intimates that the book will be found to include almost all the questions now happily claiming professional and public attention, and it "is sent forth to the world with full confidence, as one of the best contributions ever made to the great cause of Education."

The old religious prejudices which in the days of Hunter, Mackenzie, and Combe, prevented a general acceptance of the system of Gall and Spurzheim, yet survive in Presbyterian Scotland, and there are few who practice openly the art of character reading; but the audacious declarations of such experimenters as Prof. Ferrier, have, within a few years past, opened the way to a more liberal consideration of the philosophy of Combe on the part of the learned, and many in high professional stations have adopted its principles. Indeed, the two works to which allusion has been made, may be considered an expression, in part, of scientific opinion in Edinburgh, with respect to Phrenology.

The significance, therefore, of a statement like this: "It begins also to be more generally admitted that Phrenology is founded on a large body of observations and experiments, that it was investigated with an admirable spirit of calm and care-

ful induction by its first promulgators, and that it has unconsciously but powerfully leavened our views of Mental Philosophy and human nature, and forced on us, in spite of opposition, a large amount of its special nomenclature," may be taken to impart a decided change of front among the Scottish savants, and should greatly encourage the advocates of Phrenology in America.

LOOK AT THE REAL CAUSES.

WE have seen a good deal in the newspapers, of late, concerning a young lady who died from the effects of over-study. The case, as presented to the public, certainly makes a strong appeal to parents and teachers to give more attention, than is their habit, to educational methods in relation to children as individuals. We should like to know both sides of the case—the physical life as well as the mental life of Miss Greenwood. We would not intimate that Miss Greenwood was not overworked intellectually, for we believe that she did exercise the organs of her brain much beyond the limit of discretion. But we also believe that if care had been taken to supply her brain with its needed sustenance she would not have become exhausted and moribund. The brain can endure a vast amount of hard usage, and remain healthy and vigorous, provided its owner is attentive to its needs; in other words, if he live with a due regard to the law of his being. As we can not expect the mill-wheel to turn the stone without a constant supply of water, so the brain can not be expected to perform its normal functions without being fairly supplied with good blood.

Many, far too many of our school girls,

and boys, too, are ill-fed and over-fed, and their stomachs, rather than their brains, are over-worked. Many, far too many of our girls, in school and out, are dressed in ways that invite sickness and disease, and their bodies suffer far more than their brains; but jaded stomachs, congested livers, and obstructed circulations make heavy, neuralgic heads, and study becomes a process attended with weariness and discomfort. Tight-waisted dresses, bare arms, gauzy stockings, and thin-soled shoes have far more to do with the death of many a bright, studious girl than brain exercise.

THE REVIVAL OF BUSINESS.—If signs mean anything, there has been a revival of activity in almost every branch of busi-

ness. Mills and factories of every description are in operation, many of them so pressed with orders that they must run all night. The iron interest is particularly active. In fact, we have been told that, owing to insufficiency in the supply of raw material, some of our manufacturers have been compelled to send to Europe. In our city the dealers in staple goods are crowded with orders, and the hotels are filled with business men from the West and South. Another most encouraging act which has been communicated to us by one of our most prominent statisticians is that, never in our country's history did the returns of crops in all sections show a larger aggregate of value. With so solid a basis for industry as successful agriculture gives, our commercial and industrial prosperity seems now assured



"He that questioneth much shall learn much."—*Dacon.*

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 FAILS 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.

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. Anonymous letters will not be considered.

SOLDIERS IN THE UNITED STATES.—

Question: DEAR EDITOR—In one of your editorials you lately said or intimated something about the grand possibilities of America for forming an army, should the need arise. Now I think that you are a little too sanguine concerning the

patriotic sentiment of our mixed population, and that your views would scarcely be confirmed by statistics, especially those of the last war. Can you, at any rate, furnish me and your other readers with an account of the actual number of men in the Union forces? Having never seen the total, I should like to know it.

Answer: The editor does not think that he indulged in any flight of fancy concerning the matter you speak of. Our population is mixed, but our naturalized citizens, particularly the Germans, Swiss, and Irish, have brought to this country their country-loving spirit, and it would not fail to incite them to take the sword in defense of their adopted home if its safety were imperiled. They indeed illustrated the sentiment in our late unhappy war. But that war is scarcely a fair illustration of the editor's meaning, because it was intestine, and divided houses and firesides in our very midst. As it was, the offers of service to the Union Cause were very great, numerically. A report not long since issued by the War Department enables us to give you the number of men supplied by dif-

ferent States and Territories, and the grand aggregate, viz: Maine, 72,114; New Hampshire, 36,620; Vermont, 35,262; Massachusetts, 152,048; Rhode Island, 23,669; Connecticut, 57,379; New York, 467,047; New Jersey, 81,010; Pennsylvania, 366,107; Delaware, 13,670; Maryland, 50,316; West Virginia, 32,068; District of Columbia, 16,872; Ohio, 319,659; Indiana, 197,147; Illinois, 259,147; Michigan, 89,372; Wisconsin, 96,424; Minnesota, 25,052; Iowa, 76,309; Missouri, 109,111; Kentucky, 79,025; Kansas, 20,151; Tennessee, 31,092; Arkansas, 8,289; North Carolina, 3,156; California, 15,725; Nevada, 1,080; Oregon, 1,080; Washington Territory, 964; Nebraska Territory, 3,157; Colorado Territory, 4,903; Dakota Territory, 200; New Mexico Territory, 6,561; Alabama, 2,576; Florida, 1,290; Louisiana, 8,224; Mississippi, 545; Texas, 1,965; Indian Nation, 35,030. In all, 2,678,967. Florida supplied two regiments of cavalry; Alabama, one white regiment; Mississippi, one battalion, and North Carolina, two regiments of cavalry.

SWEATING ON ONE SIDE ONLY.—*Dear Sir:* In your August number of the JOURNAL, under the head of "Facial Peculiarities," I notice you describe a case in point of which I would be much obliged for further information. After perusing the article in question, I was forcibly reminded of a case similarly affected; he is a man some thirty-five years of age, and from some unknown cause to me, he perspires freely, in summer and winter the same, but only on one side, not only in the face, but the entire left side, from the median line. On the other side he never sweats, not even in our hottest days in summer, from paralysis or some obstruction to the pores of the skin; I know not the cause, nor will I attempt to explain; the man is otherwise healthy and strong, and generally has enjoyed good health. Once he had paralysis of that side, but has since recovered entirely; before that time he was not so affected. AN OLD SUBSCRIBER.

Answer: We are of opinion that the cause of this peculiar condition is a paralytic condition of the nerves relating to the sudoriparous glands, so that the latter do not perform their office. A close examination would reveal, we think, a difference in the condition of the skin on the two sides of the face; that of the non-perspiring side appearing less vitalized than the other.

ERRORS NOTED.—In the October number the author of the paragraph, "Breaking a Child's Will," is made responsible for the comments which follow it. The editors will assume the responsibility as it properly belongs to them.

In the memorial notice of our much valued friend, Dr. J. V. C. Smith, he is stated to have been graduated at Brown University, whereas Dartmouth College was his Alma Mater. He

was also born several years before 1800, being about eighty-five when he died.

MARRIAGE OF FIRST COUSINS.—S. W. L. —We have frequent occasion to consider this subject, and its importance is sufficient to warrant repeated answer. We do not approve the marriage of blood-relations, particularly those so closely allied as first cousins.

Without going into any detailed account of our reasons, because that would involve too much time and space, we will say generally, that such marriages serve to develop and intensify any unpleasant defects of mental and physical organism in the stock of the wedded. Their children inherit, in an aggravated form, constitutional weaknesses, blood taints, and so on. If statistics are worth anything, they show very conclusively, that idiocy, and diseases of a very serious type, are largely the product of the marriage of those closely allied by blood. In books like "Wedlock," "Hereditary Descent," "Transmission," "The Parent's Guide," "Temperaments," the subject is presented fully. By consultation with our catalogue or book-list, you will find the character and price of each of these books given.

HEAVENLY GRACE AND SELF-HELP.—*Question:* I often think that we can not cultivate and improve our mind and faculties without God's blessing and assistance; we need to feel our dependence upon God for life, in all our studies and thoughts. I now ask of you if we do not need to implore constantly His divine grace to point our inclinations to proper studies, and to fix our heart there? Do we not need to ask Him to enlighten our mind, to invigorate our faculties, to quicken our attention, etc.? Please comfort me with an answer. O. Y.

Answer: We are certainly of opinion that he who lives with a devout sense of relationship to the Divine, and works on from day to day, earnestly, trustfully, patiently, secures about as much happiness as the world can give.

Man is organized for spiritual communication, his faculties of Veneration, Faith, Hope, if active in his mental life, awaken impulses to devotion, and awaken convictions of dependence upon the unknown hand; it can not be denied that he who conducts his affairs, his business, with a sense of dependence upon Divine Grace, shows more steadiness, more calmness, more harmony in his work, than he who is irreverent, and without recognition of a supreme influence in the affairs of man. The history of the world may be drawn upon for facts sustaining this opinion. William the Norman, Oliver Cromwell, George Washington, were prayerful men, and can we doubt that their success in their gigantic undertakings was much promoted by their spiritual character?

NOTES AND QUERIES.—A correspondent, W. W. W., inquires: "Macaulay in his essay on Addison, speaking of one of that writer's essays, says, 'It was probably fully as edifying as one of Smallridge's sermons' one hundred and thirty-three years ago, but which he dared not indicate to the squeamish readers of the nineteenth century. Is it known which one Macaulay refers to; and are there any probable guesses made regarding it?" Can any of our readers answer?

A SNAKE'S MOTION.—H. F. S.—Snakes creep; they have a series of muscular rings along the body, by the contraction of which, in rapid succession, they move over the ground. Watch the next one you come across.

You will find as desirable farms for the purpose of fruit culture in Maryland, as in any of our Atlantic States. Some localities of the Potomac River are healthy and desirable. As for your bilious temperament, you have only to live rightly to get on with it comfortably almost anywhere.

WEeping.—G. A.—The physical, mental, and moral effects of weeping are dependent entirely upon "circumstances," and these "circumstances" are very comprehensive, as they relate to the organization, temperament, education, association, business, etc., of the individual.

GRAMMATICAL ERROR.—D. W. C.—It is not strictly incorrect to say, "it was a grammatical error," although it is a surplusage. When one makes a mistake in the construction of a sentence, it is sufficient to say, "there is an error," or, "the phraseology is incorrect." The word "grammar" is technical, meaning the science of language, the study of forms of speech, hence the statement, "a grammatical error" can not be deemed improper. We would prefer, however, to say of a statement incorrect in its form, "it is not grammatical."

BATHING.—J. W. B.—It is beneficial to bathe in the open air, provided the temperature be warm; we would not advise you to bathe much in winter; morning is the better time. Salt is unnecessary in water as an imitation of sea-bathing, for the reason that you could hardly imitate the sea water by artificial means. Generally the water should be not lower than 65° for a person in fair health, and the purer it is the better.

DIET FOR DYSPEPTIC.—E. E. B.—Your diet should be carefully selected; you should avoid food which is not thoroughly cooked, and all things which are improper to be eaten at all. Avoid soggy food, eat your bread dry, somewhat stale, without butter, gravy, or greasy sauce. Eat but little flesh-food, for the reason that flesh-

meat somewhat tries a weak stomach, requiring more strength than farinaceous food. As a rule, avoid all immature vegetables and fruits; on that account you should avoid green corn, green beans, peas, etc. You may eat in moderation such fruits as mellow apples, pears, peaches, and so on, all perfectly ripe, the preference being given to the dryer sorts. Farinaceous food is best for you as an invalid. Read "Digestion and Dyspepsia," by Trall.

Several ANSWERS must be deferred to the next number.



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

THINKING TO A POINT.—There is much loose thinking done in the world, and, as a consequence, many fine thoughts are utterly lost. Thoughts, like soldiers, to be effective, must be so thoroughly drilled that all their connected force may be brought to bear upon a given point, or that their actions, though widely separated, will still be in harmony with a general purpose. A vast army without discipline, every soldier acting independently of all others, would accomplish nothing but its own destruction. No matter how brave the men might be, or how skillful in the use of arms, their skill and bravery would all be thrown away, because they lacked concert in action. So, too, with our thoughts. If left to work at random, it matters little how good, individually considered, they may be, they can accomplish no great purpose; their want of connection and mutual dependence will destroy their effective force, and leave them as worthless as our idlest dreams. The difference between the deep, practical thinker, and the man who never accomplishes anything in the way of thinking, lies not so much in the nature of their thoughts, as in their power to control and direct them. The mental superiority of the one over the other depends largely on the greater skill with which he marshals his intellectual forces.

Edison has produced some wonderful inventions, because he has the power to bring his ideas to a point. Many others may have noticed the very principles on which his inventions are based, may even have had some vague ideas of their great possibilities, but, if so, the world derived no benefit from these ideas, because they were not reduced to practice. Many philosophers knew of the properties of electro-magnetism, and perhaps dreamed of some great things yet to be accomplished by its agency; but it remained for Morse to show that by

the simple act of making and breaking the circuit, instant communication could be established between remote localities. Everybody, from time immemorial, had known that bodies, if unsupported, fall toward the ground; but it was left for Newton to trace the grand law of gravitation, and to prove that the same law that governs falling bodies, operates through space, and controls the movements of the planets.

In literature, too, the habit of thinking clearly and connectedly, is all-important. No great literary triumph was ever achieved by mere dreaming. Thousands in all countries, and in all ages, have the most beautiful poetic visions floating before their minds; yet there is not one poet among ten thousand dreamers. There can be no doubt that many men have the sublimity of Milton manifesting itself in occasional and disconnected images; yet all past ages have produced but one Paradise Lost. Many a rustic has a rich poetic fancy; yet the name of Burns stands out as conspicuously as though no other plowman ever felt a glow of the poetic fire.

Thus there are many fine thoughts constantly going to waste all around us, because they are not properly directed, or, in other words, because they are never brought to a point. If all the rich thoughts and fine literary conceptions that are floating idly about in a single city or county, could be collected and properly arranged, they would be a rich contribution to literature; and yet, in all probability, there is not within that limit, one individual who is recognized in literary circles. Could the mechanical ideas be collected in like manner, wonders might be accomplished; yet perhaps no single invention has ever proceeded from that locality.

Our thoughts partake largely of our human nature, and they are, of course, subject to our human frailties; they will not work to perfection unless they are compelled to do so. They must be held down to their work, and educated to it, as we hold a child to study until he has acquired the habit. No one need expect his thoughts to come to him already drilled and matured, without any effort on his part. The art of thinking is at once the most potent means and the highest attainment of education. He who suffers his thoughts to run at random, destroys all his own chances for intellectual emulgence. Many valuable treatises and many noble poems have been lost to the world, simply because they were never written, or because those in whose brains they were conceived, never learned to think to a point.

E. T. BUSH.

A WOMAN'S TROUBLES, NO. 2.—BLINTON, Sept. 25th, 1879. *Dear Mr. Editor:* You dont know how Delited I am for I had no idear you was goin to print that letter I sent you. I couldnt hardly believe my eyes. It does make me feel Good to have a pece published, because

Missis Dawkins who knows so much and thinks she is so smart has bin tryin and tryin to get some Peces put into the Blinton Times and they wont put them in no How. my husband says its because shes Ahead of the Times. I dont egsackly understand what that Means but any way Im glad Im not Ahead of the times if that would keep me from havin Peces printed, for I should like to be a Auther. I suppose I should have to lern more than i no now but I dont want to no to much for I think its Dangrus, dont you. It seems to unsettl the mind. Im afraid thats what ails my Husband, and im in dretful trubble about him. Do tell me what You think about it. one day he made me take of my shu and put my Foot on a pece of paper, then he marked all round it with a pensil and measured around my Foot with a tape measure and said he was Goin to have me have some shuse big enough for me wuns. I wish you could see the big Awful things he brot home! and says he Josy, I want you to wear them shuse. Why says I, theyre a World to big for me. Theyre just the size of your foot says he. And he measured round my Waist without any korsits on and said my dresses was five inches to small for me and made me look like a pare of old fashioned Saddle bags. why Moses says i you used to say I looked like a fashon plate. So you do says he but Ive changed my Mind about fashon plates. I used to think they was pretty and now I think there hidjus, ive been studyin high Art and I find korsits spoils Wimmin. you aint shaped at all as a woman aut to be. and Besides it is hurtfull to dress so and makes wimmin week minded. He said if Wimmin would dress different they would know more, or else if they knew more they would dress different. I cant think whlich. And he said that if men dressed like wimmin theyd be week in Body and mind like Wimmin.

Now Mr. Editor dont you think I have rezun to be Alarmed. Would a man of Sound mind talk like that as if it would make Men and wimmin alike to dress them alike. men and Wimmin is Different any way isnt they, and what can Any Bodys dress have to do with their Minds. with my big Shoes and no korsits and fears that Moses is goin crazy I am in great Trubble and even the thot of havin another Pece printed in a Maggazeen dont keep me from bein down hearted.

Yours truly,

JOSEPHINE WHITE.

P. S.—I put in More big Capitals this time because I think it makes A Letter look Better Dont you. J. W.

MY IDEA OF TRUE GOVERNMENT.—Whatever may appear in my labors for the benefit of my species, not one line is written until driven to it by the needs of the hour. Those who have a spark of patriotism concede the

entire want of harmony in the so-called doctors of all grades; otherwise they would not fail to relieve an overburthened people of their many ills—moral, political, and physical.

I believe in free government—absolutely free. *Freedom* is the guarantee of perpetuation—freedom from taxation of any kind—except a voluntary self-imposed tax. It is quite practicable to conduct all branches of the executive of a great nation on this basis.

An individual commands no respect unless self-supporting; neither should a nation. The State has land, money, and houses—the State's servants should know how to use these to conduct the government in a way to show a balance to its credit at the end of every year; never calling on the general public for a dollar. The State has ships—they are as good for freight as to carry guns; the State has soldiers—that should raise their own subsistence on the government lands, *while they guard the frontiers.* This is the way individual, private business is conducted; and this is the only way a free people should submit to have the business of the State conducted.

F. M. SHAW.

WHAT CAME OF IT.—A lady correspondent writing from Lansing, Mich., relates an incident illustrative of the good result obtained by a mother who put into practice the counsel of a phrenological examiner. She says:

"I have been at Mt. Clemens, Mich., taking baths, and the lady I boarded with told me about taking her little child, then four years old, into your office for an examination. Among other things you said, 'When this child has fits of passion, don't punish him, but draw his attention as quickly as possible to something else.' The child was subject to most violent fits of passion, would upset and throw everything he could lay his hands on, though he knew he must restore things to their proper places in the end. The way you suggested was one she had never tried, and she found it to work admirably. Sometimes she would pick up a book and begin to read poetry, of which the child was very fond, and soon he would steal up to her side, and lay his head on her shoulder, completely subdued; at other times, and always without noticing him, she would begin to talk about some subject of special interest to him, and he would forget his rage. Patiently working in this manner, the gentle Christian mother has now her reward in one of the most dutiful, thoughtful, pleasant-tempered, and affectionate of sons. You said he would either make a very good man, or a very bad one, and now, at fourteen, he promises fair to be a very good one. You also said he would make an inventor. This prediction is not so likely to be fulfilled, yet it may be, for he loves machinery and the natural sciences, and the *Scientific Amer-*

ican is his delight, which is not usual in boys of that age. So much for so much. I might add that I have rarely been the inmate of so harmonious and gentle a household as the one of which I write.

H. L. M."

PERSONAL.

ALVAN CLARK, of Cambridge, Mass., the telescope maker, is now seventy-six years old, and still full of energy and skill. For forty years Mr. Clark was a portrait painter, and earned \$30,000 by his art before he began his telescopic experiments.

JOSEPH SAILER, financial editor of the Philadelphia *Ledger* (daily), relates this "personal" of himself, which is probably without parallel in newspaper literature: "The individual who pens this paragraph prepared the first financial article in the *Ledger*, published on the 1st day of July, 1840, and has contributed to every number of the paper published from that day to this."

MRS. C. M. WILLIAMS, who was elected president of the State National Bank, at Raleigh, N. C., in place of her husband, lately deceased, is the first woman to hold such an office in the history of this country.

HENRY SMART, the English musician, and composer of the music, "Hark, Hark, my Soul," "From Greenland's Icy Mountains," and of hundreds of anthems and sacred songs, was recently offered by the British Government the choice between a knighthood and a pension of \$500 a year. He chose the pension. Smart fellow!

HENRY BESSEMER, the English inventor, has taken out 160 patents. One of them, his process for making steel, ranks as one of the most brilliant inventions of the century. It converts pig-iron into steel in a few minutes, and has reduced the price of steel rails per ton from \$200 to \$30. Ten times as much steel is used in the world now as was used prior to 1856.

SIR ROWLAND HILL, widely known as the originator of the system of cheap postage in England, died in London, August 27th. His life was a long one, dating back to 1795; but until within six or seven years he was full of activity, and continued to render the English Government valuable service in many ways, and took a prominent part in bringing his admirable system before the American public.

CAMBRIDGE LIVINGSTON, a well known lawyer of New York, died on the 18th of September. He was a member of the old Livingston family, and for many years before his death was intrusted with the management of most important affairs in behalf of private individuals and corporations.

DANIEL DREW, the notorious steamboat and railroad director and operator on 'Change, died suddenly, in New York, on the 18th of September. He began life as a soldier, then went into the cattle business, next tried steam-boating, with great pecuniary success, and subsequently railroads, besides speculating in financial matters of every class. He was nearly eighty-three.

WISDOM.

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

THE perfectly contented man is also perfectly useless.

HE needs no other rosary whose thread of life is strung with beads of love and thought.—
PERSIAN PROVERB.

It is a strange desire to seek power, and to lose liberty; or to seek power over others, and lose power over one's self.

WE can not conquer fate and necessity; but we can yield to them in such a manner as to be greater than if we could.—CICERO.

THESE six—the peevish, the niggard, the dissatisfied, the passionate, the suspicious, and those who live upon others' means—are forever unhappy.

THERE is as much greatness of mind in the owning of a good turn as in the doing of it; and we must no more force a requital out of time than be wanting in it.—SENECA.

THE years have linings just as goblets do:
The old year is the lining of the new,
Filled with the nectar of precious memories,
The golden ~~was~~ doth line the silver is.

—SCRIBNER.

THERE is a pleasure in contemplating good; there is a greater pleasure in receiving good; but the greatest pleasure of all is in doing good, which comprehends the rest.

NOTHING is easier to a man of genius, nothing a more certain proof and part of it, than to compose what raises men's wonder and admiration; nothing more difficult than to show them distinctly the simplest and most obvious truths.—
PENN.

MIRTH.

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

WHICH is the best of the four seasons for arithmetic? The summer.

"JONES, did you ever see a snail?" "Certainly," said Jones. "Then you must have met him."

"SHALL I help you over the fence?" said a polite youth to an old gentleman who weighed two hundred pounds. "Oh, no; don't help me. You had better help the fence."

A POPULAR writer, speaking of the ocean telegraph, wonders whether the news transmitted through the salt water, can be fresh.

LADY to rheumatic old woman: "I am sorry you should suffer so; you should try galvanism." Old woman: "Thank you kindly, mum; bc I to swaller it or rub it in?"

THERE was an old man who said with a grin:
I'll spit out my teeth if they ache,
And then you'll observe me spit 'em all in
Whenever you give me a cake.

"COME here, sir, and I will settle with you for your impudence yesterday," said a doting parent. "No, thank'ee, dad; I have conscientious scruples about receiving back pay."

A LADY complaining how rapidly time stole away, said, "Alas, I am near thirty!" "Do not fret at it, madam, for you will get further from that frightful epoch every day."

"How long will it be before you get this work done?" said a lady to an apprentice, who was painting her house. "Well, I don't know, marm," said he; "the boss has just gone to look for another job; if he gets it I'll be done to-morrow, but if he don't, I'm afraid it'll take me all next week."

AN Illinois youth invested \$1.50 in a New York firm to discover "How to appear well in society." The recipe which he received by return mail, was short, simple, and easily understood: "Always keep your nose clean, and don't suck more than one finger at a time."

A LITTLE boy, hearing some one remark that nothing was quicker than thought, said: "I know something that is quicker than thought." "Well, what is it, Johnny?" asked his pa. "Whistling," said Johnny. "When I was in school yesterday, I whistled before I thought; and got licked for it, too."

A NEW ORLEANS dyspeptic, complaining to his physician that he "had no appetite for his breakfast," was advised to take a walk down to the market and eat an orange before his morning meal. At the next meeting of the doctor and patient, the latter made the same complaint, and when asked if he had tried the fruit remedy replied, "Oh, yes; I went down to the market and eat ten oranges, but I had not a bit of appetite when I returned."



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.

REPORT ON A PRELIMINARY INVESTIGATION OF the Properties of the Copper-Tin Alloys, made under the Direction of the Committee on Metallic Alloys, United States Board, to test Iron, Steel, and other Metals; Robert H. Thurston, Chairman. In the Mechanical Laboratory of the Stevens Institute of Technology.

We are indebted to Prof. R. H. Thurston for a copy of this Report, which covers a series of experiments bearing upon matters of high importance to our national industries. These experiments were so carefully conducted, and with such convincing results, that it is thought "a repetition of the work may never be required," although the experiments form the first systematic researches ever made in this department of metallic alloys. They have for one very important result, the showing that the useful alloys occupy but a limited part of the great number of combinations in which copper, tin, and zinc enter.

Six very beautiful photo-prints illustrate the appearance of the different bars of alloy after fracture; and there are seventy-six diagrams illustrating tests by compressive stress, torsion, and strain. From No. 22 to 76 the plates are fac-simile autographic strain diagrams, as recorded by a testing machine invented by Prof. R. H. Thurston. The volume covers nearly six hundred pages, and is a very important contribution to modern metallurgy.

THE PRINCIPLES OF LIGHT AND COLOR: including among other things, the Harmonic Laws of the Universe, the Etherio-atomic Philosophy of Form, Chromo-Chemistry, Chromo-Therapeutics, and the General Philosophy of the Fine Forces, together with Numerous Discoveries, and Practical Applications. Illustrated by 204 photo-engravings, and by other colored plates. By Edwin D. Babbitt. New York: Babbitt & Company.

A glance at the title impresses one with the thought that the author has assumed a grave responsibility in coming before the public with a volume discussing so many important questions. We are prompted at once to inquire: Can one man, in his brief life-time, accomplish so much in a field involving abstruse and complex processes as Mr. Babbitt claims? We grant that when a man has obtained a clew, he may

secure in a brief space very wonderful results, and it is possibly so with our author. He claims to have discovered the form and constitution of atoms, and on this discovery, as an indispensable basis, to have wrought into a practicable system the "Fine Forces" of nature.

In the opening, the characteristics of harmony and diversity in nature are discussed at some length, many familiar illustrations being introduced to set off what are frequently only axiomatic statements. When, however, we reach the treatment proper of colors, we find suggestions of value to the architect, the artist, the dress-maker, and the horticulturist. Mr. Babbitt insists that a knowledge of the form of atoms is essential to correct scientific knowledge, and reasons in behalf of his opinion that the true atomic form is an oblate ovoid, "which consists principally of an immensely elastic spring-work of spirals encircled by spirillas of different grades which form constant channels of force;" and this atom "is an epitome of the universe, having a gradation of elliptical and spiral orbits in imitation of those of the solar system."

In his discussions of the constitution of matter the author shows not a little research, and his numerous quotations and illustrations from eminent authorities in the different departments of physics, contribute a special interest to the reading of his book. That the ground covered is extensive, will appear from a summary of the chapter heads, viz: Harmonic Laws of the Universe, Insufficiency of the Present Theories of Light and Force, the Etherio-atomic Philosophy, the Sources of Light, Chromo-Chemistry, Chromo-Therapeutics, Chromo-Culture of Vegetable Life, Chromo-Philosophy, Chromo-Dynamus, or Higher Grade Lights and Forces, Chromo-Mentalism, Vision. Thus Mr. Babbitt has endeavored in one volume to describe the part which light and color play in nature; their effects on vegetable and animal, and to show how they may be rendered agencies of good to man. Some of his views appear to us as mere fancies, without use or purpose, but against these we see many suggestions of real value. The book is certainly the product of earnest, pains-taking labor, and if novel in its plan and purpose, it is also interesting for the general reader, and far from undeserving of examination by the accomplished savan.

OUR SECOND CENTURY. C. F. Dehm, Publisher and Proprietor, 27 Union Square, New York.

This brave and vigorous publication is intended to supplant the mawkish sentimentality and trash, prevalent in many so-called family papers. It is brimful of patriotism, but ignores party politics. There is a hearty strength in it, indicating that its editor has sound sleep, good digestion, a clear conscience, and freedom from debt. Mrs. Dehm will be remembered as the

originator of the "Century Safe," which was filled in Washington with interesting articles of the time, and closed after an appropriate ceremony, with the understanding that it is not to be opened until July 4th, 1876.

SKEPTICISM; DIVINE REVELATION; AND CALL TO THE NEW JERUSALEM. 12mo. Pp. 260. New York: E. Hazzard Swinney, Publisher.

This volume is an appeal in behalf of the Swedenborgian faith. While in the course of his reasoning the author contrasts the views of skepticism and of Revelation, he aims to show that there is a personal God who has revealed Himself as a divine man, and in the works of creation; that the material universe and man have been created from the spiritual world, and all material objects and forms are but manifestations of affections and thoughts primarily from God. Hence, a science of correspondences between spiritual and natural things exists, and of this science Swedenborg was the leading modern exponent.

The last chapter is given to a sketch of that eminent man, and of his work in behalf of science and religion. The author says that we are now in a new and endless age, and cites passage after passage from the New Testament to support his view, taking, however, their significance to be spiritual, and not literal.

PUBLICATIONS RECEIVED.

ROBINSON'S EPITOME OF LITERATURE, published in Philadelphia, has been purchased by the *Literary World*, Boston, and will hereafter be merged in that journal.

TRIAL OF JOHN BARLEYCORN, ALIAS STRONG DRINK, by the Rev. F. Beardwell, is a pamphlet of 32 pages, just published by the National Temperance Society. It is entertaining, indeed, very well adapted to use as an exercise for the winter evening among young people. Not a little of truth is inculcated. Price 10 cents, or \$1 per dozen.

THE SABBATH-SCHOOL TEACHER'S QUARTERLY. Published by David C. Cook, Chicago, Ill. Containing lessons for use in the Sunday-school; and several hymns with tunes; besides suggestions for the use of teachers.

CATALOGUE OF THE UNIVERSITY OF NORTH CAROLINA, 1878-79.

We are pleased to notice that this old institution at Chapel Hill is alive and vigorous. Its departments are numerous and well sustained.

HOME PROTECTION MANUAL: containing an argument for the Temperance ballot for woman, and how to obtain it, as a means of home pro-

tection; also constitution and plan of work for State and W. C. T. Unions. By Frances E. Willard, President of the Ills. W. C. T. U.

This excellent manual is replete with suggestions for entering into the vigorous prosecution of temperance reform. It seems to us that the women of America are thoroughly alive to the baneful influence of the rum-demon, and are determined to cast him out. Miss Willard offers this manual for gratuitous distribution at present. It can be obtained from J. N. Stearns, Publishing Agent, National Temperance Society, New York, by inclosing to him a blue stamp.

JOHN SAUL'S DESCRIPTIVE CATALOGUE, No. 7: of autumn and other bulbous flower roots for the autumn of 1879.

MONTHLY WEATHER REVIEW, July and August.

The chief signal officer desires that we should know that the four charts based upon international meteorological observation, issued with this review, have been specially prepared under American auspices. They give a true synopsis, in effect, a photograph of the atmosphere and its conditions at the instant. These observations are known as "simultaneous observations," being taken at the same time by day and night, on land and at sea. They are characteristic of the work of the American Signal-Office, and are of exceedingly high importance commercially.

THOMPSON'S BANK-NOTE AND COMMERCIAL REPORTER. Current numbers received.

VEGETARIANISM: a Radical Cure for Intemperance. By Harriet P. Fowler. New York: M. L. Holbrook & Co.

The author has seen fit to collate data on this topic, and prepare the neat pamphlet which lies before us. The subject is not so new that it does not lack strong advocates; and Miss Fowler discusses it both from the point of view of physiology, and that of logic. The constituents of leading articles of farinaceous food are furnished, to show their nutritive properties. Effort expended in the direction indicated by this treatise is not likely to be lost, being reformatory in respect to the dietetic habits of society, as well as in respect to practices essentially vicious and destructive to body and mind.

THOS. LEOP. STIGER, of Zurich, Switzerland, sends us an interesting lithographic sheet containing about two hundred portraits of the members of the Federal Government, and of the National Legislature. Their heads and faces indicate great intelligence and force of character. The interests of a nation are safe under the supervision of such men.

THE PHRENOLOGICAL JOURNAL

VOL. 69. AND LIFE ILLUSTRATED. 1879.

NUMBER 6.]

December, 1879.

[WHOLE No. 493.]



HENRY KIDDLE,

LATE SUPERINTENDENT OF PUBLIC SCHOOLS IN THE CITY OF NEW YORK.

EARLY in the spring of this year, the people of New York city were surprised by the appearance of a book entitled "Spiritual Communications," in the opening page of which "Henry Kiddle" appeared as the author. In public and private life the late superintendent of the great public school system of New York,

had been esteemed a man of remarkable practical discernment, of vigorous executive capacity, and clear, emphatic judgment, hence his fathership of a volume whose contents indicated a complete acceptance of the tenets of spiritualism, as held by its most pronounced advocates, presented an anomaly wholly unintelligible to the great majority. Mr. Kiddle had been associated with the educational work of the city from youth; for twenty years or more he had occupied positions of the highest responsibility in the organization and management of the grand system of instructing the children of our metropolis, and, it is a matter of general acknowledgment, that to him more was due than to any other man, for the completeness of organization, and the admirable discipline which distinguish the schools as a whole. Indeed, his training, scholarship, and experience; his wisdom, prudence, and fidelity, had won the respect and confidence of all who were interested in the matter of education, and until this book appeared, of which the title is given, no question had risen touching the fitness of Mr. Kiddle for the important place he occupied.

No sooner was the avowal made of his sympathy with those who believe that the spirits of the dead can hold communication with the living, than doubts were expressed concerning Mr. Kiddle's sanity, and capability for discharging the duties of his office; and, in the course of a few weeks, so much excitement was aroused that he offered his resignation.

How far a man's belief in what is denominated "unorthodox," may affect his conduct in the affairs of a profession or business, is yet to be determined; but certain it is, that many persons of "spiritualistic" tendencies live among us, and

perform their parts well as lawyers, physicians, merchants, etc. It is said in Mr. Kiddle's case, that nearly all the teachers in the New York schools were earnestly in favor of his retention of the superintendency, confidently thinking that his religious views would not detract from his efficiency as their superior.

One day, in the latter part of August of the present year, Mr. Kiddle entered the office of the PHRENOLOGICAL JOURNAL, and was invited to subject his head to the manipulation of Mr. Nelson Sizer. To this he consented, and was then conducted to the room of Mr. Sizer, who performed his part in his customary thorough manner. Soon after this examination, and before Mr. Kiddle had left the office, Prof. L. N. Fowler came in, having just arrived from the country. Without being introduced to the veteran teacher, he was requested to examine his head, and immediately did so. It should be said that neither Mr. Sizer, nor Mr. Fowler had met Mr. Kiddle before, and were not aware of having him under their hands until after they had dictated to reporters their views of his organization. The two delineations made under such circumstances by phrenologists whose reputation is world-wide, offer a very interesting comparative study, and we think that no better use can be made of space in our columns than that of printing both as they were dictated.

Mr. SIZER said :

"We judge that you have derived your constitution largely from the mother's side of the house; the build, the features, the form of the head, indicate your mother's characteristics. You have inherited the elements of health and long life, and, we judge, come from a stock that lives to be old. You are compact and vigorous, capable of mastering the

situation, and of putting as much force into a given line of action as most men of your size could do ; in fact, there is a kind of endurance about you that would enable you to surpass larger men than yourself. The tall, long-armed men can not endure as much as you.

"Another trait of your constitution is, that you have the power of concentrating force quickly on a point. If you were a soldier, or a surgeon, if you were a seaman, or a mechanic, you would be able to throw into one supreme effort, in an emergency, a great amount of power ; for instance, if you were leading a cavalry charge in the army, you would be likely to do some things that would attract attention ; you would turn the enemy, you would take advantage of its weak points, through your quickness of perception, readiness of decision, and promptness of action. If you were a surgeon, your associates would see you do the same thing in that field.

"Your intellect is intuitive in its type, rather than cogitative. Within the last ten or fifteen years your mind has worked toward the cogitative, without losing any of the intuitive ; but during the first three quarters of your life, your mind worked mainly by intuitive suggestion. Your first judgments are your best, and if you fail to act up to your first well-defined impression, you generally regret it. If you were a public speaker, in the school, college, lecture-room, pulpit, or at the Bar, you would make some of your best marks under circumstances which took you by surprise. The best things you ever do or say, are done when you are pressed, and must do or say something quickly ; for instance, if you were a politician, or a lawyer, and I were your opponent, I would never interject any words to annoy you during your speech, because then is the time you would show your genius in 'biting back.'

"You have a good memory of what you see, and generally see as much as there is to be seen. Your power to describe, by tongue, or pen, is excellent ; consequently, you would make a good

teacher, for you can gain, retain, and communicate knowledge.

"You are ingenious, artistic, skillful, and you could, in a given time, do more work that requires facility of manipulation than most men. When you are doing something, it seems as if the work were trying to aid you, coming into place without being placed ; things don't hang back that you think should take place and position.

"Your desire for acquiring is strong, and you would make a nice financier in a business in which close calculation is required. It is said that in the preparation of cotton-goods, there has to be sharper calculation in financiering, to bring all the processes within a given cost, than in almost any other business, because the margin of profit there is reduced to the smallest dimensions. You would be likely to succeed in such a line, and would also do exceedingly well in a chemical works, where everything is wrought out by the sharpest analysis. You could do well as a banker or broker.

"You appreciate the good things of the table. Your sense of taste is very acute, and that would make you a first-rate chemist. You have force of character, ambition, but not quite enough pride. You are more honest, just, and upright than you are devout.

"You are sympathetic, willing to bear burdens for others, that they may be relieved ; and though you are wise and shrewd in the acquiring of property, when you get into society where money is being expended, it generally costs you more than it does others. You are so liberal in your feelings, and so anxious to avoid seeming selfish, that you spend more money at a picnic, or in a little traveling party than the others. You generally have the change ready when you get to the ferry, or the stage, and you are so anxious not to appear close, or stingy, that it happens sometimes that your liberality costs you more than your share of the expenditure. If you could have more Self-esteem, more assumption, more tend-

ency to elbow your way to position and power, and less of delicate regard for other people's rights and interests, you would get along farther and faster. You have to be well known to be appreciated fully, because you don't put yourself into the front rank. You are not self-asserting enough; you are more modest than most men who have as much knowledge in the sphere in which you live."

Mr. FOWLER said of him:

"You are like your mother in your tone of mind; are very impressionable to internal emotions or external influences. Your mind is more active than your body, and you are better prepared to do mental than physical labor.

"There are but few extremes in your character, and these are more the result of circumstances than of natural conditions of mind. Thus far in life you have been, with preaching and practicing, about the same, and you show consistency of mind. Your feelings are more delicate and tender than common, hence you are more in your element in female society than among men. You have never associated, willingly, with rough, uncultivated men.

"You have a predominance of the Vital and Mental temperaments, which give capacity to love and enjoy life; to think and to perform mental labor.

"Your phrenological developments indicate the following character: You have great perceptive power; have a strong desire to gain knowledge; learn from experience readily; quickly perceive the conditions and the relations of things; are a good judge of the qualities and the uses of things; and could have been a good scientific man. As a physician you would diagnose disease accurately; as a business man you would make correct estimates of various kinds of property, and take the advantage of circumstances.

"You delight to be out in the world, and in contact with physical life; but more especially, do you delight to study mind in its various operations. Your reasoning brain is favorably developed, and you think much about what you

hear. Your leading thinking quality is the power to analyze, discriminate, compare, and adjust one thing to another, and to derive correct inferences. Within ten years past you must have done an extra amount of thinking, for Causality is large, and sharply developed; which indicates culture, hence you are known for your ability to comprehend principles, to understand the origin of things, and to have a disposition to go back to the beginning of things.

"You seldom make an improvement on your first judgment of a subject; things generally prove to be what you first took them to be.

"You are mirthful without trying to be witty. You enjoy lively social company; are genial in your intercourse with society; are very much like your mother in being bland, pliable, playful, youthful, and versatile in your manner; hence, in company you adapt yourself to the people with whom you are; and you retain youthfulness of mind the same as you did twenty years ago.

"You are quite sensitive, and much alive to the remarks of others; are ambitious to excel; mindful of appearances, and easily stimulated with the idea of success or excellence; are not vain, and unduly fond of show, but still you desire to be a favorite; are not proud, and have not a haughty type of mind. You do not take pleasure in domineering; and if you are placed where you have authority, you exercise it with moderation and modesty. You prefer to *ask* people to do things rather than to order them done.

"While your feeling of independence is quite prominent, you dislike to be under obligations to any one for anything.

"You are firm when there is occasion to be so, in matters of principle and judgment, sometimes even tenacious. Your sense of obligation has a regulating influence. You can not afford to do wrong because it makes you feel unpleasantly all day; yet, although you are quite strict with yourself, you are still quite patient with others; and as a father, or as a

man employing help, you would give your children and the help a chance to do right of themselves first, before you would take them in hand to make them do right, when they failed to do so.

"You are always hopeful, and apt to be rather buoyant and elastic in your spirit. If you meet with adversity, it does not make you droop long.

"Veneration and Spirituality are generally strong. You are not *zealous* in religious matters, unless very much cultured in that direction. Your religion does not consist in a sense of devotion and worship, as much it does in doing others good, and in doing right. You are rather liberal in your religious views, and are about as pious out of church as in; on Saturday as on Sunday; for religion is more a matter of principle with you, than of faith, or of religious ceremony.

"You have skill, ingenuity, versatility of talent, and could turn your attention to a variety of work, if necessary. You have taste, as applied to works of art, to perfection of mind, to architecture, or to nature's forces, etc. You enjoy everything that is sublime, grand, imposing, and even terrific, provided you are at a suitable distance from the danger.

"You are sufficiently reticent to keep your private affairs to yourself, and you are not very forward to tell things that ought to be kept secret. You have an easy way of finding out what others know, without telling them much of what you know yourself.

"In money matters you do not waste or squander. You may spend enough to enjoy life, but not to indulge yourself to any great extent; could be a good financier if you made a business of it, for you know the value of property too well to waste and squander it. As a man of family you would prefer to keep a good table, with a plenty and variety upon it, and an equally good number of persons around it to eat all there is.

"You are disposed to overcome ordinary difficulties in your way, but you seldom fight, quarrel, get up a difficulty, or encourage unnecessary disagreement,

but would show as much or more courage in defending your family or principles, as you would in defending yourself. You do not harbor much revengefulness; you can hate, but you can not hold hatred as some can.

"You are characterized for prudence and forethought. You early desired to marry and devote yourself to the family; are always in your element in good female society; must have been a favorite with them all your life, not because you are a passionate lover, but because you place so high a price on woman. That quality you derive from your mother. You are fond of children; and would take good care of animals as a farmer.

"You never forsake your friends although you may add to your list; are attached to home and place, although you could enjoy traveling. You like to have a place or home to go to, and enjoy spending money to beautify that home; are generally happy wherever you are, for you started in life with the desire to make the best of it, and that which you are enjoying, *at the time is your best*, and so it goes on with one thing and another. If you are eating peaches they are the best; if you are eating grapes they are the best thing to eat, etc.

"You are not a forward talker, but you have a smooth, easy, and plain way of expressing yourself. People like to listen to what you say. You are in the habit of doing things orderly; are always neat and in style, but you prefer to have others put things away rather than to do it yourself.

"Such a head as yours can go through the world without making many enemies, no matter what their views may be. You enjoy uniform health, for you are more free from disease than most men, probably have paid as few doctor's bills as any man; but you can not stand dissipation. You are adapted to civilization and the science of business, rather than to be a pioneer.

"You have a good general memory of the past, and your own experience; where you have been, and what you have done.

You are conscious of what is going on around you, and seldom lose sight of the changes that are taking place in society.

"You are in the habit of speaking your mind, just as you know it, and just as you see things at the time, without so much regard for who is present, or what the fact may be; in other words, you think more of telling the truth than you do of—*when* you shall tell it, or who shall hear it. You are inclined to be radical, at least are quite reformatory, and not ignorant of what is going on in the world, and if a new order of things is being brought about, you will be an investigator."

Aside from the differences in method and style, the close similarity of the interpretation of Mr. Kiddle's organization in these "characters" must be very striking to the reader.

Mr. Kiddle obtained his education in New York, and commenced to teach in Public School No. 1, in Tryon Row, New York, as early as 1837, and in 1843 was appointed Principal of Ward School No. 1 (now Grammar School No. 18), the first school established by the Board of Education, organized in pursuance of the law of 1842. In 1845-6 he taught the school connected with the Leake and Watts Orphan House, and in the latter year accepted the appointment of Vice-Principal of Public School (now Grammar School) No. 2, in Henry Street. In 1850 he was appointed Principal of the School, in which position he continued until 1856, when he was elected First Assistant Superintendent of Schools, to fill the vacancy created by the decease of Joseph McKeen, Esq. In this position, he instituted a new system of examinations, more exact and thorough than had previously existed. He was six times re-elected Assistant Superintendent, and, on the resignation of S. S. Randall in 1870, was unanimously elected City Superintendent. To this position he has been three times re-elected, having recently entered upon his fourth term.

Mr. Kiddle from 1850 to 1856 was a professor in the Female Normal School

of this city, and after its reorganization, in 1864, was appointed Principal of the school, performing at the same time the duties of Assistant Superintendent. It is generally conceded that his organization and management of this school did much to advance the professional improvement of the teachers of this city.

The splendid testimonial presented to him on his resignation as instructor in the school was a spontaneous and fitting tribute to his abilities, and an evidence of the very great respect and esteem with which he is regarded by all the teachers of our public schools.

On the establishment of the present Normal College, in 1870, he retired. Mr. Kiddle had thus far, for more than forty years, uninterruptedly been connected with the public schools of this city, either as a teacher or a superintendent, having passed through every grade, from that of pupil to the highest educational office in the gift of the Board of Education.

Mr. Kiddle did not originally intend to devote himself to the work of education, but in his early age entered earnestly on the study of the law, and was admitted to the bar in 1847. He had, however, formed friendships and associations during his early career which attached him to the schools, and the success he had achieved, together with the promises of the future, induced him to relinquish his purpose and continue in the path which certainly has been one of success and eminent usefulness.

His name has been associated in the publication of certain valuable text-books, one being a treatise on astronomy, widely used. During the past few years we find his name prominent in connection with publications on the theory and practice of education. In 1877, after three years of preparation, he published, in association with Prof. Schem, the "Cyclopædia of Education," and in the years following, the "Year-Book of Education." This very important series has been recognized as of great advantage to the educational interests of this country. It has also been accepted abroad as a work of un-

usual literary and educational merit; and, being the first of its kind in the English language, the International Jury of the Paris Exposition decreed a medal to the "Cyclopædia;" and, as a further ac-

knowledgment, the Minister of Public Instruction of the French Republic conferred upon Mr. Kiddle the high honor of nominating him "Officer of Academy" (*Officier d'Académie*).

"THE VOW OF FAITH."

IN an interesting article on "Animal Magnetism," by Thos. A. Beel, in the September number of the JOURNAL, where his points are well taken, and afford a good answer to the one he criticises, there occurs quite a serious mistake in reference to "laying on of hands." I dislike to see so able an argument marred by a misquotation from the Scriptures, when they do afford some aid to his position. I also desire to make clear a point generally misunderstood, and which has bred both much heresy and much abuse of those whose practice is Scriptural, though their theory is erroneous.

That the Scripture does incidentally sanction Mr. Beel's idea of animal magnetism, I think, is clear, if we consider that God does not choose a man phrenologically out of joint with his office and work. For instance, it is acknowledged that the Hebrew people were the most religiously developed people in the world—having all the organs that a prophet or priest or other inspired and religious man should have. It is abhorrent from our conception of the fitness of things, that a prophet should not have Marvelousness or Spirituality large, or very large; also that a worker of miracles by touch should be deficient in those characteristics of Will, Continuity, and Firmness, and that vivacity of blood which thrills the party touched.

Much has been written of the miracles of Christ in the way of classifying them, but I have never yet seen a classification which I think is needed. We may speak of them as His *human* and Divine miracles; the first as those wherein He demanded a *look at him*, or where He *touched* the diseased. His high manhood gave Him miracle-working power as well as His essential Divinity, especially when

we remember that perfect manhood is itself only attained when man becomes a God—man's destiny and God's avowed purpose in creating him. The Son of God became the Son of Man, and the Son of Man became the Son of God.

Then, too, there is much on this head to be learned from those extraordinary cases of virility, classed too much as superstitious, "the seventh sons of seventh sons." But while this is true, and is referred to, I suppose, in Mr. Beel's first quotation, from the last chapter of Mark, his other quotation is not in the Bible at all, and there is nothing that approaches it except James v. 14-16.

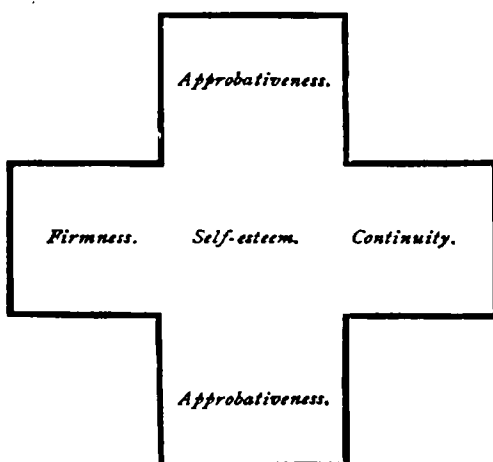
The peculiar dispensatory touch and miracle were confined to the Apostles and to those whom they ordained. There is no Scripture record of a miracle beyond these two by a third party ordained by those whom the Apostles ordained. Ordination giving grace ceased with such as Timothy, Titus, Stephen, etc., upon whom the Apostles laid their hands. Consecration, *recognizing* grace given by Jesus Christ, is still in the Church, and is assigned as the duty of a still officiating body of men, the Elders, whose office includes four duties—Ruling, Teaching, Ordaining, and Consecrating.

The mesmeric or animal magnetic touch of the present day while exercised by men, such as would have been chosen to be workers of miracles in Biblical times, is no miracle; nor does it prove the others no miracles; for the *instantaneousness* peculiar to a miracle is no longer present. That instantaneousness being its Divine miraculous attribute, the character of Prophetic, Christic, Apostolic, and Evangelistic power.

Permit me, in the place of this mistaken quotation and misplaced applica-

tion, to give the true sense of James v. 14-16, and make good my heading, "The Vow of Faith."

The vow is one of the seven distinctive traits of the great world-religion, and finds its organs in that group of four, which I claim to be those making up the one great organ of Will. Though my friends of the JOURNAL have not yet enunciated them, I hope soon to do so, and make my point good and well-taken. Those four organs are Firmness, Self-esteem, Approbativeness, and Continuity. Setting like a four-pointed crown on the apex of the head, thus :



When their location, relation, and attributes are considered, as I hope to, I think it will be clear that the will requires them all to fill all that strong and weak wills teach in the facts of experience.

The vow is also, and, necessarily so, as God's revealed and natural will never conflict, one of the doctrines of that great sevenfold religion as revealed best and truest in the Word of God. Its historical origin among men begins with Jacob. It is a constant practice and teaching in both Old and New Testaments.

The word *prayer* in the phrase "prayer of faith," in verse fifteenth, is really "vow." It is the same word as in the sentence, Acts xviii. 18, "Paul . . . having shorn his head in Cenchrea: for he had a *vow*." Other passages sustain this rendering. There are four kinds of

prayer in the New Testament: worship, the cry of need, intercession, and the vow. The distinctive feature of the vowing prayer is its *action*. It is petition reaching consecration, self-surrender, and is the cry born of an emergency of defeat, disease, or death.

Three of the kinds of prayer are in this passage, and prayer occurs in other chapters of James. Those three are the first, second, and fourth. The fundamental principle of the vow is that it must be subjective, must *originate* with the person needing succor, or desiring high enterprise. The law of the Church in reference to it is that its recognition must be *official* and its performance *public*. As related to desire, etc., it must consider sin as the cause thereof, so confession is essential to health. It all proceeds from the grace of God, so consecration and consequent praise to God must follow. Now to particularize :

I. The parties to it—

A sick Christian, realizing with David, "Before I was afflicted I went astray," and that his sickness is because of neglect of God and His service, examines himself, proves Christ in him, and rises to a revelation of a new or better life, a consecration of himself to God. His revelation may be only of the *necessity* there is for a new or better service. He vows, "If God will heal me, I will do the thing the Christ in me calls for."

This excludes all official power from any one called in. It makes it a rare, though it should be a frequent, occurrence. It also excludes the making a vow a mere machine or method of getting well, and so removes all exceptional doubts of its truth.

The elders of the church who do not come as healers, but as official *recognizers* of the vow, as church publicity and property are characteristics of a true vow. They bring the sacramental symbol of consecration, *the oil*, and he is anointed in the name of the Lord, whose peculiar property he becomes by his vow. The elders do not even pray for him, they "pray over him," worshipping God for

His signal grace. *As a consequence, all human agency has to be absolutely denied!* Experience also demonstrates this! So animal magnetism is ruled out.

II. As to the methods—

I have already indicated three: vowing, worshiping, and anointing, but there is a reciprocal one and a joint one:

Confession of sin must ensue, of elders to the sick man, and of him to them. Why the elder has to confess I know not, except that if he had been faithful, his subject would not have been sick; but the vower's confession is to be expected from the new sight of his sins caused by such height of approach to God which will reveal his shortcomings, no matter how small they are. Then they are to jointly pray; cry out their need for the vower's health, and he shall be healed.

The oldest versions make it very strong here. "Therefore confess your faults one to another, and pray for one another that ye may be healed."

This is the special use to be made of the vow in the New Testament, though the vow of Thanksgiving is not excluded.

That a man of vows is magnetic there can be no doubt, for magnetism and health are conjoined. I mean health in the high, *resolute*, curing sense. The man of vows is the man of years; the preacher of the Gospel lives longer than men of other occupations, and the missionary longer than the common pastor, but this health and strength are results, not causes; so again animal magnetism is excluded from Jas. v. 14-16.

ALEX. M. DARLEY,

Del Norte, Col.

Missionary.

THE COLOR SENSE.

A GOOD deal of attention has been given of late to that varied defect in the perception of colors, found in many persons, which is called "color-blindness." So many accidents, involving loss of human life, had occurred, the cause of which seemed inexplicable, that European physiologists were induced to look to the physical organism of sense-perception for a clew to their solution. It was asked—might a collision of two vessels at sea, or of two railway trains on land, be the result of some positive organic defect in the look-out or engineer, which led him into an error of judgment? As look-outs, engineers, guards, switchmen, and others in cases of accident, now and then were found to have mistaken the color signals, and were totally at a loss to account for their mistakes, it was deemed proper to examine into the nature of color perception, and the most surprising revelations have followed such investigations in Europe and America. Dr. Holmgren, of Upsala, Sweden, published a volume in 1877 on "Color-Blindness, and its Relations to Railroads and the Marine," which embodied the fruits of an extended course of observation.

This book awakened general interest in the matter, and several publications have recently appeared containing a great amount of data derived from a variety of sources. The employés of railway and steamship companies, operatives in factories, children and youth in the public schools and higher educational institutions, have been made the subjects of optical experiment by those who have taken up this new branch of scientific inquiry.

It has been found that a large number of people are defectively constituted for recognizing colors. Dr. B. Joy Jeffries, of Boston, Mass., states that one male in twenty-five is color-blind in some degree.* In women this defect is rare, as has been shown by an extensive examination of the eyes of school-girls and work-women in Europe and this country. Dr. Holmgren found but 19 at all affected among 7,119 females of all ages and vocations. Dr. Jeffries reports only 4 among 7,942 students and scholars. This proving is in close accordance with the observation of phrenologists that the organ of Color in

* Color-Blindness; Its Dangers and its Detection. 1879.

woman, as compared with man, exists in a much higher state of development.

Among the conclusions of value to us which have been reached on the subject, are these :

Color-blindness is a congenital defect, and incurable. It is not connected with any special color in the iris, or in the humors which are inclosed by the eyeball. It may be due to an hereditary disease which affects the optic nerve, producing a form of atrophy.

Tobacco and alcohol may produce color-blindness. So, too, accidents, especially those accompanied with severe jar or shock, may cause this abnormality in the sense of vision.

Professor Wilson, of Edinburgh, who, as far back as 1855, had given some attention to the phenomena of color-blindness, reports the case of a physician, who, after having been thrown from his horse, "suffered great cerebral disturbance," and his perception of colors was found to be permanently impaired, so that the flower which once charmed him by its contrasts of tint, appeared of a uniform, dull hue.

The data of this interesting semi-pathological phase of human vision are not deemed sufficient to warrant physiologists at large in concluding that it is due to some defect in the retina, or that its cause must be looked for in the brain, although Dr. Niemetscheck and Dr. Aubert, of Germany, hold that in the color-blind there is a contraction of the anterior lobes, so that the brain mass is actually smaller than in those whose color sense is perfect. This conclusion was based upon certain measurements of the distance between the pupils of the eye in color-blind persons. Dr. Cohn, Professor Holmgren, and some others do not accept the views of Niemetscheck and Aubert, while they agree substantially that this class of abnormal vision may be caused by a defective constitution of the optic nerve or by some cerebral weakness or disturbance congenital in the person affected, or be a sequence of brain disease.

But to us, it seems evident enough that when a person is so deficient in the apprehension of colors, that he can not distinguish red from green, the physical apparatus in his head, which has for its function the discernment of color, has lost or lacks one-third of its power, red being one of the three primary or foundation colors. This lack is naturally exhibited by a reduction of the volume of the nervous substance in which the function resides, just as weakness of vision or blindness can be traced to disease of the substance of the brain, in which the optic nerves terminate, and a consequent atrophy of center and process. The distinctness of the difference between mere vision and the appreciation of hues is acknowledged by all observers; that one may possess excellent eyesight, but be greatly wanting in the determination of colors, is a surprising anomaly to those who do not accept the phrenological solution. The phrenologist understands how a man with eyes, in themselves anatomically perfect, may not be able to estimate with average correctness the size of a packing-box, or the weight of a horse, while another, whose eyes are so impaired that he must employ spectacles, will respond to a challenge by a prompt and close estimate.

It requires not argument to prove that there are persons with good vision, who are unable to appreciate the beauty of a picture or a statue. Their eyes take it in as a mere object; they may perceive its symmetry and fidelity to the original, but they have so weak an endowment of the artistic sense that they can not trace the relations which make a work of art beautiful, and, as such, a source of gratification. It is evident that the idea of beauty is not due to the eye, but to the exercise of a faculty in the mind which uses the eye as an instrument.

The cat and the eagle have better eyesight than human beings, yet no one supposes that they perceive beauty as man perceives it. They lack the artistic sense, or Ideality. There are thousands of men who have good eyes, considered

as a piece of mechanism, and though they may see all the parts of an object, it has in it principles and ideas which they do not comprehend. They see it, but they do not see *into* it, or appreciate it.

As a writer has said, the eye in itself is a machine adapted to the recognition simply of light and shade, just as a photographic instrument may be said to perceive an object. The latter reproduces the object to which it has been directed, not with its contrasts of color, but with variations of light and shade; the red parts will be dark or black, according to the brightness of the red; the blue parts light, approaching whiteness, in accordance with their variation in tone. If the artist would have the camera reproduce a picture with all its charming effect of tint, he must find a substance which will be susceptible to the delicate impressions of the light reflected by different colors. Such an invention would be analogous to the wonderful nervous process in the brain, which resolves differences of light and darkness into a great variety of hues, and contributes in no small degree to man's enjoyment of nature and art.

There is an evident analogy between the phenomena of aphasia and the phe-

nomena of imperfect vision, which the earnest physiologist can scarcely overlook, we think. The persons who are affected by aphasia experience more or less difficulty in the use of language, according to the extent of the cerebral disturbance, and the anatomical examination of the brains of those who have died from aphasia has led to the establishment of a nerve-center for language to the satisfaction of physiologists generally. In other words, the pathological phenomena of the faculty of Language have shown to the scientific world the soundness of the phrenological theory that claims an organ of Language as an integral part of the anterior lobes of the cerebrum.

So with regard to the "color sense," the investigations which are in progress concerning its abnormal and pathological phenomena, will doubtless result in the "discovery" of a region of the brain specially charged with the function of apprehending colors, and in that portion of the frontal or intellectual lobes where Dr. Gall and Dr. Spurzheim placed it in accordance with their observation of the contour of the forehead in those endowed with a high discrimination of color, and in those who were defective in its appreciation.

THE ELEVATION OF THE INDIVIDUAL.

THIS is the keynote of our civilization. Whether we look upon it as an ultimate aim, or a continual accompaniment of the work, the elevation of the individual is an essential element of modern progress.

It is a matter of some interest to contrast our own civilization with the civilizations of the Old World in that respect. In ancient Greece and Rome the prevailing idea was that of contempt for the "plebs," as the common people were called, and the very word has come down to us in "plebeian," as a term of contempt. The "plebs" were good for workers, like so many head of cattle. They were good to make soldiers of, though, in fact, this was somewhat of a rise in

the social scale. It was a source of pride to be a "Roman citizen;" but this was reserved for noble and patrician families.

Slavery and serfdom seem never to have raised a question of wrong. The Grecians made their slaves drunk to point a moral for their own sons. The Roman senators fed their pet fishes with the flesh of slaves, and, it is said, sometimes threw in the victims to be devoured alive. No doubt the slaves and the common people were ignorant and degraded, but there seems to have been no effort to raise and educate them. Æsop was a rare example of a slave who obtained liberty and intellectual eminence. We see a somewhat similar condition of affairs, only in a less degree, among the

serfs of Russia and the peasants of other European countries. Still, they are being slowly, though intentionally, elevated. The Russian serf has been helped to a marked step upward in our day.

Where this condition of things prevails, it is a necessary result, that any individual is respected according to the class to which he belongs. This class idea has ripened and gone to seed into the far East, and is known as "caste." There the distinction is so marked that a person must not even come into personal contact, nor associate with those of lower rank or caste than himself, under pain of losing his own rank. This is accompanied by a feeling of contempt for the lower ranks which it is difficult for us to comprehend; crushing out the feelings of a common humanity, and not allowing them to extend help to any amount of suffering which would make them run the risk of soiling their own exclusiveness. And the rules are many and oppressive. Our missionaries find it so diabolical in its effects upon character, and so great a hindrance to all kinds of progress, that one of them recently called caste "the devil's masterpiece." In all these countries we find people ready to do menial service, personal service, and low, criminal, and degrading acts, just in proportion to their social degradation. Nobody respects the lowest, and they are not taught to respect themselves, or to endeavor to rise.

In this country, the most of these barriers have no existence, and it is possible for any one who has mental capacity and individual character to rise in the social scale. Instances of this kind are very common. We do not say, or pretend, that social grades do not exist here. Some say sneeringly that money forms the grade lines, but we beg to differ. Money is a strong element of power, because it represents an accumulation of labor which may be made available for a variety of purposes; and he who has power will always be sought, for good or for evil. Money power is not the only power that commands respect, though most

people, who have power of any kind, find it far easier to bring it to bear in various directions with the assistance of money.

Neither does labor form the barrier to respect. There are many kinds of labor which can be performed consistently with good social position, and the number is continually increasing. We do not know that any one has carefully classified employments with regard to their social influence, but, if it were done, we should find that something like this obtains, and who shall say that such distinctions are not logical?

Those employments stand highest which demand mental ability; next, skilled handicraft, including agriculture; and lowest, those employments and positions in which the employés are most constantly subject to overseers, and are obliged to carry out personal commands. There are two elements mingling with all these to vary the standard; perhaps three. One is the degree of independence with which any kind of business is pursued. The second is the degree of personal service required. The latter always draws a line between the person commanding and the person receiving the commands. The small independent shopkeeper is more sought for than the clerk, the master than the valet, the mistress than the maid. But self-respect, in any position, always gains a higher degree of respect from others.

The matter of personal service presents many difficulties. The master or mistress commands, and the servant obeys in a great variety of matters. But when the services become personal, they become menial. And it is extremely difficult, if not impossible, to prevent a marked social line being drawn here. This is a hindrance to the elevation of the individual in so many ways, that we would like to do away with it so far as possible without having any part of society overburdened; and, that we are continually making progress in this direction, can be readily seen when we compare the kinds of work formerly done in the house with those done at the present time. The spin-

ning and weaving and making up of clothing and house-linen, the shoemaking and mending, as well as other employments, fairly turned the house into a factory sometimes. They also brought in a variety of tradesmen and women to interfere temporarily with the comfort of the family, and who were much less comfortable and self-respectful than they are at the present day doing the work in their own establishments, or as journeymen. The preferences are definite and decided on both sides, and both in favor of reduced help in the house.

In cases of sickness, help must be employed. The invalid and the child appeal to our sympathy, and it will be less difficult to find those who are willing to minister to their wants. But an important point here is, that people are not to be sick so much when they come to lead sensible and self-denying and self-serving lives. The poor man, who is self-respecting, is clean and neat and careful of his health. And the middle classes are far more likely to make themselves more intelligent on health topics if they cultivate a wise and generous self-respect. It requires not more than half an eye to see that tobacco and liquors would not be so largely indulged in. The wealthy and the aristocratic will be more healthy, more stirring, more enterprising and useful to themselves and to others, and less self-indulgent in all matters when taught to wait on themselves.

We are glad to see the drift in that direction in some of the royal families of Europe, notably in that of the ruling family of the British realm. The Prince Consort was a good farmer, and the Queen has taste enough in the same direction to keep up the establishments. The Duchess of Connaught is an excellent dairywoman and cook, and seldom neglects to send the Queen, when at Windsor Castle (near which she lives), some dainty dish prepared by her own hands. In a variety of ways, we see cropping out the results of lessons in real life given to the royal children when they were encouraged to entertain their parents to tea in

the royal nurseries. The daughters of the crown princess of Prussia are taught to dress themselves, and the young princes, their brothers, go to school and study and wait on themselves very much like other boys. This is real royal self-respect, to be balanced at the other end of the scale by the self-respecting and industrious laborer, and it has its influence all the way between.

Self-respect is necessary if we would secure the respect of others; and it shows itself in a variety of ways. We hear people complain sometimes that they are not well treated unless they are well dressed, when the fault is partly their own. They are shy and avoid recognition unless they are well dressed. They do not claim the attention and the notice that they do when they are "dressed up." Besides this, we judge to no small extent of a person's self-respect by the neatness and care of his personal appearance. If he does not respect himself, he can not expect others to respect him. True, a person should dress according to his work. But, if seen at work, he should preserve his own consciousness of dignity and self-respect, and that usually insures respectful treatment from those for whose judgment he would care. The judgment of others he may ignore until they learn to judge more closely.

Not only is it true that if a man does not respect himself, others will not respect him; but he will be far more likely to do things which will cause him to lose the respect of others. This is one of the elements in man's nature to which the Christian religion appeals, and which it cultivates. Observe the import and influence of such statements as this of Christ (reported by John): "If a man love me, he will keep my words, and my Father will love him, and we will come unto him and make our abode with him." What other religious code contains anything approaching the dignity of such a personal reward? What cleaning up of self and surroundings, what purity, what sacredness are enough for the reception of such a guest? That such is the tend-

ency in individuals, many and many a prodigal son can testify. That such is the tendency in Christian nations, witness the personal and household cleanliness of Christian nations compared with those of other than Christian civilizations. More particularly compare their moral purity and common decency of every-day life. Missionaries have often testified that it is almost impossible to raise their children in India and in China without having them more incomparably exposed to pollution in the common intercourse with the natives. Much of the same sort of thing may be observed among the comparatively pure and moral aborigines of our own country.

But the "Word" goes further: "Henceforth I call you not servants; for the servant knoweth not what his Lord doeth. But I have called you friends, for all things that I have heard of my Father I have made known unto you." Here is the element of serfdom eliminated. Here is the elevation of the individual begun. In our own day have we its greatest triumphs in the liberation of the slaves of the two leading Christian nations of the world. Yes, it is right to call it Christian principle, although some of the leading actors may not have been professing Christians. We all live in a Christian atmosphere, and our views are enlightened by Christian truth. And such action is a good illustration of Christian principle.

And yet there is with us a more widespread pollution and a deeper degradation—that of intemperance. Of this we must say even more than of slavery. Its removal is impossible without the elevation of the individual. It is evident enough that intemperance imbrutes, degrades and defiles, and takes away self-respect quite as completely as any other common sin, while temperance purifies, elevates, and brings self-respect. What then? Elevate men so that they will not desire the drink. But no sooner is this done, than it is discovered that the open saloon tempts them to drink, and, appealing to their depraved appetites,

often succeeds in dragging them back again. Then comes the suggestion to take away the saloon by law. This is well enough in itself, but, unfortunately, many are seized with the idea that this is the main thing to be done—perhaps, the only thing. "Take away the saloon," they say, "and then no one can get the drink, and temperance work will be done." They seem to forget that these temptations are here because the people wish for them. That they are but the outward sores on the body which are an unfailing indication of the bad blood in the system. The only way to really get rid of these sores is to purify the blood, change the opinions, desires, and beliefs of the individuals who compose the community. We may succeed in closing up some of the sores, but they will be sure to break out again somewhere, unless the blood is purified. So the temperance-workers have often proved. In many places where a spontaneous outburst of righteous indignation has closed the saloons, we hear the triumph proclaimed loud and long; but in a year or two, or three, if we pass that way, we find as many more, perhaps, in full blast. That fact is reported to the papers, and we are left to wonder why, after all the temperance triumphs we hear about, that temperance does not prevail more than it does.

The fault lies mostly just here. They have forgotten the indispensable principle of elevating the individual members of society. They propose to take away the drink from them without taking away their love for the drink. They will make them temperate by force of circumstances, and not by implanting a genuine love for its purity, self-denial, and right-living. Instead of teaching the children the nature of alcoholic drinks, and leading them to an intelligent and voluntary abstinence, they propose to make them abstain because they cannot get the alcoholic drink. It does not require half an eye to see which must, in the nature of things, be the most effective, which most elevates, strengthens, and secures the in-

dividual, and thus, eventually, not only closing the saloons, but keeping them closed; surrounding them not by a hungry, thirsty crowd that would get drunk if they could, but by a watchful and jealous crowd, ready to cut off the serpent's head as soon as it is raised.

This is slow work, but it makes good staunch temperance-workers, and ready to meet every emergency. It is slow, but it is sure, while the legal work is slower still, and not at all sure. For thirty years or more, some States have been making spasmodic efforts to get prohibitory laws, and failing, have fallen back discouraged. With all the rest, they have succeeded in many places in creating such a condition of public sentiment that a man is thought to be little short of a traitor to the cause if he intimates that anything else is necessary besides voting for prohibition. Even women have been known to say, that all that was necessary to the success of temperance was that women should be permitted to drop a little piece of paper into the ballot-box; and still others are making such desperate efforts to obtain the "paper 'No,'" as to indicate an extravagant appreciation of its value, while they largely ignore the benefits that would come to the individual, and, of course, to the community, from education in temperance principles.

It is certain that far more than this is necessary to the real triumph of temperance; and far grander will be the results of the work upon the character and intelligence and habits of the people, if this work of imparting information and teaching the true principles of temperance be diligently prosecuted. In fact, there is no safety nor security in anything else. People may quote Vineland as an example of what the law can do, but very few, even of temperance people, know that the practice of drinking home-made wines, the pure (but fermented) juice of the grape, is becoming quite prevalent there, and their annual voting "no license" does not prevent nor forbid its use. It is easy enough to see what the end of that will be, un-

less they bring intelligence to their aid, and get the individuals who love the wine to refrain from its use, because of a knowledge of the poison that is in it. Pointing to Maine is only a delusion and a snare until people have some appreciation of the state of intelligence and public sentiment by which that common-sense State makes, keeps, and executes a law in which the majority of its citizens believe, because they understand the principles upon which it is based.

Public sentiment is only the aggregate of the sentiments of the individuals of the community which they compose; and so long as the majority of individuals believe in the drink, and love it, so long they will have it and be debased by it. And when temperance-workers are wise enough, and earnest enough, to diligently prosecute the work of changing individual sentiment, everywhere within reach, not of the drunkard merely, but of influential people, and to see that old and young are correctly taught the principles that lie at the foundation of all temperance views and temperance work, then we shall be on the high-road to success, and not until then. As well might the advocates of a hygienic diet depend upon legislation to induce people to eat correctly, as for temperance people to depend upon law to get them to drink correctly. Nothing but intelligence will serve either case effectively, and a necessary accompaniment of this will be the elevation of the individual.

JULIA COLMAN.

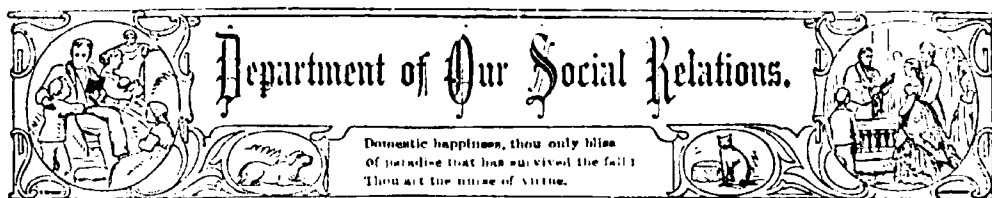
IN THE VAN!

"True men wanted—in the van!
Let him take his place, who can!"
Hast thou helped a sinking brother?
Borne the burden of another?
Hast thou learnt, who is thy neighbor?
Dost thou give the meed of labor?
On—on, to the front!

Hast thou held the beacon-light,
When the storm was in its might?
To the soul by tempest driven,
Was the cup of kindness given?
On—on, to the front!

"True men wanted, for the van!
Let him take his place, who can!"
For thy conscience, hast thou suffered?
Spurned the bribes the tempter offered?
Hast thou coped with that dread power,
Strongest in our weakest hour?
On—on, to the front!

—GRACE H. HERR.



THE TOWN AT THE END OF THE RAINBOW.

A SHOWMAN'S life, like a soldier's, is a life of adventure, and in following the fortunes of a stereopticon exhibition, I have fallen into a good many queer places. But I have just returned from the quaintest little village of all, where the phases of life and society, popular more than a century ago, still flourish in all the old-time vigor. A village that brings back with a new meaning the nursery tale that used to put our credulity to such severe test when we were little ones. The myth runs, you recollect, of a Dutch settlement just at the end of the rainbow, where every one is so well contented and happy in his own lot, just as it is, that they all go on puffing their pipes, and nobody troubles himself at all to secure any of the brilliant and priceless gems that shower down on the town square every time the rainbow breaks. For nature seems to have bestowed on the village about which I am writing, some of her most precious gifts in as lavish profusion as though she had broken a veritable halo of dazzling kohinoors above the picturesque little court-house on the town square, where the two hundred voters gather, and stand to smoke their "native leaf" with as much grim satisfaction as ever the Dutch burghers in the nursery tale could have manifested.

Picking their way, between the idle men, into the basement-door of the court-house at any time, and especially in the early morning, one sees a file of serving maidens, daughters of the dark continent. Each has an empty pail in her hand, while, between her grinning teeth, protrudes her tongue in a careless gibber to her companions as she drags her loose limbs in; but presently, when she comes out, what a transformation! She stands tall and erect; her empty hands swing at

her side with a motion almost majestic; her white teeth are firmly set; her head thrown back, and balanced just on top is the missing pail, full to the brim, but never a drop spilling. She marches off down the steep street, very much as you would expect one of the stately caryatides with the Corinthian capital on her head to step down from the porch on the Acropolis. One could readily imagine that under the court-house somewhere she had discovered the mythical fountain whose waters restore the youth, and after being thoroughly rejuvenated herself, was bearing off in triumph a goodly supply to her friends. I found it a beautiful spring that ran out of a hole in the rock on one side of a sort of cave or natural chamber, and ran back again into the rock on the other side. It furnishes water to most of the town. In fact, so far as I could learn, it is the only good well in the whole neighborhood; for the village at the end of the rainbow, about which I am telling you, is no other than Glasgow, Kentucky, nestled away among the hills this side of the Cumberland Mountains.

The ground is very peculiar, literally honeycombed with great basins, from half a mile across down to the size of a wash-bowl. Some are irregular in shape, but most of them are quite round, and all grow narrower and steeper as they near the funnel-shaped hole at the bottom, which drains them by some underground stream. Occasionally this outlet is large enough for persons to go down into the caverns below to a great distance, and they often find running brooks at the bottom. This is the case with the "sink-hole," as it is called, at Cave City, eight miles distant, in which is a large creek that supplies the town with water. The

water is pumped up by a tiny bit of a steam-engine, way down underground, to which the engineer descends by a long ladder, and has his coal sent to him through a pipe. He throws his ashes into the stream, and it is said that the cinders wash up on the shores of Echo River in the Mammoth Cave.

But to return to the sink-holes; they are often stopped up at the bottom so as to make reservoirs of rain-water where the cattle may drink, because there are no running streams on the ground, not even a dried-up water-course. Around these reservoirs you see groups of the country people doing their washing, and a picturesque little scene it is, too. There is the great black pot swinging on a crotch over the fire, and there the children piling on fagots of rotten wood gathered under the giant oaks around, while the housewife and her daughters, pounding out the clothes on a rock, or standing in the water with their red and blue flannel skirts tied around their waists, give as Italian a finish to the piece as could be desired. At one place I discovered, in addition to such a group, a very touching arrangement of a sow and her piggies disporting themselves on the opposite margin of a wee puddle—these taking the place of the swans and cygnets always found in Neapolitan water scenes.

I had made these observations as I rode into Glasgow one fine morning on the regular Tompkinsville stage; but I went out to look at the town after dinner, which, by the way, was none of the most modern either in substance or *cuisine*. Still, the pure air with its bracing smack of the red clay-banks and the genial sunshine that always pours down on my pet village, lent to the fare of a hundred years ago the sauce of a keen appetite.

Now, you see, this awkward habit I have fallen into of exploring every village I come across, affords me infinite recreation, although it makes me the butt of many jests. Charley says that I can never rest in a new place until I have taken a "staring tour" through every back street and side alley at least once; while he insists that "these little towns"

are all alike, anyway; and that I have never discovered anything worth seeing yet. But I think differently. Glasgow did not look like other towns, to begin with, for experience had taught me to draw fine distinctions, and most villages in hilly countries are either built on top of the hill, or else in the level valley between the hills. But Glasgow is neither the one or the other, for the court-house, which is the center of the town, stands about half-way down the slope of a great swell, and the rest of the houses are evenly distributed on all the four streets which form the square about it. One observes an air of good old standing about these well-built family seats, yet there is none of that appearance of having seen better days, so noticeable in other Southern towns. Everything at Glasgow looks as though it had always been in the habit of taking care of itself. The houses stand back in handsome yards, filled with borders of bright, old-fashioned flowers, and are of that hospitable Virginian style with huge gables projecting out in front, supported by great white pillars, so as to form an inviting porch below, where some of the family are generally sitting in the shade, enjoying the *dolce far niente* in all its purity.

There are several church edifices, and they, too, stand back in little old-time church-yards, like the very symbol of quiet meditation. One has a white tower, one a red steeple, one a weather-cock as picturesque and genuine as ever looked down on the Dutch settlement at the end of the rainbow, and one less pretentious than its turreted rivals is labeled in black and white, "Reformed Meeting-House"—I make no mistake—and it really looks as though it might date from even more remote times than the days of the Reformation!

There are no public schools, as we understand the term, but two good private ones, managed in the old colonial way; that is, each parent makes with the teacher a special arrangement as regards the tuition fee, sometimes being able to exchange in barter so many cords of wood or bushels of meal for so many days

of "book larnin'." But prices fluctuate so with the exigencies of the case that I was unable to get at the exact value of an education in either of these commodities.

Glasgow has been Glasgow the same a long while. In the earliest times of the State, the Barren County court-house was located in its present healthy site over the "best spring in the county," and around these, the spring and the court-house as a nucleus, the town gradually accumulated, in those palmy days when it was the custom of the gentleman land-owner to live in his mansion at the county seat while his tobacco was cultivated by slaves who dwelt

"In cabins near at hand."

Thus, just before the war, the village, like many other Southern towns, was an aggregation of such gentry, with a few shops and a bank for their convenience, but none of the business interests that so largely make a Northern town. When the war brought this state of affairs to an end in other places it hardly disturbed Glasgow at all; for what could upset the settled ways of society at the settlement at the end of the rainbow? Here one finds the same old times gentlemen of leisure lounging around the law-office or tavern doors, smoking and discussing politics with as much fervor as if the fate of the nation verily depended upon the ballot returns from the end of the rainbow. They rise gallantly to the curbing and draw their chairs back off the narrow sidewalk as a lady passes. It is one of those gentle, delicate young women of whom Kentucky was lately so wont to be proud. The gentlemen all doff their hats, yet she makes no sign of recognition, but passes by with her eyes bent on the tobacco-stained pavement and the blood mantling her cheek. Her slight figure and shapely hands bear witness to the half oriental life she leads.

But what, by all the rustic Lares, is that demoniacal shriek? It is the energetic call of a steam-engine; for a funny little dummy that runs like Noah's ark, equally well either end foremost, has puffed up to the very brow of the hill on which the town sleeps, pushing a long row of oil

cars, headed by a caboose that reminds one of the hero in Coleridge's poem who was a cook and a captain bold and a mate of the *Nancy* brig, for it is mail, baggage, express, and passenger-coach all in one box car. Most persons in telling you of Glasgow, would have begun by saying it was the terminus of this little railroad. But I was describing Glasgow, and not the road some capitalists chose to lay there for the oil and lumber in the neighborhood, because the road affects the place so little I might have omitted it altogether. The stages, which still come and go as of old, are more to the taste of the people. Yet the railroad was a great convenience to me, and it was from the window of the little cannibal caboose (if I may be pardoned the expression) that I took my last look at this town at the end of the rainbow.

STEREOPTICON VIEWS.

MEMORY STRENGTHENED BY PRACTICE.

THE history of the celebrated conjuror, Robert Houdin, furnishes a remarkable example of the power of memory acquired by practice. He and his brother, while yet boys, invented a game which they played in this wise: They would pass a shop window and glance into it as they passed, without stopping, and then at the next corner compare notes and see which could recollect the greatest number of things in the window, including their relative positions. Having tested the accuracy of their observations, returning to the window, they would go and repeat the experiment elsewhere. By this means they acquired incredible powers of observation and memory, so that after running by a shop window once, and glancing as they passed, would enumerate every article in it.

When Robert became a professional conjuror, this habit enabled him to achieve feats apparently miraculous. It is told of him that, visiting a gentleman once in a friend's house, where he had never been before, he caught a glimpse of the book-case as he passed the half-

open library door. In the course of the evening, when some of the company expressed their anxiety to witness some specimens of his power, he said to his host: "Well, sir, I shall tell you, without stirring from this place, what books you have in your library." "Come, come," said he, incredulously, "that is too good." "We shall see," replied Houdin; "let some of the company go into the library and look, and I shall call out their names from this."

They did so, and Houdin began: "Top shelf, left hand, two volumes in red morocco, 'Gibbon's Decline and Fall;' next to these four volumes in half calf, 'Boswell's Johnson;' 'Rasselas,' in cloth; 'Hume's History of England,' in calf, two volumes, but the second one want-

ing," and so on, shelf after shelf, to the unspeakable wonder of the whole company. More than once a gentleman stole into the drawing-room, certain that he would catch Houdin reading a catalogue; but there sat the conjuror with his hands in his pockets, looking into the fire.

This is a remarkable illustration of the result of training the perceptive faculties; but it must be observed that to attain anything like such an effect, the practice must be based upon a naturally good development of the organs relating to sense-perception. Robert Houdin possessed a very prominent forehead; the organs of the brain directly over the eyes were very large, so that he was admirably constituted intellectually for a pursuit requiring power of memory.



A BOYHOOD'S MEMORY.

YONDER where the willows drooping,
Bathe their crisp and waxen fronds,
Where the river gently gliding
'Tween her winding, emerald bonds,
Rippled softly on and on,
There in covert, cool and shaded,
Trooped we boys on summer day,
Plunged in depths, or shallows waded,
Sang in mirthful ecstasy—
While the river rippled on.

When the months brought in the summer,
And the hours moved slow and warm,
School-room tasks awakened murmur,
Teacher's rule seemed hardship borne,
While the river rippled on.
Rippling softly, all unfettered,
Circling, eddying t'ward the sea,
Seemed to whisper: "Though unfettered,
Come, boys, roam the mead with me,
While I ripple on and on."

When the signal of the master
Told the tedious school-time o'er,
Eager feet with hearts as eager,
Left behind the school-room door
Lessons conned, or tasks undone;
Left behind all thought of struggle,
Breathed we in the sunlight free
Only joy, grown men might boggle,
Pressed with care's anxiety,
While the river rippled on.

Sank the sun behind the mountain
Portent of the close of day,
Yet our mirth's exhaustless fountain
Ceased reluctantly its play,
For the river rippled on.
Boyhood mem'ries thickly trooping
Come afresh—I see the meadow,
Mossy bank, and willows drooping,
While beneath their wavy shadow,
Still the river ripples on. H. S. D.

HENRY C. CAREY.

WE have been accustomed to hear so much of Mr. Carey's sayings and doings in connection with the social and economical affairs of America, that little thought was given to his age, apart probably, from the impression that he might be somewhere in the sixties. When, however, we were pained by the report of his death, the accompanying information that he was nearly eighty-six proved a great surprise. He was an energetic thinker and publicist of his opinions almost to the very last, and his opinions on finance, sociology, and mechanical industry have found readers in nearly all European languages.

He was born in Philadelphia on the 15th of December, 1793, of Irish parentage. His father, Matthew Carey, was obliged to leave Ireland, toward the close of the last century, from his connection with the revolutionary politics of that period. After remaining about a year in Paris, he returned to Ireland, and edited for a short time *The Freeman's Journal* (Dublin), and afterward *The Volunteer's Journal*. He was arrested in 1784 and committed to prison for an attack upon Parliament and the Ministry. Upon his release, he sailed for America, and, November 15, 1784, arrived at Philadelphia, where he built up a publishing and book-selling business. Henry succeeded his father in 1821, and continued it until 1838, the well-known firms being Carey & Lea, and Carey, Lea & Carey. He was the first to introduce in this country, in 1824, the English system of trade sales, which has since become so common among booksellers. Mr. Carey had inherited from his father a taste for the study of political economy, and, in 1835, he published an "Essay on the Rate of Wages," which was subsequently expanded into his "Principles of Political Economy," published in three volumes in 1837-'40. This was followed by "The Credit System in France, Great Britain, and the United States" (1838). In 1848 Mr. Carey published "The Past, the Present, and the Future," a work which

excited great attention abroad, and was translated into several languages. Its design was to show that "men are everywhere now doing precisely as has heretofore been done, and that they do this in obedience to a great and universal law." Mr. Carey contributed to many periodicals and newspapers, notably to *The Plow, the Loom, and the Anvil*, and some of his papers were collated into volumes. His last book, "The Unity of Law as exhibited in the Relations of Physical, Social, and Moral Science," appeared in 1873.

Mr. Carey was regarded by many as the founder and head of a new school of Political Economy. He started as a Free Trader, but afterward greatly modified his views. He considered Value to be "the measure of nature's power over man, of the resistance which she offers to the gratification of his desires. Its extent is limited within the cost of reproduction." With every step in the progress of man there is a diminution in the cost of reproducing the commodities and things required for his use, with a constant decline in their value as compared with labor, and increase in the value of labor as compared with them. The corollary from this view is, that any system which develops all industry, and thus increases the power of man over nature, is to be desired above all by the laborer, as it must increase the purchasing power of his labor. From this Mr. Carey deduced that, though the immediate effect of the abolition of protective duties might be to cheapen commodities to customers, it would not do so in the long run. The test of value being the cost of reproduction, commodities might, by an unwise policy, be cheapened, and yet their values increased. Free trade might make iron rails cheap; but if it destroyed the rolling-mills and furnaces of the country, it would be impossible to reproduce the rails at the same cheap price. Another doctrine of Mr. Carey was, that capital is the instrument by means of which man acquires power over the

forces of nature. A third law was that man has always commenced on the poorer soils and passed to the richer. He argued also that the happiness and progress of society are in proportion to the degrees of

association and liberty which exist in it. Like Mr. Bryant, Dr. J. V. C. Smith, and Cornelius Vanderbilt, Mr. Carey illustrated the effect of mental activity in preserving vigor far into old age.

THE SKIMMIAS.

THE *skimmia-japonica* was for years the only variety known in Europe and America, of that choice class of flow-

it has a singular peculiarity which should be mentioned; the buds appear to set before winter has come in our latitude, yet do not burst into flower until spring has fairly opened, or in April. All these varieties of the *skimmia* have been imported from Japan, and are found of easy cultivation in this country by means of cuttings grown under glass or from seed. The Japanese consider the *japonica* species poisonous.



SKIMMIA-JAPONICA.

ering plants called *skimmia*. Now there are at least five species well-described and cultivated: the *skimmia-japonica*, *ablata*, *vitchia*, *laureola*, and *fragrans*. Of the first and last, the illustrations furnish views.

The *skimmia* is valuable to the horticulturist on account of its brilliant red fruit, which is about the size of a pea, and grows in profusion, remaining on the bush nearly the whole year, and imparting to it a very ornamental appearance, particularly in winter. Often the plant is seen laden with both fruit and flowers at the same time.

Skimmia-fragrans bears a sweet-smelling white flower, tinged with yellow, and



SKIMMIA-FRAGRANS.

FENNEL AS A FOOD.—There is a species or variety of Fennel largely in use in Italy, that by cultivation has developed a thick, fleshy stem and thick petioles or leaf-stems, like Celery, and is considered a great delicacy. It is eaten raw, and usually without seasoning, or it is used in garnishing stews.

SOCIAL LIFE IN FRANCE AND GERMANY.

IN a letter to Mrs. Wells, lately written at Leipsic, Lillian Gibbs, known here as a lecturer on reformatory subjects, ventures some comments on her observations of European life. Miss Gibbs has been a resident on the Continent nearly two years, and closely occupied in studying the languages and the people, so that her views can not be said to be borrowed or flippant. We have taken the liberty, however, to borrow some of them, as follows :

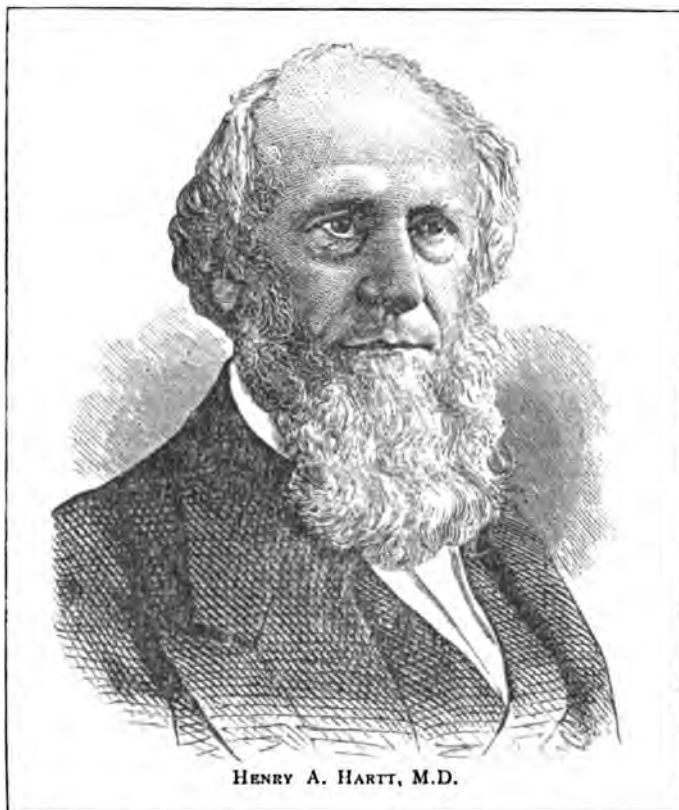
"I am convinced that the prosperity and success of a nation is according to the elevation of *woman*. After all, it is their influence that elevates, purifies, and makes a nation great and good. Woman has the supremacy in America, and is far superior to the women of all other nations, and the men here pay a deference to the American women that their own women do not receive ; and, I may say, do not merit, for they seem to be perfectly satisfied with their slavery. Women are not companions for husbands in foreign nations, but merely domestic slaves, and men treat them as such, and seek for companionship cultivated, intellectual, refined American ladies. The position of woman in European countries is sad to contemplate. An eminent professor in Paris, who can see and understand his country's faults, said to me one day, that, in time, the American element in Paris would entirely change the French people, especially the ladies, for the French woman did not make herself honored and respected by man. In Germany it is much the same, and it embitters my whole nature to see woman here so blind to her own happiness. So far as my own observation extends, we Americans, as a nation, are far in advance of all other nations, except in art. An English lady said to me one day that she could not imagine anything interesting in America, as it had *no Past*. But I answered, glorious America has a *Future*, and, as Gladstone says, it is going ahead of all other nations on a gallop.

"It was my privilege to spend four months in Switzerland, in the family of a French pastor. Their charming villa is located between the great Hotel Byron and the old Castle of Chillon, about two minutes' walk from the former and five from the latter. My room was commodious and delightfully situated, having one window facing the hotel and the other facing the castle and Lake Geneva. Just before me I could see the little 'Ile de Paix,' which has in its center three tall elms, which were planted over a hundred years ago by a lady. Byron, you remember, has immortalized this isle in his 'Prisoner of Chillon.' I could see in the distance across the lake, looming up as if almost kissing the very heavens, the Jura Mountains. Upon my left were the jagged and snow-clad range of the Seven Dents. At my right, dotting the shores of the lake, as far as the eye could reach, were small towns and picturesque villas, whose verdant inclosures exceeded in beauty anything upon which my eyes had ever feasted. The landscape, with its outlines of harmonious beauty, and the vast panoramic expanse of wood, lake, forest, and mountain, produced within my soul a thrilling sensation mixed with unspeakable delight. It was my pleasure to make several excursions, ascending sometimes mountains three and four miles high. Upon the tops of some of these mountains I found the narcissus in great profusion, resembling, frequently, immense banks of snow. My desire was strong to join a party of geologists, and explore the stupendous mountains and the profound ravines sculptured by the wrestling streams in search of the dolomite, serpentine, gneiss, etc.; but my time was too limited, and my friends would not consent to my attempting such an undertaking. It was my pleasure to meet and converse several times with Professor Hall, the renowned geologist, from London ; also attended several of his interesting lectures on the Geology of the Alps."



HENRY A. HARTT, M.D.

THIS gentleman is one of the veteran physicians of New York, and has of most chronic maladies. Five years or more ago he stepped into the Phrenologi-



HENRY A. HARTT, M.D.

rendered himself prominent by certain independent efforts in behalf of the large class of sick and complaining people who are commonly denominated invalids. He has made such people his special study, and obtained results in their treatment which satisfy him as to the curability

cal Cabinet, in New York City, and without any intimation of his character or relations, submitted his head to the examiner. The following is a slightly abridged form of the delineation as then made and reported by a short-hand writer:

The quality of your organization is very high-toned. We seldom find so much strength combined with so much fineness. We judge you to have inherited much from your mother, especially your intellect and your vital system. You have a high degree of health and ought to live to be old, and carry with you a great deal of youthfulness and vitality. You are well adapted to enjoy life, and to enjoy it to a good old age. You generate vitality fast enough for two ordinary men; consequently, your life is intense and well-sustained. You have a strong motive or muscular temperament; hence, you are tough and enduring. Your brain is rather large and your mental temperament is highly indicated, showing a strong tendency toward mental life and activity, and while you have an active mind, you have grip and power and force of character.

You are known for the quick sense of the truth, for appreciation of facts, and the power to gather them rapidly. That which you do not see and see quickly, is hardly worth seeing; and you judge well of form, proportion, magnitude, density, ponderability, and are remarkable for your tendency to organize and systematize all that you do. You have rules of conduct and follow them out with almost painful absoluteness; are not satisfied with less than completeness, and feel that what is right to-day, in the same state of facts, will be right to-morrow; hence, method is the rule of your life.

You are very strong in your memory of places. Geography comes natural to you. You can find your way in the dark wherever you are accustomed to go.

You appreciate music and enjoy whatever relates to literature. Language is finely developed, and you are able to frame into correct phraseology whatever you know. You would write well, and speak well. You can reason sharply; have the tendency to sift and criticise everything that is brought to your comprehension. Exactness of discrimination is the law of your mind. As a physician, you would be remarkable for your ability to under-

stand disease. As a student of natural history you would have more knowledge and more exact information than most persons; indeed, you are a natural student, and are about as hungry to find out truth to-day as you were thirty years ago, and will keep learning till your life ends.

Your ability to read the character and motives of strangers and your power to analyze subjects that are abstract, and your power to talk, combine to make you capable of high excellence as a speaker. If a lawyer, you would measure every juryman; would know what chords to touch, and how to touch them to bring each man to a conclusion. To one you would offer reasons, to another criticism, to another clean-cut, oratorical statement of the history of the case. You would present the ludicrous phases to another, the conscientious to another, would appeal to another man's sympathy, and to another man's affections, and all this you would do with a facility such as the musician shows who plays upon his instrument from the score before him. Whatever you do is individual; it is not a rehash of some other person's ways and manners. A little more Imitation would enable you to conform to the ways and manners and usages of others, and glide into their customs harmoniously and easily, but you would thereby lose something of your own individuality.

You are fond of whatever is grand and sublime in nature and in art. You appreciate the beautiful, the ideal, the elegant; your very fine-grained organization would help you in the domain of the æsthetical, and intensify and beautify your conceptions.

You are ingenious; would learn to use tools and instruments and machinery with success.

Your moral elements are strong, but you are more honest than pious. When you have done the square and honest thing, you feel that you have no occasion to apologize to men or to God. When you have not done the honest thing, prayers and services do not seem to bring light.

Your Hope leads you to look on the favorable side of the future, and you feel able silently to rise into the spiritual state and to look down upon cathedrals and services and ceremonies; yet you have a certain veneration for what you believe to be great and good; but it invites your comparison and judgment as well as your feeling of respect. When you observe a man and see that he stands at the head in music, or art, or oratory, or invention, your veneration leads you to feel respect for his greatness, his excellence, in whatever realm, and, by extending your respect to eminence, you do not feel belittled yourself. You have pride enough to face the world and look men in the eye without feeling abashed or embarrassed.

You are firm enough to earn a reputation for obstinacy; but when you are convinced that another is a better way, you will abandon the old way instantly. You are one of the men who dare reform and keep up with the spirit of progress, and are not ashamed to change your opinions when something comes up which is better.

You are ambitious to rank well. You suffer if you are disgraced or degraded. You are watchful, mindful of consequences, care-taking, prudent, and, at the same time, you have so much force and courage, that you get a reputation for being less prudent than you really are.

You have Secretiveness enough to keep your own counsel; to find out what other people are willing to tell, and retain your own knowledge of subjects. You can get, without giving; can accumulate information, and yet keep mum; but when you undertake to make a clean breast of a thing, there is no discount or doubt on the part of your hearer.

You have a fondness for acquiring, and if you had been devoted to business, you would have made your mark as a business man. You relish the good things of the table, and are not disposed to abridge the supply in your own family. You have a sense of odors and flavors, and would have made a good druggist on that account.

You have enough Destructiveness to make you severe. You would not whip your horse as much as many men, but when you did whip he would know it; you would give him enough to make him know your voice and obey your word for the next month. You have a warm temper, but can generally restrain and regulate it so as not to boil over and mar your cause by rashness.

You love life and feel a longing for immortality, but are in no hurry to enter upon the next stage of it. If you take proper care of yourself you may live to be eighty-five.

You are versatile, can change from one subject to another without much difficulty or delay; yet, while you are at a thing, you are very intense, and the dinner-bell may ring without calling you off.

You have talent for science, for literature, for mechanism, for finance, and have philanthropy enough to make you willing to work for the human race. You like, however, to get good pay for what you do from those who are able to pay you, but in some departments, in medicine for instance, you would be likely to do as much without pay as you would get pay for, and your only way to get along would be to make the people who are able, pay you abundantly, so that you would have the wherewithal to enable you to attend to the wants of the poor.

HENRY A. HARTT was born October 8, 1813, on the banks of the St. John River, in the city of Frederickton, Province of New Brunswick. He is a lineal descendant of John Endicott, the founder and first Governor of Massachusetts. His early education was obtained at the grammar-school and Kings' College of his native place. At the age of nineteen he went to Scotland to study medicine, where he attended the University of Glasgow four seasons, and studied during the summer months at the Andersonian Institute, where were a number of young professors who have since risen to eminence. In this way he secured a double course of instruction in all departments

of his profession, and was graduated at the University in the spring of 1836. He spent the following summer in anatomical work, and returned home in the autumn, where he entered at once into general practice.

The population of his native city was comparatively small, but it was surrounded by a large extent of country in which there were no medical men. So his field was extensive, and he was obliged to prosecute all branches of his profession, and to be ready for any emergency in both medicine and surgery.

Here he remained for fourteen years, during which he attended, in his professional capacity, the birth of his relation, the late Chas. Fred'k Hartt, professor of geology at Cornell University, and who, though a young man, was at the head of the geographical and geological survey of the Brazilian empire. Having attained the highest point in his profession possible in his native place, Dr. Hartt became dissatisfied with the general languor and unprogressiveness of the country, and having long entertained a preference for republican institutions, in 1850 he sacrificed the results of all previous labors, and removed, with his family, to the city of New York, to begin anew among strangers. His success here was rapid. Soon after his arrival, he reported, in the *N. Y. Journal of Medicine and the Collateral Sciences*, several cases of rupture of the uterus, in one of which recovery took place, and it was, we believe, the first instance of the kind recorded in the United States. Four years afterward he published, in the *N. Y. Medical Gazette*, an account of a successful experiment in a remarkable case of ascites, by the introduction of air into the cavity of the peritoneum.

At first his practice was of a general nature, but circumstances gradually led him to devote special attention to the treatment of chronic diseases, in which he met with remarkable success. He had been taught to regard a large number of them, such as asthma, rheumatism, gout, neuralgia, and catarrh, as incurable. But he found that by persistent efforts, and

with scientific methods, he could generally master them, and effect radical cures in cases which were not complicated with malignant maladies, such as tubercle, or in which serious degeneration of tissue or a large amount of abnormal tissue had not been produced.

The general incredulity with regard to the curability of chronic diseases, the absence of many important agencies in our hospitals and dispensaries, and their well-understood failure to cope with those diseases successfully, suggested to him the idea of founding an institution thoroughly appointed and equipped with every known agency for the purpose of demonstrating that true medicine is not the feeble and uncertain art it is often supposed to be, but that it has the power, when properly applied, to throttle and destroy a large proportion of "the ills that flesh is heir to."

His first step in this important undertaking was to obtain the approval of the clergy of all denominations. He then prepared a paper on the "Prevention and Curability of Chronic Diseases," which he read before a meeting of the "N. Y. Medical Library and Journal Association," presided over by the late Edmund R. Peaslee, M.D., and which was afterward published in full in the *N. Y. Tribune*. In this paper Dr. Hartt says: "I have thus frankly expressed my views with regard to the necessity for the infusion of new force and vigor into the practice of medicine; for the adoption of additional methods of treatment, and a most rigorous adherence to the lessons of experience. I believe that by this means alone we can arrest the downward tendency of the art, and restore the confidence of the people. I believe that by this means we can materially diminish the rate of mortality, and prevent, to a great extent, the occurrence of chronic diseases. I believe, also, that by this means we can cure a large proportion of the chronic diseases which now exist. I admit, of course, that there are maladies which, in the present state of our knowledge, we can not, with certainty, control. We do not understand

the nature of the poisons of cancer or tubercles, nor have we antidotes for them. I have no doubt that in the progress of science we shall become enlightened upon both these points, so unspeakably interesting and important to mankind. We can not correct degeneration of tissue, or remove abnormal tissue when formed to any great extent, nor shall we ever be able to do so, unless some new faculty shall be developed within us whereby we shall be able to remove mountains or raise the dead. But for malaria, and the poisons of rheumatism, gout, rheumatic gout, and syphilis, we have infallible antidotes, by means of which we can effectually eradicate them from the system. These poisons play a most prominent part in the production of chronic congestions, and it is exceedingly important to understand that these congestions are just as positive and obstinate as if they had been produced by other causes, and that they do not disappear in consequence of the removal of the poisons; but I maintain that they, and all other congestions of a chronic nature that exist independently of poisons, may, by a vigorous and persistent course of internal and external treatment, be radically and permanently cured, provided, as before intimated, that they have not gone to the extent of producing degeneration of tissue, or a considerable amount of abnormal tissue.

"It is obvious that this definition includes in the category of curable affections a large proportion of chronic diseases; and, if I am right, the propositions which I have laid down are fraught with beneficent consequences, the magnitude of which no language can exaggerate. They are, in opposition to the world-wide skepticism, the proclamation of a gospel of faith and hope to all men, but especially to that great host of invalids who, like the woman in Scripture, have tried many physicians, and never grown better, but rather the worse, and who now, in weakness, or pain, or breathlessness, or all combined, are dragging out a wretched existence on bed or couch, in palace or hovel, or traveling up and down the earth

in search of ease and rest, and finding none. Let it go forth as the blast of a trumpet that there is hope for them! Science is not powerless, but in her vast storehouse holds the treasures which will supply their wants. If her priests will only gird themselves for the work, and with wisdom and energy and perseverance employ the means which she puts at their disposal, then through all those ranks of sorrow and suffering will be heard a song of thanksgiving and praise."

Immediately after the presentation of this paper Dr. Hartt made a personal visitation of the medical faculty of New York, and obtained eight hundred and thirty-four signatures to the following endorsement:

"The undersigned, members of the Medical Faculty of New York, recognize the necessity of the hospital proposed by Dr. Hartt for the cure of chronic diseases, both for the benefit of the poor who are suffering therefrom, and of the profession, as affording an opportunity to medical students to examine their nature and treatment. We, therefore, earnestly recommend the immediate establishment of such an institution in this city."

Finally, a public meeting of citizens was held in response to a call signed by a number of the most prominent gentlemen of New York, and at that meeting several of them who were present openly expressed their concurrence in the views of Dr. Hartt. On this occasion he affirmed this liberal proposition:

"The time has come when the Faculty* should apply to their science the motto of the immortal Shakespeare: 'Books in the running brooks, sermons in stones, and good in everything;' and when, as the undisputed successors of the apostles of medicine, they should peremptorily claim that every remedy, appliance, and instrumentality, from whatever department of nature or art they come; whether discovered by the learned or unlearned; whether presented by the hand of savage or sage; whether wrought out in crucibles and retorts, or manufactured in work-

shops; whether derived from the wilderness or the meadow, from the mountain or the rock, from the ocean or river or fountain, or from the mysterious powers of the air; all belong, by an indefeasible right, to them, and that they are bound to employ them separately or in combination, under the direction of common-sense and medical knowledge, for the benefit of suffering humanity. By this means they would blot out at once and forever, not any scientific methods, but all systems of charlatanism, and if, in the spirit of the age in which we live, they would go still further, and *casting down the middle walls of partition, affirm the equal rights of all thoroughly educa-*

ted medical men, and trust to the power of free thought and free discussion for the correction of error and the advancement of truth, I feel assured it would not be long before homeopathy and eclecticism as distinct schools would disappear, and there would be a general union and brotherhood over which the whole earth would have reason to rejoice."

At the close of the meeting a committee was appointed to carry out the object. Its proceedings, with a history of the whole subject, have been set forth in a pamphlet recently published, entitled "The Columbian Institute for the Preservation of Health, and the Cure of Chronic Diseases."

"UNWARRANTABLE POSITIONS."

"**FANATICAL Zeal**" is the heading of an article in the April number of the *Health Reformer*, of 1878, in which the editor of this journal assumes positions which are decidedly in favor of drug medication. We copy it entire, in order to show the friends of the hygienic system the present medical teachings of this periodical and its managers.

"Unfortunately for the cause of sanitary reform, it numbers some in its ranks who are continually endangering their own reputation, and bringing odium upon the cause, by assuming positions which are unwarrantable either in the light of science or of common-sense. The animus of this class of persons is well illustrated by the expression of an individual, when his wife was suffering with a malarial fever, that he would '*let her die*' rather than take a drop of medicine. Cases have come to our knowledge in which the determination was really carried into action, persons having died who might have been saved by the judicious employment of a needed stimulus or the use of an anti-periodic. In another case, a fanatical disciple of a learned, but crotchety teacher, actually starved a man to death who was just recovering from a protracted fever, and needed a nourishing diet, by depriving him of

food, even though he pleaded for it most piteously, and even offered to give a deed of his farm for a morsel of bread.

"People of this stamp are always railing out against those whose views, being more in harmony with reason and common-sense, are different from their own. The same spirit which would starve a person to death, or let a wife die for the sake of riding a hobby to the death (literally), would let a human being lie for days in unrelenting misery, and probably die from sheer pain and want of rest, rather than allow the administration of a palliative. Such fanaticism and hypercritical zeal is unbearable in a civilized community. The unfeeling brutality of such minds is beyond description. We would rather be left to the tender mercies of the savage denizens of an African jungle than to such men."

Only a few years ago this same journal, and its editor, advocated these very "positions," which are now regarded as unwarrantable in the light of science or of common sense. The author of the above manifests but little respect for those who happen not to accord with his own views in regard to the treatment of certain forms of disease. He libels the whole fraternity of hygienic physicians, who repudiate, both in theory and prac-

tice, the administration of drugs as *true* remedial agents. He regards them as fanatics, "unbearable in a civilized community," and less human than "the savage denizens of an African jungle." He calumniates men whose writings and teachings have, no doubt, done much toward his own advancement. The very drug doctrines which he has, to all appearances, recently embraced, were all well known to, and rejected by, the noble pioneers of the Health Reform and the hygienic system.

The reasoning displayed in the article is undoubtedly fallacious. We will notice its important points, and demonstrate the absurdity of its teachings, notwithstanding their popularity and harmony with the conscientious convictions of a learned, honorable, and influential profession. This writer predicates as true the very point which is in controversy, and regards it as a correct basis for treatment. Are stimulants and anti-periodics ever needed in the judicious treatment of disease? If persons die without taking a drop of medicine, this fact alone is no evidence that they might have been saved by taking it. There is no doubt that many more patients die among those who have taken drugs of the nature specified than among those who have not. If the fact of dying is any testimony against the drug or no-drug treatment, the stronger evidence is against the former. Anti-periodics and stimulants are anti-vital substances,—pathogenetic agents. When taken into the living system they cause an abnormal condition of its fluids and structures as well as an impairment of the vital functions. The legitimate effect of these drugs upon the living organism is that of disease. The truth of these statements is not denied, but is corroborated by the most eminent authors of the drug practice. We are at a loss to know upon what data the author of the statements quoted regards a stimulus as needed and an anti-periodic as useful in the treatment of malarial fever. An intelligent medical writer says: "The

drug treatment is not indicated in advanced stages of malarial diseases. He who relies upon them can only look on and see his patient languish and die." The author of "Fanatical Zeal" tells us a man was actually starved to death, when recovering from a protracted fever, by being deprived of a needed nourishing diet. This grave assertion, unsupported by facts and sound reason, is absolutely worthless. It is an easy matter to express an opinion as to the cause of a death; but to establish or prove it to be an actual fact, is a difficult task. We have no knowledge of a medical teacher of any school of medicine who rejects nourishing food in the treatment of a convalescing fever patient. There are different teachings as to what constitutes "a needed nourishing diet," as well as in regard to the ability of a convalescing fever patient to use food. Hence, "a needed nourishing diet" is a vague term, and, without something more definite, it is impossible to determine what is meant by it. It seems to me that this is an attempt to make the public believe that a starvation diet is a prominent feature of the hygienic system of treating diseases. We trust that no one will be misled by this erroneous and absurd idea. It can hardly be questioned but that this author himself has "assumed" positions which are "unwarrantable" in the light of true science and sound reason. He makes statements which are undoubtedly more contrary to common-sense than those he ridicules and condemns.

Some authors are too frequently disposed to call individuals fanatical and hypercritical who entertain views which are in opposition to their own. If persons who object to the administration of drugs in malarial fever, and will not give food and palliative medicines, *secundum artem*, even if their patients die, are deserving of such names, what appellations would properly apply to those who give poisonous drugs, even unto death, to the sick and suffering, whose organisms are already engaged in expelling poisons from their blood and tissues? It appears

to be evident that the use of drugs as true remedial agents can scarcely be too harshly condemned and too bitterly censured.

It should be borne in mind that the principles of drug and hygienic medication are incompatible with each other. Any effort to harmonize the two is a fatal mistake, and involves a mongrel, untenable position. In many instances the life of a human being depends upon keeping the hygienic treatment aloof from drug medication, as well as upon its judicious administration. It is a matter of surprise and regret that any one who claims to have investigated the principles of the hygienic system, and to be thoroughly scientific, can advocate this hybrid situation in therapeutics. One of two things seems to be a settled fact: that all who embrace this medium ground are either ignorant of the first principles of the hygienic system, or they

disregard principle for the sake of popularity. The hygienic system of medicine* is one complete whole; and we hope that its pretended friends may yet see that it is futile to endeavor to establish a correct and safe practice based upon theories which are inconsistent with its fundamental principles.

We want it distinctly understood that we have no contention with any author, neither do we make any charge against the honesty or the intelligence of any one. We impeach erroneous theories and pernicious practices, *not* persons. The only apology we have to offer for noticing this article at this late date is that it did not come under our observation until quite recently, while, however, the change of the *Health Reformer* is notorious.

J. G. STAIR, M.D.

* Here the term medicine is used in its more comprehensive sense, as embracing all that pertains to the science and art of healing.

COMPARATIVE VALUES OF COMMON ARTICLES OF FOOD.

	Grs. per lb.	
	Carbon.	Nitrogen.
Split peas.....	2699	248
Indian meal.	3016	120
Barley meal.....	2563	63
Rye meal.....	2693	86
Seconds flour.....	2700	116
Oatmeal.....	2331	135
Baker's bread.....	1975	88
Pearl barley.....	2660	91
Rice.....	2734	68
Potatoes.....	759	22
Turnips.....	263	13
Green vegetables.....	420	14
Carrots.....	508	14
Parsnips.....	554	12
Sugar.....	2055	—
Molasses.....	2395	—
Buttermilk.....	387	44
Whey.....	154	13
Skimmed milk.....	438	43
New milk.....	599	44
Skim cheese.....	1947	483
Bullock's liver.....	934	204
Mutton.....	1900	189
Beef.....	1854	184
Fat pork.....	4113	106
Dry bacon.....	5387	95
Green bacon.....	5426	76
White fish.....	871	196
Red herrings.....	1435	217
Suet.....	4710	—
Lard.....	4819	—
Salt butter.....	4585	—
Fresh butter.....	6456	—
Cocoa.....	3734	140
Beer.....	274	1

THE above list, with the analysis expressed in grains, of carbon and nitrogen, are taken from Dr. Letheby's work on "Food," and may be accepted

as authoritative. Taking, then, the articles as they stand, we find that split peas, in a given weight of one pound, contain more of carbon and nitrogen, the essential elements of human food, than the same quantity, by weight, of milk, beef, mutton, fish, and bullock's liver; while it is richer in the main constituent of human strength (nitrogen), than all the flesh articles named in the list. This table shows how false is the reasoning of many intelligent people, some being physicians, who insist that a flesh diet is indispensable to health and strength. If health and strength depend upon nutrition, that food which supplies the greatest comparative amount of the elements which possess the highest nutritive value must be the best for purposes of human diet. The high value of oatmeal is noticeable, also of Indian or corn-meal, while "baker's bread," which is made of superfine or sifted flour, stands in feeble contrast with "seconds" or middlings flour. Dr. Letheby has not supplied an analysis of flour made from the whole-

wheat grain, in a form which may be compared readily with that of the bolted flour; but according to the analysis given by Dr. Bellows in "The Philosophy of Eating," it contains fully three times as much nitrogenous matter as "seconds flour," showing that what is rejected as *waste* contains the most essential parts, nitrogen and phosphorus.

Beans are nearly equal to peas in nutritive value, and should be mentioned. One who is desirous of living economically should study the facts of diet as shown by analysis and experiment, as they completely refute many of the opinions commonly held by people. For instance, the article of butter is deemed by very many to be indispensable; whereas, in fact, it contains no nitrogen—is simply a heat-producing substance.

Dr. Letheby obtains a result after a careful consideration of many classes of people, mainly mechanical, that the mean consumption per diem of those who may be considered well fed is: of carbon, 5,837 grains; of nitrogen, 400 grains. Dr. Bellows, however, gives a higher average, concluding from his examination of the food served in several different prisons, and to the soldiers in the armies of England, Holland, and France, that for vigorous health, from four to five ounces of "nitrogenous" food should be served, and about twenty ounces of carbonaceous material. This amount of nutriment may be obtained in two or three meals, which would cost but a few cents altogether, viz: a pound and a half of peas or beans, two pounds of oatmeal, or middlings, or unbolted wheat-flour, with the addition, say, of a quart of milk. Our workingmen, as a class, select their diet with no reference to its ingredients, and, therefore, with no appreciation of its fitness.

They eat this, that, and the other as a matter of habit, and generally load their digestive organs with a great excess of carbon. Many will be found discussing at the supper-table, a plate of greasy, ill-cooked ham, or bacon, and a cup or two of strong coffee, while several slices of baker's bread, thickly coated with butter,

are associated as a matter of course. The frugal mechanic could dispense with the butter to advantage; he could improve his bread supply by using the brown or Graham article; a little good milk would supply the place of the ham or bacon; a dish of stewed apples, or ripe fruit, would beneficially take the place of the coffee or tea; and after a week or two of trial, he would find himself the gainer by the change.

The table supplies a variety of articles, but one can go outside of it and find many excellent things. For instance, one of the most important, the eggs of chickens, is not mentioned in the table at all. Like milk, wheat, meal, peas, beans, the egg is complete as an article of food, containing all the elements which enter into the composition of nerve, muscle, bone, and adipose, and is accepted by most hygienists as a proper article of diet.

People are becoming more and more alive, we think, to the value of whole-grain bread preparations, and of fruit, as an aid to obtaining and maintaining sound health. We deem fruit an indispensable part of a well assorted diet, and would urge its liberal use at all tables.

THE UNWEARIED ACTION OF THE HEART.—The effect of everything that touches the heart is multiplied by the intensity of the heart's own changes. Hence it is that it is so sensitive, so true an index of the body's state. Hence, also, it is that it never wearies. Let me remind you of the work done by our hearts in a day. A man's total outward work, his whole effect upon the world in twenty-four hours, has been reckoned about 350 foot-tons. That may be taken as a good "hard day's work." During the same time the heart has been working at the rate of 120 foot-tons. That is to say, if all the pulses of a day and night could be concentrated and welded into one great throb, that throb would be enough to raise a ton of iron 120 feet into the air. And yet the heart is never weary. Many of us are tired after but feeble labors;

few of us can hold a poker out at arm's length without after a few minutes dropping it. But a healthy heart, and many an unsound heart, too—though sometimes you can tell in the evening by its stroke that it has been thrown off its balance by the turmoils and worries of life—goes on beating through the night when we are asleep, and when we wake in the morning we find it at work, fresh

as if it had only just begun to beat. It does this because upon each stroke of work there follows a period—a brief, but a real period of rest; because the next stroke which comes is but the natural suspense of that rest, and made to match it; because, in fact, each beat is, in force, in scope, in character, in everything, the simple expression of the heart's own energy and state.—*Appleton's Journal*.

EARTH-CURE.

CURES of severe attacks of fever have been effected by burying the patient, all but the head; and mud poultices are not a new idea. The following items, cut from the newspapers, will be read with interest. The dry-earth application for ulcers has long been known and often applied. These items should be saved for future reference. A correspondent of the *Sun* writes:

"Seeing in your paper an account of death from malignant pustule, I feel it my duty to give to your readers, with your kind consent, my own experience with the dreaded disease and its manner of cure. Some years ago I had considerable irritation at the outer edge of one of my eyebrows, which increased to such an extent as to be very uncomfortable. I discovered it was produced by a purple pimple, or pustule, which soon caused inflammation all around the eye and a formation of water under the skin, which lay over my cheek in a little sack, as it were. Knowing then the nature of my visitor, I lost no time in treating it with a dose of rich, wet earth from my flower pot, which I folded in a thin cloth and laid on the parts affected, changing it every hour through the day. The relief was immediate, and, on the third day, all traces of the disease were gone. Previously to this I had been bitten by some poisonous insect (spider, I presume, as I entertained the greatest hatred toward them), and all the usual remedies of ammonia, alcohol, etc., had failed, while the color of the inflammation had changed to a dark purple hue, and spread to a great

distance. Being in the country, where I could obtain it, I applied mud successfully. Without it, I would have lost my life, I verily believe. Now, why would not damp earth be good in case of small-pox and other diseases? S. W. K."

AN OLD CAMPAIGNER IN TEXAS, also writes to the *Sun*: "A letter in *The Sun* of this morning, entitled 'Cure by Damp Earth,' reminds me of an occurrence which came under my personal observation during my campaigning days, many years ago in old Texas. We were encamped on the north fork of the Rio Concho, when a valuable horse belonging to an officer of our regiment was bitten in the leg by a rattlesnake. There were some of the wild northern Comanches in our camp at the time, and one of the sub-chiefs said, through an interpreter, that he could cure the animal. By this time the leg was swollen, and the poor horse limped painfully. The Indian led him down to the creek and knee-deep into the soft mud, where he kept him for about two hours; then led him out, applied a poultice of the mud to the wound, and returned him to his owner perfectly cured.

"The above is the only radical cure of the kind I ever saw performed on man or beast, during a term of nine years in that land of snakes, tarantulas, scorpions, and centipedes. SERGEANT."

From an exchange, we take this:

"THE EARTH TREATMENT FOR ULCERS.—The dry-earth treatment for ulcers is found quite successful. Large sloughy ulcers, after being washed, are covered with a thick layer of earth, over which

wet paper is placed as a support, the whole being neatly bandaged. In a few days the sore begins to clear, and when the surface looks healthy and granulating, a dressing, made as follows, is used: A piece of muslin, the size of the ulcer, is immersed in carbolic oil in the propor-

tion of one part and two parts cocoanut oil; with this the sore is covered, and over it dry earth is placed, then moistened earth and a bandage. In a short time the healing process manifests itself satisfactorily, while all odor is entirely removed."

NURSE-GIRLS.

I LIVE on a street where daily eight or nine young nurse-girls, the oldest probably not more than seventeen years of age, the others about twelve, take out their little charges in their carriages, sometimes wheeling them a whole afternoon. These infants are mostly the children of wealthy parents, living further up the street, the mothers being too much taken up with fashionable society, or too great lovers of their ease, to devote themselves, as they should, to their care and well-being.

It is "the thing" to give the child up at once to a nursery-maid. Fashion decrees this, and the mother who carefully locks up her jewels from servants' hands, commits these priceless ones, for which *she* will be held accountable, to ignorant young girls, hardly more than children themselves. Looking at them as they pass wearily up and down the street, I never know which to pity most, the poor young nurses, obliged, by poverty (when they should be careless, playful children themselves), to be confined to these fretful, teething babies, or the poor babies themselves, far less happy in their delicate embroidered robes and costly carriages than the bare-footed cherub who creeps about his mother's feet or nestles in her bosom, though that mother may be a hard-working washer-woman. Yesterday I saw one rudely shaken up to keep him from sleeping. He was perhaps eighteen months old, and was sitting up with no pillow, and overcome with the heat and the motion of the carriage was pitching sleepily forward. Any of us who have propped open our eyes when it seemed as though we *must* fall asleep while watching, know

just how this poor little one must have felt, and how detrimental to its health it was to be straightened up and told to "wake up." His querulous cry was no wonder to me as the girl drove the carriage on. These girls are, most of them, taken from poor, ignorant families, where drinking and cursing have been common sights and sounds, and where chastity, truth, and cleanliness have never been inculcated by precept or example. Is it likely they will exhibit these virtues before the young children they are given the exclusive charge of six days at least, yea, also the seventh; for have I not seen the mother of one of these, a church member, go to church, leaving the child, a little girl of three years, with its nurse, to be led down to meet her when church was out? What lessons has this little one been learning while the mother, perchance, *enjoyed* the sermon on parental duties?

Putting it in its best aspect, allowing the nurse to be kind and trustworthy, and that she becomes attached to her charge, will not that child, from being constantly cared for by her, love her better than the mother, who only now and then ties its sash, or takes it for a moment in her lap for display to a visitor? Oh, mothers! think of the loss of love as well as of the avoidance of care and trouble, when you give up your little one to hirelings! Remember, no after-training will eradicate the evil seeds sown, perchance, while you were at the party or opera. No prayers will avail for a wayward son, whose early years were passed in the arms of an illiterate, depraved nurse-girl.

Why should these girls be expected to have patience with sickly teething

babies, when their own mothers weary of them? Why should not these girls, thinking of their own deprivations, become hardened toward the more fortunate child to whom they are expected to be all sweetness? Ah, mothers, could you see the way in which they often frighten them into obedience, the way they are repulsed when seeking caresses, you *might* be inclined to give up this or that fashionable amusement and care for your own. You might ask yourself, *what* is to keep your child, committed to ignorant, often vicious hirelings, from taking on all their vices?

Christian mother (for I know such an one who has from its birth given up a first-born son entirely to the care of a nursery-maid, that she may devote herself to her public duties), think you that you will be held guiltless, if this baby grow up a hardened, godless man, setting light by the religion professed by his parents, and bringing your gray hairs with sorrow to the grave? While upon this subject I can not forbear quoting the words of a father, whose daughter, a girl of twelve, was complained of to him as indulging in the pastime of laying large stones on a neighbor's front step in the evening, ringing the bell and running away.

He replied, "I don't know what I shall do with that girl; others have complained of the same thing. I have whipped her and her mother has for it; but it does no good." How I wanted to say to that man, that if her mother, at the time other and wise mothers were folding their little flocks to sleep, had taken her to her bed with wise counsels and prayer, instead of allowing her, with an older brother and six or seven of his rough, swearing mates, to run the streets until after nine o'clock, the "whippings" would not be needed, and her duty to her child more faithfully discharged.

We can not turn our children out to run the streets while we entertain company, or play cards, and expect them to grow up good, truthful, and obedient. This same mother found time to keep

this girl clothed in the latest style, and always prettily and neatly. The *outward* was unexceptionable; but, alas! she had no time to attend to the spirit within. What sadder sight to a thoughtful person than this too common one, of children faultlessly dressed, and all faulty within?
COUSIN CONSTANCE.

CAUSES OF SUDDEN DEATH.—Very few of the sudden deaths which are said to arise from disease of the heart do really arise from that cause. To ascertain the real origin of sudden deaths, an experiment was tried and reported to a scientific congress at Strasburg. Sixty-six cases of sudden death were made the subject of a thorough post-mortem examination; in these cases only two were found who died from disease of the heart. Nine out of sixty-six had died from apoplexy, while there were forty-six cases of congestion of the lungs—that is, the lungs were so full of blood they could not work, not being room enough for a sufficient quantity of air to enter to support life. The causes that produce congestion of the lungs are—cold feet, tight clothing, costive bowels, sitting still until chilled after being warmed with labor or a rapid walk, going too suddenly from a close room into the air, especially after speaking, too hasty walking, or running to catch a train, etc. But one of the signal reasons for congestion of the lungs and sudden death is the decreased action of the heart, caused by the use of coffee and tobacco. The use of spices has a similar effect. The heart stops from a paralysis of the nerves which promote its action, and a post-mortem examination would not reveal the fact. There is really no disease of the heart, simply a suspension of its action by a paralysis of the nerves which give its motion. These causes of sudden death being known, an avoidance of them may serve to lengthen many valuable lives, which would otherwise be lost under the verdict of heart complaint. That disease is supposed to be inevitable and incurable; hence, many may not take the pains they would to avoid sudden death, if they knew it lay in their power.

NOTES IN SCIENCE AND AGRICULTURE.

A Cave Wonder in Arizona.—Besides the fiber plant which we have mentioned as lately discovered in that country, there has been found in Arizona recently, at Mountain Spring Station, either a very old and extensive mine, or a very wonderful cave. The opening has a fine arched entrance, cut apparently out of the solid rock. At a point about 40 feet in from the mouth, a room about 75 feet square is reached, from which several halls or tunnels branch out. Some of these have been explored for a distance of 200 and 300 feet. There are several shafts indicative of artificial workings. The incline of the tunnel is about 10 feet to the 100. The main cave or tunnel has been explored for about 500 feet from the entrance. The ceiling is in a red spar, and in the side tunnels are numbers of beautiful stalactites and incrustations. The direction of the excavation is toward a large ledge of mineral matter about a quarter of a mile from the entrance. Everything here seems to point to this having been a mine rather than a natural cave. In such case it is doubly interesting, as a reminder of the extinct race which is known to have once inhabited that region. A more thorough exploration of the place is soon to be made.

Forest Consumption.—Our anxiety concerning the state of our forests causes us to recur to this subject very often. The enormous annual consumption of the wood of the United States, quite aside from that required for building purposes, is partially shown by statistics collected by the *Lumberman's Gazette*: Matches, 300,000 cubic feet; shoe pegs, 100,000 cords; the same for plane-stocks and tool handles; brick-baking fuel, from 50,000 acres; packing-boxes, \$12,000,000 worth; agricultural implements, wagons, etc., more than \$100,000,000 worth; ties and sleepers for about 90,000 miles of railroad, thirty years' growth of 75,000 acres; repairs of fences for these roads, \$15,000,000; for 75,000 miles of telegraph, 300,000 trees. These figures do not include farm-fences, household fires, staves which go by the million to France, or walnut, oak, maple, and pine, to England, or spars or docking stuff to China and Japan. Mr. Beecher has been looking at the matter, and is led to suggest, in the *Christian Union*, that "if there could be formed a tree association, composed of retired gentlemen, who would be glad to serve the public outside of the stormy circle of politics, the newspapers might feed out to the farmers of the West such knowledge and incitement as should lead to the foresting of large territories now without a stick or brush."

Iron and Glue in Street Dust.—In this country we have assays of street dust yielding gold in some towns, but glue and iron we have not searched for. Signor Parnetti has been engaged in analyzing the dust

and *débris* of the streets of Florence and Paris. His investigation of the *débris* of the horse paths proves that the dust contains 35 per cent. of iron, given by the shoes of the horses to the stones. In the dust from the causeways this eminent chemist finds from 30 to 40 per cent. of good glue. Signor Parnetti selected and treated separately the dust from the causeways of the Boulevard des Italiens over a period of two months, which uniformly gave 30 per cent. of good transparent glue, it is said quite equal to Belfast. This eminent chemist is now engaged in the analysis of the dust and *débris* deposited by the shoe abrasions in Lombard Street, Cornhill, Cheap-side, and other thoroughfares of London, and has it in contemplation to place his discoveries at the disposal of a limited company, with the view of establishing blast furnaces on the banks of the Thames to recover the iron thus lost, and a large glue works, which, it is thought, will produce more glue from the wasted material than will supply all London for every purpose.

Hard and Soft Water.—The house-keeper of experience knows that it is a disagreeable and difficult matter to wash in what are termed "hard waters." Their peculiarity arises from the fact that they contain salts whose bases are lime and magnesia. When soap is dissolved in them these mineral salts and the soap act upon each other, or, in the chemical language, undergo a double decomposition, the result of which is the formation of insoluble compounds of the fatty acids of the soap (oleic and stearic) and the bases of the salts. These oleates and stearates of lime and magnesia, being insoluble, are, of course, precipitated, but they are of a stringy nature, and adhere to any kind of textile fabric, rendering it difficult to wash clothes in such waters. Various ways have been proposed to "soften water," the object of which will be at once comprehended when we state that these salts are not by nature soluble in water, but are rendered so by the presence of carbonic acid gas. If, for instance, some powdered chalk be shaken up in a bottle of water, the liquid will become milky; but if the experiment be repeated with a bottle of "soda-water" freshly opened, the chalk will dissolve, and the water retain its transparency. If by any means the carbonic acid gas can be driven out of the hard water, its salts will be precipitated, and will become soft. This may partially be effected by boiling; hence the explanation of the calcareous deposit found at the bottom of boilers. This fact may be readily exhibited by boiling a flask of hard water; after some minutes it will become milky, owing to the precipitation of the salts. A similar effect may be produced by adding a little lime-water; the lime appropriates the carbonic acid, and, consequently, the salts originally in the water and the newly-made carbonate of lime are precipitated together.

The Production of a Single Bean.

—The history of a single bean, accidentally planted in a garden at Southbridge, Mass., is traced by a newspaper correspondent, who figured out its produce for three years. The bean was planted in a rich, loamy soil, and when gathered in the autumn its yield, as counted, "was 1,515 perfectly developed beans from a single stalk. Now, if a single bean produces 1,515 beans, and each bean produces 1,515 more, the sum total of the second year's product would be 2,295,225, equal to 1,195 pounds, 597 quarts, or 2,390 army rations, equal to 18½ bushels. This would be the product of the second year. Now, if we plant this product and the yield is the same, we have a product of 5,268,058,800,625 beans, equal to 1,371,890 tons, or 42,871,572 bushels, or 548,756,068 soldiers' rations. This third planting would give the steamship *Great Eastern* 92 full freights." Few beans, however, start so well as this one did.

A Horse Killed by Tea.—A curious case of poisoning is related by the *Veterinary Journal*, London, interesting in itself, and which is properly characterized as unparalleled in the annals of veterinary or human toxicology. The record is as follows: A staff cook having left some pounds of tea in a sack, a Kaffir groom filled it with corn, and serving out the contents to a troop of horses, gave one charger the bulk of the tea, which was eaten greedily, and produced the most startling results. The animal plunged and kicked, and ran backwards, at intervals galloping madly around, finally falling into a donga, where it lay dashing its head on the rocks, when it was killed. The *post-mortem* appearances indicated extreme cerebral congestion. The occurrence, as an accident, is probably unique. The reversal of limb movements, which produces running backwards in quadrupeds, is a common system of brain disturbance, frequently witnessed, for example, in the case of puppies with occluded crania. The case (says our contemporary) is one of great interest, and may help to throw light on the action of tea, which has not been sufficiently studied or appreciated by physiologists.

Apples Every Year.—J. W., Fingal, Ont., writes to the *Farmer's Advocate* how he has succeeded in having apples every year by changing the bearing year of one of the two trees. They had both been laden with fruit every alternate year for ten years. Last year they were both covered with blossoms, and being desirous to change the bearing year of one of them, he, with his son, resolved to pick off the blossoms. They commenced at seven o'clock in the morning and completed their work by eleven. The result of this experiment is that this year he is well rewarded for his labor; the tree from which he picked the blossoms is so heavily laden that the branches are well-nigh breaking with the load, while the tree that bore last year

has on not more than a dozen apples. By this means he expects to have one tree bearing well every year, giving him sufficient for his family's use. If shaking or knocking off the young fruit would have the same effect, it would be a much easier and quicker way of preventing the tree bearing for the season; but of this he has had no experience. He would advise those whose orchards are bearing fruit alternately to try the experiment next year.

Blood in Diagnosis.—Some five years ago, Dr. Heitzman announced, in the *Medical Record* of this city, an important discovery in respect to the anatomy of protoplasm. He claimed that protoplasm of every description invariably contains a network of threads and granules inclosing a fluid, and that the threads and granules constitute the living matter. This view, he now asserts, has been accepted by more than a dozen of the best microscopists abroad, although it has not yet been recognized in this country; and he makes it the basis of an announcement which, if satisfactorily demonstrated, can not fail to have a marked and beneficial effect upon the practice of medicine—the announcement that a drop of a man's blood under the microscope will tell just what his condition and constitution may be.

A protracted study of the pus corpuscles in urine, in connection with clinical histories, led Dr. Heitzman to the conclusion that the constitution of a patient could be determined by such examinations, the pus corpuscles of a healthy and strong person containing a greater abundance of living matter than those of a person enfeebled by disease or otherwise. He next extended his investigations to the colorless blood corpuscles, suspecting that by their examination also he might be able to determine the constitution of the individual furnishing the blood. His expectation was verified, he says: an abundance of large granules going with a good constitution; on the other hand, if the granules were few and fine, or the entire body of the corpuscle pale, it was evidence of a poor constitution. He frequently noticed that the number of white blood corpuscles was considerably increased after a single sleepless night, so much so that it might be determined whether a man had been kept from his rest or not, by the examination of his blood. It could also be determined whether a man was to have acute diseases, or whether he was to suffer from the slow processes of disease incident to a strumous diathesis.

A committee of physicians has been appointed to investigate and report on this most promising subject. If it proves possible to determine a man's physical constitution by the examination of a drop of his blood, a new field of investigation will be opened, and one having very important practical bearings.

To Remove Ink from Carpets.

—When freshly-spilled, ink can be removed from carpets by wetting in milk. Take cot-

ton batting and soak up all the ink that it will receive, being careful not to let it spread. Then take fresh cotton wet in milk, and sop it up carefully. Repeat this operation, changing cotton and milk each time. After most of the ink has been taken up in this way, with fresh cotton and clean water, rub the spot. Continue until all disappears; then wash the spot in clean warm water and a little soap, rinse in clear water, and rub until nearly dry. For ink spots on marble, wood, or paper, apply ammonia clear; just wetting the spot repeatedly till the ink disappears.

A Wonderful Gas Machine.—Mr. J. T. Guthrie, of Leesburg, Ohio, is said to have recently patented a machine for utilizing the gas from bituminous coal that is otherwise lost with the smoke through the flues and chimneys. The machine is very simple, and can be attached to a common cooking or heating stove; and the advantages claimed for it over all previous inventions are such as to render it one of the greatest improvements of the age. Any person can handle it easily, and the same fuel that cooks your breakfast, will produce an abundance of pure gas, sufficient to illuminate your house during the night, without any expense whatever. Mr. Guthrie also claims the right of attaching it to furnaces, grates, and any and all places where coal is used for fuel and heating purposes. It is said that Mr. Guthrie has proposed to the Cincinnati Exposition Commissioners to light the entire Exposition building with as good and pure a quality of gas as can be produced in the city gas works, and this by using the same fuel that heats the boilers of their power engine, without the cost of one cent for the fuel. This invention is in successful operation in Leesburg; and the inventor is visited daily by hundreds of people to see the wonderful machine. All, so far, bear testimony to its wonderful merits and general utility. The inventor claims that good, pure gas can be produced by the machine at a cost not to exceed 20 cents per 1,000 cubic feet, and earnestly invites practical men from all parts of the country to come, see, and examine the workings of his invention.—*American Manufacturer*.

Grafting Grapevines.—Those who wish to graft their vines over with other vines should remember that winter and not spring is the time for it—and in this the grape is different from most other trees. It is different in this, that in the spring of the year there is such a tremendous pressure upward by the ascending sap, that the parts of the scion and stock, which, to unite, must of course touch one another, are forced by the sap apart. When the grafts are put in at this season there is little of this. The severed cells granulate and heal, and when the sap is ready to flow upward strongly, it goes up through its regular channels in the graft without any tendency to break out through the junction.

How to graft grape-vines admits of many various replies. The best is probably that

described by Samuel Miller, of Missouri, who was very successful as a grafter of the grape. He drew away the soil from the stock to be grafted, cut it down about two inches from the surface, then cut with a stout sharp knife a long and narrow wedge-shaped notch in the stock, and shaped the scion as a wedge to fit in the notch in the stock. The lips of the notch are then tied together, and the earth drawn in around the whole, leaving the upper eye of the graft above the ground.

We may say that it is very astonishing that grape-grafting is not more generally practiced, and especially since the discovery that the great success of the Concord, Clinton, and a few other grapes is not owing to any extra constitutional hardness, but to the fact that the power to throw out numerous fibrous roots is greater in these kinds. If this be true, and it seems to be really the case, we may have the choicest and best of grapes by grafting them on these vigorous rooting stocks.

A Good Fence.—A correspondent of the *Ohio Farmer* describes a fence which we think deserving the notice of our agricultural readers. It is called the "panel" fence. The boards are usually twelve feet long, four inches wide, and of beech, maple, or other hard wood. Four boards are nailed together with battens, one in the middle, and one about one foot from each end, spreading the boards far enough apart to make the height of the fence. Four-inch square posts are driven about eleven feet apart, and these panels hung on to the posts, upon iron hooks of half-inch iron driven into the posts. This fence can now be made here for seventy-five to eighty cents per rod; if a man has his own timber, his outlay aside from his work need be but about twenty cents per rod. A frame is usually made to nail the panels together upon, by setting up three posts with blocks nailed upon them to hold the boards the right distance apart, and iron plates to clinch the nails upon; clinch or wrought nails are used.

The advantages of this fence are the following: It can be made in the winter or on rainy days, and with a frame any man can make it. The panels are piled up out of the way until wanted. The posts can be sharpened and hooks driven into them at any time. It requires a less number of posts; if the posts are lifted by the frost, they can be driven back without breaking the boards; if a post rots or is broken, it can easily be replaced. The fence is easily removed by placing a lever under the hook and drawing out the posts. Should a panel become broken it can be replaced with a new one. Three men, one to make the post-holes with a crow-bar, one to drive the posts, and one to haul and hang on the panels and tighten up the hooks, will set up seventy-five or one hundred rods in a day. It has been reported here that some one claims a patent on the hooks, but I do not know of any one who ever paid anything for using them.



MRS. C. FOWLER WELLS, *Proprietor*.
H. S. DRAYTON, A.M., *Editor*. N. SIZER, *Associate*.

NEW YORK, DECEMBER, 1879.

TO THE READER!

EIGHTEEN-hundred-and-eighty is at our doors, and with its first month we shall begin volume seventy of the PHRENOLOGICAL JOURNAL. Editors and publishers have striven to fill up the measure of their responsibility to subscribers, to perform their duty faithfully as advocates of sound practical doctrine, as dispensers of truth, essential to moral growth and true intellectual freedom. To expose the errors and follies of society, and to admonish young and old with respect to the serious work of life, are not—we say it with regret—employments which meet with the substantial approval of the public at large; and the magazine that attempts the part of a monitor can not expect a great constituency. Most people read the periodicals for amusement—not instruction. Yet the PHRENOLOGICAL JOURNAL, which has never gone out of its way to make fun for its readers, but given attention closely to the grave interests of mind and body, has never lacked a following of earnest, thoughtful men and women, and in later years the number of its

readers has mounted to a very respectable aggregate. This has encouraged us to keep steadily on in our course, although our work in other departments has shared in the crushing depression which, during the past four or five years, had invested the business world with gloom.

If many have kept their names, hitherto, upon the list of readers for our work's sake, we trust that they have discovered no good cause for withdrawing them. On the contrary, we hope that their sympathy with this work has increased, and that they will be found on the new list for 1880; and not only they, but friends and neighbors, who have learned from them, that we speak for the true intellectual growth and moral elevation of the community.

Among the features of attraction which will appear in the PHRENOLOGICAL JOURNAL for next year, are a series of papers on the life and work of Dr. Spurzheim, by Dr. Nahum Capen, who was personally acquainted with the eminent teacher. In connection with this special object, Dr. Capen will review the origin and progress of phrenological science, both in Europe and this country, and supply much interesting data relating to the careers of Dr. Gall and George Combe.

We shall also publish a series of articles on Comparative Phrenology, each profusely illustrated, founded on Dr. Vimont's great work on that subject, and a story intended for our juvenile readers, entitled "Our Young Folks of Cherry Avenue." The SCIENCE OF HEALTH department will be sustained with papers on live topics relating to public and private health from the best sources.

We hope, indeed, to address every reader of 1879 in the January number of 1880, and to offer our New-Year congratulations to a vastly increased company of subscribers.

HUMAN SPONGES.

THE appearance of summer has a quickening effect upon these creatures, as, in the warm season, their operations are particularly manifest. In what way those operations are conducted we shall proceed to describe, after having given a little attention, for the sake of clearness, to the cerebral points of a sponge. He is not gifted with a great expansion of the anterior lobes, but has a sufficient area in the perceptive region to enable him to scan the faces of the people with whom he comes in contact, and, with the assistance of a fair degree of Human Nature, to select the good-humored and benevolent ones to whom he may attach himself with some probability of success. He has some Constructiveness, and more Secretiveness, so that he is enabled to practice certain very commonplace arts to get on the "soft side" of his proposed victims. He has also a fair endowment of Self-esteem, and some Firmness; but he is not remarkable for Benevolence or Veneration, and we can not give him credit for very influential Approbativeness. He is not, however, deficient in Combaticiveness and Friendship, and the other parts of his back-head are well filled out, so that he enjoys society in general. His Acquisitiveness is so influential in his mental combination, that, notwithstanding a strong endowment of Alimentiveness, he rarely indulges it, in a liberal way, at his own expense; but when entertained by another, he exhibits epicurean tastes of a miscellaneous character. He is not unwilling to draw up to a plain repast, and to make the most of it. He will, indeed, very cheerfully do the latter, for the reflection that his wallet will suffer no diminution, for the aliment he swallows lends it the best of seasoning.

His moderate reasoning faculties are, in the main, under the influence of his Caution and Secretiveness, and, having joined to his Human Nature an active faculty of Imitation, and a good share of Suavitiveness, he is particularly observant of mannerisms, deeming it for his interests to do just about what Romans do when among them. His perceptive organs have picked up a store of materials—mainly small jokes and cheap anecdotes—for every-day use, and these materials are well assorted in his mind, so that he is ready in drawing on them to suit occasions.

Is the man he would cultivate for his season of leisure given to agricultural pursuits? he draws upon his fund for a few precepts of general application to the farm and the garden. Is he a merchant in the provision line? he seeks to bait him with a few well-chosen remarks, for which the market reports of the *Times* or *Gazette* are responsible. Is he a manufacturer of cotton or woollen goods? our sponge is found sagaciously deploying his small store of information in that line, to win the good-will of his chance acquaintance, and an invitation to spend a day at his house.

In a promiscuous company our parasitic neighbor is quite at his ease, for there his Suavitiveness, Self-esteem, and Combaticiveness enable him to bring into effective play the fund of small talk and shallow anecdote which he has accumulated. He shows extraordinary tact as an echo, being able to amplify the sayings of the solid men, and influential women, whom he wishes to win, and thus he usually makes a good impression, and people not accustomed to serious thinking give him credit for much intelligence. The readiness with which he accepts an invitation to dine with a new acquaint-

ance, however, is sometimes disconcerting to the latter, and the disposition of the sponge to make himself at home where he has been once invited, and to repeat his visits without awaiting the formality of request, soon proves disagreeable. Herein Mr. Sponge betrays his lack of reflection; although he may show genuine skill in worming himself into the good graces of a person, the *entrée* of that person's house once obtained, he fails afterward to make his place secure, by a modest use of its advantages. His want of Approbativeness enough to balance his Self-esteem, renders him too off-hand in his attentions to people who are inclined to favor him, for he will drop in upon them at their desks, and interrupt important negotiations by his presence and frivolous talk; and linger in the hope of receiving an invitation to dine, all the while apparently oblivious to the fact that he "only dropped in for a moment while passing, to say 'How d'ye do?'" and has stretched the moment until the minute hand has made almost an entire circuit.

We knew one of these sponges who had the tact to make himself so agreeable, that he was invited to spend a few days with a gentleman at his country residence. He "arranged his business" with some difficulty, to accommodate his new friend, and found the country and family so agreeable when he got there, that he stopped two weeks. The following summer Mr. Sponge suddenly presented himself again, and remained four weeks. He was a lawyer by profession, well educated, and so courteous withal while visiting, that it was next to impossible for his host to advise him in positive terms that his visit was un-

solicited, and his presence undesirable; while hints to that effect seemed to be entirely lost upon him. Early in the next summer, Mr. Sponge had the audacity to intimate that, as he contemplated a little tour in the western part of the State, he "guessed he would pass that way, and stop a few days with his old friend." Thoroughly disgusted, his "old friend" replied that he should probably send his wife on a tour of visitation that summer, and not keep his house open, so that he would be compelled to forego the pleasure of seeing Mr. Sponge as he had contemplated.

The good-nature with which this much-prevalent gentleman receives hints and intimations that his room would be more agreeable than his company, is extremely exasperating to the parties who have become disgusted by his attentions; but to disinterested observers it is infinitely amusing, and we do not know but that he often owes his much-lengthened stay on this planet to their interference, when, in a paroxysm of indignation, one of his victims has resolved upon putting him out of the way at once and forever.

SOME VERY COMMON LUNATICS.

THE learned in astronomical affairs seem to be pretty well agreed in denying to the moon any important influence upon the weather, which we denizens of the earth experience from day to day, and are inclined to impute a phase of lunacy to those who insist that Luna (which is the Latin for moon, and the term in common use with poets, when inspired by "moonshine"), is an important co-efficient in low or high barometers, and in wet and dry atmospheres. We do not think it worth

while to make much ado about this matter, because no great harm has ever resulted, so far as we know, from the opinions of such "moonstruck" people. If an augury that a rain-storm was near, because the horns of the moon hung down, tended to increase a farmer's or carpenter's industry so that he might harvest a crop or finish a job in time to save it from damage by the expected wet, nothing was lost to the man or the community in the event of the failure of the prediction. We feel very kindly toward people who hold tenaciously to the moon notion, because we have found most of them to be frugal, industrious bodies, careful of their own concerns and not unmindful of the rights of others. But there is another and much larger class of people who are affected by another and very dangerous phase of that complaint, oddly enough called lunacy. These really pay little attention to the moon's changes, but do pay particular attention to their appetites. A large proportion of these people affect superior intelligence and culture, yet exhibit the most astounding indifference to the tenets of propriety in eating and drinking. We have seen them on leisurely occasions comport themselves much after the manner of the turkey gobbler and the swine, going to the table four or five times in the course of a day and swallowing promiscuously bits of ham, beef, mutton, fowl, tongue, bread, vegetables, pudding, pie, jelly, fruits, raisins, nuts, confectionery, meanwhile diluting the heterogeneous boluses with copious draughts of wine, beer, coffee, or tea, and following up each stuffing with a half-hour's smoking of cigars or a pipe. We have seen a man so comport himself with whom we had

held delightful converse on the benevolence of the Creator, or on the influence of Goethe in modern literature, and we have turned away with the reflection, can it be that we are creatures of a process of evolution after all? And do some of us exhibit our nearness of derivation from some particular animal by our habits? Unhappily for the theory, very few of these human gobblers can go far in such a course before they break down under maladies induced by their insane practices. The turkey and the swine will gorge themselves with food and thrive, but man can not imitate their dietetic method with the hope of giving an improved sanitary tone to body and mind.

On every side are men, women, and children groaning with the pangs of indigestion, diseased livers, deranged kidneys, rheumatism, catarrh, etc., all victims of appetite—of eating and drinking wholesome things improperly, or things which in their very nature are injurious to the health. Lunatics! lunatics! willfully, perversely insisting upon self-indulgence, against light, the promptings of decency and conscience. Verily, the lunar meteorologists are profoundly wise in comparison with these gustatory lunatics.

POPULAR INANITY.

THE frivolous, capricious disposition of the masses of our people has been very strikingly displayed of late by their absurd interest in certain walking-matches, which have been gotten up by sporting men. Some writers have been severe in their censure of the walkers and the managers of these contests of muscle, and have reflected but little upon the state of society which toler-

ates them. It is clear enough that such contests are gotten up for mercenary purposes, and only so long as there is a good margin of profit to be derived from the heedless crowd that is ready to spend its money foolishly, will walking-matches be kept up. The amusements of our communities which "pay" the best nowadays, seem to be of a shallow, inane character. An entertainment which combines elements of genuine utility or instruction, has little chance for support. Tens of thousands are ready, nay, eager to spend a dollar, which may be the only one they possess, merely to see a half-dozen men tramping in a ring, and striving to walk or run each other down, while a suggestion to use a tenth of that dollar in a way which would be practically beneficial, would be met with objection or indifference. To us, the saddest part of these brutish affairs is the effort of newspaper men to expose their minutest details, and to keep alive the excitement of the masses. To publish *all* the *news* may be a matter of enterprise, but to fill column after column with rubbish which has a weakening, and even degrading, influence on the common mind, is certainly discreditable to publishers and editors. Newspapers should be auxiliary to civilization—that was their boast once—but, unfortunately, to-day the most of them, like the theaters and most other resorts for amusement, are potent influences of corruption. The morbid, sensual, and vicious phases of human life receive a much larger consideration in their columns than the normal, edifying, and pure.

SPECIAL INSTRUCTION.

AT the last anniversary exercises of Packard's Business College, President Hunter, of the New York Normal College, made a very interesting extemporaneous speech, in the course of which he remarked:

"I am a sincere believer in special instruction. I think it wise to shape the education of our boys and young men with reference to their probable future. The

most that any school can do is to lay the foundation—to give, as it were, a direction to the faculties, and through persistent training, to make the mind effective in its action. I am quite sure that a boy who is thoroughly trained in the processes of Mr. Packard's College, will make not only a better business man, but a better lawyer or shoemaker; just as I am sure that any young lady who passes through the Normal College will, in a few years, develop into a better teacher, as well as a better woman in other respects. A business education is apt to test the qualities of a young man, and to indicate to him the place in life he should fill. It has been aptly said that if Phrenology could be proved to be a science, it would be a more beneficent invention than the electric telegraph, because it would help to put the right man in the right place; whereas, nine-tenths of all the miseries of life come from putting the right boy in the *wrong* place. A father wants to make his son a lawyer, a physician, a minister, and the boy has no taste for it; and so he becomes a doctor, and the college is blamed because he is a poor doctor, or minister, and the college is blamed because he is a poor preacher. The fault is not in the college, but in the unwise father."

FURTHER SHOWINGS FROM FRENCH SOURCES.—The interest taken by certain of the French physicians and surgeons, in the relation of the head to intelligence, is apparently increasing, and volunteers almost everywhere avail themselves of opportunities for observation. Now we have it, according to the *New York Tribune*, that measurements were taken of the heads of 190 doctors of medicine, 133 soldiers who had received an elementary instruction, 90 soldiers who could neither read nor write, and 91 soldiers who were prisoners, all connected with the *Val de Grâce*. The results obtained were in favor of the doctors, as to size; the frontal diameter especially being more considerable than that of the sol-

diers, etc. It was found, also, that both halves of the head are not symmetrically developed in students; the left frontal region is more developed than the right, while in illiterate individuals, the right occipital region is larger than the left. On the whole, it appeared that the heads of students who worked much with their brains, are considerably more developed

than those of illiterate individuals, or such as have allowed their brains to remain inactive; again, in students the frontal region is more developed than the occipital region—or if there may be said to be any difference in favor of the latter, it is very small; while in illiterate people the latter region is the larger. Fresh discoveries, these!



"He that questioneth much shall learn much"—*Bacon*.

Go 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 FAILS 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.

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. Anonymous letters will not be considered.

MATRIMONIAL QUESTION.—"Gentleman with Motive Vital Temperament, of German descent, etc. Lady with Mental-Vital Temperament, etc."

Answer: We can not venture an opinion from such descriptions, on which we would have you rely; the matter is too important. We must have photographs, and measurements as to body and head as data for judgment. We can not take inexpert or conjectural estimates of temperament and development. If the questioner had given name and address, we could have written instead of printing our explanation. We do not wish to seem discourteous to any correspondent, but such questions, so loosely stated, and with so little data, can not properly be answered in the JOURNAL, and we may add that such a question can not be satisfactorily answered in so short a space as can be afforded in this department. Send to the office of the JOURNAL for the "Mirror of the Mind," a circular which tells how to send likenesses for descriptions of character, and advice as to whether two persons are adapted to each other for marriage or business.

MUSHROOMS AND TOADSTOOLS.—

Question: How can one distinguish between the edible mushroom and the poisonous toadstool?

Answer: The tops of mushrooms are covered with a skin, which is easily peeled off. But the surest test is to dip a silver spoon into the saucepan in which the mushrooms are stewing, for if there be any poisonous fungi present they will turn the spoon black.

In the July number of the PHRENOLOGICAL for 1878, an article was published describing mushrooms at length, with illustrations.

RELIGIOUS SCIENCE.—O. E. H.—Our quotation of Dr. Chadbourne was taken from a newspaper report of a late address. We do not know whether or not the address has been published in pamphlet form.

LISTENING.—*Question:* Is there an art by which an individual or an audience may listen to a speaker? I have read quite a number of your works, but have not found anything on this subject.

Answer: The only "art," if art it can be termed, is attention. A mind occupied with matters foreign to the subject which the speaker is discussing, can not, of course, take in much that is said, and remember it.

CHILDREN AND FLESH DIET.—*Question:* One of my children, who is about seven years of age, is disinclined to eat any flesh food. She has no great desire even for milk, but she eats readily any form of fruit, and all sorts of grains. Do you not think she should eat a little meat, so that her constitution shall be well nourished?

Answer: Our own observations incline us to think that children lose nothing by not eating any form of flesh diet. Some physicians advise that young children should not be fed with anything of the kind, but that they are abundantly

nourished on the farinacea and milk. We know, personally, of some children, now pretty well grown, who have been brought up on farinaceous food and milk, with fruit and vegetables, and they will compare favorably with the best of those who have been accustomed to a mixed diet, from the time they were able to walk. We incline to think that your little girl simply responds to the promptings of nature, with respect to diet, and that you ought not to interfere, by compelling her to eat things which she dislikes. If her health be good, why vex her unnecessarily?

CONSCIENCE.—*Question:* Is this a conscious influence of mind, independent of, and separate from, those faculties, known in Phrenology? and is it located in a certain organ of the brain? If not, what organ or set of organs are the medium through which conscience operates?

Answer: If our friend will look back in the file of the PHRENOLOGICAL JOURNAL, and examine that part of the series entitled "Brain and Mind," which was published in November of last year, he will find this matter of "conscience" discussed. By our system, an organ has a place in the brain, whose function is the determination of right and wrong. That organ is named Conscientiousness, and, as it is found in the brain, is, therefore, a natural or innate part of the physio-mental organism. We can conceive the action of Conscientiousness independently of other faculties; but such action would be purely interior, and have no practical expression, since the physical expression of any power of the mind associates other powers or faculties. "Conscience" operates according to knowledge. Knowledge is obtained through the intellect. "Conscience" is a moral sentiment, therefore an interior entity or influence. It is susceptible of training, and its determinations are colored or influenced by the nature of its training.

LOCATION OF ORGANS.—*Question:* In the October number of the JOURNAL, in the article on "Brain and Mind," the following quotation is made from Dr. Trall, in his review of Prof. Dalton: "It is no objection to this theory, that we can not see the functional divisions of the brain anatomically. The anatomy is too fine for our vision, as is the constitution of protoplasm, or the structure of primordial cell, or the shape of the ultimum matter." If we can distinguish no division by dissection, and the use of the microscope, how can we make divisions of the external surface of the head?

Answer: The phrenologists are so careful in regard to this matter of locating organs, that they designate the place of organs within indicated centers or regions, rather than by any sharply bounded tracts. Just as in the solar

spectrum, it would be difficult if not impossible to draw exactly the line between the colors, notwithstanding these colors are so sharply contrasted.

We have seen a mechanical arrangement of shades of color so nicely tinted, one line running into another, that it was impossible to mark precisely the beginning or end of a particular shade.

We think that the time will come yet, when the lines of demarkation between organs will be very closely set off in the convolutions. The physiologists, who have made some grand discoveries, according to their own profession, with regard to the centers in the brain, for mechanical movements, can not show precise boundaries or limits to these centers any more than the phrenologists can to the mental organs. Your reference to parts of the brain which are not yet appropriated, is true. Science has yet to ascertain the function of parts on the interior or medial surface of the hemispheres, and we are of opinion that the spaces, as set off upon our busts, are much too large for the exercise of the single functions allotted to them. As the authors of "Brain and Mind" say, Phrenology is not yet perfected—on the contrary, far from it; and just as the mind of man affords boundless scope for study, so its organ, the brain, will probably continue for ages a field of constantly increasing investigation.

PHYSIOGNOMICAL SIGNS.—*Question:* In the book, "How to Read Character," page 38, it says, "The movements of the chin are accompanied by a slight parting, and considerable humidity of the lip." And on page 68, "Approbativeness manifests itself in the voice by a lifting of the upper lip." What I would like to know is, if these two are not similar and identical? If not, what is the difference between the two?

Answer: We think the language is clear. In the first place the lips are parted; in the second the lips are not parted; but the exterior surface of the lip, particularly on each side of the center, appears to be shortened, or rather drawn up toward the alæ of the nose. As a general rule, persons with large Approbativeness have a shorter upper lip than those with the organ moderately expressed.

COOKERY.—L. C. V. N.—The best we can do is to refer you to some good hygienic cookbook. You will find two or three mentioned on our book list. Keep your Graham bread in a cool, dry place. We have experienced little or no difficulty in keeping grains and meal. Sometimes the meal comes from the miller in a bad condition, not having been properly dried, and meal of any kind which is damp, tends to heat and generate grubs.

NIHILISM.—*Question*: I see a great deal about "Nihilism" in the newspapers and magazines, and I have not really met with a clear definition of the term. Will you be kind enough to give me one?

Answer: Nihilism is a term applied mainly to that widely-extended movement in Russia, which is in opposition to the old despotic policy of the Russian governing class. As one writer has said: "The people who are Nihilists recognize *nothing* in the form of social and political life, created under the Czar's rule." They are inveterately hostile to the State in its present lawless, corrupt, tyrannical phase. They are hostile to the Greek Russian Church, the head of which is the Czar. They demand liberty of conscience, in fact, they want *nothing* of the whole social and political economy, as it exists among them, because of the corruption, immorality, and ignorance which exist among the people.

GLUCOSE.—*Question*: I hear that grape sugar, or glucose, is now largely manufactured in this country, and is used to adulterate cane sugar, and in candy. Is it injurious to the health?

Answer: Yes, it is undoubtedly injurious to the health. People generally use too much sugar in their food, and when it comes to candy, they take it "solid." Glucose costs less than half what cane sugar costs, and as it looks about as well, it is a very convenient substance for cheapening the preparation of articles into which sugar enters as an ingredient.

Glucose has a bad effect upon weak stomachs, especially those with a tendency to acidity, for the reason that it is a product of decay, and is but a degree removed from alcohol, in the process of fermentation.

Several ANSWERS must be deferred to the next number.



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

IMMORTALITY AND MORALITY.—Editor of the JOURNAL: Dean Stanley in the July No. says, "The soul that sinneth, it shall die." If the soul that sins dies, it will, consequently, be annihilated; and this fate would be more merciful in God than its eternal damnation in hell.

The Dean continues: "There is something greater than the resurrection of the dead, and that is the immortality of the soul." If the soul is immortal it can not die, even if it sins, unless

God annihilates it. The Dean says: "In our own being there are two, or three, or five separate characters, fighting for mastery." This is, to me, incomprehensible, unless they are named and described, as phrenologists treat the faculties and propensities "fighting in our being." If "the spirit is willing, or ready, and the flesh is weak," and the soul or spirit fights for morality and religion, and is defeated by the animal propensities, aided by the *devil*, will God, "who is love," eternally damn the "spirit that is willing," for falling in this unequal conquest?

The following texts seem to answer the above question in the negative: Matthew xxvi. 41—"Watch and pray that ye enter not into temptation; the spirit is willing, but the flesh is weak."

Mark xiv. 38—"Watch ye, and pray, lest ye enter into temptation; the spirit is ready, but the flesh is weak."

Mark vii. 14, 21, 22—"And when He (Jesus) had called all the people *unto Him*, He said *unto them*, Harken *unto me*, every one of *you*, and understand; for from within, out of the heart of man proceed evil thoughts, adulteries, fornications, murders, thefts, covetousness, wickedness, deceit, lasciviousness, an evil eye, blasphemy, pride, foolishness."

By using the word "Brain" instead of "Heart," as we do, since Harvey showed the circulation of the blood, the above text accords with Phrenology. Combe's "Constitution of Man" teaches us that the uses of Amativness are conjugal love, and the care of children; its abuses, fornication, etc. If this be true, it is not the soul that commits fornication, or any of the sins or crimes named by Jesus in the above scripture texts, but animal organism which, indeed, "is weak," but not "totally depraved."

INQUIRER.

OUR WORK AND WHAT OUR FRIENDS THINK OF IT.—Every professional man, and especially every editor, who devotes his time and best energies to serve the world, enjoys keenly the friendly appreciation of his patrons. If the subject which enlists the life and the labor be of such a nature that it has to work its way against the prejudices, the habits, and even the selfish opposition of the world, and if it be of a philanthropic and beneficent nature, aiming to carry blessing and benefit, by no means capable of measurement in a financial sense, then a word of kindly greeting from readers and patrons have ten times more of value than the money that may be found in the inclosure with it.

One may edit a journal for stock-brokers, or for commercial men, filled with market news, and statistics supply that are sought and used by persons in trade and commerce, very much as an interest table is conned by a bank cashier; such a publication does not lead to any social or moral

sympathy between readers and writers ; but those who work in the direction of education and moral improvement, who teach people how to train and cultivate the powers which raise man above the beast that perishes, address the best elements of human nature, and every response from readers in a similar spirit brings with it a peculiar flavor of affectionate recognition.

Whoever says, "You have taught me to live a truer, higher, and better life ;" "You have saved me from grossness, from temptation, and from sin ;" "You have helped me to know myself, and, therefore, to double my power and my happiness," comes very near to one who seeks the good of others and labors to promote their happiness.

The man who takes a commercial journal to study market prices, and pays for it, considers himself and his editor square, because it is a commercial matter merely, and if he can make money by the statistics he has paid for, he owes no man thanks.

With these thoughts in view, the reader may feel an interest in the perusal of a few appreciative letters from our patrons.

W. R. B. writes us from far-away Omaha: "I am so much pleased with the JOURNAL and the premium book, that I can hardly look at any other book or periodical ; I will never be without the JOURNAL again. I am anxious to secure all of your publications, and intend to have them as soon as I am able."

A lady, J. A. P., writes from Malne: "Please find \$4.50 inclosed to renew two subscriptions. I have been hoping to get a few new subscribers, but money is so scarce that people say they have none to spare for luxuries, not knowing that your excellent JOURNAL is really one of the necessities of life, to those who wish to live for the truest and best ends.

"I like your JOURNAL more and more ; indeed, every number seems better than the last, and I am anxious to do all I can to increase its circulation. I lend my JOURNAL to my friends to read, hoping to awaken an interest, and create in their minds a taste for a higher order of mental food. It may take some time for them to learn how much they need its teachings. I regret very much that I could not have had it years ago ; it would have been just the help I needed and longed for, to aid me in the training and educating three little ones which were intrusted to my care. But many thanks to the kind friend who first put your JOURNAL into my hand, and many thanks to you, dear editors, for the great interest you manifest in trying to make the JOURNAL so instructive, and also for the nice premium which you offer to all your subscribers."

J. W. K., of Denver, says: "I have been a

student of Phrenology for some time, and wish to test your ability to read character from likenesses. Inclosed please find photograph of myself, with the measurements, etc., which you require. . . .

"I am very much pleased with the premium book, but I do not wish you to think that I renewed my subscription to the JOURNAL to get the premium. The JOURNAL alone is worth four times the subscription price to me."

W. H. P., of Tenn., says: "Having been a subscriber for three years, it is easy for me to determine that the JOURNAL must continue to come to our little family. How you can furnish the JOURNAL for twelve months, and the book on 'Temperaments,' for \$2.25, without being considered a benefactor by the public, and being most cordially supported by a grateful community, I can not see."

G. G. W., of Texas, writes: "I think your JOURNAL is the best monthly published. No one can read it steadily without being the better for it, the best—because it teaches us how to live the most noble and useful lives. May it ever prosper."

W. C., West Philadelphia, Pa., writes: "I have also a word of good-cheer to add, namely, that the JOURNAL and other works of yours have done more good for me than any others I have studied. They have been the means of my cultivation, both mentally and physically, and, therefore, more than doubly paid for the money invested. Please forward the JOURNAL as usual."

Mrs. M. A. C., of Charlestown, W. Va., writes: "You don't know how I appreciate the JOURNAL. I just think it is worth its weight in gold, and wish every man, woman, and child, throughout the length and breadth of the land, could read it."

H. S. J., Minneapolis, Minn., says: "I have profited much from your PHRENOLOGICAL JOURNAL in the past, and am determined henceforth to have it to keep. It beats them all for sound, practical common-sense. My best wishes for its continued prosperity."

J. H. B., of Schuylerville, N. Y., writes: "I would be glad to send you more than two names for the JOURNAL. I feel as though I could not do without it, and certainly will not, as long as I can get the means. Your JOURNAL stands first on my list of papers."

J. H., of Rhode Island, writes: "It affords me sincere pleasure to renew my subscription for your truly valuable JOURNAL. There is no publication which contains so much solid matter for such a trifling sum, and even without the valuable and sensible premium, which I assure you is highly appreciated, would be very cheap."

PERSONAL.

A GOOD IDEA.—The students of the American Phrenological Institute for the term of 1879, organized a society for the discussion of topics brought out during the course of lectures, adopting for a name "The Sizer Scientific Society." The following are members :

GEO. E. HASIE, *President.*

A. WAHL, *Vice-President.*

H. E. FOSTER, *Secretary.*

E. B. WOOD,	D. M. SADLER,
R. KIRKPATRICK,	JOHN THOMAS,
FRANK MANNION,	C. P. JANUARY,
W. C. MCKEE,	C. LINEVILLE.

MISS MAUD BANKS, daughter of Gen. Banks, has made her debut at Brookline, Mass., as an actress in an amateur company. She intends to go on the professional stage. Isn't this following in the footsteps of the old 'un, as her father was once an actor?

MR. HENRY JACKSON is a colored man who has just begun the study of law at Winthrop, Me. By industry and frugality he has acquired a good education and considerable property. He was a slave for fifteen years, and was three times sold at the auction block.

PELEG SPRAGUE, of Maine, is probably the oldest of the early American statesmen now alive. He is eighty-eight years of age, and entirely blind. He was a member of the United States Senate from 1829 to 1835, when Webster, Clay, Calhoun, and Benton were the leaders of that body, and he was a member of the national House of Representatives from 1825 to 1827, and Judge of the United States District Court of Massachusetts from 1841 to 1861.

CETEWAYO, the Zulu chief, is said to have declared that his first intimation of the Prince Imperial's death was when Lord Chelmsford's demand came for the return of the prince's sword. The king sent immediately to the place where the prince was killed, and had the sword forwarded. He never knew how the prince came to his death, and he did not believe that there were more than ten Zulus who attacked the prince and Captain Carey.

MAJOR-GENERAL JOSEPH HOOKER died suddenly at Garden City, Long Island, N. Y., the last day of October. He was but 64 years of age. He was a graduate at West Point, and distinguished himself in the Mexican war and in the late war for the Union, where he won his high position.

BENJAMIN DEVRIES, one of the wealthiest men of Columbus, Ohio, became suddenly possessed of an impulse to get off the street car in which

he had started for his office. He wandered to St. Louis, he says, and for a week was only vaguely conscious of who and where he was. At length he read a newspaper account of his disappearance, slowly realized that the name was his own, and went back home. A case of brain disturbance which would prove interesting to examine.

WISDOM.

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

BEGIN with modesty, if you would end with honor.

GOOD company and good conversation are the very sinews of virtue.

FOR him who does everything in its proper time, one day is worth three.—CHINESE MAXIM.

TRUTH is the most powerful thing in the world, since fiction can only please us by its resemblance to it.—SHAFTESBURY.

TO succeed in the world it is much more necessary to possess the penetration to discern who is a fool, than to discover who is a clever man.

"THE sea is like a human life,
It breaks upon the shore
Of Time with a resistless might,
And, when the goal is just in sight,
Dies—to return no more.

"And all along the shores of Time
Full many a wreck doth lie;
The pangs of many a mad carouse,
Of blasted hopes and broken vows,
Of happy days gone by."

THE humble man, though surrounded with the scorn and reproach of the world, is still in peace, for the stability of his peace resteth not upon the world, but upon God.—THOMAS A KEMPIS.

THERE may be a furlough from our customary work; there can never be any lawful vacation from doing good. There may be change of place and scene and fellowship; there must be none in the spirit of self-sacrificing beneficence.—A. L. STONE.

IF asked whether science has solved, or is likely, in our day, to solve the problem of the universe, I must shake my head in doubt. Behind, and above, and around us, the real mystery of the universe lies unsolved, and, as far as we are concerned, is incapable of solution. The problem of the connection of body and soul is as insoluble in its modern form as it was in the pre-scientific ages.—PROF. TYNDALL.

MIRTH.

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

A DEFEATED competitor in an oratorical contest may be described as an outspoken individual.

No one need get discouraged if he only remembers that he will always be worth \$25 anyway—to medical students.

To some men, a dime that buys a bunch of halfpuns, looks fifty times as large as that which purchases two glasses of beer.

"I HAVE a love-letter," said the servant-girl to her mistress. "Will ye rade it to me? And here is some cotton wud ye stuff in yer ears whole ye rade it?"

AN art critic, describing a recent collection of bric-a-brac, says: "The visitor's eye will be struck on entering the room with a porcelain umbrella."

A YOUNG man sent twenty-five cents to a New York firm for the purpose of learning "how to get along without a blotter in writing," and received this reply, "Write with a lead pencil."—ROCHESTER DEMOCRAT.

SPEAK of a man's marble brow, and he will glow with conscious pride, but allude to his wooden head, and he's mad in a minute. Language is a slippery thing to fool with much.

A COUNTRY girl, on being asked if she knew what a fashionable reception was, replied: "It is a gathering of the sexes, where women gossip with women on the latest fashion, and with men on the latest scandal."

"WHAT is your name?" asked a teacher of a boy. "My name is Jule," was the reply. Whereupon the teacher impressively said: "You should have said, 'Julius, sir.' And now, my lad," turning to another boy, "what is your name?" "Billious, sir."

THE other day a precocious youngster was asked if he was papa's boy. He answered, yes. "And are you mamma's boy, too?" "Yes," replied Willie. "Well, how can you be papa's boy and mamma's boy both at the same time?" was asked of him. "Oh," he replied indifferently, "can't a wagon have two horses!" That settled the questioner.

THERE is no worse occupation for an earnest physician than to listen to the complaints of people who pretend to be ill. A well-known doctor, who was called upon by one of his patients for nothing, about once a week, ended by inquiring: "Then you eat well?" "Yes." "You drink well?" "Yes." "You sleep well?"

"Certainly." "Wonderful!" said the doctor, as he prepared to write a prescription. "I am going to give you something that will put a stop to all that."



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.

POCAHONTAS. Including an Account of the Early Settlement of Virginia, and of the Adventures of Captain John Smith. By Edward Eggleston and Lillie Eggleston Seelye. 12mo, pp. 310, cloth. Price, \$1.25. New York: Dodd, Mead & Company.

We infer from the appearance of this fresh volume of the series on "Famous American Indians," that "Tecumseh" has proven a success. In point of interest "Pocahontas" has some advantage over "Tecumseh" because of the romantic aureola surrounding the relations of the Indian chief's daughter with Captain John Smith, her marriage with Rolfe, and pathetic death at 23 in England; and the authors have made clever use of those relations in the production of an attractive book. The adventures of Smith are more fully told in one narrative than ever before, and the fortunes of the early settlers of Jamestown are followed as closely as the few records extant permit.

THE MODERN BETHESDA; or, The Gift of Healing Restored. Being some account of the Life and Labors of Dr. J. R. Newton, Healer; with Observations on the Nature and Source of the Healing Power, and the conditions of its exercise. Edited by A. E. Newton. 8vo, pp. 322. New York: Newton Publishing Company.

Remarkable recoveries from illness are becoming common. We read in the newspapers now and then of a person who had been bedridden for years by reason of a malady which defied the skill of physicians, suddenly rising and returning to the duties which had been so long neglected, and asserting that he is well. Most of such "cures" are said to be the result of prayer, on the part of the invalid or his friends. Some have followed certain ministrations of a magnetizer. Others have come about spontaneously, to all appearances. The scientific observer has, of course, his own theory in explanation of such cases, and usually discourses learnedly on the strange character of that pro-

tean malady, hysteria, assigning to it the chief place in the disordered mind and body of a person who may have astonished a community by his sudden return to apparent health. Whatever may be said, however, by savant or speculator, the fact remains, that marvels many have been wrought, and many are still accomplished in the bodies of sick and moribund people. The word of power, the sentiment of faith, have raised from the bed of pain many a man and woman for whom pill and potion had no virtue. This volume purports to be simply a record of cases in which the word of power and the magnetic touch were used by one who appeared to be highly endowed, and will afford some idea of the really beneficent work performed by one of the many who exercise a like power. The text is made up chiefly of testimonials furnished by those who had been treated by Dr. Newton, and constitutes a strong body of evidence.

KING'S POCKET-BOOK OF CINCINNATI.
Edited and published by Moses King, Cambridge, Mass.

A neat description of the "Queen City" of the West: its public institutions, leading business enterprises, political importance, religious and social advantages, schools, etc., included in a neat volume of 88 pages.

THE FINAL THEOLOGY; Volume I. Introduction to the New Testament, Historic, Theologic, and Critical. By Rev. Leicester A. Sawyer. 12mo, pp. 420. New York: M. B. Sawyer & Company.

"There are arts of navigation, surveying, mensuration of solids, and exploring the heavens with the telescope: so there is an art of studying the Bible, Old Testament and New, and obtaining from it the facts which it shows." This is the practical manner in which Mr. Sawyer enters upon the consideration of the theme of this volume. After a life-time of religious work and study, he comes before the public as the expounder of the theology set forth in the Bible. Claiming that religion in this era should be examined in a scientific manner, that the Bible, as the canon of Christianity, should be treated with respect to its data and evidence, as lawyers treat the secular evidences of fact which come within their purview, he proceeds to develop what is, in many respects, a new exegesis of Jesus, a new history of the beginning of Christianity. Those who hold to literal meanings will be disposed to charge Mr. Sawyer frequently with advancing heretical opinions, and attempting to subvert the foundations of orthodoxy. For instance, he says on page 24, "The modern theory, which makes Jesus die to redeem the souls of believers from the hands of eternal justice, was not thought of by the early Christian writers, canonical or uncanonical." It is easily inferred from this that our author rejects

the doctrine of the divinity of Christ, and he does, on the ground of its being illogical. "Superhuman causes," he insists, "are never to be assumed to explain either characters or actions that are explicable by human agency, and other natural causes." The whole volume is characterized by vigor and boldness, and shows its author to possess talents of a high order as a reasoner, and extensive acquirements as a scholar and bibliologist.

TOINETTE: A Tale of the South. By Albin W. Tourgee. 18mo, pp. 508, cloth. Price \$1. New York: Fords, Howard & Hulbert.

This is a revised edition of a volume published in 1874, under a *nom de plume* "Henry Churton." It purports to be a photograph of scenes and incidents which had come under the writer's notice during his residence in one of the Southern States, and, therefore, a faithful representation of Southern life and society.

The author says of it: "The story of *Toinette* is the delineation of romantic sentiment, having its root in slavery, but its flower and fruitage in freedom. It is not concerned with slavery as a form of society, either to uphold or to destroy. As such, slavery was already extinct, and I had no desire to bestow a kick on the dead carcass. This story . . . carefully traces only those *unconscious* influences which mold mental and moral qualities, and through which *slavery still lives and dominates*." . . .

From these few quoted lines one would naturally infer a tendency to abstract musing or reflection on the part of the writer, and this is indicated by occasional asides here and there on topics which have nothing in common with the plots of the story.

In many respects—in the most pronounced respect—the book is a protest against the principles of slavery and the heritage of that system as it is found in the South. A thrilling narrative, with a commendable motive.

FIGS AND THISTLES: A Western Story. By Albin W. Tourgee, author of "*Toinette, A Tale of the South*." 16mo, pp. 538, cloth. Price, \$1. Fords, Howard & Hulbert, Publishers, New York.

The same facile hand is apparent in this book as in "*Toinette*." There is, however, less of the philosophical tone, and more of the story-teller.

The scene of "*Figs and Thistles*" is largely laid in the "Western Reserve" of Ohio, and it follows the fortunes of a barefooted orphan, through his boyhood, youth, love, successes in law, in Congress, and through the peculiar trials and temptations of a political career, which are quite inseparable from the life of him who accepts office.

One peculiarity of the book is its "prologue,"

which is a humorous sketch of the characters that are given places in its course, and of the supposed times and places wherein the scenes are laid. The first chapter gives us a portrait of the orphan in his early boyhood, and a rather startling encounter with a snake. The interest thus awakened in the reader, especially one of youthful age, is well maintained throughout. The author shows a readiness in the use of the dialect or lingual mannerism of Western people. He also shows a fondness for dwelling on matters warlike, as he includes a chapter or two concerning our late civil trouble, as he does, also, in "Toinette."

PUBLICATIONS RECEIVED.

THE KANSAS CITY REVIEW OF SCIENCE AND INDUSTRY, edited by T. S. Case, maintains the character which was conspicuous in its beginning, for energy and thoroughness in a new department of Western literature.

NORTH AMERICAN REVIEW, published by Messrs. D. Appleton & Co., shows no diminution of vigor. The number for November is noteworthy on account of two or three articles, to wit: "The other side of the Woman Question," a composite paper, in which the names of Mrs. Howe, Lucy Stone, Mrs. Stanton, Mr. Wendell Phillips, and T. W. Higginson appear, and, as would be expected, advocate Woman Suffrage; and "Malthusianism, Darwinism, and Pessimism," in which the reader gets some ideas regarding these much-discussed theories in a somewhat concrete manner.

THE FAMILY CHRISTIAN ALMANAC FOR 1890. Calculated for Boston, New York, Washington, Charleston; adapted for use throughout the country, with valuable scientific and useful hints. The astronomical calculations in equal, or correct time, by Prof. Geo. W. Coakley, of the University of New York. Published by the American Tract Society, New York.

A neat and well illustrated calendar, suited to the use of households.

LITTELL'S LIVING AGE. Current numbers of this enterprising weekly are received. The selections from the best foreign and American literature exhibit the usual good judgment and care of the editors.

APPLETON'S RAILWAY AND STEAM NAVIGATION GUIDE. Current number at hand. Mr. G. F. Thomas, the editor and general traveling agent, has to be congratulated for the thoroughness which this useful handbook shows.

THE MEDICAL PROFESSION AND ALCOHOL. The inaugural address, by Benjamin Ward Richardson, M.D., F.R.S. Published by the National Temperance Society, New York. This is a pow-

erful appeal to the great army of physicians to assist in the noble work of stemming the tide of intemperance in society. Of course the subject is treated scientifically, that being the only way by which scientific men may be brought to consider, with any degree of seriousness, this matter. It is a convenient little pamphlet for the reading of the busy practitioner, and we would recommend it as a paper which should have the widest possible circulation. Price 10 cents.

MATHEMATICS IN A DILEMMA. A paper upon "squaring the circle," by Lawrence Slater Benson. This is an elaborate exposition of the principles by which Mr. Benson reaches his conclusions that the perimeter of the equivalent square is exactly equidistant between the squares circumscribed and inscribed about a circle; the sides of all the squares being respectively parallel.

THE POLITICAL DEMOCRACY: By John Lord Peck; with the statement of the law of justice between capital and labor. Published by Edward Stern & Co., Philadelphia.

An able presentation of Mr. Henry C. Carey's views on population, and the relations of capital and labor, and a strong argument for the rights of the industrial classes.

AN INQUIRY INTO THE ORIGIN OF FEVER: Being a contribution toward the study of the rational life of man. By R. T. Colburn. The author attributes the origin of fever, mainly to improprieties of diet, such improprieties consisting mainly in the use of articles as food which contain too much carbon.

THE AMERICAN BUILDER. A Journal of Industrial Art, and the **ILLUSTRATED WOOD-WORKER**, for joiners, cabinet-makers, stair-builders, carpenters, car-builders, etc. Both published in New York. These are monthlies which have won their way to the favor of mechanics by reason of their solid worth. We read the current numbers with much interest.

ALCOHOL AND THE HUMAN BRAIN. By Rev. Joseph Cook. Published by the National Temperance Society, New York. An able exposition of the injurious effects of alcohol upon the brain and nervous system. It is scientific and rhetorical, and, altogether, a very eloquent effort. Price 10 cents.

THE CREEDS OF CHRIST. Which do you believe? A Plea for Religious Honesty. By Rev. Jasper Douthitt, of Shelbyville, Ill. Mr. Douthitt in this takes a broad stand for the purity of the Church, and for the truth, as preached by the founder of Christianity. He wants less of creeds, and more of Christ, more straightforward, earnest, honest living, less professional purity and more devotion. He believes that the simple truth, as taught in the New Testament, can be followed, if people will.