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HEADS AND FACES

HOW TO STUDY THEM



* By NELSON SIZER, *
AND
* H. S. DRAYTON. *

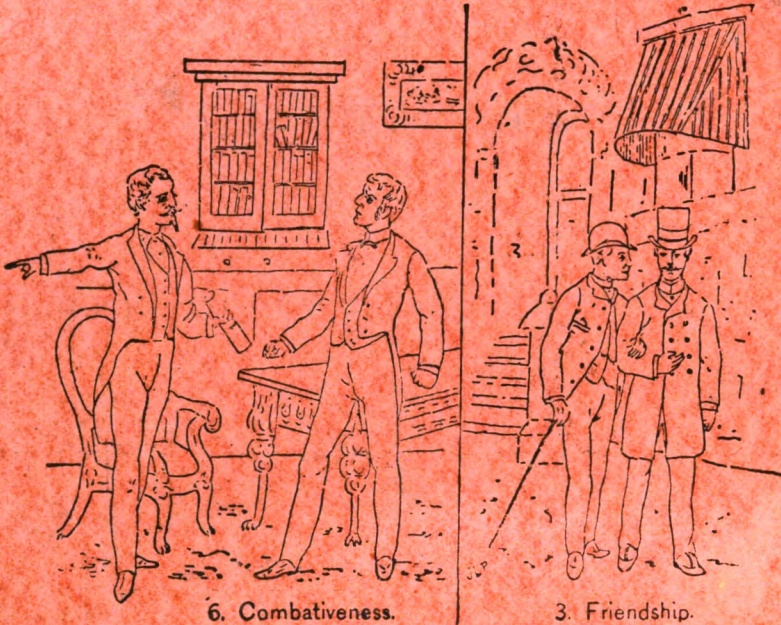
FOWLER & WELLS CO.,
PUBLISHERS,
753 BROADWAY, NEW YORK.
1885.



[PRICE, 25 CENTS.]

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GIVEN AWAY



6. Combativeness.

3. Friendship.

The Phrenological Journal

is widely known in America and Europe, having been before the reading world fifty years, and occupying a place in literature exclusively its own, viz.: the study of **Human Nature** in all its phases, including Phrenology, Physiognomy, Ethnology, Physiology, etc., together with "**The Science of Health**," and no expense will be spared to make it the best publication for general circulation, tending always to make men better physically, mentally, and morally. Parents should read the JOURNAL, that they may better make the most of their children. Young people should read it, that they may make the most of themselves.

It has long met with the approval of the press and the people, and as a means of introducing the JOURNAL and extending an interest in the subject, we have prepared a new **Phrenological Chart**. This is a handsome lithograph of a symbolical head, in which the relative location of each of the organs is shown by special designs illustrating the function of each in the human mind.

These sketches are not simply outlines, as shown above, but many of them are little gems of artistic design and coloring in themselves, and will help the student to locate the faculties and to impress his mind with a correct idea of their prime functions.

For instance, **Combativeness** is represented by a scene in a lawyer's office, where a disagreement has led to an angry dispute; **Secretiveness** is shown by a picture of the cunning fox attempting to visit a hen-roost by the light of the moon; the teller's desk in a bank represents **Acquisitiveness**; a butcher's shop is made to stand for **Destructiveness**; the familiar scene of the "Good Samaritan" exhibits the influence of **Benevolence**; **Sublimity** is pictured by a sketch of the grand scenery of the Yosemite Valley.

The Chart also contains a printed Key, giving the names and definitions of the different faculties. The whole picture is very ornamental, and must prove a feature of peculiar attraction wherever it is seen; nothing like it for design and finish being elsewhere procurable.

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HEADS AND FACES,

AND

HOW TO STUDY THEM,

A MANUAL OF

PHRENOLOGY AND PHYSIOGNOMY

FOR THE PEOPLE.

BY

NELSON SIZER, Vice-Pres. of the American Institute of Phrenology,

Author of "How to Teach," "Choice of Pursuits,"

"Forty Years in Phrenology," etc.

AND

H. S. DRAYTON, A. M., M. D., Editor of the Phrenological Journal;

Author of "Brain and Mind," "Indications of Character," etc.

In the lordly brain and mobile face are found the basis of character and expression.

NEW YORK :

FOWLER & WELLS Co., PUBLISHERS.

753 Broadway.

1885.

Pamphlet

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CONTENTS.

The Face.....	5	Brain and Skull.....	38
The Head.....	5	Brain Substance.....	42
Outline of Phrenology.....	7	Brain, Gray Matter and Intelligence.....	44
Bumpology Explained and Exploded.....	8	Brain Growth and Weight.....	45
Brain and Mind.....	12	Surgical Case, A.....	46
Plurality of the Mental Faculties.....	14	Experiments, Results of.....	46
Partial Idiocy.....	15	Size, The Measure of Power.....	47
Partial Insanity.....	15	Health.....	47
Insanity Cured by Phrenology.....	16	Napoleon's Head, Size of.....	51
Dreaming.....	17	Organs by Groups.....	54
Diversity of Character.....	18	Organs and Functions, Analysis of.....	56
Temperaments.....	19-38	Physiognomy and the Moral Organs.....	89
Mental Organs, Their Plurality.....	32	How the Faculties Combine.....	119
Size and Capacity.....	32	Physiognomy, and Natural Language of the Faculties, Illustrated....	152
Horses and Dogs, Their Temperaments.....	34	Marriage, Adaptation in.....	178
Character, Indices of.....	37	(FOR A FULL INDEX SEE PAGE 185.)	

LIST OF ILLUSTRATIONS.

FIGURE.	PAGE.	FIGURE.	PAGE.
3 Idiot, Malefactor, and Poet.....	11	37 Geldino, Percheron, Horse, Motive.....	35
4 Criminal and Moral.....	11	38 St. Bernard Dog.....	36
5 Back View of Heads.....	11	39 Terrier Dog.....	36
6 Top View of Heads.....	11	40 Bull Dog.....	36
7 Four Heads in Outline.....	12	41 Spaniel Dog.....	36
8 Form and Growth of Brain.....	12	42 Esquimaux Dog.....	36
9 Spinal Cord, Section of.....	18	43 Terrier Dog.....	36
10 Temperament, Old Classification Sanguine.....	19	44 Shepherd Dog.....	36
11 Temperament, Lymphatic.....	19	45 Pointer Dog.....	36
12 Temperament, Billous.....	20	46 Hound Dog.....	36
13 Temperament, Nervous.....	20	47 St. Bernard Dog.....	36
14 Temperament, New Classification, Motive.....	21	48 Shepherd Dog.....	36
15 Temperament, New Classification, Vital.....	22	49 St. Domingo Bloodhound.....	36
16 Temperament, New Classification, Mental.....	22	50 Newfoundland Dog.....	36
17 Poetic, Artistic.....	25	51 Pug Dog.....	36
18 Spirituelle, Mental.....	25	52 Cerebellum.....	39
19 John Wilson, Balanced Temperament.....	26	53 Cerebrum.....	39
20 Casey, Col. Thos. L., Motive-Vital.....	27	54 Cerebellum, Principal Parts.....	40
21 Pingree, Gov., Motive-Mental.....	27	55 Brain, Covered with Dura Mater.....	40
22 Vital-Motive.....	28	56 Skull, Natural Sections of.....	41
23 Lockwood, Belva C., Vital-Mental.....	28	57 Brain Fibres.....	43
24 Romero, Mex. Minister, Mental-Motive.....	29	58 Brain Cell.....	43
25 Lubbock, Thos., Mental-Vital.....	29	59 Brain Distribution.....	43
26 Ritchie, Anna Cora Mowatt.....	30	60 Brain, Monkey's.....	46
27 Sappho.....	30	61 Benton, Thomas H.....	48
28 Millmore, Martin.....	30	62 Wright, Silas, Gov. and Senator.....	49
29 Dean, Julia.....	30	63 Webster, Daniel.....	50
30 Judson, Ann Hazeltine.....	30	64 Napoleon's Head, Cast of.....	51
31 Clark, Macdonald, Poet.....	30	65 Groups of Organs.....	54
32 McCormick, Cyrus H.....	31	66 Skull, Male.....	54
33 Pearson, H. G.....	32	67 Skull, Female.....	54
34 Pratt, Zadok.....	33	68 Organs, Location of.....	56
35 Montez, Lola, Countess of Lansfeld.....	33	69 Virchow, Amativeness, large.....	56
36 "Jay Eye See," Mental Temperament.....	34	70 Orton, Wm., Conjugality large.....	57

LIST OF ILLUSTRATIONS.

FIGURE.	PAGE.	FIGURE.	PAGE.
71 Maynard, J. H., Parental Love.....	60	132 Selfish Propensities large.....	124
72 Jefferson, J., Friendship large.....	62	133 Jaup, Selfish Propensities small.....	124
73 Davis, John, Inhabitiveness large.....	63	134 Hedge, Rev. F. W., Self-esteem and Firmness.....	134
74 Everts, Wm. M., Continuity large.....	65	135 Bancroft, Geo., Firmness, Self-esteem and Continuity.....	136
75 Selfish Propensities large.....	66	136 Von Moltke, Constructiveness large.....	139
76 Selfish Propensities small.....	66	137 Prince Ludwig, Ideality large.....	140
77 Carr, Gen. Joseph, Vitativeness large.....	67	138 Rubens, Ideality, Form, and Color.....	140
78 Harrison, Gov. H. B., Combativeness large.....	68	139 Lockwood, Lieut. J. B., Arctic Explorer.....	142
79 Hat on Round Head.....	69	139 Martin, Gen. J. A., Imitation large.....	143
80 Hat on Narrow Head.....	69	140 Macdonald, Sir J. A., Perceptives large.....	144
81 Lincoln, F. W., Alimentiveness large.....	70	141 Hosmer, Harriet, Form, Size, and Order.....	145
82 Knox, J. J., Acquisitiveness large.....	72	142 Richelieu, Order and Calculation.....	146
83 Ward, Ferdinand, False Financier.....	73	143 Whitney, A. D. T. Mrs., Literary.....	147
84 Cautiousness Illustrated.....	75	144 Newton, Prof. H. A., Reasoning Organs.....	149
85 Sheffield, Senator W. P., Caution large.....	75	145 Patti, Adellina, Human Nature and Agreeableness.....	150
86 Approbativeness Illustrated.....	76	146 Faces, Peculiar Contrasts.....	152
87 Maxwell, R. A., Approbativeness large.....	76	147 Submission and Authority.....	153
88 Oglesby, Gov. R. J., Self-esteem large.....	77	148 B. F. P., Harmonious Organization.....	156
89 Wade, Ben. F., Firmness large.....	78	149 Brownlow, Parson.....	157
90 Grant, S. H., Harmonious Head.....	80	150 Phillips, Wendell.....	158
91 Austin, B., Moral Organs large.....	80	151 Riotous Regulator.....	159
92 Anthony, H. B., Conscientiousness large.....	81	152 Wesley, John.....	160
93 Conscientiousness small.....	82	153 Health and Comfort.....	160
94 Beath, R. R., Hope large.....	83	154 Face, An Open.....	161
95 Inglis, Bessie, Hope large.....	84	155 Ney, Elizabeth, Sculptor.....	162
96 Leyoldt, Spirituality large.....	84	156 Alexandrovna, Grand Duchess.....	163
96 Rouett, J. S., Benevolence large.....	88	157 Arnold, Miss A.....	164
99 Faith.....	89	158 Neal, Joseph C.....	164
100 Hope.....	89	159 Silhouette Face.....	165
101 Discontent.....	89	160 Nose, Snub.....	165
102 Baldwin, C. C., Constructiveness large.....	91	161 Grandmother, Good.....	166
103 Eaton, Rev. Geo., Constructiveness small.....	91	162 Hope and Enthusiasm.....	166
104 W. Mrs. Poet, Ideality large.....	93	163 Professor, The.....	167
105 Indian, American, Ideality small.....	93	164 Domna, Julia, Roman Empress.....	167
106 Bartholdi, A., Sublimity large.....	94	165 Bodine, Polly, Notorious.....	168
107 Daily, W. A., Imitation large.....	94	166 Decayed Politician.....	168
108 Lubbock, Thos., Mirthfulness large.....	96	167 "Turveydrop" Mr. Dandy.....	169
106 Cady, C. E., Immense Perceptives.....	98	168 Profound Thinker.....	170
110 Montez, Lola, Form large.....	99	169 Bad Organization.....	170
111 Mill, John Stewart, Individuality large.....	99	170 Rectitude.....	171
112 Phelps, Royal, Size large.....	100	171 Dissipation.....	171
113 Raleigh, Lord, Weight large.....	101	172 Physiognomy of Dyspepsia.....	172
114 Chanfrau, Frank S., Color large.....	102	173 Circulation Poor.....	173
115 Loring, Geo. B., Order large.....	103	174 Lawrence, Abbott.....	173
116 Pillsbury, E. F., Collector Internal Revenue, Boston, Calculation and Constructiveness large.....	104	175 Lind, Jenny, (Goldsmith).....	174
117 Coleman, N. J., U. S. Com. Agriculture.....	105	176 Newton, Sir Isaac.....	175
118 Hunt, Thos Sterry, Eventuality large.....	106	177 Stevens, Capt. Ellsha.....	175
119 Dawkins, W. B., Time and Order large.....	107	178 Napier, General.....	175
120 Cotton, Ben., Great Minstrel, Tune large.....	108	179 Sheridan, General Phil.....	176
121 Hilgard, J. E., Language large.....	110	180 Levity and Severity, Double Face.....	177
122 Maxwell, Edwin, Causality large.....	112	181 Harmonious Man.....	181
123 Pasteur, M. D. Louis, Comparison large.....	114	182 Harmonious Woman.....	181
125 Springer, Alfred, Agreeableness large.....	117	183 Brunette, The.....	182
126 French Lady, Friendship large.....	120	184 Ineligible.....	182
127 Small Social Organs.....	121	185 Health and Happiness.....	182
128 Love Deficient.....	122	186 Positive and Enduring.....	183
129 Amativeness, Self-esteem and Firmness small.....	122	187 Genial and Adaptive.....	183
130 Cook, Eliza, A Loving Face and Head.....	122	188 Names and Location of the Organs.....	184
131 Godire, M., Philanthropist.....	123		

HEADS AND FACES:

AND

HOW TO STUDY THEM.

OF THE FACE.

The study of character and its indications is as old as human inquiry, and therefore the tendency of mind in this direction must arise from a special mental trait. The changing expression of the face is everywhere regarded as a mirror in which the passing thought or present emotion can be seen. If one be long afflicted by grief or blessed by joy, wearied by trouble or vexed with care, shadowed with melancholy or excited by wit, inspired by faith or led by conscience, inflated by pride or subjected to its domination, the emotions awakened by these different states and revealed in the face, may become so far fixed as to defy concealment. But let one's circumstances be suddenly changed; let grief be turned to joy, and trouble, care, and vexation will fade from the countenance and leave scarcely a trace.

Then there are expressions of face inherited from joyous or sorrowing parentage. In the same family one child absorbs the sunshine of its mother's joy, and it glows from its face for a lifetime; another, if circumstances have changed, will wear the tear marks, or the expression of bitterness that darkened the mother's life; and no doubt the brain as well as the face will bear a similar and even more permanent record.

The very attitudes and motions assume, by long habit, an expression of the inner life. One accustomed to the exercise of authority gets a stiffer spine, a more ex-

alted head, and firmer lines of the face, and the brain conforms in development and activity to the conditions that have become habitual.

For centuries the face has been studied, and attempts have been made to reduce the face to a science with greater or less approaches to success. People will study the face and its expression and be influenced by it without having any science or rules for it, or any means of explaining it. Yet their impressions will be correct.

OF THE HEAD.

Near the close of the last century the physiology of the brain became the subject of special investigation by an eminent physician of Germany, Dr. Gall, and he claimed that he had discovered signs of character in the brain, that it can be safely studied as the basis of character, and that whatever the face or attitudes or motions may reveal, the impulse comes from the brain. His mode of investigation has acquired the name of Phrenology.

For nearly a hundred years the term Phrenology has been before the world, and has been understood to relate to the laws and activities of the human mind, and that in some way it is related to the brain as its organ. A few have studied Phrenology and accepted it heartily; others have made it a topic for contempt or ridicule, and though thousands of the general public have little or no knowledge on the subject, other thousands have more or less information respecting it, and,

so far as they understand it, they believe and accept it.

The object now in view is to simplify and restate the matter, and to make it so clear and plain that even those who have had little opportunity for extended culture shall understand and appreciate it.

The term Phrenology, derived from two Greek words *phren* and *logos*, signifies "Discourse on the Mind"; as a system of mental philosophy it aims to explain the faculties of thought and feeling by studying the organization of the brain during life. If this be true, it is a most important fact; if it be false, the quicker the public learn it the better. If true, teachers, preachers, legislators, and administrators of justice, and particularly parents, should understand it, and by applying its principles derive the benefit which they must afford; and if it be false, that part of the world which represents intelligence, morality, civil government, and domestic training cannot be too soon in ascertaining it.

The time has gone by when a shrug of the shoulders, or a shake of the head, a repulsive wave of the hand, or the bigot's argument, can set aside a subject that claims to make clear the most important fact that can attract the world of thought. If the claims of phrenology be true; if a living character can be studied by the organization of its brain; if a mother can know as she fondles her darling whether there lurk fires in his mental organization that shall make her trouble and procure disaster for the darling of her heart; if in the brain can be read the talents which shall distinguish their owners and bless the world; if traits can be seen before the tenth year that shall indicate the orator, or the engineer, the writer, the philosopher, the historian, the teacher, the artist, or the divine, ought not the public to understand it in order that the generations that follow shall be early guided in moral and intellectual culture, and in the management and training of the propensities, so that each child of the future shall be made the most of, and thus the race be lifted into usefulness, virtue and honor?

It would not startle an experienced phrenologist to be told that one skilled in this subject would be able to read the character of a class of boys or girls in a school coming from as many different families as there were individuals, and correctly estimate the qualities of each for scholarship, and the tendencies in each toward good or ill behavior, recognizing the strong and weak points in the dispositions and motives through the force by which their characters are brought out.

All teachers know that when they are introduced to a strange school, they may look over the pupils and have a preference for one because of his bright look, and a feeling of repulsion toward one who looks perhaps uninviting; but that teacher knows that he can not read those boys and girls so as to know, without considerable acquaintance, which has a good memory of history and fact, and which will excel in arithmetic, grammar, or philosophy; that he can not feel any certainty in respect to the behavior or tendencies to morality or mischief that each member of his class will be likely to manifest.

Mothers know that in their own families there are sometimes as many characters as there are children; one will be turbulent, headstrong and proud; another sulky, quarrelsome and tricky; another will be the soul of frankness and honor, integrity, and virtue; while another will be peevish, vacillating and wayward, through weakness, perhaps; and when a stranger comes into her house and applies phrenology practically and is enabled to read these traits in her children as she understands them, and not only this, but to predict for ten years to come what the organization of each is likely to produce in the way of character and talent, that mother may well express astonishment.

The question now is, shall that mother be put in possession of the simple rules and principles on which such estimate can be made? Will she take a little pains to read and think so as to master measurably the problem of human life as revealed in her children as well as in others around her with whom she comes in contact?

It is not wise, though, perhaps without Phrenology, that is the only means of learning, to wait for experience to reveal the truth in respect to the faculties.

The newspapers recently told us of a farmer in the State of Georgia who shot a rabbit, which ran into the hollow stump of a tree; he reached into the hole to pull out the wounded rabbit, and a rattlesnake bit his hand, resulting in his death the next day. That was an experiment, and many a child has in his organization both the rattlesnake and the rabbit, and blind experiments may serve to develop, painfully, qualities that need watchful care, guidance, and restraint.

OUTLINE OF PHRENOLOGY.

A brief outline of the doctrines of Phrenology may here be made:

First. The brain is the organ or instrument of the mind, just as the eye is the instrument of sight. Every trait of character, every talent, propensity, or sentiment has its organ.

There is a general belief that somehow the *intellect* stands related to the brain, and when an injury to any part of that viscus occurs, the newspapers will say that the intellect was, or was not, affected by the injury. But a doubt exists whether the brain is also the seat of the feelings, the propensities, and sentiments. To say that some injury of the brain did not affect the intellect, is about as definite as it would be to say that a man was injured in the head, but that his eye-sight, or his smelling power, or his hearing was not affected, and therefore eye-sight and hearing do not necessarily belong to the head; but Phrenology teaches that every sentiment, every element of taste and aversion, of hope and fear, of love and hatred, as well as the *intellectual faculties* and *memory*, have their special seats in some part of the brain.

Second. The mind is not a single power, but has many faculties, some of which may be stronger or weaker than the others in the same person; from which arises the great variety of character and talent among mankind.

Some learned men of the present day claim that the mind is a unit, and that its whole power is employed in each mental operation; that it is all devoted to music for the time being, or to mechanism, to mathematics, to history, to language, to kindness or anger, alternately; but observation shows that a half-dozen different faculties may be in active operation at the same time, acting toward different objects and for different purposes; hence,

Third. Each faculty or propensity of the mind has its special organ in the brain.

Fourth. Size of brain, the quality being good, is the true measure of its power. The brain, when deficient in size or low in quality or health, is always connected with a low degree of mental power. Even among the lower animals the brain is found to be large and complicated in proportion to the variety and strength of their faculties.

Fifth. There are several groups of faculties, and each of these groups is represented by organs located together in the brain. The organs of the Intellect are situated in the forehead in what are called the *anterior lobes* of the brain; those of the Social nature in the back head, or *posterior lobes* of the brain; those of Passion, appetite, and self-preservation, in the side head, or *middle lobes* of the brain; while those organs which manifest Aspiration, pride, ambition, are in the crown of the head, and those of Sentiment, sympathy, morality, and religion in the top head.

Sixth. Each faculty of the mind, each sentiment and propensity, has its own organs, as each function of the body has its specific organ. If this were not so, each person would manifest the same amount of talent or power on all subjects, such as arithmetic, language, music, mechanism, the power of reasoning, love of property, courage, prudence or pride. Everybody knows that persons rarely ever show equal talent on all topics, and that a man may be a genius at one thing and find it impossible, by long training, to become even tolerably successful in other things. If the mind were a single power and the brain a

single organ this would not be the case. The senses of seeing, hearing, tasting, smelling, are not always possessed by each person in an equal degree of perfection, these several powers being dependent on different organs, and each related to a special part of the brain; so the mental faculties and dispositions are alike unequal in a given person, owing to the greater strength or weakness of their respective organs in the brain; hence some people represent partial genius, others partial idiocy or partial insanity, and these facts are explained and sustained only by the phrenological theory of the mind.

Seventh. The Quality and Temperament of the organization determine the degree of vigor, activity, and endurance of the mental powers.

Temperament is indicated by external signs, including the build, complexion and texture. Men recognize different qualities in their judgment of horses, cattle, and other stock, although they do not use the terms we apply to mankind. Men who deal in timber know that the quality of different kinds of wood has infinite variety; the spongy palmetto of the South, the soft texture of the willow, or the coarse character of the hemlock in contrast with oak, hickory, ebony, *lignum vitæ*, showing that contrasts of temperament or quality in wood are various. To a critical phrenologist and physiognomist as wide a range of quality may be found in the human race. Speed, activity, strength, endurance in birds and dogs and horses are recognized and understood. The trim, compact game-chicken that weighs five pounds finds little difficulty in vanquishing the clumsy, coarse and tall Shanghai or Chittagong that may turn the scales at fourteen pounds; and temperament is a term which, rightly understood, explains the reason of these peculiarities.

The sturdy team-horse, with his broad back and stalwart limbs, will take a monstrous load without weariness, if he may go slowly enough; while another horse of different temperament would be wearied and soon broken down with such a load, but may make his mile in less than two

minutes and ten seconds on the race track. Horse-dealers readily recognize in horses while standing at a distance, facts that reveal speed, endurance, and hardihood, or weakness and tenderness. That which people do not know awakens superstitious wonder. Men learn that great differences in timber, horses, cattle, and dogs exist, and are not surprised that men can understand them. They will permit us to say that temperament or quality can also be as readily understood in respect to the human race.

This subject of Temperament will be more fully discussed and illustrated further on.

BUMPOLOGY EXPLAINED AND EXPLODED.

The first difficulty the phrenologist meets among the public, is, that he is supposed to study the brain by means of certain "bumps" on the cranium; that he looks for hills and hollows, and that his opinions are based on the presence or deficiency of these bumps. Intelligent and even college-bred men, distinguished in the professions, will come to the phrenologist and say in all sincerity, "You must have an exceedingly delicate touch to be able to discover the bumps or the organs and their development on a head as smooth as mine is." Perhaps it may be bald, and by that time ought to have known better about the teachings of Phrenology than to have made such an observation.

If, however, a man with a bald head is seen to have towering elevations in different parts of the head; if some great section as large as a man's hand is elevated considerably above the general outline, people can see that in such a head one might study "bumps," but on a head that is as smooth as a billiard-ball, nine-tenths of the general public to-day think that it is impossible for them, and it must be for phenologists, to determine whether organs are large or small. Until this error can be rubbed out of the public thought and the true principle of phrenological examination established, no progress can be made in the education of the people on this subject.

For half a century lecturers and writers on the subject of Phrenology have been trying to convince the world that in the examination of the head we do not look for "bumps" to ascertain the development of organs any more than we look for "bumps" to ascertain that one apple is larger than another, or that the hind-wheel of a wagon is larger than the fore-wheel. The relative proportions of a head are estimated by measuring the distances from the spinal axis located at the top of the spinal cord to the points on the surface of the head where the organs are located; on the same principle that a wheel is large in proportion to the length of the spokes from the hub to the rim; or an apple is large in proportion to the distance or length of its fibres from the core to the surface.

Within a year, a gentleman who is a graduate of a college and intelligent in the direction to which he has devoted his time and study, replied, when this statement was made to him, in terms more emphatic than polite, "That is a new dodge. You used to talk about bumps." We quietly took from our library a book published in Washington city in 1837, by Dr. Thos. Sewall, Professor of Physiology and Anatomy, in the frontispiece of which there are three outlines of the human head, with the organs defined according to Phrenology. On one of the heads there is a representation of an instrument with bulbs placed in the openings of the ears, and an arc running from these over the head, and on this arc a sliding index which points to the medulla oblongata or capital of the spinal cord, and no matter how it may be slipped around, or which way the arc may be swung, like the bail of a pail, that index, marked off with inches, sliding in and out, was arranged to indicate the exact distance of any given organ or portion of the head from the centre of the brain. The instrument is called the "Cranimeter." Dr. Sewall was lecturing against Phrenology, hence his statement in reference to the teachings of Phrenology will not be considered too favorable. In stating the claims of our science in reference to its principles,

he remarks: "Eightly. That the brain is composed of at least thirty-four organs or pairs of organs, all commencing at the medulla oblonga or top of the spinal marrow and radiating to the surface of the brain."

This fact shows that the estimation of the size of the phrenological organs by the radial distance from the brain centre to the periphery is not a "new dodge."

To make the matter plain to the reader, we may say, if a line be drawn through the head from the opening of one ear to that of the other it will pass through the medulla oblongata, that central ganglion at the base in which the fibres from cerebrum and cerebellum converge. The brain is developed by fibres running from this central point to the surface of the head, and volume of brain is dependent upon the length of these fibres, and consequently an organ is large in proportion to the distance from the brain centre to the surface where it is located. See Figs. 1 and 2.

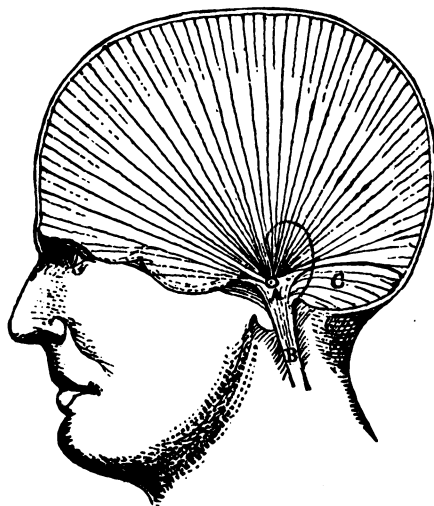


Fig. 1. A. Medulla Oblongata, where the Fibers start. B. Spinal Cord. C. Cerebellum.

Some heads are two inches wider from side to side than others which measure the same distance from forehead to back head, yet on the surface show no bumps or little irregularities; some eggs are short and chunky, others are elongated. Let

the reader look into the hats of different men and study the form of the oval where it embraces the head, and he will not have to look long to find that some hats are long and narrow, and some broad or al-

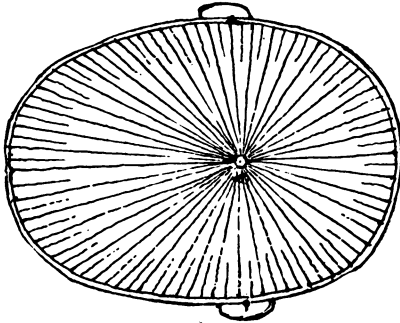


Fig. 2. Base of Brain, showing length of Fibres from the centre to the circumference.

most round. Some heads are two inches longer than others and yet could wear the same size hat; some heads are irregular in form, showing a difference in the length of fibre lines in different parts; some are very broad and short, and others long and thin. One head is large at the base and low at the top; another is developed mainly in front of the ears, showing that the man has talent but little force. The head of another is mainly back of the ears, and is short and light in front; in this we would find little intelligence, but an excess of passion, selfishness, and base, animal instinct. Another head is high at the top and well expanded, and narrow at the base.

All these different forms and many more can be found by observation, and all this might occur without showing what might be called a bump. From this view of the subject, some physicians repeat the observations which they have heard from their old preceptors that skulls are not always of the same thickness in different places, and sometimes there seems to be a hollow on the inside of the skull and no corresponding protuberance, and that the little hills and hollows that may be found on the surface of the skull were the only basis of phrenological investigation.

When men talk like that, we know that they have not been instructed in regard to this old doctrine of the fibrous length from

the brain centre, and they are astonished when the explanation is made to them, and are apt to say, "That is a new dodge." Doctors, therefore, who object to Phrenology and try to throw discredit upon it, as they teach students in medical colleges, or as they go among the people, do but show their ignorance of the principles that Phrenology has maintained since the days of Dr. Gall, and which are older than the century. But the reader may ask, "How did this idea get abroad?" "Where did the bump theory come from?" Let us suppose some bald-headed man to have had excessive Firmness or Self-esteem, and that some phrenological examiner directed attention to the tremendous development of the organ in question, the observers probably called it a "bump" because it looked like a bump in consequence of the deficiency of the surrounding regions. And suppose also that all the organs in another head were of equal development, as large as the first man's Firmness or Self-esteem; if the phrenologist said that Firmness and Self-esteem were large in this second case the public saw no bump and was bewildered.

Some people to-day quote to us Sir William Hamilton's criticism, which is more than fifty years old, in regard to the difference in the thickness of different parts of the skull, as being a settler against the possibility that Phrenology can be true.

The last quarter of an inch on the surface of the head, or the want of it, is not the means of determining the strength of the given phrenological organs; therefore, that old, stale, falsely-based objection has no weight; judging as we do by the length of the lines from the central point to the surface, the bump objection goes to the wall, and a sound scientific basis of Phrenology is established.

The force of the idea now presented to the reader will be intensified by reference to Fig. 3, which shows three heads all drawn to a scale from the opening of the ear, and each representing human heads. The central outline is drawn from the cast of an idiot, showing that all the lines from the ear to the surface of the skull are short.

The next, shown by the dotted line, is the head of a man who murdered his brother ; the lines running upward and backward are long, and the head was also broad from ear

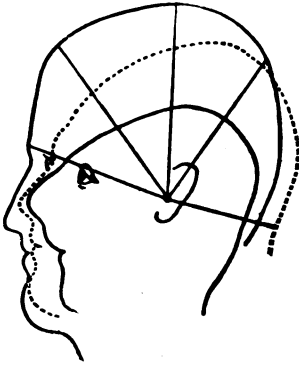


Fig. 3. Idiot, Malefactor, and Poet.

to ear, but the lines running upward and forward are short, and all the intellectual and moral organs were relatively deficient, while the region of passion and propensity was large. The larger head represents an English poet, and the development there is mainly upward and forward toward the intellectual and moral region.

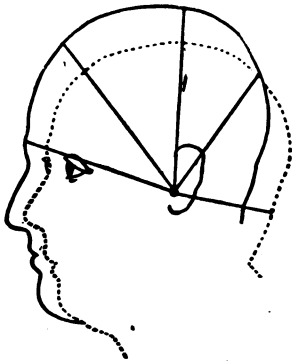


Fig. 4. Criminal and Moral.

In the engraving, Fig. 4, there is a marked difference between the two heads; there are no bumps visible in the outline of either, but the length of line from the opening of the ear in each case shows a great difference ; the dotted line shows a weak intellectual and moral development, and a very strong development of the propensities ; the head is broad from side to

side, corresponding with the deficient front and top head. The other is a good moral and intellectual character.

In Figs. 5 and 6 we have the outlines of two heads ; 5 shows a back view ; the dotted line represents the broad, low head of Patch, who slyly murdered his friend

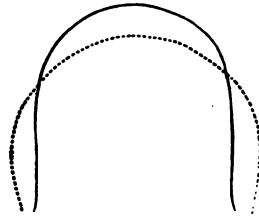


Fig. 5. Back view of heads.
Broad Head. Narrow Head.
Patch.—Murderer, Gosse.—Liberal Giver.

for his money. See how the side head protrudes as compared with the other outline, which represents Gosse, a man who gave away two fortunes through liberality

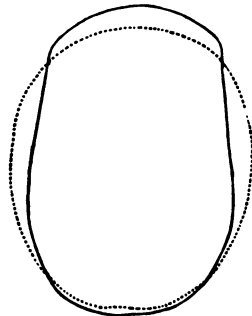


Fig. 6. Top view of Patch and Gosse.

and sympathy. Fig. 6 shows a view of Fig. 5, as seen from above, as would be represented in the inside of the hats of the two men. The head of Patch is short in front compared with that of Gosse, while the side head is shown to be broad, hence the lines from the brain centre vary in length in these two men, thus indicating their diversity of character.

Yet people do not generally look at heads in the light which is here presented. If a man has what they call a high forehead, they do not stop to see how far from the opening of the ear it is ; they wonder that he has not a good intellect, if he be a dull fellow. If the head

rounds up at the top, they do not stop to consider how high it is from the opening of the ear. We trust that their views will hereafter be modified.

Fig. 7 shows the outline of four heads drawn to the same face, the ear being the



Fig. 7. Four heads of different form.

- No. 1. Alexander VI., Immoral and Animal.
 " 2. Zeno, the Philosopher.
 " 3. Philip II., of Spain, Tyrant.
 " 4. Father Oberlin, Christian Philanthropist.

focus from which the radial lines extend; they are accurately drawn to the same scale. The four figures are represented by numbers. No. 1 shows the outline of Alexander VI., once Pope at Rome; it is low in front and at the top, high at the crown, and very great in the backward development. No. 2 shows great squareness and fulness in the forehead, in the region of the intellect; the top head is fairly but not largely developed, and the back head is shown by the inner line of all. That represents the philosopher Zeno. No. 3, to whom the face belongs, is Phillip II., of Spain, showing a practical intellect, immense Firmness and Self-esteem, and moderate social development; the tyranny of his character is well illustrated by the outline of his head. No. 4, Father Oberlin, the Christian missionary and philanthropist, shows the predominance in the intellectual and religious region, but not a very strong social development.

A practical phrenologist in a single week will meet with heads as varied as these, yet people often say "Heads seem

so much alike we can not see how it is possible to detect such differences as you describe"; but they do not estimate heads on phrenological principles or they would see difference enough.

Fig. 8 shows the normal growth of the head from infancy to full maturity, and viewing the development and growth as being by length of fibre from the opening of the ear, it will be noticed that the infant's head increases relatively more forward and upward than it does backward; being larger in the middle and back region proportionately than it is in front, because the life-power located in the central section of the brain needs to be stronger in a new-born child than the intellectual and moral regions are required to be; hence a young mother is apt to think her babe has such a little, contracted, sloping forehead, she is afraid it will be an idiot; but

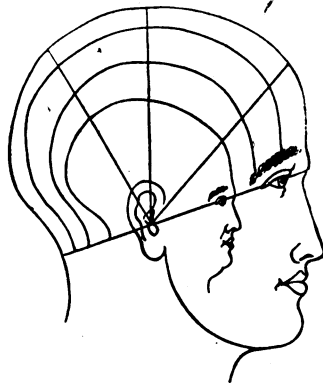


Fig. 8. Form and growth of head, from Infancy to Manhood.

as the child's mental activity comes into play, the anterior and superior portions of the brain are gradually developed.

BRAIN AND MIND.

Prior to the days of Gall and Spurzheim, those who studied Mind in the abstract or metaphysically, seemed to have no idea that the brain has any relation to mental manifestation. They knew that if a man were hit upon the head he might be knocked senseless or paralyzed, but they did not regard the brain as the organ or instrument of mental manifestation. That is to say, they did not understand that

the brain, according to its size and quality, determines the strength, activity, and characteristics of the mental forces. Aside from the physiologists, even to-day the metaphysicians do not attribute to the brain much more than intellectual qualities; the emotions, passions, sentiments, tastes, are supposed by the majority of these to be affections of the soul apart from, and not related to the brain.

Phrenology on the other hand recognizes brain as the organ of the Mind in all its forces, in just such a sense as that the eye is the organ of vision, or the stomach the organ of digestion, or that muscle is the instrument of motion. It does not follow that if the brain be the organ of the Mind that mind is material, because it employs physical organs for its development. The brain is simply the material instrument which brings mind and matter into co-operation. All primary motion originates in the brain; all sensation is carried to the brain as the seat of consciousness. The nerves of the external senses carry to the brain the impressions which they receive, where they are recorded, brought to the consciousness of the individual, and estimated. The eye, the ear, the nerves of smelling, tasting, and general sensation, furnish the mind through the brain with the knowledge of external things. If these nerves are impaired or deranged in their action, the functions of seeing, hearing, tasting, smelling, and feeling, are impaired accordingly, because the channel from the outer world to the brain is cut off. A blow upon the head paralyzes the whole body temporarily, and a pressure upon the brain will suspend intellectual and moral consciousness indefinitely, according to the amount and character of the pressure. Medical works abound in cases of suspension of mental power from pressure of the brain.

One of the most interesting is recorded in the Toledo, Ohio, *Medical and Surgical Journal* for September, 1877. It is related by Proctor Thayer, M. D., professor of surgery in Cleveland, Ohio, Medical College.

“He was requested by a lady to visit

her husband then in jail in Cleveland. The history of the case was that sixteen years previously they were residing in Indiana and engaged in farming. While the man was plowing, the team became unmanageable and ran away. In his efforts to stop them he was thrown violently against a fence, his head striking one of the rails. He was taken up insensible, and after recovery from the concussion he was found to be suffering from mania which became continuous, and characterized at times by the most dreadful violence. After a varied experience of confinement in the asylum for the insane and the jail, owing to the greater or less degree of his violence, he was at last brought to Cleveland and confined. His wife desired that his head might be trephined at the spot as nearly as could be determined where the head received the injury. This she had often requested of others, and now insisted on it with much earnestness, whatever the consequences might be. Thoroughly incredulous, the doctor visited the patient and found him a raving maniac. His violence had made him a terror; it had been found necessary to construct an iron cell, the upper part of which consisted of a grating. He raved continually in his desire to destroy imaginary enemies. It was decided to operate on the following morning. At the appointed time when everything was ready, the sheriff opened the door, and seizing the maniac threw him on the floor. He was tied, and chloroform administered. A hole was bored (perhaps an inch in diameter) in the head at the point where the blow causing the injury had been given. The operation being complete, he was untied. As the effects of the chloroform passed off he lay quietly, and as he opened his eyes, they were observed to have lost their former wild expression. Directions being given to apply cold water to the head, and place a cot in the cell with attendants to control him if necessary, he remarked calmly, ‘I shan’t harm them.’ The instructions were observed, and on the following morning all were surprised to learn that the patient had continued to

be rational, and had asked for his wife and baby. When the doctor entered the cell the patient inquired where he was, and why he was there. When the matter was explained he expressed the greatest astonishment, and to the inquiries as to what he knew about it he replied that it seemed to him that he had just awakened, and that yesterday he was plowing; that his mare and colt got to cutting up, ran away, and that was all he knew in regard to it. The doctor asked him if he would like to see the wife and child he had inquired after, to which he quietly replied, 'Oh, she can not come, she has just had a baby.' The wife and baby, the latter now a girl of sixteen years, had been waiting in an adjoining room, and were now introduced to him; he did not know either of them. The wife had changed in appearance and the baby had become a woman. In utter amazement he exclaimed, 'My God, what does this mean?' His recovery was complete, the whole sixteen years remaining a blank to him, and all knowledge of his injury a mystery. His mental derangement never returned. He pursued his occupation of farming for seven years, and then died from pneumonia."

The blow which produced the injury doubtless fractured the skull, causing a pressure upon the brain. The fracture not being indicated on the surface, yet the mental aberration that followed should have led the surgeon to employ the process of trephining soon after the injury, and thus have saved all those terrible years of insanity. This case shows that a pressure upon the brain may suspend normal consciousness for many years, and that the pressure may be so little as not to damage the bodily health or to produce a lesion of the brain. The mental machinery was disturbed but not ruined.

It is well known to surgeons that if a portion of the skull be removed by injury, the consciousness of the patient may be suspended by a gentle pressure upon the brain, and when it is removed the mind will resume its action, and thus it may be literally "held under the thumb," and

restored to pleasure to its full activity.

PLURALITY OF THE MENTAL FACULTIES.

Phrenology maintains that the entire mind is not employed in the production of each mental function, that the mind acts by means of many distinct faculties, even as a musical instrument has many distinct notes, any one of which may be too high or too low, or the string may be broken. If the mind were a distinct power, and there were no separate faculties, it would follow that the mind would be equally capable on every topic; the person would succeed as well in mechanism as in music, as well in reasoning as in memory, in arithmetic as in judgment of colors or memory of places and of historic facts. Each person should have as much power in courage, prudence, love, ambition, pride, steadfastness, conscience, sympathy, as he had in any other quality.

If the mind were but a single power, there would be no such thing as partial genius. But in every school and neighborhood, in nearly every family, it is found that one person will succeed best in one study, another in another, and neither will come up to the measure of his best power on every subject. In a single family one child takes to music, another to mathematics, another to languages, another to trade, and another to art, and not one could profitably change with another his business or profession.

Zerah Colburn, born at Cabot, Vt., Sept. 1st, 1804, and died March 2, 1840, was a prodigy in arithmetical calculation. At six years of age he manifested such powers of computation as to astonish the learned world. Questions in multiplication of five places of figures, reduction, rule of three, compound fractions, and obtaining factors of large numbers were answered with accuracy and with marvellous quickness. Among the questions propounded to him on his visit at Harvard College were the following: How many days and hours in 1,811 years? His answer, given in twenty seconds, was 661,015 days, 15,864,360 hours. How many seconds in eleven years? The answer, given

in four seconds, was 346,896,000. It is said that a few months before his birth, his mother, who had never been taught arithmetic, had on her mind, for a day and a night, a puzzling question as to how many yards of cloth a given amount of yarn which she had would make. To a person understanding arithmetic this would be a simple problem, but she had to do it by a mental process, without rule, and this extraordinary effort on her part was organized in her child and made him a genius in mental arithmetic, but not in mathematics.

An attempt was made to educate him in other branches of study, but he never distinguished himself nor even came up to the common average. If there is not a special faculty for number why could he not do as well in other things? Other persons are excellent in figures, and also in other departments of thought.

PARTIAL IDIOCY.

Partial idiocy is another proof of the plurality of the faculties; it is a condition in which mind seems to be nearly or quite a blank on some points, while on other points there is the ordinary amount of strength. As Zerah Colburn manifested one faculty as a genius, and was not above the average in anything else, so we find instances in which a person is considered idiotic as a whole, and yet may manifest musical or numerical talent to the extent of being a genius in that one particular, while deficient in everything else. We knew a young man, A. K., of Blandford, Mass., having a small head, and he was so destitute of common sense that he could hardly learn to read, and was unable to manage for himself, yet he possessed the talent of memory of time to an astonishing degree. Dates were his forte, and he remembered the time when unimportant things occurred for months and years, though they had no relation to himself.

PARTIAL INSANITY.

Partial insanity, as well as partial genius and partial idiocy, proves that the mind has many distinct faculties. Some per-

sons are insane on the subject of property, and imagine they are millionaires and own all the public buildings in town, but on any other subject they will converse for hours and in a rational and intellectual manner, and no one would discover the slightest aberration of mind. One has only to visit a hospital for the insane to find that one is insane on the subject of property, another in the matter of domination or pride, another has an insane conscience; another is insane on the subject of saving; another on the subject of worship and devotion; another is a monomaniac on the subject of charity and benevolence; another becomes warped on the subject of literature or mathematics or history.

A student in Yale College, one of the most proficient, especially in languages, became insane, that is to say, disturbed in the faculty of language, and it was an amusement to the other students, and to everybody in New Haven who knew him, to hear him rattle off the "big" words, while on all other subjects he seemed perfectly sound. He was made angry by somebody, and he instantly said, "I will sift you through immensity where it will require omniscience to find you and omnipotence to put you together again." This might possibly be called classical profanity. On another occasion a farmer came in with his ox team and load of wood for Professor Taylor, and, stopping in front of the "College green," inquired where he could find Professor Taylor. There were a dozen students in a group, but the literary maniac stepped forward and gracefully said, "Crucify the quadrangle, ascend the grades, make a dextral vert and you will find him perambulating his domicile or prospecting his his fenestrum." The farmer stood dumbfounded, remembering only the last word, and said, "Fenestrum, what does that mean?" The student instantly said, "It is the aperture through which the concave of the dome is illuminated." If he had not been crazy, and had stated the same idea in plain words, he would have said, "Cross the square, go up stairs, turn to the right, and you will find him walking his room or looking out of his window."

There are many persons who are partially insane who will carry themselves harmoniously on all points but the warped one, just as a piano will play anything and everything equally well if the one string which is broken or out of tune be not required to perform any notes in the piece of music. Insanity sometimes affects merely the imagination and not the reason ; then the person will reason soundly in respect to everything but the one in question.

INSANITY CURED THROUGH PHRENOLOGY.

To emphasize the fact of the plurality of faculties, and that each may be insane while the others are sound, we insert two marked facts.

"In 1845, while lecturing in Westfield, Mass., I received a call from a friend residing at Suffield, Conn., twelve miles distant, where I was acquainted. He informed me that H. B., of Suffield, had recently received a blow upon the head in the region of the temple, and had become insane in consequence. He appeared somewhat strangely for a day or two, and then took a train for New York, and before arriving there, attracted attention by immoderate laughter at everybody and everything in the car. A gentleman who knew him happened to be on the train, and took him back to Hartford, left him in the Asylum, and sent for his father. Here he had been for several weeks under treatment without any apparent benefit. On hearing these facts I wrote at once to the father, and sent it by my informant, stating my impression that the injury was upon the seat of Mirthfulness, hence his tendency to laugh, and to see absurdity in everything, and suggested that if the physician would apply leeches and ice to that part of the head which was injured, the symptoms of insanity would cease. The aged father, who was interested in our lectures on phrenology at Suffield in 1841, recognizing the reasonableness of the view I had taken of the cause and proper treatment of the case, on receiving my letter at eight o'clock that night, he instantly

harnessed his team for a dreary drive of seventeen miles to Hartford, and, reaching the Asylum at eleven o'clock, after Dr. Butler had retired, he insisted on seeing him at once. With my open letter in his hand, the anxious father met the doctor, who read it deliberately, and said :

"It looks reasonable, and we will try the treatment in the morning."

"No, doctor ; we will try it to-night, if you please, I can not wait till morning."

"All right," said the doctor, "to-night, if you say so."

In half an hour the patient was under the treatment of leeches, in another half hour the injured part was under the influence of pounded ice, and the patient was fast asleep. The next morning he and his father took breakfast with the doctor ; and "he was clothed and in his right mind," and in a short time went home with his father, apparently cured.

The injury was directly over the organ of Mirthfulness, and the inflammation caused by the blow produced the deranged action of that faculty. Forty years have now (1885) elapsed since this injury was received, and there has been no return of the symptoms of insanity. Had the inflammation been allowed to proceed, death, or mental derangement for life, might have been the consequence. The young man being my friend, I felt a peculiar interest in the case.*

LOVE OF LIFE—INSANITY. "Several years ago I was invited to give a course of lectures at the "Asylum for the Insane," near Morristown, N. J. About a hundred persons are required as physicians, nurses, attendants, and workers, in order to conduct that most complete asylum. It has been found that good help can not be long retained at reasonable wages in such close confinement as is there required, unless lectures, concerts, and other proper entertainments are brought to them. Besides, there are generally two or three hundred of the patients who are able to appreciate such entertainments and greatly profit by them.

* From "Forty Years in Phrenology," by Nelson Sizer. Fowler & Wells Co. publishers.

At the close of my course of lectures, I accepted an invitation to remain for a day to make professional examinations. The assistant matron had the names of the female attendants who desired examination, and she called them to a reception-room for that purpose in groups of four or five. In such an asylum, it was natural for persons to ask through what faculties each would be more likely to become insane. With one it was stated that loss of property would unbalance the mind through an abnormal condition of Acquisitiveness, should it arise ; with another Approbativeness, through loss of reputation ; with another Conscience or Caution ; with another some social trouble, through the loss of companion, child, or friend. To one lady I said, "You have a royal constitution and ought to live to be ninety, and will be very likely to reach that age if no accident befall you ; besides, you have Vitativeness, or Love of Life, so strongly developed that you would recover from illness or injury through its influence, when most persons with less Vitativeness would give up and go under. If, therefore, you should become insane it would most likely show itself through *the dread of death.*"

The assistant matron then said : "She is a patient, and the fear of death constitutes her insanity. She has the confidence to believe that Dr. Buttolph, the Medical Superintendent, can keep her alive, and she dare not be anywhere else. These forebodings sometimes come on in the night, and she can not be assured until the doctor is called, and perhaps gives her some medicine."

From this moment she seemed perfectly happy, telling every one she met that "Mr. Sizer said she would probably live to be ninety." The next day her husband made her his usual Saturday visit, and she greeted him joyfully, saying, "Edward, I am going home with you." "All right, my dear, if you wish to go you *shall* go."

Her trunks were packed, and she and her husband took the next train for home, and she has not since been back to the asylum. What I told her of the restricted

and peculiar nature of her liability to insanity gave her strength to overcome any threatened return of it.*

Thus Phrenology throws a flood of light on the subject of insanity for those who wish to learn.

DREAMING.

Dreaming or incomplete sleep is an instance proving that the mind is not one separate faculty or power, for if it were so, it would be either all awake or asleep at the same time. Dreams are inconsistent, illogical, and as all the faculties become awakened and fully conscious, the dream which seemed real is correctly estimated. If the organs in the base of the brain are sufficiently awake to act and produce their impressions, one may dream he is a murderer, or thief, or capable of committing almost any crime, and he is practically in a condition such as he would be in if his moral and intellectual faculties were so badly represented in the brain as to leave little but animal propensity and selfishness as the basis of his character ; he would thus have a strong tendency to be a thief and a ruffian really. Sometimes in a dream one rises to an ecstasy of benevolence and kindness ; his aspirations are angelic, for then that part of the brain is active through which those elements are manifested, and the selfish or sensual part of the nature is hushed in sleep ; as an organist would say, a man is working with a peculiar set of stops drawn, or that the mind was working through its upper register.

DIVERSITY OF CHARACTER.

Finally, the diversity of human character and talent presents to the daily observer sufficient proof on this point. Persons of good general ability complain of a deficiency of memory, say of names, places, colors, words, facts, dates, or a want of the talent for music, mechanism, or economy.

Mr. George Combe, the author of the "Constitution of Man," eminent for general ability and a sound reasoner, an eloquent writer, a strong thinker and a man

* "Forty Years in Phrenology."

of most excellent moral qualities, stated in his lectures that he never could learn the multiplication table. He was a graduate of the University of Edinburgh, was a lawyer by profession, and a reader of his writings would pronounce him a thinker; but an ordinary boy of six years of age was his superior in respect to the knowledge of numbers, and he remarked if his faculties were all as deficient as that in respect to numbers he would be idiotic. If the mind is a single power, and the whole mind acts in every mental manifestation, why are there such phenomena as partial genius, partial idiocy, partial insanity, dreaming, and the general diversity of character and talent? These can be accounted for on no other hypothesis than that of the plurality of the mental faculties, and the possibility of possessing a strong endowment of one or more faculties, with one or more other faculties deficient.

PLURALITY OF THE MENTAL ORGANS.

In addition to the general division of

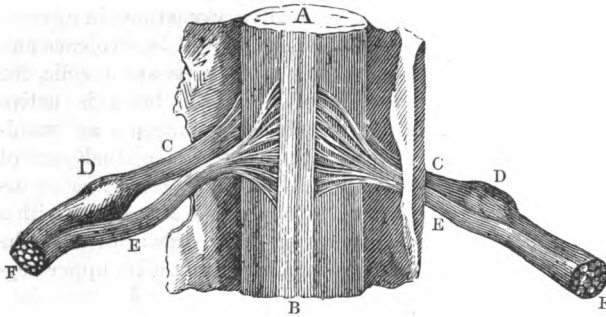


Fig. 9. A section of the spinal chord showing the nerves which are sent to the arms, one bundle of which, C, originates in the posterior, or sensory column of the spinal chord, while the bundle E originates in the anterior tract of the spinal chord, yet they unite and are sent out to the arms in one common sheath; the smaller bundle, E, are nerves of motion, and are under the control of the will; and the intellectual organs of the brain and the anterior tract of the spinal chord are intimately related, while the posterior section of the spinal chord and the bundle of nerves, C, are of the sympathetic or sensory character, and bring to the brain a consciousness of pleasure or pain in the extremities; A B represents the spinal chord, C C the sensory nerves and the ganglion; E, the anterior or motor tract of nerves; F shows the nerve fibres.

the brain into hemispheres and lobes, phrenologists recognize another division,

namely, into organs, which are equal in number, and correspondent to the faculties of the mind; and though there are no compartments fenced off from each other by membranes like those which enclose the several sections of an orange, yet that is no proof that these individual organs do not exist. Some medical men have objected to this division of the brain because there appears to be no anatomical division of the brain into compartments. To such critics, we reply that the nerves of *sensation* and those of *motion* are sent off to an arm, for instance, inclosed in one sheath, and are so nearly alike in substance and appearance that no dissection, however minute, and no microscopic analysis, however severe, will indicate the slightest difference between them; and every anatomist knows that if one portion of that little nervous cord be severed the sense of feeling will be utterly destroyed in that arm, while the power of motion will remain undisturbed. On the contrary, if the other portion of that bundle of nerves were severed, the power of motion will be extinguished, while the property of sensation will remain. [See Fig. 9.]

On this principle we claim that the brain may have forty mental functions, and their corresponding organs. If the nerves of sensation and motion can be sent to the arm without special division and can lie in one sheath side by side and yet have such differences of function, the objection that the organs of the brain can not be distinct in their functions because they lie side by side, is futile; the Higher Power is satisfied to give strength and function to the different parts without the fear that they will clash with or trespass on each other. This anatomical objection to the multiplicity of organs in the brain because each organ does not appear to be fenced off, therefore, falls to the ground. Nature's laws are specific and binding, though her town, county and State lines are not fenced like the fields of a farm.

THE HUMAN TEMPERAMENTS.

While the action of mind is dependent primarily upon the faculties, its expression is greatly influenced by physiological conditions. Here comes in the law of temperament, which must be well understood before one can thoroughly analyze character.

The word "Temperament" comes from the Latin, and signifies a mixture or arrangement of qualities or parts. The apostle Paul speaks of the body being "tempered together." In mechanics the expression is common. A mason speaks of "tempering mortar;" the machinist of "tempering steel"—a good or proper temper meaning a mixture of qualities or constituents in due proportion, so that the effect desired shall be good. Temperament, as applied to man, has reference to the mingling or combination of the physical elements.

AN ANCIENT CLASSIFICATION.

In ancient times there were four primary temperaments, which were described by Hippocrates as dependent upon four primary components of the body. For instance, he in whom the blood predominated was said to have the Sanguine temperament; if the "phlegm" were in excess, the Phlegmatic; if the "yellow bile" were most fully developed, the Choleric; and if the "black bile" were most abundant, the person was said to be of the Melancholic temperament, and his character partook of the impression made by his temperament.

Later on, this old classification became modified, but rather more in name, however, than in essential nature, until a material change in it was brought about in the eighteenth century, when better views of bodily states were entertained because of increased knowledge regarding human anatomy and physiology. Then it became common for medical men to speak of the Sanguine, the Lymphatic, the Bil-

ious, and the Nervous temperament. These were related to the four great organs, respectively, the lungs, stomach, liver, and brain. This classification has a wide recognition among scientific men to-day.



Fig. 10. Sanguine Temperament.

The *Sanguine* temperament, as its name implies, is dependent upon the constitutional predominance of the apparatus employed in the circulation of the blood—



Fig. 11. Lymphatic Temperament.

the heart, lungs, veins, and arteries, and is indicated by a form of moderate fulness, light or brown hair, blue eyes, a fair or

ruddy complexion, with a fondness for exercise, and a general disposition to active pursuits.

The *Lymphatic* temperament depends upon a predominance of the stomach, digestive apparatus and glandular system, and is manifested by a general roundness of form, with soft and flabby tissues, and a slow, languid circulation. The complexion is pale, the hair yellowish, fine, and limp, the eyes watery. In apposition with the vital sluggishness, the brain is slow and feeble in its functional exercises, and its mental expression, therefore, lacks spirit and vividness.



Fig. 12. Bilious Temperament.

The *Bilious* temperament is marked by a dark-yellow or brown skin, dark or black eyes, a strong, bony frame, firm muscles, and rugged, prominent features. All the physical functions are indicated by great energy and positiveness of action—a condition with which the brain partakes.

The *Nervous* temperament being dependent upon the paramount development of the brain and nervous system is shown by a general delicacy and fineness of the body, with its accompaniments of rather thin hair, small muscles, a pale skin, while the head is large and the features finely cut. The sensations are lively, and the action quick—the mental manifestations sharing with the physical vivacity in a proportional degree. In this temperament there is a decided tendency to study, to

live in the realm of thought, to cultivate art, poetry, and sentiment, and to dwell above the world of mere matter, and especially that which is gross and coarse.



Fig. 13. Nervous Temperament.

Millais, eminent artist. Very fine quality, marked mental temperament, classical features, head enormously developed in the æsthetic faculties; Ideality, Imitation, Constructiveness.

AN IMPROVED CLASSIFICATION.

With further knowledge of the reciprocal influences of the physical and mental qualities, recent observers have been able to make clearer and sounder distinctions between conditions of health and disease, and a better system of temperaments now obtains that defines with approximate exactness three grand classes of normal condition, whose primary significance is referred to the three grand types or classes of organs in the human body, which are:

(1). The *Motive* or mechanical system, including the bones, the ligaments, and the muscles.

(2). The *Vital* or nutritive system, involving the lymphatics, the blood vessels, and the glands; and

(3). The *Mental* or nervous system, including the brain and spinal cord.

When we compare one person with another we are accustomed to recognize at once certain prominent features. We no-

that one is tall and another short ; another muscular and strong-boned ; another plump and rounded ; another delicate and slender. One has a rosy, rich complexion ; another is dark, swarthy, with piercing black eyes ; another has fair

pending upon the relative proportions of its different masses and the relative energy of its different functions."

The three grand classes which we have enumerated are known respectively by the names of the *Motive Temperament*, the

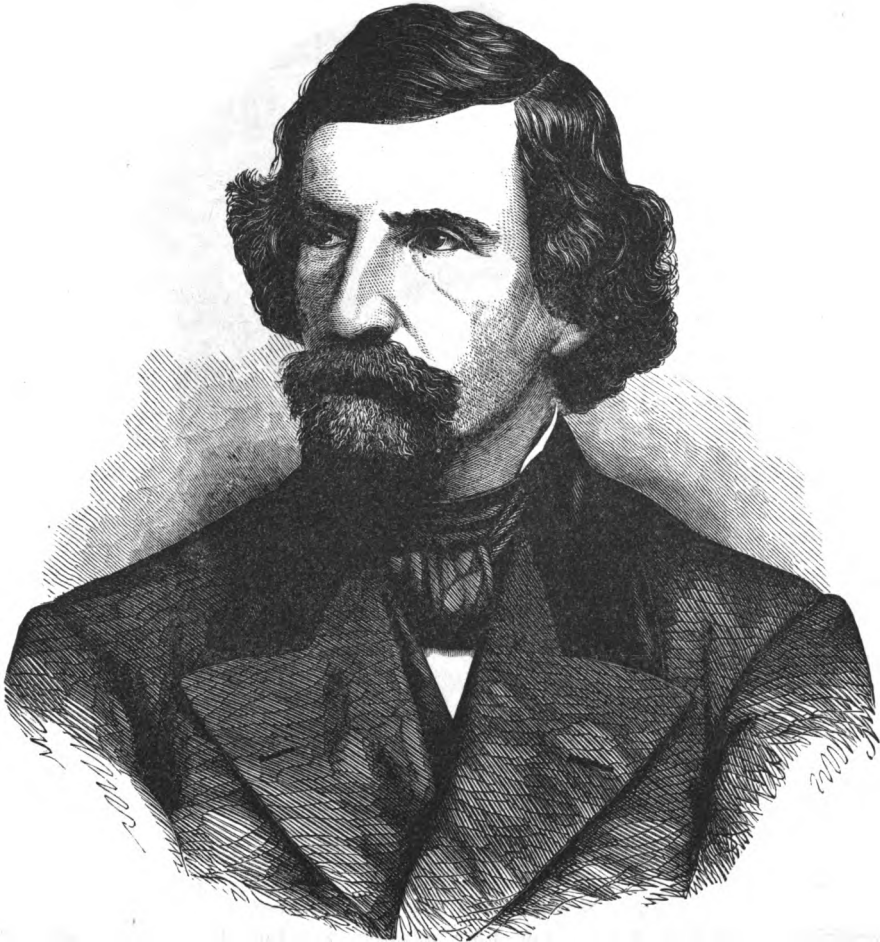


Fig. 14. Dr. James H. Dixon. Motive Temperament.

hair, in which the hues of the sunlight appear to blend. One has black eyes, another blue, another gray. One is quick in movement ; another is slow and deliberate. These differences, after but little experience in observation, we are led to apply to certain constitutional conditions or physical states ; in a word, to the *temperament*, which may be defined as "a particular state of the constitution, de-

Vital Temperament, and the *Mental Temperament* ; and when one of these predominates in a person, it determines his constitutional condition, and the special quality of his mind is largely due to it.

Hence it is clear that to judge of character well, one should understand the conditions that tend to develop the special temperamental bias in a person, as well as to study the mental organs.

THE MOTIVE TEMPERAMENT being determined by the class of organs from which it takes its name, is therefore marked by a superior development of the bony and muscular system. As inherited, it is the result of climate, topographical

ged and prominent. The expression of the face is striking—it is strong, earnest, determined, and may be severe and stern. Fig. 14.

As regards color, there are two varieties, the dark and light. With the dark com-



Fig. 15. Norman McLeod D. D. Vital Temperament.

conditions, and habits of life followed for generations. Among people who dwell in mountainous countries, like the Scotch and the Swiss, we find it strongly marked.

Its characteristics are large bones, strong, hard muscles, prominent joints, and an angular figure, usually associated with more than average height; the shoulders are broad, the abdomen is moderate in fulness, the face oblong, the cheek bones are rather high, the jaw large, the teeth strong, the features in general rug-

plexion we find the bilious element strongly predominant, and so with persons of dark complexion the old term "bilious" temperament may apply not unsuitably. In persons having a light complexion, sanguineous elements are influential; the skin is florid, the eyes blue, gray or hazel, the hair often red or sandy. To such the term "sanguine" has an application. We find this division of the Motive temperament well illustrated by the Scandinavian peoples and by the

Scotch of the Highlands. The Bilious type is very common among Americans; the dryness of our climate, the activity of the people, and the diet commonly used having a tendency to its production. In persons of this temperament, firmness of the tissues is characteristic, imparting strength and endurance, with unlimited capacity for both mental and bodily labor.

In women this temperament is much less frequently seen than in men, and in those who possess it the characteristics we have described are modified, the contours being softer, rounder; while the influence of the temperament is none the less expressed in their character.

As a rule those in whom the Motive temperament strongly predominates are distinguished for their force of character, industry, courage, and executive ability; they are the leaders in active life; the observers rather than the thinkers—can do the work that is planned by the thinker; are often arrogant and domineering; while their love of power and control leads often to excessive effort. Those nations that have taken rank in history for their prowess in war are specially characterized by the Motive temperament. We find it decidedly marked in the American Indians, and in fact in all barbarous or savage tribes that are celebrated for their warlike inclinations.

THE VITAL TEMPERAMENT

is dependent upon the nutritive system—the organs of digestion, respiration and circulation. It is characterized by stature above the medium, and by breadth of body proportionately greater than in the Motive temperament, while the bones and muscles are not so strongly developed. The chest is full, the abdomen rounded, the limbs plump and tapering, the hands and feet relatively small; the neck is comparatively short and thick, and the shoulders broad and round. The head and face correspond with the other parts; are well filled out with adipose tissue, while the expression is lively, frank, and good natured. Fig. 15.

In the Vital temperament we find both

light and dark complexions. With the first the skin is ruddy, the eyes blue, and the hair light brown; with the second, the hair is black or dark brown, the eyes generally black or dark brown, sometimes hazel or gray; the complexion may be olive, brown, yellow, or black, as in the negro. In those of dark complexion bilious elements enter, that confer more physical endurance than is possessed by the light or sanguine type of the Vital. The latter class, however, possesses more activity, freshness, and sprightliness.

In women this temperament is very common; it is for the most part the temperament of woman, contributing to their symmetry, roundness, and agreeable proportions, and accompanying a fine complexion, brilliant eyes, brown, flaxen, or auburn hair, and those characteristics that belong to the order of beauty. In the olive or brunette complexion there is more density of fibre and more endurance, yet the figure as a whole is full, soft, and attractive.

The bias of this temperament is to physical activity, with mental facility and versatility; they who have it are distinguished for elasticity rather than firmness; for more diligence than persistence. They have a ready perception, an active imagination, express themselves with quickness and brilliancy, but are more showy than solid; very fond of variety, and therefore incapable of fixing the attention long on one subject, and so unfitted for pursuits that require abstraction. They are very passionate but changeable in mood; lively, cheerful, amiable, frank, and candid; fond of good living, play, and sport; and at the same time apt to fall into habits of eating and drinking that are injurious. Thus, with strong social affections, they are more liable to irregularities in the way of frivolity and dissipation than persons with the Motive temperament. With, however, high moral principles to restrain or regulate their conduct, they generally lead very happy, useful lives, enjoying and promoting enjoyment. The majority of our brilliant writers, those who can describe vividly phases of social

life, are rich in varied phraseology and copious in diction, are distinguished by the Vital element.

THE MENTAL TEMPERAMENT, though last in our order of enumeration, is first in influence, the constitutional element that lies at its basis being the brain

body. The face is oval, the forehead high and broad, especially in the upper part. The features are delicately cut, if not sharp; the countenance is mobile, and very expressive; the skull delicate and thin; the hair fine and soft, usually light in color and not thick; the eyes are gen-

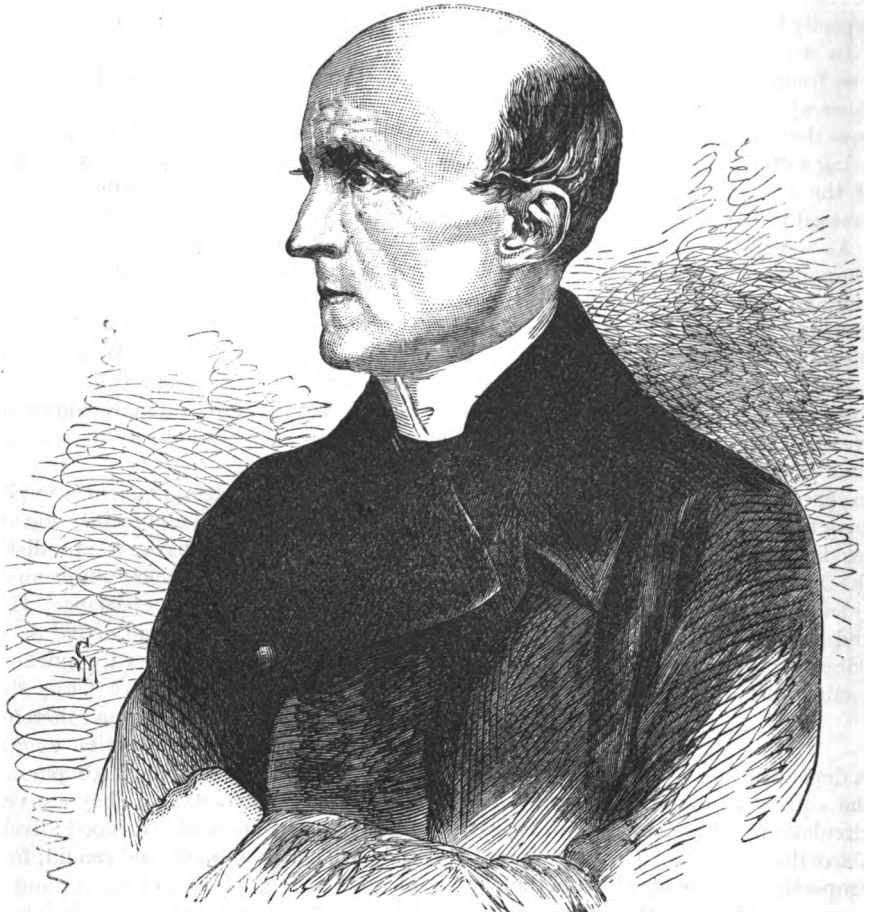


Fig. 16. Cardinal Manning. Mental Temperament.

and nervous system. Like the others, its predominance in the organization is due to inheritance, and if originally moderate in degree, it may be strengthened by training and culture, so that from holding a secondary place it may become primary.

This temperament is characterized by a frame comparatively slight, and a head that is large in proportion to the size of

erally gray or hazel, and brilliant in expression; the voice high in key and flexible. The figure is not so strongly marked as in the Motive temperament, seldom imposing, but may be graceful and elegant. The muscles are small and compact in quality, adapted to rapid action rather than strength. In fine, the whole structure is distinguished for its fineness and delicacy. Fig. 16.

The power of this temperament is dependent upon the brain, and when there is a good degree of vitality to sustain it, the person may exhibit remarkable capabilities, for the reason that in its very nature this temperament indicates a special activity of the mental faculties, with power of correlation and intensity of emotion. The tendency of persons so organized is generally towards pursuits that employ the mind more than the body. Literature, poetry, and the fine arts are specially affected by them. It is the literary, artistic, and poetic temperament Fig. 17.

With the upper or coronal organs of the brain largely developed, and the organs at the base but moderately so, taste and delicacy of feeling and refinement of manner, distinguish those in whom it is predominant. Hence individuals so characterized are rarely found among the criminals, drunkards, and vicious of society. When they are they owe their degradation to some peculiar and almost

tions. They are properly called *spirituelle*, are sensitive, emotional, ideal, and aspiring.



Fig. 18. MENTAL—SPIRITUELLE.

In the highly educated classes of America there is a marked tendency toward the excessive development of the Mental temperament, while the Vital system is becoming proportionately deficient. Fig. 18 illustrates a familiar type of face often met among women of culture. This tendency is promoted by the growing bias of the day to sedentary pursuits, and the forming of social and dietetic habits that are inconsistent with robust health.

COMBINATIONS OF TEMPERAMENT.

In our descriptions of the temperaments we have considered them mainly as independent elements or in excess. In nature they exist in combination, one being, however, the most conspicuous. So rarely do we find examples of an even mixture or balance, that it may be said that they who possess it are marvellous exceptions in the current of human society. Such an even mixture would indicate a most extraordinary heritage; it would be constitutional perfection. But, once in a while, a person is met in whom there is a close approach to this balance, and we are accustomed to speak of it as a *balanced* or *harmonious* temperament, it being difficult to determine which element is in predominance.



Fig. 17. POETIC—ARTISTIC.

fatalistic train of circumstances. In women who have this temperament there is a decided lacking of the plumpness that characterizes the Vital temperament; they may be beautiful, but it is the beauty of delicacy and refinement, rather than the symmetry and grace of physical propor-

In Fig. 19 we have a good example of this balance of physiological condition; there we find the indications of a symmetrically developed body; the features are regular

of remarkable accomplishment, may develop into great activity the energies of such a nature, and remarkable performances result.



Fig. 19. BALANCED TEMPERAMENT.—JOHN WILSON ("CHRISTOPHER NORTE.")

and full; the head is quite evenly proportioned; the complexion is medium, neither dark nor light; the hair dark brown, the eyes gray or brown. In such persons the harmony resulting from the blending of the temperaments is also indicated in the character. There is vivacity, quickness, and ardor, modified by deliberation, steadiness, and coolness, and refined by taste, delicacy, and ambition. The Motive temperament supplies perseverance, endurance, energy; the Vital its buoyancy and flow of spirits. The character in such a case is many sided, while it is harmonious; it has capacity for doing many things well. And in conduct, such persons are known for regularity, decision, energy, and steadfastness. Occasions of special excitement, emergencies that have in them the germs

USUAL ASSOCIATION.

As a rule two of the constitutional elements exist in a good state of development, while the third is comparatively weak. These two are taken as determining the physiology, and it is named in accordance with this condition, the stronger of the two temperaments being named first. For instance we speak of the *Motive-Vital* temperament, or the *Vital-Motive*; the *Mental-Motive*, or the *Motive-Mental*; the *Vital-Mental*, or the *Mental-Vital*; the name placed first indicating the stronger influence.

THE MOTIVE-VITAL TEMPERAMENT is the combination more to be desired than others for organic power. It is indicated by a physical organism, well endowed for

strength and endurance, the bones and muscles and joints being large and strong, the shoulders broad, the chest full. The physiognomy of the form evinces abundant vitality, firmness, toughness, and activity. Fig. 20.

This combination adapts one for the physical work of life. It is not of an intellectual tenor; it contributes but little taste for literature or pursuits that demand study. There may be good practical talent, clear perceptions, sound judgments, but it is in the out-of-door activities of the world where it is most successful. Farmers, carpenters, soldiers, sailors, and



Fig. 20. MOTIVE-VITAL TEMPERAMENT.

Colonel Thomas L. Casey, Chief Engineer of the Washington Monument. What a brave, positive, pushing nature; the nose is aggressive, and corresponds with his large Combatativeness and Firmness. His large perceptive are adapted to details and practical business, and his power lies in moulding and controlling men. Would do well as a fighting general.

blacksmiths, expressmen, and all others who need a strong muscular organization require this combination. In the

MOTIVE-MENTAL TEMPERAMENT

we have a higher type of organization; the motive is still dominant, but it has more of the refining influence of the intellect. The figure is not so marked for physical strength, toughness, endurance but it is nevertheless tough, wiry, and active. Fig. 21. The manner indicates energy, the language showing the mental

influence, being positive and distinct. A person so constituted is clear-headed and energetic, he may be passionate, but he feels more the restraining influences of the



Fig. 21. MOTIVE-MENTAL TEMPERAMENT.

Governor S. E. Pingree, Vermont. Motive-Mental temperament, practical, pushing, intensely ambitious, thorough, forcible.

æsthetic faculties and moral influences than those in whom the Motive-Vital is indicated. He has capacity for understanding solid, practical things, and is moved by feelings of ambition, desire to lead in whatever he undertakes, and success is very gratifying.

Some of the greatest men the world has known possessed this combination, especially warriors, explorers, and navigators. It involves both talent to plan and power to execute. Men having it wish to work as well as to think; in fact, they think best when on their feet carrying into effect their enterprises. The nations of the world most eminent for progress in new fields of research, are distinguished for this combination; in the American people it is common; so, too, in the Scotch, North of Ireland people, in the Welsh, North Italian, North German.

THE VITAL-MOTIVE TEMPERAMENT is distinguished by a large, broadly developed body; the glandular system is largely de-

veloped, the shoulders are broad, the neck thick, but there is a good degree of muscle, and the features are prominent and the hair rather coarse. The man so constituted shows more strength than grace; he has capacity for hard work, and loves out-of-door exercises. Fig. 22. In the character there is considerable vivacity and impulse, without, however, much showiness or brilliance. In many respects persons of this type are known for rather strong passions and appetites; if they fall among vicious associates they are likely to be led into evil courses, become dissipated, intemperate, and even criminal. We may, however, find persons of eminence in society who have this combi-



Fig. 22. VITAL-MOTIVE TEMPERAMENT.

nation; judicious training, with refining associations, have helped them to advancement; the strong practical elements in their nature have aided them to working their way slowly but surely toward position and honor.

THE VITAL-MENTAL TEMPERAMENT

is for the most part a happy organization; it imparts many attractive qualities, especially to women, for with it are warm affections, kindness, amiability, grace, sprightliness, and usually much personal beauty. The complexion is generally fair and rosy, with blue eyes, and light brown or yellow hair, the figure being plump and well rounded, the face full and usually rather large. Fig. 23. The stimulus of the mental element is toward the exercise of the brain rather than the body; but men of this constitution are not much

inclined to in-door restraint; they prefer out-of-door activities. If well educated, they take a good place in society on ac-



Fig. 23. VITAL-MENTAL TEMPERAMENT.

Belva C. Lockwood, lawyer, Washington, D. C. Fine, harmonious intellect; decided force and ambition, and expressive and amiable face.

count of their fluency of language and brilliancy of thought. This combination in its moral aspects is known for vigorous appetite and active passion; it loves ease and pleasure, comfort and good living, and on that account rather strong elements of restraint are necessary to preserve the moral integrity. Men of this stamp, if educated, are fond of public banquets, and are good dinner-table orators, and their wit and social enthusiasm make them welcome on festive occasions.

THE MENTAL-MOTIVE TEMPERAMENT

appears before us characterized by a tall and rather spare figure; the frame is inclined to angularity, yet dignified and firm in poise and manner. The features are rather prominent, but finely cut; the eyes are gray, hazel, or brown; the hair is generally light brown; the voice is clear and flexible. Fig. 24.

This combination indicates intellectual capability, with a good support of endurance, force, and energy. The mind is adapted to pursuits requiring much thought and breadth of analysis. Literature of the solid sort is usually preferred; scientific studies and professional pursuits are followed by the great majority of men with this combination. The main body

faculties are versatile, giving a tendency to artistic vocations. When the domestic and social feelings are strong, and the moral sentiments active, the whole nature is one of elastic exuberance. The charac-



Fig. 24. MENTAL-MOTIVE TEMPERAMENT.

M. Romero, Mexican Minister to the United States. A bright, susceptible, excitable nature, ample intellectual development; strong side head, showing financial ability and force, prudence and sagacity.

of thinkers, writers, and mental workers of society who contribute most to the solid advancement of civilization, are thus characterized. If the vital system be weak, there is a tendency to overwork, and thus protracted effort results in disaster.

THE MENTAL-VITAL TEMPERAMENT is a very favorable combination; those who possess it are known for superior capability, ambition, earnestness and sincerity. In person they are well proportioned, the features being often very regular and handsome, with an expression that is full of intelligence, sympathy, and grace. The complexion is usually fair, the hair brown or auburn, the eyes gray or blue. Fig. 25. The brain, as might be at once inferred, is very active in such persons; the



Fig. 25. MENTAL-VITAL TEMPERAMENT.

Thomas Lubbock, Scientist in Natural History. Comprehensive intellect; fine imagination, financial talent and business ability.

ter in such cases, however, is lacking in force, energy, and purpose; it is more fervent and brilliant than solid, strong, and persevering. Many who are recognized as leaders in society have this combination; they achieve distinction through impulse, oratorical display, moral impression, poetic or artistic versatility.

TEMPERAMENT AND PHYSIOGNOMY.

Physiognomical expression is more closely related to temperament than it is to organism or the brain development; this is the case especially as regards the fixed expression of features that depend upon the bony structure. If any reliance is to be placed on the indications of physiognomy, as physiognomy is generally understood, the features of the face must be

examined when in repose, for when affected by moral emotion or intellectual excitement, a feature may pass through a great variety of expression—the transition—

“From grave to gay, from lively to severe,” being often too rapid for critical analysis.

From what has been said and shown in our description of the temperaments singly and combined, it is seen that certain combinations, that especially of the Vital-Motive, are particularly sprightly, elastic and susceptible of emotional impressions, and their effect upon the conduct is most marked. We meet with young women who are endowed with the Vital-Mental or the Mental-Vital, and are much entertained by their liveliness and buoyancy. They who possess the Vital-Mental interest us by their exuberant good nature and perpetual flow of easy happy talk, while their faces glow with enthusiasm.



Fig. 26. ANNA CORA MOWATT RITCHIE, Actress.

A fine nose and chin; good practical talent; great spirit, energy and refinement.

The serious appears to have little to do with their manner of thinking; life wears a sunny glow, and that affliction must be severe indeed that brings more than a temporary shadow over their minds. In Mary Queen of Scots we have a 'good example of this temperament. The pleasure-seeking, careless and indolent, yet polished Charles I., of England, also possessed this temperament. Its influence in sustaining these unfortunate sovereigns amid their trials was signally manifested. Fig. 27 illustrates the physiognomy of this

type of organization. The best specimens of it on the male side, we have met among actors, those who sustain subsidiary parts in comedy and farce, or figure on the bills of variety theatres.

TEMPERAMENT IN LITERATURE AND ART.

The Mental-Vital possesses fewer elements of physical stimulus, less gaiety and



Fig. 27. SAPPHO.

sensuousness, but more æsthetic aspiration. Men and women so constituted delight in studies of taste and refinement, and lean



Fig. 28. MARTIN MILLMORE, Sculptor.

particularly toward poetry and the fine arts. The classic representations of Sappho

are in keeping with this idea, and as we con over the list of writers whose lyrics warm the soul into ecstatic admiration for



Fig. 29. JULIA DEAN, Brilliant Actress.

Good Language ; large perceptives ; very large Hope and Conscientiousness.

the sweet and pure, we find them for the most part, of the Mental-Vital constitution.



Fig. 30. MRS. ANN HAZELTINE JUDSON.

First wife of the eminent missionary ; indicating a delicate temperament, and an amiable yet earnest spirit, and entire devotion to her cause.

Moore, Southey, Tennyson, Longfellow, Hannah More, Jane Ingelow, Elizabeth Oakes Smith, R. H. Stoddard have it. In artists whose subjects depict the action of the higher sentiments in life it is expressed.

The portraits of Raphael, Van DYKE, Titian, West, Millais, Spencer, Constant Mayer show it.

Whatever may be the occupation of one having this temperament he or she, if well developed in faculty, will impart dignity and refinement to it. The man will magnify the office. The influence of the Motive temperament when it is comparatively strong, yet subordinate in influence to either the Mental or Vital, is evinced in the work of the writer or artist by the vigor and force of his language or drawing, and by the motive underlying the expression. Further, work is more thoroughly done, and embraces more of meaning that bears relation to practical life. Such writers as Dante, Browning, Ruskin, Emerson and Whittier show in their lines the influence of the Motive temperament upon an organism that is greatly endowed in faculty. So in the work of great artists like Buonarrotti, Murillo, Makart, and our own Charch, Gifford, and Irving, the same characteristic is exemplified.

EXCESS OF THE MENTAL.

While a large proportion of the Mental element is desirable because of its endow-



Fig. 31. MACDONALD CLARK, Poet.

ment of capacity for intellectual growth, yet its success is likely to contribute to weakness and failure because of an insufficient vital basis. When trials and disappointments occur it is likely to succumb to them. "In the struggle for success,"

Dr. T. M. Coan says, "which among civilized men has taken the place of the struggle for life that goes on among the lower beings, the nervous constitution 'goes to the wall' sooner than any other. Yet as it possesses but moderate functional activity it escapes much of the liability to the acute diseases which attack the heartier temperaments; and under favoring circumstances often enjoys the best of health and attains old age." *

PHYSICAL SIZE AND CAPACITY.

The record of great achievement belongs for the most part to men having large heads, but with volume of cerebrum



Fig. 32. CYRUS H. MCCORMICK.

Inventor of the reaper. Large Constructiveness and Ideality, strong, practical talent and good reasoning power, working in the practical direction, with a strong constitution.

we find large chests—powerful lungs—associated. Webster, Clay, Calhoun, Pitt, Brougham, Mazzini, Cavour, Gambetta, Palmerston, Seward, Gladstone, Bismarck, consider their broad breasts and powerful shoulders. The record of the men with large heads and narrow, cramped chests is comparatively *nil* in the history of national progress. However fine their intel-

* *The Galaxy*—1870.

lects may have been, they were wanting in the physical elements necessary for



Fig. 33. HENRY G. PEARSON, Post Master of N. Y.

He has a healthy, Vital-Mental temperament, is active, earnest, practical, shrewd, methodical and clear-headed; is adapted to details, and with his large back-head and high crown, is able to control and manage people, while he wins their affection and respect.

their ample nourishment and support. Galton recognizes the fact of a proper relation between development of brain and body as essential to capability. He says: "There is a prevalent belief that men of genius are unhealthy, puny beings—all brain and no muscle—weak-sighted and generally of poor constitutions. I think most of my readers would be surprised at the stature and physical frames of the heroes of history who fill my pages, if they could be assembled together in a hall. I would undertake to pick out of any group of them, even out of that of divines, an 'eleven' who should compete in any physical feats, whatever, against similar selections from groups of twice or thrice their numbers taken at haphazard from equally well-fed classes. . . . It is the second and third-rate students who are weakly. A collection of living magnates in various branches of intellectual achievement is al-

ways a feast to my eyes, being, as they are, such massive, vigorous, capable-looking animals." *

AN INHERITANCE OF THE MOTIVE.

We now and then meet persons of apparently delicate constitution, yet are pos-

apart from temperament, and is an indescribable inheritance that pervades the whole organization, impressing it with its peculiar constituents of coarse or fine fibre, sluggishness, or quickness or excit-



Fig. 34. ZADOK PRATT.

Motive Temperamnt especially prominent; great energy and enterprise. The greatest tanner in the world in his time; became a Member of Congress.

essed of wonderfully tenacious powers. They have a spirit that seems capable of meeting and mastering any situation. Such persons have inherited a high degree of the Mental in connection with the Motive temperament, the latter being expressed rather in the prominent features, angular form, dense, though small, muscles, and positive manner.

The Motive temperament varies in its conformation, and so do all the temperaments, and one unacquainted with them in their varying characteristics is inclined to think that "quality" is something



Fig. 35. LOLA MONTEZ, Countess of Lansfeld.

Motive Temperament strong, with great mental activity.

ability. For the vigorous and persistent exercise of the brain there must be, as has been intimated before, strength of physique. It seems absolutely necessary that a strong mind should be associated with a strong body, and a large body as well as a strong one. If we take a thousand men and women as we meet them on the street, and compare their weight, height, and chest measurement with the same belongings of a thousand men and women of distinguished mental capacity, the latter will average more in these respects. It may be suggested that Napoleon was short. Yes, but in his earlier days he was possessed of unusual nutritive power and a frame of marvelous endurance; and his brain was remarkable for volume as well as special developments.

Mrs. Browning, the poet, was in delicate health for many years, upward of fifteen. To maintain life was a struggle, yet she had inherited superior vital tenacity, and a mental spirit and elasticity of nerve that

* "Hereditary Genius."

triumphed over physical debility and sustained her almost constant exertion of literary production.

Of Hannah More a similar statement may be made. She was a most indefatigable worker with the pen, and an invalid for many years, yet endowed with elements of strength from birth that carried her into old age. These ladies were of the

and culture were thoroughly understood in such cases. The Mental temperament should be balanced by the Vital, and the motive or mechanical system should be strengthened by muscular exercise.

IN HORSES AND DOGS.

In animals as well as in men the Law of Temperament applies to organization. Perhaps we find it as well illustrated in

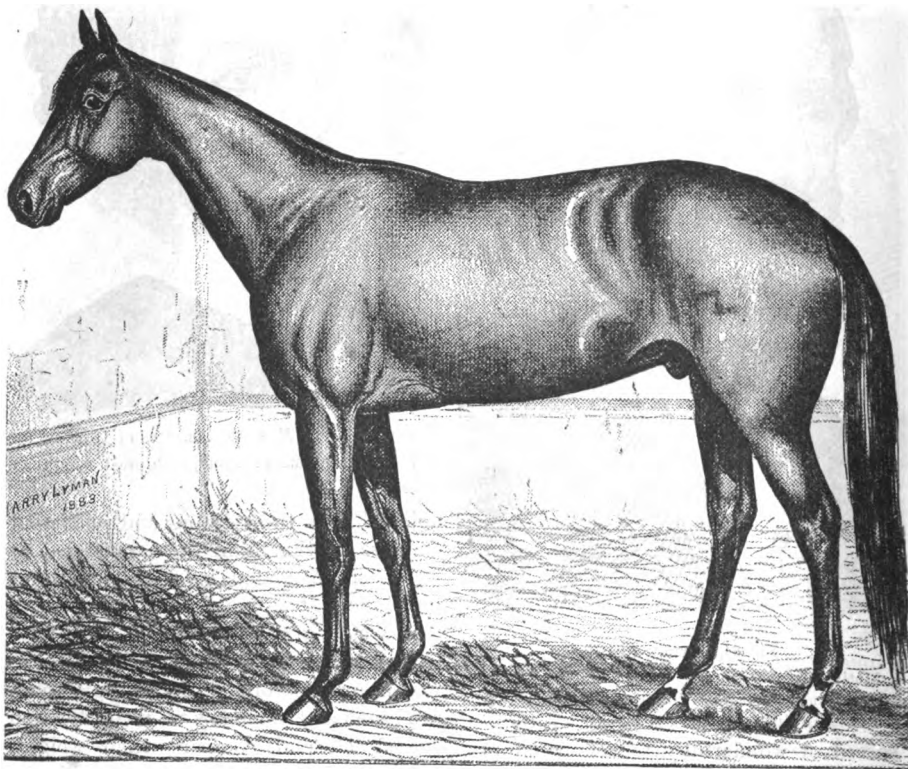


Fig. 36. JAY-EYE SEE. MENTAL TEMPERAMENT.

poetic mold. In "George Eliot," Mrs. Cross, we observe a marked impress of the Motive temperament, contributing earnestness of purpose, untiring industry that faltered never although often beset by sickness and other obstacles. For her was mainly needful the vigorous phraseology of prose to give definite form and directness to her urgent thoughts.

To be sure, many persons of superior endowment fade and fail because of their feeble provision of vitality, and it were well that the principles of physical growth

the horse as in any of our familiar brute companions. It does not require much insight for one to distinguish between a quick, lively horse, and one that is logy and stupid. The high bred animal is distinguished by his general slimness and symmetry; his tapering limbs, prominent and broad chest; his large, full eye, thin skin, tapering muzzle, delicate and mobile nostrils. Muscles and veins are seen in sharp expression through the sleek coat. The fiber of the great trotter is fine and delicate, though tenacious. His

muscles are small, but they are remarkable for their strength and endurance. Such animals as Jay Eye See and Dexter, Flora Temple and Maud S., command attention wherever they are seen. Fig. 36. These have the nervous or Mental temperament in largest proportion. They contrast sharply with the heavy, slow-moving draught horse, although in his line he may be a product of careful development—as the Norman Percheron or the Clydesdale, for instance. Such horses indicate the Motive temperament, the muscular or mechanical system predominates

In the shepherd dog, the pointer, and the terrier, and also in the spaniel, we find the Mental temperament predominant; while the mastiff, the St. Domingo blood-hound, and the bull-dog, the Motive temperament is strongly manifest. The noble Newfoundland has a combination of the Vital-Motive and Mental, uniting as he does half human intelligence with a fidelity and sympathy which are very touching, and the strength, endurance, and vitality that make him one of the much esteemed dogs. In the pug, we often see the Lymphatic temperament, as

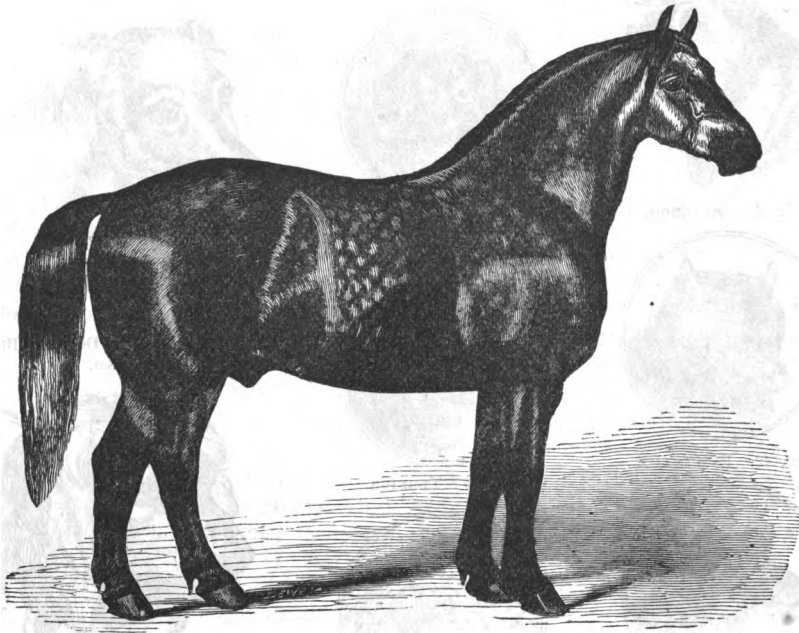


Fig. 37. GILDINO, CELEBRATED PERCHEON HORSE. MOTIVE TEMPERAMENT.

in them, and the Vital supplements it well, as seen in the plump body and rounded limbs, while the nervous is much less expressed. These are the animals that can pull heavy loads, make long journeys, and keep in good condition; they are not rapid in their movements, but are serviceable, the working horses suited to the drudgery of work-a-day life. Fig. 37.

Among Dogs, that faithful friend of man, we find a variety of temperament, disposition, talent, build of body, and facial expression.

we sometimes see it in men. In Fig. 38, we see the great St. Bernard, the smooth-haired type of that excellent animal, an eager and affectionate intelligence, combined with dignity. In Fig. 39, we have the pert, impudent, and plucky terrier. In Fig. 40, the broad-shouldered, thick neck, wide, low head, and massive muzzle of the sturdy bull-dog. In Fig. 41, we have the pretty spaniel, the pet and friend and companion of the children. In Fig. 42, the Esquimaux, an intelligent, plucky and most serviceable animal in the bleak



Fig. 38. GREAT ST. BERNARD.



Fig. 39. TERRIER.



Fig. 48. MENTAL TEMPERAMENT. SHEPHERD.



Fig. 40. BULLDOG.



Fig. 41. SPANIEL.



Fig. 49. MOTIVE. ST. DOMINGO BLOOD-HOUND.



Fig. 42. ESQUIMAUX.



Fig. 43 TERRIER.



Fig. 44. SHEPHERD.



Fig. 45. POINTER.



Fig. 50. VITAL-MENTAL. NEWFOUND-LAND.



Fig. 46. HOUND.



Fig. 47. ST. BERNARD.



Fig. 51. LYMPHATIC. PUG.

Temperament and Character in Dogs.

and frigid North, where with his master he struggles for existence, and, perhaps more than any other dog, earns his meagre support. Fig. 43, shows the frowsy and spirited Scotch terrier. In Fig. 44, we have the intelligent and faithful shepherd, knowing all his master's flock, and how to protect and govern it. A man sold a part of his flock, and lent his dog to the buyer to help drive them home. The purchaser shut up the dog, thinking to wean him from his home, but the dog broke out in the night, gathered out of the flock every sheep his master had sold, and started with them for home, evidently thinking if the stranger would steal *him*, he had also stolen the sheep.

Fig. 45, shows quite different physiognomy, that of the sporting dog, which when well trained, seems to enter into the game of hunting, according to the rules of the art. Fig. 46, the fox hound, with his sober countenance, his intelligent instinct, rendering him useful in a certain direction, and needing less training in that style of hunting than is the case with the setter and pointer. Fig. 47 shows us another variety of the St. Bernard, whose history in seeking and rescuing lost travelers in the Alps, with almost human intelligence, needs no repetition.

Fig. 48 has a bright face, and is highly endowed with the Mental temperament, while Fig. 49 is a perfect specimen of the Motive. Fig. 50 shows the Mental-Vital in predominance, sustained by abundant muscular power, and Fig. 51, last and least, the lymphatic pug, doubtless good in his sphere as a household pet; we often find in him and the coach-dog the Vital temperament excessive; a condition due to the abnormal state to which he has been accustomed, rather than a state normal to the dogs, as in relations best adapted to their health and usefulness, dogs rarely become rotund with fatty tissue. In the wild state, horses and dogs show a predominance of the Motive temperament, the necessary activity of such a life, promoting the growth of bone and muscle, and this is the case generally with animals that do not hibernate.

TEMPERAMENT AS AN INDEX OF CHARACTER.

The temperamental differences being exhibited in the face and form are those characteristics which are noticeable first in a person, and they who have studied them are able to read much of a stranger's character at first sight. But many observers claim that temperament is the surest key to character; that on it depends a man's ability to succeed in life, as well as his disposition in general—whether he is excitable or calm, active or indolent, restless or serene, capable of long and constant effort, of meeting emergencies, or adapted only to a quiet, easy routine. Whether or not we attribute so high a degree of importance to it, a knowledge of the temperaments is certainly of great value in the criticism of character. Ignorance of their influence constantly leads to serious mistakes in the relations of business, friendship, and love."

RELATION TO SOCIETY.

We think that most of the common dislikes and misconceptions of people in society result from differences of temperament. "A susceptible, nervous person looks upon the self-poised, determined man of the Bilious or Motive temperament as hardly less alien to himself than a foreigner or even an enemy. He shrinks from his cool pertinacity, his ruthless self-seeking, his bitter and determined dogmatism that is never open to conviction, even though an angel should come down from heaven. To the sensitive man he seems a sort of Christian fate or Mephistopheles. Yet this antagonism may be simply a matter of temperament, both parties being in the main estimable persons. Of this sort, doubtless, was the celebrated antipathy in the case of Dr. Fell, as expressed in the well-known rhyme :

"I do not like you, Dr. Fell,

The reason why, I can not tell."

To one, however, who can read character in the contours of the body, the reason for these oppositions is not obscure. There are certain people with whom we

never become fairly acquainted in spite of the association of years ; there is a bridge or chasm between us which we can not cross—somehow a disinclination to approach them that is always uppermost. In such cases it is best for us to observe the hint of nature, and not attempt an intimacy. Temperament has drawn a line between them and us which it were not well for us to seek to cross. We should, however, by avoiding intimacies in such cases not conclude that because we entertain a puzzling dislike that we should hate our neighbor. It is altogether *gratis* that we should take the trouble to dislike anybody without some positive pretext.

FAMILY AND NATIONAL ANTIPATHY.

Temperament has a great deal to do with the oppositions we find in history, occurring between families, tribes, and nations ; and its study is an important help toward understanding the parts that different nations have played in the past.

The spirit of Shakspeare's dramas is largely dependent upon temperament. We find it well illustrated in such plays as *Macbeth*, *Hamlet*, *Othello*, etc. The individual peculiarities so finely wrought out in *Romeo and Juliet* can be traced to the discordant tempers of the houses of *Montague* and *Capulet*. The long existing antipathy of the French for the German, of the English for the French, notwithstanding their discouragement by the diplomatic courtesies of civilization, is traceable to the differences of temperamental organism in the antagonistic peoples. It is well, therefore, that in the outset of an investigation into the character of a person that his temperament be analyzed carefully ; its influence in every phase of cerebral function should be borne in mind. In the correlated activities of faculties it plays a conspicuous part, and while size may be accepted as a chief principle in the expression of mental power, the influence of the physical constitution approaches so closely to it that in many cases the observer finds himself unable to determine whether it is size or temperament that is the more potent.

THE BRAIN AND SKULL PHYSIOLOGICALLY CONSIDERED.

The human brain, by its location in the cranium, indicates something of its nature as a part of the human organization. In the earliest times observers attributed to it a most important function in the affairs of life ; some believing that it was the seat of the living principle or the soul, or had a special relation to the spiritual element ; while there was a general belief that in some way it had to do with the intellect. The principal reasons assigned by ancient writers for this opinion seem to be the brain's situation in the skull and its peculiar structure and delicacy.

The knowledge of the Greeks and Romans with reference to the brain's anatomy appears to have been very scanty, and although anatomists like Aristotle and Hippocrates contributed much to general research as concerns the relations of the large organs of the body, yet very little was accomplished for the history of the special functions of the brain as a whole until modern times, and even as late as the eighteenth century, when medical and surgical science began to make great progress. Under the leadership of such anatomists as Willis, Boerhaave, Van Swieten, and Haller, the functions of the nervous system became better understood, and insanity was clearly traced to brain disturbance ; yet the attempts of these great men to explain the differential functions of this viscus were little more than speculations. Dr. Gall himself was not led, as some think, to the discovery of the physiology of the brain through its anatomy, but when he thought upon the course which was to conduct him to the history of its functions he deemed it quite necessary to occupy himself in part with its anatomy. Haller had said, "to learn Physiology without Anatomy was absurd." He attributed with just reason all the theoretical confusion with which the world had been inundated to those writers and teachers who sought to make Physiology and Medicine their vocation without having studied the actual organs of men or animals.

The whole mass included in the skull of man was called *encephalon* by the Greeks and *cerebrum* by the Latins. To-day a division of this mass is recognized—one part being called the *cerebrum* and the other the *cerebellum*, or “little cerebrum.” The first is situated anteriorly, and is by far the more voluminous; the second lies posteriorly, and in man under the cerebrum, as shown in the illustration. Fig. 52.

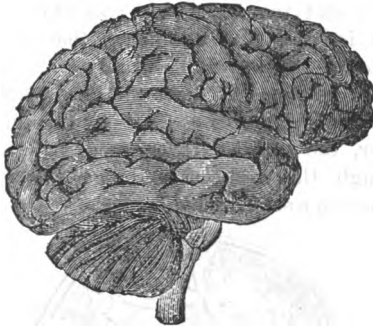


Fig. 52. CEREBRUM AND CEREBELLUM. Side View.

The cerebrum, to which allusion is generally made when we speak of the brain, is provided with folds or convolutions; the structure of the cerebellum, as is noticeable, is quite different, being composed of layers, as shown in the figure.

At the base of the brain another and rather important part is seen, the *medulla oblongata*, or oblong body, which connects the brain with the spinal cord, which in its turn is distributed in the canal formed by the articulation of the several vertebræ belonging to the spinal column.

THE CEREBRUM

is composed of two grand divisions nearly equal in size, each having an oblong form called *hemispheres*. They are separated by a deep channel in which lies a fold of the *dura matter* or membrane that covers the brain exteriorly, this fold being known as the *falx cerebri*, or scythe-like process of the *dura mater*.

The hemispheres in their turn are structurally subdivided by the convolutions; and, for the sake of convenience, anatomists have mapped these convolutions according to a standard that is based upon a

comparatively simple form of brain. They have also made a further division of the hemispheres into *lobes*. There are two classifications of the lobes in use—one defining three, the older, and one designating four, the later classification. The older describes, first, an *anterior* lobe lying in the skull over the orbits or eye-sockets; a middle lobe, which occupies the central space or fossa; a *posterior* lobe, occupying the back or occipital part

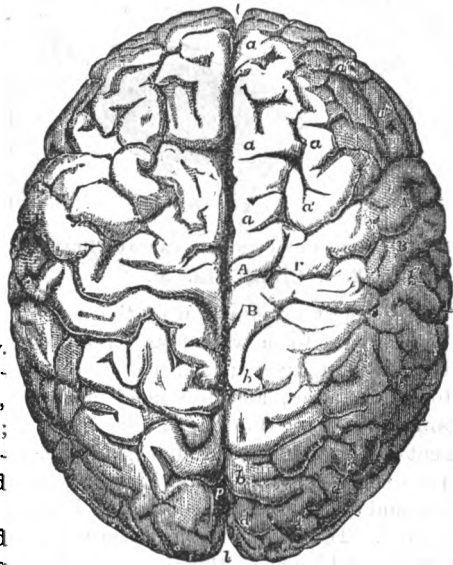


Fig. 53. HEMISPHERES. Top View.

of the cranium. The later division into four lobes is (1) the *frontal* lobe, (2) the *parietal* lobe, (3) the *occipital* lobe, and (4) the *temporal* lobe, each corresponding to the relation of the parts of the skull named, and their boundaries being determined for the most part by the more permanent fissures or openings between convolutions, viz.: the *fissure of Rolando* is taken to mark the superficial extent of the frontal lobe; the *fissure of Rolando* and the *perpendicular fissure* bound the superior extent of the parietal lobe; the *perpendicular fissure* being the posterior boundary and also dividing the parietal lobe from the occipital; and the *fissure of Sylvius*, being the upper boundary of the temporal lobe. This last fissure, it will be seen in the illustration, has a very

definite position, and separates the upper and more prolonged convolutions from those in the lower central region or temporal fossæ.

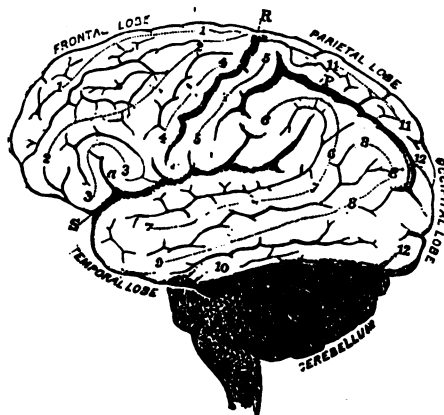


Fig. 54. DIAGRAM OF PRINCIPAL PARTS OF BRAIN.
THE CEREBELLUM.

The simplest examination of the *cerebellum* suffices to show that its structure is composed of layers; it also is divided into hemispheres, and the hemispheres again into lobes. If a lobe of this organ be cut perpendicularly through its centre, a peculiar marking or disposition of the white and gray substance composing it is observed. To this marking, on account of its resemblance to the branches and foliage of a tree, has been given the name *arbor vitæ*, or tree of life.

The hemispheres of the cerebrum are intimately associated by a band of white fibrous substance called the *corpus callosum*, or callous body, that is readily exposed to view by separating them with the fingers from above, and the cerebellum is connected with the cerebrum by means of connecting bands called *crura*; two of these ascending to the cerebrum and two descending to the *medulla oblongata*, which is the capital, so to speak, of the spinal column. Two other bands of the *crura* blend together in front, forming the *pons varolii*, which lies directly above the *medulla*; the *pons* constitutes the general bond of union of the various segments we have mentioned, and

is therefore not inaptly called the "bridge of Varolius," from the old anatomist who described it.

THE MEMBRANES.

The *dura mater*, or "hard mother," is a tough membrane that covers the whole brain and lines the interior of the skull, and is so elevated by the cerebral convolutions in life that they form impressions or grooves in the interior plate of the skull and also mark the orbitary or eye plates and temporal fossæ; so close indeed is the correspondence, that if a plaster cast of the cranial cavity be made, it will be found to have the form of the brain as it appears covered by the *dura mater*, the arteries that are distributed through the membranes being also exhibited in a striking manner.

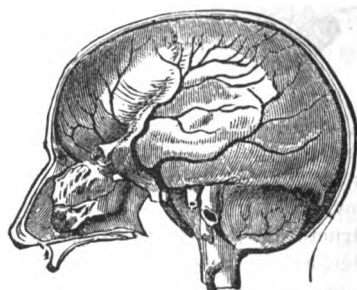


Fig. 55. BRAIN COVERED WITH DURA MATER.

Besides the *dura mater*, there are two other membranes, one directly in contact with the brain proper, called the *pia mater*, or "soft mother," which is a very thin, transparent, and delicate membrane; it sinks down into the folds of the convolutions and serves as a conveyance for the blood-vessels. Over the *pia mater* is a layer of still thinner membrane called the *tunica arachnoidea*, because of its resemblance to a spider's web.

It is the *dura mater* that secretes the bony material of the skull and is analogous to the *periosteum* or membrane-covering bones in general. If the entire skull of a healthy man could be removed in such a manner as to leave the *dura mater* unimpaired, the latter would begin at once to form new bone, and would continue the process until a new skull had been

formed. The process of absorption and repair is going on in the substance of the skull continually, and any marked change in the form and size of the brain is indicated more or less on the surface.

STRUCTURE AND RELATIONS OF THE SKULL.

The average thickness of the external layers of the cranium rarely exceeds three-sixteenths of an inch, while in organizations of very fine quality it has been found to be less than one-eighth of an inch, and then of densely compacted tissue. Hence the anatomical relation of the cranium to the brain is that of a thin capsule or case nicely adjusted to the perfect protection of the delicate substance of the latter. This bony case is not completely formed, *i. e.*, does not inclose the brain at all points until several months or a year after birth, and as the brain may continue to grow for upward of fifty years, nature has admirably provided for its expansion by constructing its bony envelope in eight sections, so matched or fitted together by indentations or sutures, that they can expand in correspondence with the brain development and its changes. Fig. 55 is a representation of the brain as it appears in its natural position, covered by its membranes. In life the entire cranial cavity is filled with the brain and its membranes, a fact clearly enough shown by injuries to the head that have detached a fragment of the skull, when it has been found that light pressure would cause the furrowed surface to rise up through the opening. Fig. 56 is a diagram representing the skull separated into its different parts.*

These parts or sections are named as follows: the *frontal*, *parietal* (2), *temporal* (2), *occipital*, *sphenoid*, and *ethmoid* bones. These bones are united to one another in a very firm manner, by a sort of dove-tailing; the edges of one fit exactly those of the adjoining bone; and the seams formed by their union are called *sutures*.

* "Indications of Character."

The *frontal* bone as shown by the engraving forms the forehead, a part of the roof of the nostrils, and the orbits of the eyes. In childhood it is made up of two principal bones that gradually grow together; in rare cases, however, it remains double through life. Joined to the frontal bone by the *coronal* suture, which runs

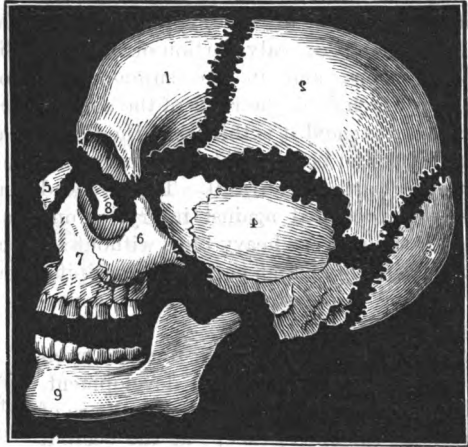


Fig. 56. NATURAL SECTIONS OF SKULL.

over the top of the head, are the two *parietal* or side bones, which form the greater part of the upper and lateral portions of the skull. The line of union between these two bones is known as the *sagittal* or arrow-like suture.

The *temporal* bones, as their name implies, are situated at the temples, and around the openings of the ears, and are joined to the parietal and occipital bones by sutures. The lower back parts of these bones form the projections noticed directly behind the ear, which are called the *mastoid* processes. In these the apparatus of hearing is situated.

The *occipital* bone forms the base and back part of the cranium, immediately above the neck. In the central region of this bone a protuberance more or less marked is found, called the "occipital spine."

The *sphenoid*, or wedge-like bone, is situated in the anterior of the temporal region; and the *ethmoid*, which means sieve-like, is a spongy cellular bone, situ-

ated between the eye sockets at the root of the nose.

Sir Charles Bell observed that the "bones of the head are moulded to the brain, and the peculiar shapes of the bones of the head are determined by the original peculiarity in the shape of the brain." There are, however, certain parts of the skull that are thicker or thinner than other parts; for instance, it is thinner at the squamous or scaly portion of the temporal bones, and in the supra-orbital plates which form the roofs of the sockets of the eyes; and it is thicker at the ridges of the frontal bone and at the sutures than at other parts of the skull. The forehead is well protected against injury, as one can sustain a very heavy blow without serious damage in that part. The occipital spine and the mastoid process are generally abrupt and angular, and easily distinguished from the broad, rounded swell corresponding to cerebral development. The integuments covering the skull are of uniform thickness, except at the occiput and the temples, where the muscular attachments are particularly elaborated, but experience enables the practical observer to detect and make due allowance for variations in thickness both of the bones and integuments, as they depend much upon temperament and race, and do not form very serious obstacles to obtaining a sufficiently accurate idea of the size of the organs from the exterior form of the skull.

THE FRONTAL SINUSES.

One of the objections most persistently levelled at Phrenology is founded on the *frontal sinuses*. Sir William Hamilton was very prominent in this regard, insisting that the existence of these sinuses was an insuperable objection to Phrenology in general, which, as Mr. Combe remarked, "was about as logical as to speak of a snow-storm in Norway obstructing the highway from Edinburgh to London."

There are two small cavities in the frontal bone near the root of the nose, formed by the separation of the two plates or tables that form the bone of the skull.

Fig. 56. These are the frontal sinuses; they do not extend above the base of the brain till about the time of puberty, and vary much in extent in adults. When very large they may cause some uncertainty in regard to the size of three or four organs located in their vicinity. The difficulties which the frontal sinuses are supposed to present to the estimation of the size of the few organs situated immediately behind them, may be overcome, to a very great extent, by practice and observation. A large frontal sinus is indicated by a prominence, usually abrupt and ridgy, on the skull directly over the inner angles of the eyes; this prominence is due to the projection or swelling out of the outer table of the cranium, while the inner remains almost entirely unchanged.

THE BRAIN SUBSTANCE.

Returning now to the brain we find that its mass is constituted for the most part of two substances of vastly different character: viz., the medullary gray or ash-colored matter, and the fibrous or white matter. The former is singular in constitution, being made up chiefly of cells or vesicular nuclei largely supplied with blood; the other is firm, inelastic, and tubular, much less vascular than the medullary substance, and constitutes nearly the whole of the nerves and the greater part of the spinal cord.

The gray substance is the part that has a special relation to mental life; in it lies the source of nervous power. Sometimes it is called the "cortical substance," from *cortex*, Latin, meaning, bark or external, because of its distribution in the convolutions. It lies also in the large ganglia at the base of the brain, and in the centre of the spinal cord for the greater part of its length, showing a singular cruciform appearance there.

The white or fibrous substance is constituted of exceedingly delicate fibres that average but the $\frac{1}{1000}$ of an inch in diameter, whose function is to communicate impressions sent to or from the vesicular matter. But their function is differential and several, and accordingly they are dis-

tributed into three kinds, viz., the *efferent*, or motor; the *afferent*, or sensitive; and the *commisural*, or connective fibres.

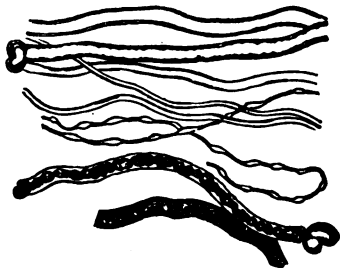


Fig. 57. BRAIN FIBRES.

The essential elements of the gray matter are cells and vesicles containing nuclei and nucleoli; these being rather dark in color and generally globular, at times very irregular, and varying in size from the

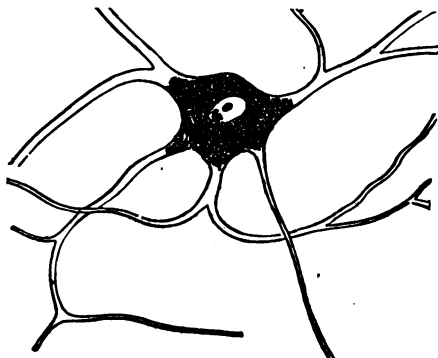


Fig. 58. A MULTIPOLAR CELL.

$\frac{1}{8000}$ to the $\frac{1}{500}$ of an inch in diameter. The largest cells are peculiar in constitution, being what is called "caudate," on account of delicate tail-like processes extending from their margins, one or more of these processes conferring names, such as unipolar, bipolar, multipolar cells, etc.

CELL FUNCTIONS.

These brain cells are found in masses chiefly in the convolutions—a fact which points at their relations to the conscious life of man; they are grouped also in the cerebellum and ganglia in the base of the hemispheres. Physiologists are generally well agreed that it is in the convolutions that the centres for consciousness and

mental action lie, so that all impressions made upon the organs of sight, taste, smell, hearing, etc., are transmitted thither and become apparent to the consciousness. Some observers are inclined to regard the cerebellum as a store-house for nerve force, but aside from the view of its relation to mentality entertained by phrenologists, there is much difference and conflict of opinion on the relations of the cerebellum to consciousness and motor life.

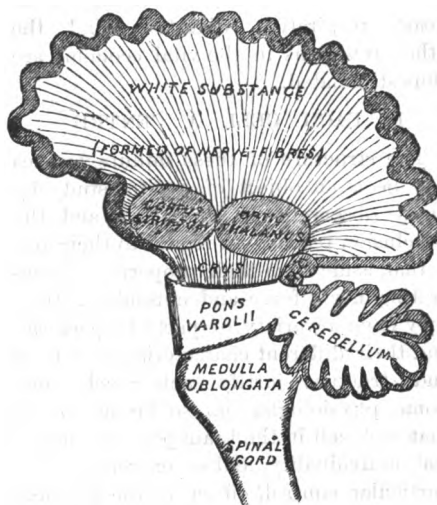


Fig. 59. ROUGH DRAWING OF BRAIN DISTRIBUTION. (MODIFIED FROM LUTS.)

The relation of the *medulla oblongata* to the convolutions is close and intimate; the fibres proceed directly from it through the great ganglia, and passing upward, forward, and backward, come into communication with the superficial folds. (See Fig. 59). It can not be said, however, that sensations received from without travel in a continuous tubule to reach the cells in the convolutions, but they are passed from cell to cell by means of connective fibres, and finally reach their destination. It is thought that the object of this arrangement is to allow of independent action for certain collections of cells in case the impression is not of the class that requires the exercise of volition or thought proper. A great part of the actions of man are performed without a

conscious recognition—in other words, are governed by what is known as “reflex action.” In walking, eating, and in the doing of many things that belong to every-day life, the muscles of the body act automatically; we get into habits of doing things which at first were subject to direct guidance of the will, but later are done without notice or mental co-operation. So, too, important functions essential to physical life are performed by organs under the control of this “reflex action”; for instance, the beating of the heart, respiration, digestion, and the other functions in the vital economy are thus stimulated.

IS EACH CELL A CENTRE ?

The structure of these minute vesicles has been an object of careful study by many observers in late years, and the conclusion reached in regard to their use is that, aside from their properties of generating nerve force and muscular action, they have a variety of parts to perform, and their different characteristics of form and structure justify such conclusions. Some physiologists go so far as to say that each cell in the brain possesses a special individuality, and so exercises some particular control, either in the physical growth and development of a special region of the body, or in the manifestation of special moral or intellectual ideas. In the latter case location in a particular part of the brain bears a relation to the class of ideas.

Luis, a French observer of authority, says: “Imagination is confounded when we penetrate into this world of the infinitely little, where we find the same infinite divisions of matter that so vividly impress us in the study of the sidereal world; and where we behold mysterious details of the organization of an anatomical element which only reveal themselves when magnified from 700 to 800 diameters; and with them this same anatomical element repeats itself a thousand-fold throughout the whole thickness of the cerebral cortex. We can not help being seized with admiration, especially when

we think that each of these little organs has its autonomy, its individuality, its minute organic sensibility; that it is united with its fellows; that it partakes in the common life, and that, above all, it is a silent and indefatigable worker, discreetly elaborating those nervous forces of psychic activity which are instinctively extended in all directions and in the most varied manners, according to the different calls made upon it.”

A German observer estimates the number of these cells in the brain at 300,000,000, and that upward of 50,000,000 are broken down and destroyed daily in the functional operations of the mental organ, so that in the course of two months the whole brain may be said to have been reproduced.

THE GRAY MATTER AND INTELLIGENCE.

In man, who stands at the head of animated nature, the convolutions of the brain are most numerous, and as we descend in the scale of being they become less and less marked, until in the inferior orders of animals they disappear altogether. Even among individuals of the human race, although there is a similarity of plan throughout in the structure of the brain, much difference in the number and depth of the convolutions is found, and also in the quantity of gray substance—which appears to have a special relation in itself to mental capability.

The disposition of the brain in folds or convolutions appears to be ordered for the purpose of giving this gray matter more extent of surface, since it completely invests the white or medullary substance, following the folds in their tortuous course—and being distributed with much uniformity—in some of the convolutions, especially the frontal, there are three layers of gray matter, but generally two only.

The division of the brain into hemispheres is an ordinance of nature that corresponds with the double constitution of the other parts of the human body in general; as the nerves are disposed in pairs and the organs of sense double, so the brain is

double, and every sensation conveyed to the brain is conveyed to the two hemispheres; and the operations performed, according to Sir Charles Bell, must be done in the two lateral portions at the same moment. Later researches show that one hemisphere, usually the left, is the more exercised in the performance of mental operations, and this accounts, in one way, for disparities in size and development of the two sets of organs. This superior growth of the left hemisphere is analogous to the larger development and more skilful training of the right hand, and in fact of the right side of the body, as a whole, since the fibres as they proceed from the hemispheres downward to and into the spinal cord decussate or cross, and thus produce effects of cerebral excitement in parts of the body opposite to the hemisphere in which the excited brain centre lies. Hemiplegia or paralysis of one side of the body, to which allusion has already been made in a previous section, is one proof of this crossed action.

COMPARATIVE GROWTH.

The average weight of the brain in man is for the male about 50 ounces, and for the female about 45 ounces. According to Tiedemann, the female brain, although absolutely smaller than that of the male, is larger when compared with the size of the body. There is great variation in the matter of size and weight; in some instances the brain has attained over 65 ounces, as in the case of the Russian novelist Tourgenieff, who died in 1884. He possessed so extraordinary a head that he could not find a ready-made hat large enough. After death his brain, it is said, exceeded 65 ounces. The eminent French naturalist is credited with 64½ ounces. Daniel Webster's brain was estimated at 63½ ounces. The English theologian and writer, Abercrombie, is given 63 ounces, Spurzheim's brain weighed 55 ounces.

Men who have not figured conspicuously in life have left on the records of medicine large weights of brain, but the facts so far as known concerning them do not discredit the principle that size bears

a relation to mental power. Quality is quite as important as quantity, so that a large brain does not of itself constitute a great brain. In weighing the brain, the whole mass as contained in the cavity of the skull, cerebrum, cerebellum, and basilar ganglia are included; we are of opinion that it is the cerebrum that should be primarily considered when size and weight of brain are compared. Dr. Flint's deductions from consultation of many authors is, "that when brain substance exists in a normal condition, intellectual phenomena are manifested with vigor proportionate to the amount of matter existing." *

According to M. Broca, the capacity of the skull increases from period to period in a race that is in a stage of development, and his opinion is founded on a series of investigations made in cemeteries of France, from the thirteenth century to the present time. A comparison of the heads of the savage, barbarous, and civilized races shows that the last have the most volume of brain. The New Caledonians, Negroes, Indians have smaller heads than the Chinese, Japanese, and Turks; while these have smaller heads than the Germans, Greeks, and English. "Comparative anatomy," says Vulpian, "shows us that the cerebral lobes receive an increase in volume in accordance with the development of intelligence." †

The brain reaches its full development anatomically about the age of 20 years, but may continue to increase in size and weight until 40 or more years, according to the health and pursuits of the individual. After the fiftieth year it usually begins to decline in most persons, and there is corresponding decline in mental powers. The minimum weight of a healthy brain is about 31 ounces. A person thus organized may be fitted for filling the commonest duties of life, but he will not exhibit any special capability; his movements will be

* "Physiology of Man," by Austin Flint, Jr., M.D.

† "Études de Biologie Comparées," by Dr. Gaetan Delaunay, Paris.

characterized in the main by simple routine. Below 31 ounces we find varying degrees of feeble-mindedness, imbecility, and idiocy; in the last, not hydrocephalic or rickety, the brain weight is but 25 ounces or less.

The position of the cerebellum when considered in reference to the cerebrum, is regarded as having a relation to intelligence; the more it is covered or concealed by the cerebrum the larger the brain and the higher the mental capacity. In the lower orders of mankind, as in the Papuans and Bushmen, the cerebellum is found to project a little beyond the posterior margin of the cerebrum; in the ape there is an analogous relation; lower down in the scale of organization, the cerebellum is observed to protrude more and more, and the articulation of the head with the trunk undergoes a change of position in correspondence with this, until in the lowest animals cerebrum and cerebellum lie horizontally.

THE RESULTS OF EXPERIMENT.

Neurological science has had for many years eminent observers who have given exclusive attention to the brain and its physical relations. But ten years (now twenty) 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 centres 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. 60 is taken from Prof. Ferrier's work, and represents the left hemisphere of a monkey's brain with the centres or regions numbered, which are said to be productive on irritation 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

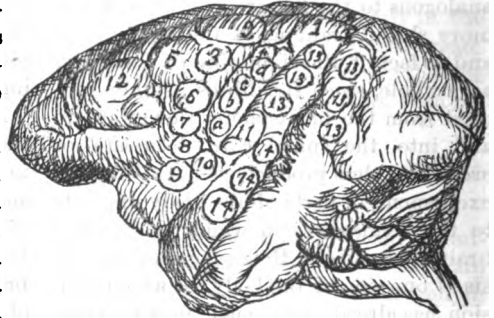


Fig. 60. MOTOR CENTRES IN MONKEY'S BRAIN. the tongue." 13 and 13, cause "the eyes move toward the opposite side, with an upward or downward deviation, according as the electrodes are on 13 and 13. The pupils also generally become contracted. 14, "Pricking of the opposite ear, head, and eyes turn to the 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 slyness; 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.*

A SURGICAL CASE.

A test of the application of these results was recently made in London, and with gratifying success. A man suffering from certain paralytic difficulties was brought to Hughes Bennett, an eminent English surgeon, who examined him and concluded that his disease was probably

* "Brain and Mind."

due, in great measure, to a tumor in a certain part of the brain, and that its removal might be followed by immediate relief.

The patient in question was informed by Dr. Bennett that he had one chance for his life through an operation upon his brain, and that immediate relief might follow with recovery from the painful malady that had brought him to the verge of death. The man offered himself for the operation, which was performed in the University College Hospital, London. An opening was made in the head of the patient, at the place marked by Dr. Bennett, and a tumor about the size of a walnut found, which was removed without difficulty. The patient rallied quickly after the operation, and is now convalescent. This case is hailed by physicians generally as an important addition to the pathological evidences in favor of organic centres in the brain convolutions, and also dates a step in surgery that is of the highest promise.

The annals of Phrenology contain many cases of fully equal interest, some of which we have already had occasion to cite in illustration of principles maintained by our system.

SIZE THE MEASURE OF POWER.

Another prominent doctrine in Phrenology is that the size of the brain in general, as well as that of each of the organs, is the measure of mental strength; of course, other conditions must be equal, such as age, state of health, quality of organism, temperament, and education. This law holds good in respect to things in the material universe; we measure the strength of iron and wood and other material by its size. It would not do, however, to compare hickory with chestnut wood, nor wood with iron, nor a silk thread with one made of wool, size for size. If we were to construct a cart wheel and put in alternate spokes of oak and chestnut timber of equal size, we know that every piece of chestnut timber would break down the first time it was heavily loaded; the oak, however, as if in aston-

ishment, would seem to look on and wonder what had befallen its weak brother. This principle applies with equal force to muscle. Horses of similar breed we match according to size, and men are estimated as strong or weak by the same rule. If we select indiscriminately fifty men of large size and fifty men of medium size, the large men will have more physical strength than the small men. The large brain is no exception to this rule. If the health be good, the quality of the organization fine, and the body large enough to supply all needed vitality, and the brain be large, we look confidently for strength, clearness, and force of mind. This being true of the whole brain, it is true of each organ of the mind.

When we find one organ large, and others less, we infer their relative strength by the size of the organs respectively. We find sometimes a large brain with a weak body; it is like a large engine with a small boiler. Occasionally we find a man of very fine quality of organization with a brain of medium size, and he manifests more talent or character, with that active brain, than many another man with a dull nature who has a larger brain. The study of the temperament or quality must also be kept in view in the estimation of mental activity and power. Our qualification is, "other things being equal," size is the measure of power. Our readers will remember the reference to the game chicken and the Shanghai.

HEALTH.

A large and healthy body is very important to the support of the brain. A man may do a vast amount of labor with a brain of average size, provided he has the brain-power and vigor of body sufficient to keep the mind hard at work without exhaustion. The late Thomas H. Benton was for thirty years in the United States Senate, and among strong and laborious men he was one of the most laborious. His strength and health of body were such that he was able to keep his brain, which was only of medium size, in such vigorous action, that few men could

surpass him in the amount of labor accomplished. Other men with larger brain could make a single effort beyond his power of attainment, but he could delve on in a practical track gathering facts and classifying his knowledge for application,

fourth as large, and the stupidity of the former and the sagacity of the latter are proverbial. We have the skull of a bald eagle, the cerebral cavity of which is more than double that of the goose, which is twice as large in body as the eagle. We



Fig. 61. THOMAS H. BENTON.

and thus surpass in the amount of labor accomplished, in a given series of years, many men who were his superiors in an occasional effort of logic, imagination, or originality. He was, therefore, a great man, on account of his strength, endurance, memory, practical knowledge, and common sense; not for invention, originality, or breadth of logical ability.

When we compare the brains of different birds and quadrupeds, we find mental activity in proportion to the size of the brain and its relative size to the body. The fox has four times as much brain as the woodchuck or ground-hog, while their bodies are nearly of equal size, and all know the vast difference between their respective mental activity. The brain of the turkey is one-third less in size than that of the crow, whose body is not one-

have the skull of a horse which weighed 1,400 pounds, and find by measurement that the cerebral cavity contains one pint, but the skull of a common-sized man contains about four pints, while his body weigh 150 pounds, which fact indicates that man has more than thirty-seven times as much brain as the horse in proportion to the weight of body.

Those men who have gained distinction in the learned professions, in great social or moral reformations, and who take the lead of their contemporaries in mechanism, art, trade, or war, have had heads of larger size than most other men. If we look into a legislative body or into a convention of clergymen, teachers, or politicians, we find larger heads than we do among the average of persons who have not made sufficient mark in society to in-

dicating their capacity to be representative and leading men. Among mechanics, we find the leaders and superintendents more largely endowed with brain than those who occupy the subordinate positions. Those men who rise from obscurity, over-

tions of the earth; the European head is much larger than that of the Hindoo, the Chinese, the New Hollander, the African, or the Peruvian Indian. The subjugation of millions of Hindoos by 50,000 Englishmen, the British conquests in China, and



Fig 62. SILAS WRIGHT, GOVERNOR OF NEW YORK AND U. S. SENATOR.

coming all obstacles, and finally stand forth in victory in the various fields of enterprise, have more than average-sized heads. In no relation in life is this doctrine more clearly apparent than among those who take eminent rank as thinkers and effective public speakers. Webster and Silas Wright, in their day, were conspicuous examples.

This fact that size of brain is the measure of power is of such universal recognition that whenever a person of active temperament and large-sized head appears, even though a stranger, he is accounted a man of mental power, and the doctrine in question is thus endorsed by the observation and intuition of mankind.

This truth is further made manifest by reference to the heads of the different na-

tion of a handful of Spaniards over a whole nation of the Peruvians, and similar triumphs in Mexico; the enslavement of the African by the English races in Europe and America, is a significant proof that large heads are more powerful than small ones, and that those nations having small heads are easily conquered and governed by those having large ones, and a more favorable endowment of brain. The Indian tribes of North America that were easily conquered by the colonists had heads of moderate size, with diminutive intellectual endowment, while those that have struggled to the death to protect their homes and hunting grounds had larger heads, and vigorous, well developed bodies to support them.

In civilized countries, especially among

aristocratic governments, education, family, succession, and other circumstances, place third-rate persons in power, and elevate them to conspicuous positions; but when a Hampden or a Cromwell, Milton, a Shakspeare or a Napoleon, emerge from

had larger heads as a whole, but they were more favorably developed in the forehead or intellectual region. This, joined with their great force of character, raised them above their fellows. Thus the wild Indian tribes have for rulers men in the full sense



Fig. 63. DANIEL WEBSTER.

obscurity and entrance the world by their muse or startle it by their genius and power, such men will be found not only having large heads, but those fine and powerful elements of body that favor greatness.

Among the aborigines of North America personal prowess in war has been necessary to distinction, hence the chiefs have larger heads than the people of their tribes generally; Osceola, Black Hawk, and Big Thunder are examples. From examination of their skulls, or busts taken from life, these chiefs are seen not only to have

of the word, with bone and brain and brawn, though they do not compare in intellect with the civilized races. With them no third-rate lawyer or politician slips into elevated station through the machinery of "regular nominations," base wire-pulling, and party drill. Nor do they succeed to power, with neither brains nor ability, from some imbecile, half demented royal family.

CAST OF NAPOLEON'S HEAD.

Persons who seem to take pleasure in raising objections to Phrenology, some-

times have the stupid audacity to assert that Napoleon's head was not large.

In *Blackwood's Magazine* for December, 1857, there was an article entitled "Phrenology in France," in which the writer reviews the "Medical Essays" of M. Louis Peisse. The argument employed by the reviewer, and the quotations he makes, appeared to us so remarkable as to deserve some attention; hence we wrote in the *Phrenological Journal* for 1858 an examination of this subject, the substance of which we here copy in the words of the writer on the cast of the head of Napoleon, which are palpably so erroneous, we cannot permit them to pass unrefuted. We quote from the review:

"Let us, with M. Peisse, examine the case presented by Napoleon. A few hours after his death, a cast of Napoleon's face and the anterior half of the skull was taken by Dr. Antomarchi. It is not often that the actual skull (a cast of the head) is thus offered to our inspection. In Napoleon's cast it is greatly to be regretted that we have only half the skull (head). That half comprises, indeed, the greater number of the phrenological organs, and all those of the higher faculties, but it is a pity we have no trace of the others. But what says the cast? The head is decidedly a small one. It is, however, extremely well proportioned. Its circumference being 20 inches 10 lines (French measurement), its dimension is by no means remarkable. M. Peisse has not explained how he arrived at this precise measurement in the absence of the back part of the skull; but from the specific size given, we presume he had some positive data."

How very easy of belief is this writer in *Blackwood*, first telling us that "only half of the head was taken," and then adds that M. Peisse gives the "specific size." How did he get it? He simply guesses at one-half of the head and is precise to the twelfth part of an inch.

Now we have a word to say about this cast and those measurements. The "French measurement" given in the essay as quoted in *Blackwood*, does not correspond with the English and American inch. The French inch is composed of 12 lines, and is equal to $1.1\frac{1}{5}$ inch English. So that 20 inches 10 lines French, given from the half guessed at size of Napoleon's cast, is equal to 22 inches English.

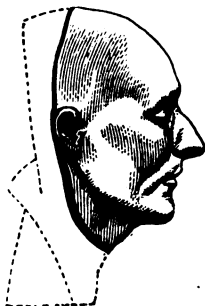
If this estimate were true, it utterly refutes M. Peisse's idea of a "decidedly small head." Twenty-two inches in circumference is not only not small, but is considerable above the average. The writer of this has measured professionally and recorded more than 250,000 heads, and any one curious to examine these records would be satisfied in ten minutes' examination that $22\frac{1}{2}$ inches is not small.

By his showing, therefore, Napoleon's head was of full size at least. But this is not all. We have in our collection this same cast of the head of Napoleon taken "a few hours after his death by Dr. Antomarchi," his friend and physician, and we will now proceed to give some measurements, which any friend or foe to Phrenology can verify upon the cast itself.

This cast, fortunately, covers something more than half of the head. It goes back of the ears, and shows their outline and their opening distinctly. The opening of the ear is the central point of development, and from this phrenologists predicate their measurements, or rather from a point half way between the openings of the ears at the *medulla oblongata*.

That the reader may see how this wonderful cast looks, we give an engraving of it which was photographed on the block for the engraver.

This shows a long and massive anterior lobe of brain, and from the opening of one ear in this cast, to the opening of the other over Individuality, or the region of the brows, it measures $14\frac{1}{2}$ inches; over Casualty $14\frac{1}{2}$ inches; Fig. 64. NAPOLEON.* over the top at Veneration, $15\frac{1}{2}$. The



* The shaded line just behind the ear shows the original cast by Dr. Antomarchi; the dotted outline of the pedestal and back shows what has been added to balance and strengthen the cast and make it stand up.

This cast, taken after death, shows the emaciated face of the great Napoleon, with its sunken eye, fallen cheek, open mouth, and deathly expression.

head measures in width just over the opening of the ears $6\frac{1}{2}$ inches, and therefore if the entire back-head were cut off at the opening of the ears the head would measure $14\frac{1}{2} + 6\frac{1}{2} = 20\frac{1}{2}$ inches. He had *some* back head, and whatever he had would add to $20\frac{1}{2}$ inches so much as it measured, at least we think $3\frac{1}{2}$ inches, giving 24 inches as the circumference.

Now any man who calls these measurements small, knows less of the size of heads than one should do who attempts to write or speak on the subject, and let it be remembered that around the forehead there is no enlargement of the cast possible by way of hair, as there would be from the ear over the top of the head.

By filling the back-head, so as to make it appear of a proper shape for a well balanced head, the measurement would be fully $23\frac{1}{2}$, and this was doubtless less than the real size of his head. The intellectual region at all events was large, as any one may ascertain by measuring the foreheads of eminent persons having large heads, as we will now show by some corresponding measurements which are open to inspection at pleasure in our cabinet. Our cabinet collection is composed chiefly of real skulls, and casts of heads and skulls, not models made up according to the artist's fancy. To these we now appeal and proudly abide the result.

poleon, and finding no head in the entire list measuring as much as his from ear to ear around the lower part of the forehead, except the single one of that intellectual giant Rev. Dr. Chalmers, and since the average measurement of the twelve cases is $13\frac{1}{2}$ inches, and that of Napoleon is $14\frac{1}{2}$ inches, and since the average circumference of all the full heads is $23\frac{1}{2}$ inches, it becomes a proper inquiry how large Napoleon's head would have been taking as a basis the comparative size forward of the ears. The question in arithmetic is simply this: If the heads of those men we have given average $13\frac{1}{2}$ inches from ear to ear around the forehead, and $23\frac{1}{2}$ in circumference, how many inches in circumference should Napoleon's have been, the forehead of which measures $14\frac{1}{2}$ inches? The solution of this plain problem gives 25 inches as the circumference. We do not claim that Napoleon's head was really 25 inches in circumference, because we believe his frontal or intellectual development was relatively larger than his social or back-head group of organs, as compared with heads generally. The Rev. Mr. Landis, in our table, the circumference of whose head by a careful personal measurement from life, shows $13\frac{1}{2}$ and $24\frac{1}{2}$ inches, weighed 245 pounds. Napoleon's weight at 23 was only 120 pounds, and he was known as the "little corporal," though later in life he became stout, and his weight was greatly increased. But Napoleon, as all confess, had a remarkably dense and fine grained organization, and his intensity of thought, and tenacity of endurance in all respects, were almost without parallel; showing conclusively that the quality of his constitution, the brain included, was far superior to that of most men.

In the table before us we have introduced a galaxy of eminent and preeminent persons, the superior quality of whose organizations none will dispute, and we find Napoleon, whose head M. Peisse, backed by *Blackwood*, attempts to palm off upon the world as "decidedly small," while in reality he stood forth the peer of Chalmers and the superior of all the rest in the development of the intellectual half of the

Names of persons, the casts of whose heads were examined.	Size from ear to ear over, individually.	From ear to ear over Firmness.	Size around the head.
Lord Wellington....	$13\frac{3}{4}$	Back of cast broken.	—
Lord Eldon.....	13	14 $\frac{3}{4}$	$23\frac{1}{2}$
Wm. Pitt.....	13	Front only taken.	—
Wm. Cobbett, M. P.	$13\frac{1}{4}$	15	$23\frac{1}{2}$
Rev. Dr. Chalmers..	$14\frac{1}{4}$	Front only taken.	—
Henry Clay.....	$13\frac{3}{4}$	14 $\frac{3}{4}$	$23\frac{1}{2}$
John Quincy Adams	13	15	$22\frac{1}{2}$
Daniel Webster....	$13\frac{1}{2}$	—	25
Rev. Mr. Landis....	$13\frac{1}{2}$	Front only taken.	$24\frac{1}{2}$
Canova.....	$13\frac{1}{2}$	15	—
Thomas H. Benton	$13\frac{1}{2}$	14	23
Cast of Burns' skull	$12\frac{1}{2}$	14	$22\frac{1}{2}$
Allowing one inch for scalp.....	$13\frac{1}{2}$	15	$23\frac{1}{2}$
Average about ...	—	15	$23\frac{1}{2}$
Napoleon's cast.....	$14\frac{1}{2}$	15 $\frac{1}{4}$ Esti- mated f'm front.	$23\frac{1}{2}$

Having thus shown the size of head and of the anterior development of some of the most eminent contemporaries of Na-

brain. The "Iron Duke," who contested with him the field of Waterloo, has a forehead $13\frac{1}{2}$ inches, half an inch less than that of Napoleon, which measured $14\frac{1}{2}$. Lord Eldon, "Lord High Chancellor of England," and a man of distinguished ability, had 13 inches; William Pitt, Earl of Chatham, the orator and statesman, had 13; William Cobbett, a British statesman had $13\frac{1}{2}$; Canova, the sculptor, $13\frac{1}{2}$; Robert Burns, a cast of whose naked skull shows $12\frac{1}{2}$ in forehead and $22\frac{1}{2}$ in circumference, and by adding an inch for scalp, we have $13\frac{1}{2}$ for the frontal measurement and $23\frac{1}{2}$ for the entire circuit, which were doubtless very near the true dimensions.

Then we have the gallant orator and statesman, Henry Clay, with $13\frac{1}{2}$; ex-President Adams, "the old man eloquent," the scholar and statesman of whom any age and country might be proud, with 13 inches and $22\frac{1}{2}$ inches for the size; Daniel Webster $13\frac{1}{2}$, and with a head measuring over 24 inches; Col. Benton, a power among men in his day, has $13\frac{1}{2}$ by 23 inches.

Every one of these heads is above the usual size, and most of them belong to the largest class, yet every one of them is smaller in the forehead than Napoleon, except Chalmers, which measured the same. We find in the review before us this remarkable passage, "Out of every ten skulls half of them would present a circumference 20 to 21 inches," French measurement, that is to say as large as Napoleon's, which M. Peisse makes to be $22\frac{1}{2}$ inches, English measurement. The statement that one-half the heads are $22\frac{1}{2}$ inches in circumference, is by no means true, and among the people of France it is signally untrue.

The question of size is now at least before the reader, and we have conclusively shown that the investigation vindicates Napoleon and the science of Phrenology most signally.

We have, however, a most excellent witness to introduce, whose testimony relative to the size of the living Napoleon's head we regard as a clincher. This witness is no less a personage than Col. Leh-

manowski, who died in 1858, aged 88 years. He entered the military school soon after Bonaparte, was with him in all his wars, fought over one hundred battles under him, that of Waterloo included, was a confidential adviser with the Emperor, and always near his person. We made the acquaintance of Col. Lehmanowski about 1840, and in 1843 he spent half his time in our office for weeks together, and as everybody old enough to remember knows, he was lecturing through this country on the character and habits of Napoleon and Josephine. In regard to the size of his head Col. L. told us that by mistake he once put on Napoleon's hat and it was entirely too large for him, and the Colonel's head we know by actual and critical measurement to be $23\frac{1}{2}$ inches. Napoleon's therefore must have reached nearly 24 inches where the hat fitted it. This fact was communicated to us by Col. Lehmanowski himself in 1843, and published by us in the "Phrenological Almanac" for 1846, before any question had been raised about the real or relative size of Napoleon's head. We have now demonstrated by the cast the large size of the forehead, and comparing this with other heads known to be large, we have shown that the back-head of Napoleon must have been large also, and by the positive testimony of his bosom friend have proved the fact that his head was more than $23\frac{1}{2}$ inches. What more can friends desire? What more can critics demand?

We reproduce this subject at this time with the more pleasure because, occasionally, some person comes into our office and has the audacity to talk about Napoleon's "small head"; and some write carelessly on the size of that head and other heads, and palm it off as truth upon the public, when the means for refuting their statements are not in the possession of the public thus duped by these falsities, though always available in our cabinet of casts. Phrenology appeals to facts, and its advocates are confident that any honest investigator will reach the conclusion that size of brain, if the quality be considered, is the measure of power.

STUDY OF ORGANS BY GROUPS.

This idea being well understood and accepted, the reader is ready to take one step further forward; if the brain, as a whole, be strong in proportion to its size and quality, then each organ and group of organs will manifest power in proportion to size and quality. If we find the

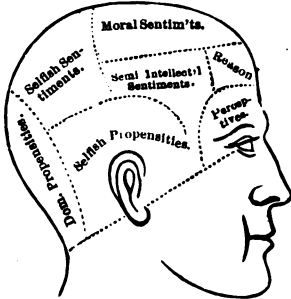


Fig. 65. GROUPS OF MENTAL ORGANS.

intellectual or anterior lobe of the brain is large, and especially if it be larger than other sections of the head, we conclude that the power of the mind will be manifested through the intellect. Another will be largely developed through the middle section of the head, above and about the ears; the middle lobes are large and broad; the American Indian, for example. These persons are found to be forceful, energetic, and selfish, and they are sometimes quarrelsome and severe in temper; they have strong animal and selfish propensities; and if we study the character of animals having heads of a similar form, namely, wide through the region of the ears, we find ferocity and cruelty, as in the case of the lion, tiger, the bull-dog, the eagle, and hawk. Men, on the other hand, whose middle lobe of brain is comparatively small, and the head thin and narrow, are gentle and patient in disposition, are lacking in force, severity, and physical courage, and have little inclination to engage in hard work or in functions of a physical character. In like manner as might be expected, the deer, the sheep, the rabbit, and the pigeon—animals which are the proper prey and victims to the ferocious animals, have always narrow heads with amiable dispositions and peace-

ful tendencies. The back part of the head is sometimes large and long from the opening of the ear backward; it is sometimes short and small. When heads are found large in this region, the persons are social, fraternal, and loving. When the head runs down straight behind and the distance from the opening of the ear to the back head is

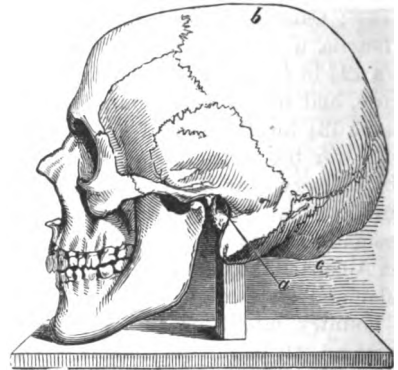


Fig. 66. WELL-BALANCED MALE SKULL.

short, the person is inclined to be solitary and unsocial. The crown of the head is sometimes elevated and amply expanded; sometimes it is low, depressed, and deficient. Those having this part of the head large, are the governing men of the world, not always the wisest, not always the most

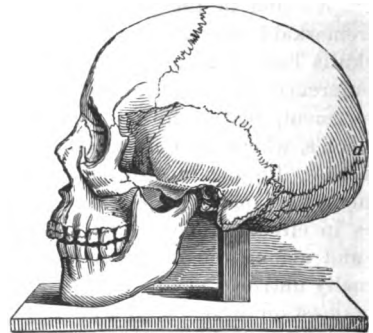


Fig. 67. BALANCED FEMALE SKULL.

courageous, but they have the desire to rule, the desire to bear sway and control others. They have the organs of Self-esteem, Firmness, Approbativeness, and sometimes Conscientiousness large. On the contrary, those who are willing to submit and are easily subjugated to the domination of others, show lowness and

deficiency of development in the crown of the head. If the front part of the top head be large and well expanded, morality, religion, refinement, sympathy, are to be expected, and if that part of the head be depressed, pinched, and small, selfishness has little to check its activity, and the person is very likely to take a low and narrow sphere of life. When a man is well developed in the forehead and poorly developed elsewhere he is all intellect; another large only in the base of the head is all force; another strongest in the back-head is all sociability; and another whose development is most in the crown, shows domination and ambition; while in another largest in the upper side head, imagination will be the ruling quality, and still another whose front top-head is specially great will be distinguished for morality and religion. When, however, talent, force, dignity, ambition, determination, and morality are combined in the same person, we have the nobility of human nature which wins the love and esteem of the world while it rules it. If Napoleon had combined the kindness of Washington with his own unrivalled talent and genius, the world would know no limit to the esteem and honor with which his name would be cherished.

After studying the groups, the Intellectual, the Moral, the Aspiring, the Forceful, the Selfish, and the Social, we then study the different organs in each group to ascertain their relative size and the direction in which the mind will work strongest in these groups, and just at this point it is that practical Phrenology begins its work.

The GROUPS OF ORGANS (see Fig. 65) should be studied in any effort of generalizing character. Those organs whose functions work in harmony in the promotion of forces naturally related are grouped together. We shall speak of them in the order in which they will be discussed or described in the following pages.

1. DOMESTIC PROPENSITIES.—The organs are located in the posterior part of the head and they relate people in domestic and social communities. The organs are Amativeness, Conjugal Love, Parental Love,

Friendship, and Inhabitiveness, and when large the occiput or back-head is elongated and broad.

2. SELFISH PROPENSITIES.—These are located on the side-head about the ears, and when large give width to the head in that region. They relate to the welfare and protection of the individual, hence their name. The organs are Vitativeness, or love of life; Combativeness, Destructiveness, Alimentiveness, Acquisitiveness, and Secretiveness.

3. SELFISH SENTIMENTS.—These are located in the region of the crown, and give elevation and distance from the opening of the ear to that part of the head. The organs are Cautiousness, Approbativeness, Self-Esteem, and Firmness. They give dignity, ambition, prudence, and stability.

4. MORAL SENTIMENTS, grouped in the top of the head, giving breadth, fullness, and elevation to that region. The organs are Conscientiousness, Hope, Spirituality, Veneration, and Benevolence.

5. SEMI-INTELLECTUAL SENTIMENTS.—These are located in the region of the temples, in the upper and forward side-head. They are Constructiveness, Ideality, Sublimity, Imitation, Mirthfulness, Human Nature, and Agreeableness, and supply the artistic, mechanical, conforming, and refining elements of character, as will more fully appear in the description of the function of each.

6. INTELLECTUAL FACULTIES.—These are of two classes, the Perceptive and the Reflective faculties. The Perceptives bring man into connection with the world of things, while the Reflectives classify and compare the knowledge so obtained, comprehend the laws and principles involved, and impart the power to reason.

The PERCEPTIVE FACULTIES are Individuality, Form, Size, Weight, Color, Order, Calculation, and Locality.

7. The SEMI-PERCEPTIVE OR LITERARY faculties, situated in a line running across the centre of the forehead, are Eventuality, Time, Tune, and Language, the latter pressing upon the plate over the orbit of the eye presses the eye outward and downward.

The REASONING or REFLECTIVE faculties are Causality and Comparison, located in the upper part of the forehead, and for a full analysis the reader is referred to a description of them individually.

CONTINUITY, not classified, seems to give unity of thought and feeling, and aids in promoting patient and continued effort whatever faculty is in exercise.

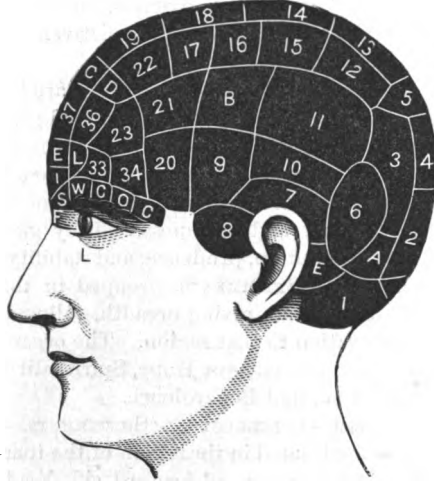


Fig. 68. LOCATION OF ORGANS.

ANALYSIS OF ORGANS AND FUNCTIONS. DOMESTIC PROPENSITIES.

1. AMATIVENESS.

This organ is located in the cerebellum or little brain, and when large gives breadth and fullness to the base of the skull at the nape of the neck. Fig. 69. It produces physical love between the sexes as such. Its primary office is the continuance of the race. It leads by a law of nature each sex to treat the other with kindness and courtesy. Before this propensity comes into activity, girls and boys may disagree and quarrel with each other, but not so readily as girls would disagree with girls, or boys with boys. But when that time of life comes that this faculty awakens to activity, nature dictates forbearance, courtesy, and kindness between the sexes. Each comes to regard the other with special favor, and is anxious to be loved by the other, and this organ, though physical and animal in its

tendency, inspires efforts in the direction of respectability, worth, and refinement. The rustic boor, who knows scarcely the



Fig. 69. R. VIRCHOW.

first laws in gentlemanly bearing, becomes transformed, in feeling at least, when his love element finds its object, and his manners are changed by the awakening of the intellect and the elements of taste, and pride, and nobility, that enable him to assume a bearing which is surprising; the drift and scope and aim of his life seem to be changed.

The shy and awkward girl also, as her womanly nature awakens, manifests life on a new model; her voice has in it more of richness and music than before; her eye acquires a new lustre; her walk becomes elastic, if not always graceful, and every motion is comparatively attractive and winning.

A young man sometimes floats carelessly along the stream of life regardless of time, money, or reputation, until some fair being, his natural counterpart, awakens in him newness of life; he is then altogether changed in purpose and effort; he

begins to covet respectability and refinement; saves his time and husbands his means and seeks a position of manly independence. In every well constituted and unperverted mind this result will in a greater or less degree occur.

If we study the influence of this passion upon the lower animals, we find that the male will not fight with the female or manifest cruelty toward her; in this case we know of no exception. We are sorry to say that among human beings cursed with intoxicating drinks and other artificial influences, fierce quarrels between men and women and sometimes murders occur; but these grow out of morbid conditions, and not unfrequently out of special abnormal action of the love element itself, and that which ought to become an attraction between them becomes a source of discontent and disagreement. Jealousy is more often based on the undue activity of this faculty than on any other. The office of this propensity is to propagate the species, and though it is the basis of physical attraction between the sexes, it does not necessarily induce that institution called marriage, as marriage is not necessary to the continuance of the species, that depending upon another faculty, which will next be discussed.

A. CONJUGALITY.

The mating instinct arises from the faculty of Conjugality or union for life, and is the basis of marriage and of the laws and customs which recognize the life choice of one woman for one man. Mating for life does not depend upon Amativeness. That, as we have said, is exercised among the lower animals without any permanent union, but some of the lower animals pair for life and are as constant in affection during the whole year as they are during the procreating season, showing that for ten months in the year Amativeness is not their bond of union. To prove that Conjugality or any other is a special faculty, we have only to ascertain that some of the lower animals manifest it, and in order to show that Amativeness is not a bond of perfect and continued

union we refer to some others of the lower animals. Some birds and animals choose a sexual mate and remain faithful to that mate during life, as the lion and the eagle. Sheep and horses associate promiscuously,

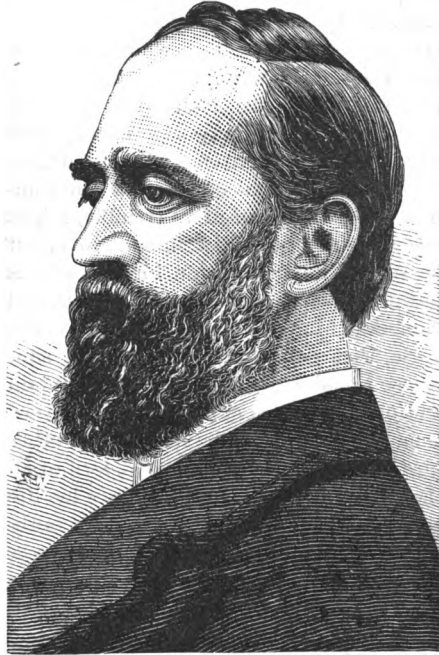


Fig. 70. WILLIAM ORTON. CONJUGALITY.

Amativeness being the only bond of union, and they do not choose mates. Now the lion and the eagle manifest one faculty that the horse and sheep do not evince—which is proof that the disposition to choose a sexual mate, permanently, is a special faculty. Man has all the faculties manifested by the animals, and several which the lower animals are denied.

Conjugal Love in frequent instances comes into activity before Amativeness, and young persons, obeying its instincts, often select each other as mates and never regret the choice, or change in the least; and some of the most perfect and happy of unions which we have ever known have been those formed in childhood, five years perhaps before the promptings of Amativeness were experienced. Such persons do not regard the engagement as a yoke of bondage, but as an achievement and

source of rejoicing. There are some, we know, who insist upon it that constancy in love, which is exclusive and personal and lifelong, is an imposition, and unnatural; that marriage and all its laws are an imposition upon the common people, enforced by the bigotry of priests and the tyranny of kings. But who will assert that the lion, the king of beasts, and the imperial eagle are controlled in their mating habits by any law except that which God has written in their natures. The lion, whose voice makes all other animals and man himself to tremble, might assert his right to indiscriminate love, but he selects his companion for life, and is faithfully attached to that one object and choice of his affections. The imperial eagle, that gazes unabashed at the sun, whose broad wing sweeps over mountain and plain, whose very shadow causes every song of the forest to be hushed and other birds to hide in fear, the eagle, lord of all that wings the air, quietly chooses his life companion and lives in the bonds of faithful wedlock, and perhaps for fifty years they build and inhabit their nest on some solitary crag that overhangs the sea, and there together, year by year, feed and rear their young. What kings and priests interfere to impose marriage upon lions and eagles? Is their marriage institution an imposition, a burden, or a yoke of bondage?

MATING ANIMALS SUPERIOR.

All classes of animals that choose their mates show that they have superior social development, and in such the male takes an interest in the young. Animals that associate promiscuously and have no Conjugality, evince on the part of the male very little, if any, Philoprogenitiveness or parental love. The cow, the mare, the hen show great care for their young, but "Where are the fathers?" Do they consort with, cheer and protect the mother during gestation, or help feed and protect the young when they are produced? They do not even know or acknowledge them as their own.

On the contrary, the gander, who chooses

his mate, helps select the site for the nest, does his share in building it, sits by her side during the weary weeks, or sits upon the eggs during her temporary absence, and thus aids in the incubation, and when the downy brood is hatched, with what pride and stately gallantry he leads and protects his family, as boys have good reason to remember if they ever tried to become too familiar with the goslings.

Some birds and animals choose their mates every year, during the breeding and rearing season. In all these cases the male adheres to his mate with fidelity, and helps protect, feed, and rear the young. The male robin and many other birds that choose their mate, work as hard in bringing food for the young birds as the mother does. He acknowledges them as his own, and their mother as his consort. This is marriage; it is not mere lust, although that element may be as perfect and complete as in the unmated birds. Some animals, wolves especially, whose habits are solitary, mate and live faithfully until the young are reared and able to take care of themselves, when they separate and each takes a several way. They may live, and mate and marry for the next year, as circumstances may make it convenience or possible, but the point is they do not associate promiscuously.

The fact that all nations have some rule in relation to sexual association indicating a more or less perfect idea of permanency in the marriage relation, shows that from man's inmost life there flows a sentiment which seeks permanent companionship. Some luxurious and sensuous nations have established polygamy, but the general voice of mankind, and even Turkey, if it could speak with freedom, would dissolve the polygamic state and assert this natural law of individual marriage.

SOCIAL CRANKS.

Occasionally persons may be so constituted that marriage is a burden. If they lack the faculty of Conjugal Love it will seem to be so; but such persons ought not to regard themselves as the end of the law, as the centre of wisdom on this sub-

ject. The world would ridicule a man who having no knowledge of arithmetic was to laugh about and ridicule the idea of problems and the multiplication table and mathematics; the world would pity him, and the man who could not distinguish musical harmony, if he were to write against music, the world would call him an idiot in that particular. If an inquiry were to be made there would be found persons who were idiotic or deficient in each of the faculties; one lacks wit, and he is angry at all mirth and fun and jokes; another has no imitation, and he would decry the stage, though he can be a Shylock if he loves money well enough. Another lacks dignity; another respect for public sentiment; another dislikes children; another hates women, lacking Conjugal and Sexual Love. Another person lacks Friendship or Adhesiveness; there are persons that never had a friend, and don't want one. Another forgets to eat, and wonders why he feels weak; he is deficient in Alimentiveness; another has a poor memory, and another has poor reasoning power, and, lastly, another has a lack of Conjugal Love, and tries to teach that the whole world are fools when they submit to the loving relation of faithful marriage, which he calls a yoke of bondage. It is not strange that some people may be deficient in this, and other people may be idiotic in any one of the other faculties, or if not idiotic so weak as to be a subject of pity. If those who object to marriage belong to that class who are merely governed by Amativeness in the matter, it requires no argument to repudiate their claims to the position of teachers on this subject. They may be intellectually wise; they may be technically honest as to property and social rights, but if they lack Parental Love they will not want children; if they lack Conjugal Love they will not want marriage. If they have strong Amativeness they may desire society through the action of that faculty. Some have been badly mated, and their other faculties quarrel, and they drift asunder and inveigh against marriage during the rest of their lives. Not more than one

in 10,000 is idiotic in Causality, or in Tune, or in Conscience, or in Conjugality, but the man who is idiotic in Tune sometimes good-naturedly allows people to sing, if they don't get too near him; but he calls it racket, just as those who are deficient in Conjugality call marriage slavery and bondage.

This view of the mental development of course stands opposed to every form of license which is contrary to the law of nature in respect to this faculty. We know that those who claim that Amativeness is the only bond of union between the sexes profess to obey the law of nature. As well might a father obey that law of nature in the production of the child and deny Parental Love in the necessary aid and protection for the maintenance of the child. The whole world would make itself hoarse inveighing against such heartless conduct, and the courts of justice compel men to provide for their offspring who are unfortunately out of the pale of wedlock. The only true marriage is where this faculty brings the parties into a holy and permanent union in cooperation with the procreating instinct, and the Parental Love which cares for the progeny; and when we find animals that do not mate permanently, leaving the entire care and protection of the progeny to the mother, it is an argument to show that in the human race there is something lacking in those whose males imitate the horse, the ox, and the swine, instead of the higher type of social animals, the lion, the eagle, the robin, and the goose, the males of which tribes foster and protect their young. The male turkey that hunts the nest to destroy it is a knave and a scoundrel, socially, as compared with the gander, the eagle, and the robin who help make the nest and help care for the young. Free love animals and free love men lack something which does them no credit. Conjugal Love, the special, life-long, individual, and exclusive mating, is human, honorable, natural, and the only sound philosophy of sexual mating. *

* Condensed from "Thoughts on Domestic Life, or Marriage Vindicated and Free Love Exposed," by Nelson Sizer. Fowler & Wells Co. publishers; 25 cents.

2. PARENTAL LOVE.

Parental Love, in respect to the human race as well as to most of the tribes of animals and insects, is a prime necessity to the young. Almost everything requires the parental care and protection, without which it would perish on the very threshold of its existence. It is an exercise that exhibits the beautiful economy and harmony of nature that the parents in every circumstance of life have an endowment



Fig. 71. J. H. MAYNARD, Lawyer.

A good face, practical forehead, and very strong social development, especially Parental Love.

of this faculty in exact proportion to the wants of their young. Many insects show the mere instinct of depositing their eggs where the sun will hatch them, but they never recognize their young as their own or exhibit the least care for them; but since such young animals do not need the exercise of the faculty, it is not bestowed on the parent. The more helpless the progeny, as in the human race, the more intense is the Parental Love, and the longer that helplessness continues, the more prolonged and enduring and faithful is parental solicitude. This is shown in respect to weak, deformed, and idiotic children. Their extra helplessness intensifies the parental faculty, and perhaps

is added to intensify the care and solicitude. Pope beautifully elucidates this point:

Thus beast and bird their common charge attend—
The mothers nurse it, and the sires defend;
The young dismissed to wander earth or air,
There stops the instinct, and there ends the care;
A longer care man's helpless kinds demands,
That longer care contracts more lasting bonds,
Reflection, reason, still the ties improve,
At once extend the interest and the love.

The love of young may be called a pivotal organ, the location of which is easily found on the head, the size of which may be easily determined by a mere novice. If proof of the truth of Phrenology were wanting, we could point to the organ of Parental Love, showing its large development in the middle back head, and appealing to his consciousness of its deep and abiding power in nearly every one, more especially in those who mourn for their children loved and lost. The organ is located in the centre of the part of the head directly above the little bony point which is often quite prominent, and when large it gives length to the head from the opening of the ear backward, and imparts an elongated fullness to the back head. Fig. 71.

The manifestation of this faculty is so various even among human mothers, and so diverse in power in the character of the different species of animals, that the truth or falsity of Phrenology might easily be determined by studying that faculty alone. The little girl loves her doll, her kitten, or her baby sister. The boy cherishes his pet dog, horse, or little brother. But the full fruition of Parental Love can never be experienced except by the parent for his offspring. Those who fail to have children sometimes adopt the children of others, and manifest all the parental solicitude which is necessary, but in the same persons their own children would awaken a depth of tenderness and parental affection that none other could possibly do. The birth of the little stranger, heralded by a thousand harrowing anticipations, calls into exercise not only parental love but all the other social feelings; Conjugality sanctified the matrimonial

union, Amativeness consummated it, and the fruit of that union is literally, to its parents, bone of their bone, and not only bound to them by generation and birth, but also by the added ties of Adhesiveness or Friendship, and thus the child becomes the holiest of the household gods. Parental Love is not based on the talent, beauty, or perfection of the young, though these qualities excite agreeably many other faculties in the parent. Nor is Parental Love, as some, like Prof. Bain, have asserted, the result of general kindness and sympathy or benevolence in the parent, for many are very benevolent in general, but lacking Parental Love have not the slightest love for a child as such. But the true mother, well endowed with the maternal instinct, is not satisfied when she knows that the child is merely fed and kept clean and healthy. She yearns to strain it to her throbbing heart, and to smother it with maternal caresses.

It will be more clearly seen that Parental Love does not grow out of Benevolence from the fact that lions, tigers, hyenas, wolves, hawks, and other fierce and treacherous creatures show quite as much parental affection as those which are the most docile and mild tempered. Even the most quarrelsome and severe of human beings often show parental affection in a very high degree, the feeling being indicated by no means in proportion to their deficiency of general kindness. The Caribee Indians, the very lowest in morality and intelligence of all the American Indians, and distinguished above them all for ferocity and cruelty of disposition, are nevertheless remarkably fond and tender towards their children. These man-eating rapacious Caribs, who rush upon their enemies with the deadly rage of the tiger, incited with the single desire to kill and eat them, are generally more kind to their children than any other nation of the savage tribes. They will sacrifice personal ease and comfort for their protection, and will also become frantic at their loss; indeed the only redeeming trait of the Carib's nature is not the result of morality or benevolence, for he is very deficient in

these faculties and hence in the organ by which they are manifested. His organ of Parental Love or Philoprogenitiveness is so large as to constitute an apparent deformity of his head, and his excessive love of children, notwithstanding the most rapacious cruelty, redeems his character from the utter abhorrence of mankind.

We once examined a man's head and found this organ excessively developed. We desired to make a startling statement, and said to him that he would make a good step-mother, and that if he had no children he would be likely to adopt one or two, so as to have the house and the heart furnished. He replied that he had eight children of his own and had adopted eight, and he was enthusiastic in describing his children. He had them sit at the table alternately, the true children and the adopted children, like black walnut and ash in wainscoting. He proudly said that he and his children did much to run the Sunday-school, and especially the choir, of the church he attended. When we asked him what his pursuit was, he said that he made toys for children; ran a large factory in that interest. Ten years later we met a man with a similar form of head, and for the second time used the same phrase, that he would make a good step-mother, and to round it out we told him the story of the Vermont man who had adopted eight children and made his living by the manufacture of children's toys. When we asked this man what his business was he replied that he was a brother of the other man and kept a warehouse in Maiden Lane for the sale of his manufactures, a specialty being baby carriages.*

3. FRIENDSHIP OR ADHESIVENESS.

It is the nature of this faculty or propensity to give general friendship. See Fig. 72. It is not confined to sex, to persons of equal age or similar circumstance. The child is first conscious of the caressing care of Parental Love, and this awakens his Adhesiveness, being surrounded

* "Forty Years in Phrenology," by Nelson Sizer. Fowler & Wells Co. publishers.

by brothers, sisters, and playmates his fraternal feelings are called out and gratified. It reaches forth to clasp not kindred only, as brother, sister, or cousin, but also the neighbor, to make friends with those who are strangers. It asks for



Fig. 72. JOSEPH JEFFERSON, Actor.

An amiable face, loving mouth and chin, soft, gentle eye, a refined nose, strong moral brain, good intellect, and decidedly strong affections; wins the world by his tenderness and affection, though he is a man of talent, and especially has he sympathy and human nature, hence his perfect personations of sympathetic character. Organ of Friendship large.

fellowship, for affection, for fraternity; it seeks all who will respond to friendship. It exists between men, between women, between men and women; some of the most exalted and signal specimens of friendship have existed between men, as in the case of David and Jonathan, Joseph and Benjamin, Damon and Pythias, and also between Ruth and Naomi. Nowhere can richer indications of affection be found than is expressed by Ruth to Naomi, "Entreat me not to leave thee; for whither thou goest I will go and where thou lodgest I will lodge; thy people shall be my people, and thy God my God. Where thou diest will I die, and there will I be buried; the Lord do so to me and more also if aught but death part thee and me." Again, we read, "The soul of Jonathan

was knit with the soul of David, and Jonathan loved him as his own soul." This feeling of Friendship can exist in its full strength disconnected from all the other social forces, but it greatly strengthens the affection existing between husband and wife, though it is not absolutely essential to matrimonial affection. Friendship arising from the faculty under consideration often exists between a man and a woman before any other love is awakened. Men and women innocently agree to write "letters of friendship," and that is the only feeling that prompts them. In process of time, the bonds of friendship being strengthened by correspondence, a look, or word, or other slight incident awakens between them the conjugal impulse, and in a moment their thoughts of each other and of their relations for life are changed. Before they were friends, as two men or two women could be, nothing more; now they are lovers, and their best aspirations and joys are conjugal.

Man can not enjoy life alone; he is constituted for society, for union and intercommunion with other persons. From this feeling people are drawn together into groups; they build towns, villages, cities, where many may be near each other. Some of the lower animals manifest this disposition strongly, others in a subordinate degree, and others appear to act under the influence of some other propensities. Among those which go in flocks and herds and show by their gregarious, society-loving spirit that they possess this same faculty, are horses, cattle, sheep, swine, many kinds of fishes, pigeons, crows, blackbirds, turkeys, geese and ducks, hens, martins, and swallows. Among insects, we find bees and ants as conspicuous examples of the tendency to fraternize, and those which do not go in herds and flocks are lions, tigers, hyenas, panthers, wolves (except when they combine their strength to assault animals larger than themselves), foxes, bears, the eagle, hawk, and the lonely albatross.

One of the meanest animals we know, the swine, has hardly a redeeming trait, except its social qualities. It loves its

young and protects it. But the little pigs fight with each other, and the older ones manifest utter selfishness by personal quarrels and greedy appetite, but when one of their number is assaulted, the rest rush to the rescue, showing a strong fraternal spirit. If a hunter wounds a pig, and he makes an outcry in the forest where swine run wild, they will come running from every direction with mouths wide open ready for the fight, and perhaps forty infuriated swine of every size will beset the hunter, compelling him to climb a tree for his life, and where he may be obliged to remain for twenty-four hours before his fasting foe will leave its sentry to supply its wants in the distance, and thus give the invader a chance to descend and depart. We have known families that would fight among themselves, but if an outsider interfered, they would make common cause against him or her. It is said to be dangerous for a man to throttle another man who is fighting with his wife, and that the wife thus befriended has been known to seize a broomstick and belabor the invading neighbor, and then tell him to go about his business, and that "if her husband wished to beat her it was none of his business."

4. INHABITIVENESS.

This organ is the basis of the home instinct and of patriotism. It is located immediately above Parental Love, and gives fullness to that part of the head, and length from the opening of the ear to the designated location of that organ on the surface. In discussing the phrenological faculties we make frequent allusions to the lower animals, not because in all cases we can examine their heads and determine the development, but because their instincts, exercised without culture, manifest the voice of nature in them, and show the quality of mind and the propensity or passion we are discussing with more vividness, being unwarped by prejudice, unguided by reason or sentiment, love of reward or fear of shame; and thus their traits show much light on the subject of the faculties of the human race. It must

be borne in mind also that whatever faculty can be found in the lower animals is also found in man. There is scarcely a being upon earth that does not manifest continually a strong love of home; it is said that even fish have their winter quar-



Fig. 73. JOHN DAVIS, Associate Justice of the U.S. Court of Claims. Inhabitiveness large.

A temperament favorable to literature and science, and at the same time strength and calmness and force; a good back-head; ambitious, honest, intelligent; fine Language, as shown by the fullness of the eye, and is at home in the social circle; the fullness of the lips and the grand development of the chin show the physiognomy of love and affection.

ter quarters and their regular summer spawning grounds; that they live in schools or shoals, keep together, and together go up the same river year by year. Certain it is that migratory birds in the wild state, such as geese, ducks, martins, robins, the "phoebe," and many others whose merry songs are very welcome and familiar, return year after year to build their nests in the same places. Persons who are curious in matters of this sort have caught the swallow, the martin, and the faithful phoebe, that builds her nest under the bridge, and attached to the neck

a brilliant bit of metal, and true to their love of home they have returned to rebuild their nests and bring back the tiny medal which they had worn during the winter in the sunny South. It is said that the robins of Vermont winter in South Jersey and Delaware, while the Jersey and Delaware robins find their winter home in Virginia, and those of Virginia go to Carolina, Georgia, and Alabama. Wild geese, ducks, and pigeons build their nests in communities, and go in flocks on account of their fraternal Adhesiveness, and when the blasts of autumn warn them of the approach of winter, leave their summer home and fly in flocks toward their sunny southern home.

The cat is a good illustration of the love of home, though she has something of friendship for the family where she has been reared, fed, and petted; yet when that family moves, the cat regrets the departure of the family, but composes herself on the doorstep and stays with the house, clings to the home, and waits for some strange family to come and occupy the house, and perhaps in turn it moves away and leaves her in sole possession. The dog, on the contrary, although he may love the home, loves the family more than he does the home, and he is very careful not to be left behind when the family departs. He may whine and bid a regretful adieu to the homestead, but the family, not the home, are the objects of special endearment.

The home instinct is developed into great activity in the child. Almost as soon as he learns to love his attendants and friends, he wants his crib, his little chair and his particular place at the table and fireside; and the pleasantest recollections of old age are those that go back and cluster around the doorstep and the hearthstone of the early childhood home. The richest, at least the most popular of the poems, are born of this affectionate memory, of which we may mention Morris' "Woodman, Spare That Tree," and the dearest thought of all is, "In youth it sheltered me." We have only to add to the love of home the feeling of Veneration

to inspire "The Old Family Bible," the "Old Arm-chair," "The Old Oaken Bucket," and "The Old Farm Gate"; but the poetic embodiment of all is the home feeling expressed in "Home, Sweet Home."

Patriotism, which is called the most sacred of the human impulses, the grandest, the most heroic, comes from Inhabitativeness. The love of the particular town, street, neighborhood, house, room, place, has its origin in this organ. This patriotic feeling was remarkable in the Jews, and in their captivity in a strange land they moaned "By the rivers of Babylon, there we sat down, yea, we wept when we remembered Zion." "How shall we sing the Lord's song in a strange land?" "If I forget thee, Oh Jerusalem, let my right hand forget her cunning." "And Naboth said to Ahab, the Lord forbid it me that I should give the inheritance of my fathers unto thee." "If a man sell a dwelling house within a walled city he may redeem it within a year after it is sold; the houses of the Levites are their possession."

The history of mankind has largely been a history of war, and on one side a nation desires to acquire and annex more territory; that is, glorify its own nationality. The other side are defending their homes, their firesides, their native land. France looks upon her lost provinces, Alsace and Lorraine, and is laying up money, training up children, hoping and waiting to reconquer and have them back. The Hungarians, about 1850, had their great struggle for nationality. The wars between England and Scotland made the land bloody for ages. Wallace and Bruce have their names canonized in memory and in song as brave defenders of their native land, and the Green Isle is perhaps as intense and fierce an exhibition of Inhabitativeness as the world's history has shown. No matter where its sons may roam or rest, they seem ready to fight individually and collectively for the old sod, and although they may never have owned a rod of its territory, they are just as willing to fight for it, apparently, as if they held in it an inheritance in fee simple.

The necessities for a home or special place of abode are numerous and urgent. Friendship and love require a common meeting place. Man and many of the animals need a place to lay up food for the future, and all animals and insects require a place to rear their young or to deposit their eggs.



Fig. 74. WILLIAM M. EVARTS.

Continuity large; U. S. Senator, great-grandson of Roger Sherman. Head very long from opening of the ear forward and upward; a clear, far-reaching intellect; fine language, excellent moral development, and keen wit.

It would seem reasonable that man should gravitate towards the most fruitful places where the soil and climate would make life pleasant and easily sustained, and we think that the system of railroads that makes travel rapid, easy, and cheap, is having a tendency to unsettle the spirit of home love. Men go from New England, or from the Atlantic coast, or from the central sections of the United States to the far West, and because they can come back so rapidly and easily they have a feeling that they are not very far

from the old home; but the children of those emigrants become attached to their native place, and it is sometimes amusing and yet sad to see in a single family, for instance, in Massachusetts and New York, who go to Ohio and raise two children; to Michigan, and have another; to Kansas, and have two more, and then perhaps go still farther West and have one or two more, and when they all get together and are talking about home, the father will think about Massachusetts with tenderness, the mother will speak of her native place in New York State with tears in her voice, the Ohio boy and girl will proudly call themselves Buckeyes, and the Michigan, and Kansas, and Colorado children will each argue for their native plain. Thus love of home induces men and animals to inhabit the extremes of climate and the most forbidding localities, and give to each not intellectual praise of his particular locality, but that abiding love for it that defies arguments and makes the road seem easy to comfort and profit. Thus, as Goldsmith has sung:

“The shuddering tenant of the frigid zone
 Boldly proclaims that happiest spot his own,
 Extols the treasures of his stormy seas,
 And his long nights of revelry and ease.
 The naked negro panting at the line,
 Boasts of his golden sands and palmy wine—
 Basks in the glare, or stems the tepid wave,
 And thanks his gods for all the good they gave.
 Such is the patriot's boast, where'er we roam—
 The first best country ever is at home.”

Home, then, is the place where friendship and love can be enjoyed, where the good things of life can be stored and shared with the loved ones, and where mental culture can best be acquired and used. Love of home, in the abstract, we regard as one of the strongest incentives to virtue, and one of the most important safeguards against vice and profligacy. There is no other word in the language around which cluster so many sacred memories; none so hallowed, so beloved as *home*.

5. CONTINUITY.

This faculty gives the power of mental abstraction; the ability to devote the intellect or to confine the feelings to a given

subject or object with patient, consecutive application, sometimes to such a degree that all other ideas, and even a consciousness of one's surroundings are lost. Men get into a brown study so that they do not hear the clock strike; are not conscious of the passage of time; get hungry, or their fire goes out; they are so glued, as it were, to their line of thought that all else is neglected. These have large Continuity as a rule. Sometimes people ask what is the difference between Continuity and Firmness? When we say that Firmness gives a stiff, determined fortitude, decision of character; that it serves to brace up the other faculties to the work in hand, the distinction will be understood. Firmness gives determination and obstinacy of purpose, while Continuity gives a patient, perfecting, plodding application. Of two stone-cutters with equal Firmness, they will be alike thorough and persevering, but if one has large Continuity he prefers to use the drill in one place for hours, while the other with small Continuity craves variety, and prefers to use the chisel in cutting and dressing the entire surface of the stone. Each exercises Firmness and energy in equal degree, but one brings his whole mind and energy to a single point, while the other indulges his love of variety in giving only a few blows in one place.

In England an artisan serves seven years to learn, and follows for life a single branch of trade, and bends his entire mind on that, which gives facility and perfection to his skill in that one line of effort; while in America a man is in turn a farmer, a carpenter, a blacksmith, a shoemaker, a teacher, a lecturer, and perhaps a lawyer, and can pursue each with tolerable success. A man residing in Indiana, about forty years of age, called at our office for an examination, and we told him he had so much ingenuity and such small Continuity that he would be likely to spend his whole life in learning trades rather than following one. He replied that he could get full wages in seventeen different trades, but that he preferred the last one he took up, gunsmithing, and

that he had confined himself to it for three years.

We find in some a mechanical pride to be able to say, though perhaps a mason by trade, "I made that bass viol, tuning fork, rifle, writing desk, table, carving knife, set of spoons, and the boots I have on." Thus men with moderate Continuity will neglect their regular business and spend their time, just to show what they can do, in tinkering at things which they could earn, nicely made, and in half the time, by working at their own trade. Many a mechanical genius thus fritters away his time, and his family suffers for proper support, proving that the "rolling stone gathers no moss." If a child have small Continuity he may be kept strictly to one thing; if it be large, let him follow a variety of pursuits or studies to impart the necessary elasticity and versatility to his mind.*

SELFISH PROPENSITIES.

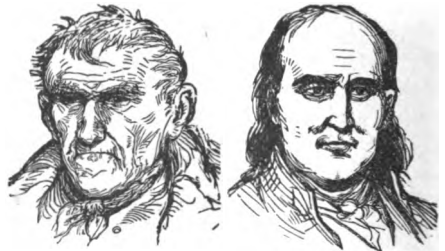


Fig. 75. LARGE.

Fig. 76. SMALL.

These are Vitativeness, Combativeness, Destructiveness, Alimentiveness, Acquisitiveness, and Secretiveness; their object being the protection and preservation of self; they begin and end with self, though they may be used by other faculties to carry out their purposes. When Benevolence witnesses something that is cruel or damaging to weakness, Combativeness comes to the rescue, or when a loved one is assailed, a child, a wife, a friend, Combativeness is simply the instrument for the vindication of the subject which awakens it. When conscience is outraged by some injustive, Combativeness is called into activity to punish the offender, and

* Condensed from "Choice of Pursuits."

these faculties work together to second and sustain each other, and as it were to carry out the motives and forces which belong to this group of faculties. These provide for man's animal wants, create those desires and instincts, and supply the means of self-preservation.

When this class of organs is large, the head is wide and full and rounded, especially above and about the ears; when small, the sides of the head are flattened, and the whole head is narrower.

E. VITATIVENESS—LOVE OF LIFE.

The organ of this faculty is located behind the ear below Destructiveness and forward of Combativeness, just above the root of the *mastoid process* of the temporal bone, and when large, gives fullness and width in that region; its function is



Fig. 77. GENERAL JOSEPH CARR, Secretary of State.

Large Vitativeness and Destructiveness, also a fine intellect, especially in the lower and middle section of the forehead, qualifying him for the acquisition of knowledge, and the use of such practical talent as such an office would require.

the love of existence for its own sake, it gives a tenacity of life, a dread of death, and resistance to disease. Some animals are easily killed, they give up with a slight blow and die; they are the narrow-headed animals, in which the whole region of the selfish propensities is weak, and especially

Vitativeness; other animals, such as the lion, tiger, shark, catfish, hawk, eagle, cat, have broad heads through the region of the selfish propensities, and they hold on to life and seem destined to destroy the life of other animals and preserve their own. Some men, in whom this organ is weak, readily yield to disease and resign themselves to die, apparently with little reluctance, while others struggle with an instinctive determination against the approach of death, and, as it were, by the power of the will recover from a sickness that would prove fatal to another with the same amount of vital power and constitutional strength, but who is lacking this faculty of resistance to death. This faculty is previously referred to in respect to the patients in the Morristown, N. J., Asylum for the Insane, page 17.

Persons who commit suicide without very much to annoy them, or to make life troublesome, are doubtless deficient in this organ.

We can not but think that this faculty works with the moral and religious, and especially with Sublimity, to give a relish for the subject of immortality. Job said, "All that a man hath will he give for his life."

6. COMBATIVENESS.

This organ gives the spirit of resistance, courage, and opposition. The organ is located above and a little backward of the mastoid process, at the posterior inferior angle of the parietal bones. When large, it gives width to the head, a little back of the top of the ears, and to estimate its size, it may be spanned by placing the thumb on the organ on one side, and the fingers on the organ on the other side of the head; a little practice will enable the observer, by comparing one head with another, to decide in regard to the size of the organ instantly. The design of this faculty is to defend, oppose, and resist in general. Those in whom it is strongly marked, meet duty bravely, and engage heartily in that which requires manly courage. It is a great agent in the production of the spirit of industry; it gives

one the feeling that he is strong, that he can lift twice as much as he is able to. Many a small woman, weighing little more than a hundred pounds, will take hold of work, or any other achievement that requires energy and positiveness, with a



Fig. 78. H. B. HARRISON, Gov. of Conn., Lawyer.

Combativeness, Self-esteem, and Perceptives large. Observe the length from the opening of the ear to the base of the forehead, indicating great perception and especially strong Order, good memory, and power to think. His head is high at the crown; is ambitious, proud, honest, firm, and a good talker. That nose means enterprise, executiveness, and victory.

bravery that is astonishing. The English call the manifestation of that faculty "pluck." The dog is a wonderful example of physical courage; most animals fight with those of their kind, and their own size, but will run before one which is larger. Even the lion will not fight his match, he hesitates to engage with the Bengal tiger, but as most animals are weaker than himself, he goes forward assuming rights, and clearing the course he wishes to pursue, and it looks like courage, but the dog will assail the bull, or a man, or even a lion, or the wild boar, or the grizzly bear; he does his best, although one blow from the bear or lion would finish him. We have seen an infuriated dog chase a man who had whipped him from his seat in the wagon, and as he could not jump high enough to reach his

antagonist, he would seize the wagon wheel with his teeth, and let it carry him clear over to the ground, then seize it again; his courage and his anger making him feel that he was wreaking vengeance on the man who had unjustly whipped him. But this organ is not adapted merely to physical resistance, it enters largely into moral courage and intellectual enterprises, and gives that energy of character which sustains the other faculties, and thus becomes an essential element of greatness. Those who engage in great moral reforms require a good development of this faculty to meet the error they seek to overcome. Luther was an eminent example of physical courage, and warriors who are noted for their power to lead victorious assaults, and to press the opposing army to the wall and then to demand "unconditional surrender," are found with Combativeness and its twin brother Destructiveness, largely developed.

General Grant is a good example of this; a still better example is the head of General Sheridan, which is exceedingly wide at the ears, and widens as it goes directly backward. We have never seen a better instance of large Combativeness, and it was these forces which pushed him to the front, in reputation as well as in fact.

We find the recognition of this faculty scattered throughout the Bible. "Whosoever thy hand findeth to do, do it with thy might." "Be ye not afraid of them: remember the Lord, who is great and terrible, and fight for your brethren, your sons and your daughters, your wives and your houses." "Quit yourselves like men and fight." Raised to a moral contest we read, "Fight the good fight of faith." "Ye endured a great fight of affliction." Thus we have the uses of this faculty pointed out. Of course there is an abuse connected with every faculty where it acts alone, or in contravention of all moral principles or justice; when it is very energetic and not directed by the moral sentiments, it becomes a disturber of the peace; contradiction is then a grat-

ification, and life is embittered by it. Some have this faculty too weak, and require to cultivate it, they go around difficulties when they ought to pitch in and conquer them; they should make it a point to engage in debates, mental contests, on every suitable occasion. Where one has the faculty too strongly marked, he should restrain it by shutting his mouth whenever he has the impulse to burst out into a flame and scathe his opponents; such a man should count ten when he begins to be angry, before he speaks, and then try to speak with calmness; most persons when angry begin to talk sharply and loudly. We know of persons who when angry shut the lips tight together until they get over it.

7. DESTRUCTIVENESS.

This faculty may be defined as executiveness, efficiency, force, severity, and joined with Combativeness produces indignation. The organ is situated directly above and extending a little backward



COMBATIVENESS, ACQUISITIVENESS.

Fig. 79. Hat on rounded head, showing by its shape a fullness above and about the ears. Destructiveness and Secretiveness large. See also Figs. 5, 6, 61, 77.

Fig. 80. Hat on narrow head, back view. Destructiveness and Secretiveness small.

from the external opening of the ear. A large development of the organ gives width of the head from ear to ear. All carnivorous animals, whether beast, bird, or fish, are broad through this region of the head, while herbivorous animals, like the camel, deer, sheep, and rabbit, are narrow in the same region.

Men who enjoy hard work generally have an ample development of Destruct-

iveness; they like to use the hammer and the axe, and do their work by means of blows, and even though the work were making a bed, or sweeping a room, there is a jerk, a tendency to shake and rush things. Such people generally make a good deal of clatter with their tools, or in handling the things they are working with; they break dishes, they smite the axe through the work they are cutting into the ground; they tie knots tightly; sew a tight seam; they knit tightly; they slam doors shut; they strike the nail one good blow after it is fairly driven home and bruise the wood; they crack walnuts thoroughly, and sometimes the thumb; it imparts weight to indignation, and gives unflinching power to carry forward the discharge of duty, even though it may give temporary pain to ourselves or others. The surgeon needs it strongly marked, though he may have Benevolence to make him pity the sufferer, he needs a stiff muscle and a firm resolve to use the knife effectively. Dentists should have it well developed, so that they can extract a tooth, or inflict so much severity as may be necessary, without having the handle of the tool hurt as much as the cutting part hurts the patient. The North American Indian is remarkable for this development, and seems to delight in cruelty, while some other nations are narrow in this region, and are peaceful, gentle, patient, and lack power and force; and whenever an individual is found with a narrow head, flattened on the sides as compared with the other parts, the selfish propensities, including Destructiveness, will be found deficient.

Without Destructiveness, men could not defend themselves against the encroachments of ravenous beasts. There are people who would shoot wolves and other ferocious animals, but who manifest a tenderness in respect to taking the life of inoffensive animals, and it is a great argument with those who, on principle, avoid the use of flesh meat, because the animals have to be cruelly killed to satisfy the wants of the meat eaters. Such people forget that animals which can not be

utilized for work, or as food, are not permitted to live, because their needs would eat up the food of the world, and render man's existence perilous. If life is worth anything to an ox, we give him six years of leisure and luxury, for the privilege of eating his flesh and tanning his hide, and the taking of his life is instantaneous, and therefore not a cruelty; he does not know what hurts him, whereas wild cattle starve to death in the end, unless they die a violent death in battle or by accident; their teeth get poor and they can not eat enough to keep them alive, and they will be, perhaps, three or four years starving to death, so that the mercy of raising cattle for the slaughter, and killing them instantly, without their feeling the shock, is by no means cruelty, though it requires Destructiveness to do it, hence we read, "Arise, Peter, slay and eat"; "Be ye angry and sin not, let not the sun go down on your wrath"; "Let all bitterness, and wrath, and anger, and clamor, and evil speaking, be put away from you with all malice."

8. ALIMENTIVENESS.

This organ gives appetite, enjoyment of food and drink. It is situated immediately forward of where the front part of the ear joins the head, and when well developed, gives width to that part of the head. It is located in the anterior convolution of the middle lobe of the brain; this part of the brain presides over appetite and nutrition, gives the desire for food, and those who have it well developed, if they do not pervert the faculty by eating too much or too often, and that which is too rich or ill adapted to health, have a vigorous digestive system, and are apt to take on flesh and be plump, and will develop especially about the cheeks and neck. Persons with this organ large, enjoy cooking and preparing food, procuring it, laying it up, thinking about how good it will be when the time comes to eat it; these are of the kind to cater for those that eat, as cooks and providers. Persons keeping a hotel, who have large Alimentiveness, are usually noted for set-

ting a good table, so called; they will have enough. People that have weak Alimentiveness think others want no more than they do, hence they cut thin slices of bread and meat, they serve out a light portion. A man with large Alimentiveness feeds his dog and horse, and keeps his cattle in good condition; would feel ashamed to have his cattle complain of their board, or his guests think that his



Fig. 81. F. W. LINCOLN, Treasurer of the late Boston Exposition. Alimentiveness large.

A large brain, broad at the temples and side-head; a natural financier, constructor, administrator, and capable of winning and holding a good place in any business or profession; has strong temperament, and exerts much personal influence in society.

house was a lean place to live at. Men who deal in provisions have been led in many instances to their business by having large Alimentiveness; beef and mutton and pork look good to them, and they have a leaning towards that business in consequence; such men like to keep a grocery store or restaurant; they make good judges of butter, cheese, everything that can be tasted and estimated in that way. Those that have the faculty deficient pick up dinners, and, if alone in a house, they would not cook more than one or two square meals a week, but boil an egg, or eat some crackers, or a bit of dried beef or cheese with plain bread, or perhaps buy a quart of milk, and when they had consumed it, rinse the dish in cold water. We know women who seem to be provoked at the thought that hearty

people want to be eating so much, and other sunny-faced matrons like to see the men and women who eat at their table take hold heartily ; they cut thick slices of bread, they load the plates and platters, and make everything seem abundant ; they don't make biscuit the size of a hen's egg.

In many ways this faculty is influential in promoting industry and economy, and in the acquisition of that which is to be wanted ; the farmer will mow close, and rake clean, and gather up the harvest, and store it in his barns, not to sell it, but to feed it to his cattle, and they look sleek, and he is pleased to feed them and nurse them into vigorous condition. With this organ large, people never pinch those that feed at their expense ; if they have large Acquisitiveness, they make a sharp bargain, or if they have large Combativeness and Acquisitiveness, they may work their people and their teams hard, so as to earn as much as possible, but when they come to the table and manger, there is no scarcity, no meanness there.

It is a poor place to board with people who never seem to want to eat themselves.

F. BIBATIVENESS.

This organ is situated in front of Alimentiveness, but is not generally marked on our busts and diagrams, but in the symbolical head it is sometimes represented by one man eating and another drinking. The organ may be a part of Alimentiveness, but those who are chiefly developed in the anterior portion of the region referred to, like to have soups and moist food ; they want a good deal of milk with their oatmeal and their bread ; they like custards that are not solid, but juicy ; they do not want dried peach pie, unless it is made so juicy that it will flow and fill the plate ; they do not like dry toast, or other articles of food in a dry condition, and in their daily life they take a good deal of fluid ; would rather have two cups, with the same amount of tea or coffee that one cup would contain, than have it in one, and we know persons who would pour water into milk, if they had

only a given quantity, and thus increase its bulk by adding water, and feel that it was better to do so. If such people buy a picture, they want water represented in it, and to live where they can see sheets of water or hear the murmur of it, their tastes being modified by this element of their character. Others we know who buy condensed milk, and put very little water in it as they eat it, they want it considerably thicker than common milk. There are some who dread to take a bath, they will wash themselves in a pint of water, and others want an abundance of it, though they had to bring it in a pail fifty rods. Those who enjoy swimming and sailing, and are about as much at home in water as a duck is, are presumed to have this faculty strongly marked.

This feeling may be perverted, and some people get in the habit of drinking four times as much as is necessary, and others do not drink half enough ; they have a kind of dry dyspepsia, and the other a moist dyspepsia, a water-soaked state of the system.

9. ACQUISITIVENESS.

This faculty is imparted to prompt men to lay up food and other articles of value for future use ; it is eminently a providing faculty ; it is also possessed by some animals to impel them to lay up in time of abundance, for scarcity ; to gather the fruits of summer for use during the winter ; in other classes of the lower animals there is no trace of it. To show the acquiring instinct and the want of it in different animals, we may say that if a quantity of corn were laid on the ground, a common fowl finding it, will greedily devour whatever is required to satisfy the appetite for the time being, and go away without a thought as to that which remains, will not gather it up, or stand and protect it for future use ; but if a squirrel, that likes corn no better than the chicken does, were to discover the corn upon the ground, he would not stop to satisfy his appetite, but would begin to carry it off to his nest, until the last kernel had disappeared, then he would deliberately

satisfy his hunger; thus he would find himself in possession of food for many weeks; the fowl, however, that does not acquire and lay up, on the return of appetite would come back expecting to find the corn.



Fig. 82. J. J. Knox, Controller of the Currency.

See the large Acquisitiveness and Constructiveness; the head is broad, rather than high, showing a tendency towards things physical, material, and financial, rather than things fanciful and fanatical.

The bee is an eminent instance of the acquiring instinct; birds supply their wants as best they may from day to day, with no apparent care relative to food, consequently birds in a high Northern latitude, where winters are severe, are obliged to pick up a precarious existence; other birds go South where food can be had throughout the winter. The fox makes his meal from his prey, and if there is any surplus he buries it for future use and will fight for it as property.

The proper exercise of this faculty in the human race, how it should be cultivated when too weak, and restrained when too strong, is an inquiry of serious importance. In civilized countries, the idea of property has become the ruling one. Among savage tribes, the idea of property exists, though not in a high degree, but

as persons become civilized, and have laws that protect them in the possession of their property, the great thought seems to be "How can I become rich?" Thus the faculty is often perverted, and men are not satisfied to lay up as much as they think they will want. One of that selfish sort, when informed that a frost had killed the crop of potatoes, remarked, that he did not know as he cared, because he had enough laid up in his cellar to last two years, seeming to forget that the tuber will not keep. So the millionaire strives to make more money; not that he expects to want it, or that his children will want it, but it becomes a passion, a kind of game. We knew a little half grown fox, that broke his fastenings one night, and went to some chicken coops, and with his long arms pulled out the little chicks and nipped their heads, until he had from several coops captured eighteen; he took them over the fence into a plowed field and buried so many as he did not then wish to eat, not knowing that in the warm June weather one-half of the prey he had thus acquisitively hidden away would become putrid before he could consume it all. He was a millionaire in chickens, obeying Acquisitiveness without reason or sense. The primitive design of the faculty is to inspire every human being with a spirit of industry and frugality, to lay aside from the earnings of youth for sickness and for age, and to amass a sufficient amount of property to serve his wants in old age, and enable him to rear and educate his children.

Something besides Acquisitiveness is necessary to the successful prosecution of business and the accumulation of wealth; those possessed with skill and talent, and with a fair degree of moral feeling, even though their Acquisitiveness be as strong and active as such an education would render it, will by the over-mastering power of that element accumulate wealth and do it within the pale of the law; they will plan, see results before reached, anticipate improvements and depressions in business affairs, and know when to let out and when to take in, and they get and

do it honestly. Those on the contrary who have Acquisitiveness large, and but little mechanical skill, and who lack industry and energy, and the talent necessary to perfect plans for acquiring property, and especially the shrewdness to compete with the artful, will find themselves poor; sometimes such people finding themselves pinched with want, their children suffering for provision, will be driven to desperation; their love for their family, those holy feelings which under favorable circumstances minister to virtue and happiness, under privation have a directly opposite tendency. Many a man in such a position has been led to steal and rob, not because he was by nature vicious, or coveted his neighbor's property, but because he had not the shrewdness, and tact, and industry to acquire the comforts of life in a legitimate manner, and to save his loved ones from cold and hunger has violated the criminal law. Now surely it is not the natural state of man, that a single propensity, one selfish desire, namely, Acquisitiveness, should rule the human race with such despotic sway. In tropical climates we find in the savage but little of the faculty of Acquisitiveness; his wants are few and easily met, and this organ is small, but as man goes from the equator into colder latitudes, clothing, shelter, and an accumulation of food for winter are necessary, and this organ thereby becomes developed by exercise, together with those qualities of ingenuity and energy which lie at the foundation of skill and industry; hence Southern people who can earn a living without much worriment, are apt to regard Northern people as stingy, because they have to be economical. A man that has to feed his stock of cattle seven months in the year must raise all the fodder he can, and gather it all; he has to burn a pile of wood during the winter as large as his house, to keep himself warm; he needs clothing to screen him from the inclemency of the weather, and must lay up food in abundance during the short summer, and therefore must needs be industrious, and appear sometimes to be

stingy; but it has been ascertained, that in one of the poorest States in New England, namely, Massachusetts, where the soil is hard, and the climate severe, where everybody except the rich work and economize, the people absolutely pay out more money every year for religious and educational and beneficent purposes, in proportion to the value of their property, than any other people in the land, and those who call them stingy, tell the truth, but we would like to see them try it once for five years, and see how long their easy generosity would be sustained.*

10. SECRETIVENESS.

This organ is located above Destructiveness and backward from Acquisitiveness; when this organ and Destructiveness are both largely developed, there is a general fullness of the lower part and middle por-

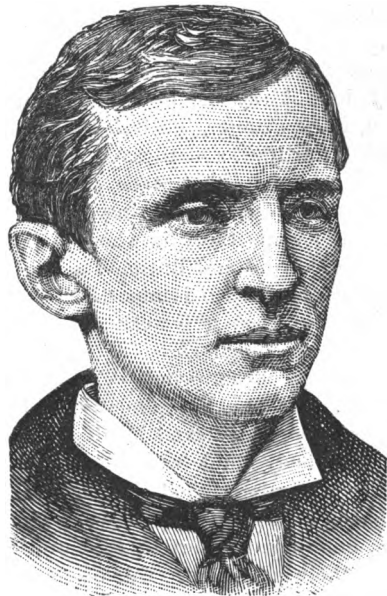


Fig. 88. FERDINAND WARD, False Financier.

A low top head, very broad from side to side, showing Secretiveness, cunning, Acquisitiveness, Destructiveness, and large Ideality, hence fond of art.

tion of the side-head. The design of the faculty is to produce concealment and a restraining influence upon the other faculties; its primary action has merely sel-

* Condensed from "Choice of Pursuits."

fish gratification in view. In the lower animals it acts as a blind instinct, while in man it is coupled with reasoning power and moral sentiments by which it may be guided, modified, and restrained, and allowed to act only in accordance with the higher dictates of the mind.

Nearly all the carnivorous animals have Secretiveness rather strongly marked; the cat species, from the lion downward, secretes itself and patiently waits and watches the approach of prey, and when near enough, seizes it at a single bound, before the victim is aware of the presence of the enemy. Most of the herbivorous animals have little Secretiveness. Since their food does not flee at their approach, their only use for Secretiveness would be to conceal themselves from enemies; and many of them have fear and speed which they use as a means of safety.

In the human race, this feeling is sometimes so strong that certain characters are tinged with a fox-like or cat-like cunning; they do not say or do anything in an open, frank manner, but it is by concealment, by artifice, and there is a mystery in all they do. They talk with saving clauses and evade committing themselves squarely; while those in whom it is too small are abrupt and ill-timed and blunt in their remarks. It is important to train this faculty when it is weak and restrain it when too strong.

There are some people who exercise Secretiveness in a business way, perhaps incidentally; they have a faculty of making everybody think what they have to sell is particularly good, and that it can be had at a bargain; they may defraud no man, but there is a sort of false pretense about the whole thing. One of the most marked manifestations of business Secretiveness has led a certain public man to relate his line of business to public sentiment in such a manner that everybody was greedy to patronize him, and although they went away thoroughly satisfied that they had got their money's worth, yet they seemed to have a feeling that his dwarfs were not so small as they had supposed or his giants so large as they had

anticipated, yet there was so much to be seen that they had not been cheated. That was done by a kind of sagacity and tact which presented the glowing side of the picture, and created a furor in favor of his business.

The perversion of this faculty has much in it that should be avoided; it creeps into almost every sort of business; it tends to put Indian meal into ginger, and sand into sugar, tea grounds that have been drawn and dried into tea and sell it the second time; it puts peas into coffee, adulterates drugs, puts cotton into woolen flannel, and it contrives somehow to veneer and adulterate nearly everything that comes into the market, in fact it is one of the most subtle and hard faculties to understand and head off from its purposes.

We sometimes hear parents deceiving their children from the very cradle, and most children are trained to deception, if they follow the example set before them by nurses and others, and the result is they soon employ deception to carry their own points, and then they are upbraided for lying and cheating.

A fair share of Secretiveness is desirable so as not to express that which had better be concealed. "A fool uttereth all his mind, but a wise man keepeth it in till afterward." "He that keepeth his mouth keepeth his life, but he that openeth wide his lips shall have destruction." "The words of his mouth were smoother than butter, but war was in his heart; his words were softer than oil, yet they were drawn swords." From the days of Judas till now the hypocrite and deceiver have been feared and hated, yet hypocrisy and deception creep into the daily life of thousands who consider themselves pretty good.

11. CAUTIOUSNESS.

The organ of this feeling is situated on the upper side-head outward from the crown, or a little further back than the ears. It is generally the widest part of the head, and frequently interferes with the fitting of the hat or the bonnet. Ana-

tomically, it is located in the centre of the parietal bones at the point where ossification begins. Fear is the normal result of this faculty ; watchfulness, carefulness, solicitude, anxiety arise from it ; it stands opposed to boldness, rashness, courage ; it bears very much the same relation to the other faculties of the mind that hold-back straps bear to other parts of a harness, or that the brake does to the wheels of a car.

There is no more painful emotion than fear ; nothing that wears out the health more than anxiety. We are so organized and so surrounded that we are constantly liable to injury, and are therefore frequently subjected to danger, consequently Cautiousness is an important quality of the mind, serving as a safeguard. Its language is, "take care," "look out," "avoid danger," or "manage to master it." The feeling, however, is blind in itself ; it has no wisdom or knowledge ; it is simply a feeling, a passion, a sentiment, not an intellectual power ; in itself it could not look out nor take care, but arouses the

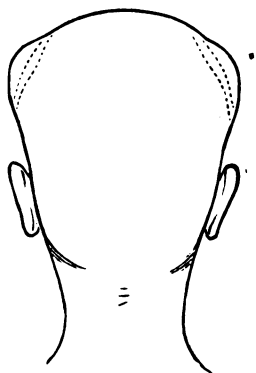


Fig. 84. CAUTIOUSNESS ILLUSTRATED.

intellect and all the other faculties to watch against danger. In its healthy action, Caution tends to check the ravings of Combativeness, adds prudence to Courage, warns enraged Destructiveness to avoid undue severity, holds back the arm raised to strike with the deadly weapon ; whispers to Acquisitiveness of future want, of losses and poverty ; admonishes Approbativeness to beware of such

society as will bring disgrace ; it warns Parental Love to incite the mother to watch against all evil to her child ; it stands at the elbow of Hope, true to its

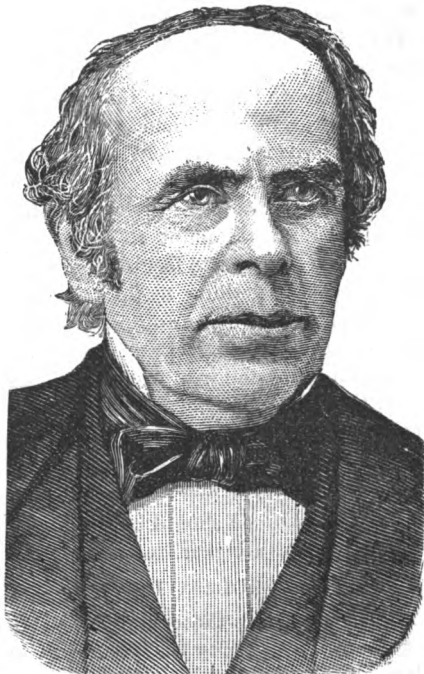


Fig. 85. W. P. SHEFFIELD, U. S. Senator from R. I.

Cautiousness large. He has also a fine temperament, with a predominance of the intellectual and moral regions of the head, with considerable fineness of quality as well as strength.

location on the head, to suggest the necessity of laying a solid foundation for anticipation, and frequently casts shadows upon the bright images which Hope creates ; it stimulates the intellect to make such investigations as will minister to the well being of the individual, and plan such a course as will give security to the possessor. A proper development of Cautiousness is useful in restraining such a manifestation of all the powers as would be dangerous to the life, health, and happiness of the individual. When excessively developed, it throws a cloud over all manifestations ; it paralyzes courage, energy, determination, and Hope ; it smothers enterprise, dampens ambition, undermines self-respect, and changes the

action of Veneration from a due adoration to a slavish fear of God. When the organ is small, the effects are directly opposite ; it allows Hope to revel in perpetual anticipation ; permits imagination to career through the universe without rudder or ballast ; it permits rash expenditure without complaint, makes one reckless of dangers, and allows him to run into troubles and difficulties on every hand.*

Cautiousness is an element of bashfulness, and if joined to large Approbateness with moderate Self-esteem, bashfulness and timidity amount to a disease. Mothers and teachers, in fact nearly everybody who has anything to do with children, are liable to use Cautiousness as a kind of rod of correction ; they will threaten to shut children up in the dark cellar, the dark closet, or call the policeman, in a city, or the old tramp, in the country, to carry off the child ; it is not strange that people who have been thus trained in childhood should be cowards in a thousand ways all their lives.

12. APPROBATIVENESS.

This faculty gives those who live in society a desire to enjoy the good will of others. This requires a sacrifice of individual feeling, or rather a modification of

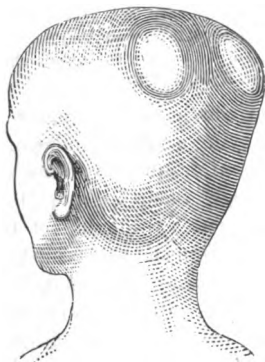


Fig. 86. APPROBATIVENESS ILLUSTRATED.

it, and is the foundation of politeness. It gives the desire to please, and its effects on the feelings and character are immense. It seeks praise and recognition, and makes its possessor unhappy under criticism, re-

* From "Choice of Pursuits."

proof, or rebuke, and gives a sense of shame and mortification. In civilized countries, the love of praise is both a strong and a weak point in people ; it ren-

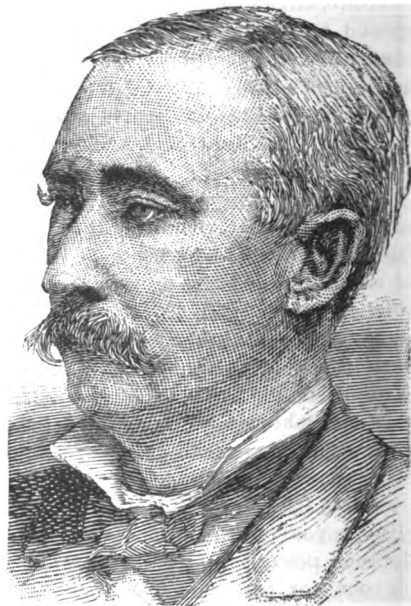


Fig. 87. R. A. MAXWELL.

Approbateness large. He has also a fine temperament, a harmonious face, strong nose, fine perceptive intellect, practical talent, criticism very strong, ambition, energy, prudence, and perseverance.

ders one strong when it serves to create ambition for eminent and honorable attainments ; it renders one weak when those he associates with are frivolous or have a downward tendency in their conduct. To be popular with them and avoid their ridicule he will adopt their methods and "go with the multitude to do evil." Its perversion makes it a source of temptation. Properly developed and influenced by persons of honor and good character, it becomes a wonderful magnet to draw young people towards that which is worthy, but its extreme activity often becomes a snare as well as a source of slavery to many. A little girl who is beautiful becomes vain of her dress and of her fine looks, and neglects to be just and kind and courteous to others. She does not deem it necessary to become a scholar, or to carry

herself with refined and ethical manners. If she is sought after and made popular on account of her beauty and fine dress, she becomes petulant and tyrannical and unamiable; whereas one who is plain in appearance finds it necessary to be kind and gentle, and obliging, and obedient, and courteous in her ways in order to be acceptable; hence, many a plain girl is permitted to ripen normally, and become the very salt of the earth; whereas, if she had been beautiful, she might have been spoiled by flattery.

Praise and censure in some schools and families is the only law, and leads to the establishment of Approbativeness as the moral standard of daily life. The questions are, "What will people think?" "What will they say?" "Will I get praise for this or blame for that?" and not "Is this or that in itself right, honorable, just?" Children are too much left in the care of ignorant servants and nurses, who, not having the right of controlling or governing the children, are obliged to flatter or frighten in order to exert an influence. In passing along the street we often hear a nurse-girl talking to some little pert boy or girl, praising him to get him to do the honest thing, or offering bribes to his appetite if he will stop being naughty.

Approbativeness becomes morbid sometimes in business men; dread of failure leads them to strain every point, and sometimes to violate the equities of life to avoid the disgrace of a failure, and then having been led to embezzle to prevent failure, finding themselves detected, they commit suicide because they can not face the disgrace of failure and crime combined. Yet with all the evil that may arise from the abuse of Approbativeness, when the higher sentiments prevail in the character, ambition and pride minister to virtue and to the development, improvement, and happiness of mankind. Ambition is a spur to action, and working with the higher powers, it looks to honorable endeavor and service to crown the performance of duty with success, joy, and respectability.

The great variety of ways in which people show Approbativeness may be observed on every hand; in the style of dress and equipage, in the home and surroundings, in the following of fashions which change frequently, and render one with large Approbativeness utterly miserable if obliged to wear a hat, or a cloak, or a dress that was all the style three months ago; but the new fashion plates having appeared, one must not go on the street or even to church, without the new style, yet the influence that is thus perverted is salutary at the root.

13. SELF-ESTEEM.

Many persons shrink from the idea of being endowed with large Self-esteem,



Fig. 88. GOVERNOR R. J. OGLESBY, III.

Strong Vital temperament; large Self-esteem, and Language, good practical talent; headstrong, earnest; yet genial and friendly.

yet it is among the most ennobling of human characteristics, and even when it exists in too great a degree its very excess commands respect, although it may not always win our love. The excess of Approbativeness, which gives vanity and the tendency to boast, is what most people regard as Self-esteem. The true office of the organ is to give us the idea of selfhood,

of our own personal value. A certain amount of personal dignity is necessary to make the world respect us; it enables one to value his opinions and plans, and gives him confidence in the exercise of his courage and judgment.

Self-esteem frequently preserves persons from descending to practices of vice and meanness, and in those who are fallen, through intemperance, it is sometimes the only element that can be acted upon to effect a reformation. Those who lack Self-esteem, whatever may be their talents, are apt to feel unworthy, diffident, and to shrink from responsibility. They decline all offers of advancement from a sense of unworthiness. We know that large Self-esteem and moderate intellect and culture will sometimes stride forward to the highest seat, and be called upon to step down and give place to a worthier, but among men as they average, and notably among women, there is in this country a lack of Self-esteem and too much Approbation, which makes people slaves of public sentiment, and leads them to undervalue their own capacity and worth. What exerts a more controlling influence over a little boy who proposes to do something too childish and frivolous, and who whines and cries because he is arrested in some favorite pursuit? Let the mother say, "What, a big boy like you, so tall, who in a little while will be as tall as your brother John, or your father, a big boy like you to cry or quarrel with his little brother or sister for the possession of a toy." If he has Self-esteem enough for his own good, he will straighten up and show that he is too much of a man to play the baby. The little fellow is now inclined to say with Hazael, "Is thy servant a dog, that he should do this?"

"Be thou strong and show thyself a man," is the language of Self-esteem when employed to arouse this spirit in another.

14. FIRMNESS.

The office of this organ is to give steadfastness, stability, fixedness of purpose, and determination. Many persons apply

hard names to the functions of this organ, and as it exists in some people they are doubtless deserved. Many seem to suppose that stubbornness, obstinacy, and



Fig. 89. BENJ. F. WADE, of Ohio. FIRMNESS LARGE. Governor, U. S. Senator, and one of the firmest, bravest, and most honest men this country has raised; born in Springfield, Mass.

wilfulness really indicate the normal functions of Firmness, but in the light of true mental philosophy these names indicate the abuses of this important element of our nature. Firmness is not the only quality which has been misnamed; anger is supposed to be the whole of Combative-ness, murder and cruelty to be the normal functions of Destructiveness. Some suppose if one have large Acquisitiveness he must therefore be a thief, if he have also large Secretiveness he must be a thief and a liar, and these names are quite as appropriate for the organs referred to as are those which are commonly applied to Firmness. When Firmness exists in a predominant degree it will often be manifested in the form of an obstinate, captious, contrary spirit, but if justice and kindness, prudence and friendship, and a sound intellect belong to the same mental constitution, there is no reason why perverted Firmness should become the master spirit of the man. We know Combat-

iveness, Amativeness, Alimentiveness, or Approbativeness may rule over the mind, each in a different individual, but a well-balanced organization requires a good development of all the organs, Firmness among the rest. The true nature of Firmness is to give stability, fortitude, and fixedness of purpose, to enable one to stand up against the current of opposition, to hold his faculties to their work until the duty is fulfilled; and thus Firmness can be made a kind of seasoning for many of the other mental powers. Working with Combativeness, it produces determined bravery; with Conscientiousness, inviolable integrity; with Acquisitiveness it enables one to hold on and ultimately reach the desired result. Combativeness and Destructiveness give propelling energy to the character, as sails or a steam-engine give propelling power to a ship, and as the rudder keeps the ship on her course against the wind, thus making the element of propulsion available for reaching the desired haven. Firmness properly related gives endurance to all the other mental powers.

If we attempt to force a person having large Firmness, we meet with instinctive resistance and positive refusal to do that which his judgment, inclination, and conscience would suggest as proper and desirable when allowed to choose the course and act freely; but if compulsory measures are employed resistance will be used until freedom of choice is given, when the course desired may be adopted, though stoutly refused so long as coercive measures were continued. Three-quarters of the balky horses could be cured, if instead of being urged and whipped, they were held in and told to stop, although they have already stopped, and then are allowed to rest until they have recruited and recovered their breath; then they will start without commanding, or by the simple word. A man who drives a horse that lacks Firmness will see it and feel it; for a horse that is very firm will manifest resolution and persistent earnestness to pull the load through all the bad places, or rush up the hill as if no power could stop

him. Some men have Firmness with a narrow mind and little sense of respectability, and they take pleasure in showing how they can decline to do that which people desire done. Persons are sometimes ashamed to retreat from a position they have taken. Two men have a difficulty, and each determines not to speak to the other first. We have heard of a farmer and son living together for fifteen years, and carrying on farming, and not exchanging a word with each other; each would tell a third party, perhaps a boy, what he was going to do, and thus the business would be talked about, but the conversation was not addressed to each other on account of their being committed to silence. In such cases, however, some other faculties combine with Firmness, so that a person feels that he can not come down; and would be glad to get out of the difficulty if the other party would break the ice and say "let us be friends." Here Firmness is a tyrant, and though it has modes of manifestation that are undesirable, just as some of the other faculties have, it is nevertheless very desirable in the character, serving as a kind of spinal column on which the mental elements are built or attached. It is like the keel of a vessel that serves to give stability to the whole structure, and yet the keel is not a ship, as mere Firmness is not character, but both the keel in the ship and Firmness in the character serve to coordinate the other constituents of the structure.

THE MORAL SENTIMENTS.

With the discovery of Phrenology, one of the leading principles that were demonstrated is that the mental faculties are innate. For many centuries philosophers contended one against another on the subject of original ideas. It may be said that they were arrayed in two great parties; those who followed Plato, claiming that there are original interior conceptions; and those following Aristotle, who as earnestly asserted that all mental conceptions are derived from without, and therefore related to impressions made by external

phenomena upon the common senses. The moral nature of man was considered from the same points of view, theologians, even, being divided in opinion. The great Alexandrian school, that exerted a



Fig. 90. S. H. GRANT, Controller of New York.

A well-balanced Physiognomy and Phrenology: the massive chin shows strong vital power and eminent social tendencies, while the nose indicates refinement, precision, criticism, self-reliance, and his forehead, easy adaptatic to his circumstances and surroundings a large brain and harmonious temperament, a good moral development.

most profound influence upon the religious thought of the world, declared allegiance to Aristotle for the most part.

In modern times many of the most eminent metaphysicians have enunciated views that man was not endowed with an innate, moral sense. For instance the theories of virtue advanced by Hume, Hobbes, Mandeville, Paley, and others rejected original, moral intuitions. On the other hand, Kant, Reid, Stewart, and Thomas Brown admit their existence. In the discussion of the nature of conscience, or the sense of duty and personal obligation, learned men have widely differed, although agreed as to its basis, in their analysis of its application. The eminent Cudworth, for instance, endeavors to show that the origin of our notions of right and wrong is

to be found in a particular faculty of the mind which distinguishes truth from falsehood. Dr. Adam Clark supposes virtue to consist in acting according to the fitness of things. Mr. Hobbes teaches that the laws which the civil magistrate enjoins are the ultimate standards of morality. A boy in a Sunday-school class was asked for a definition of the word "conscience." He replied in the language of the catechism, "It is an inward monitor," but, when asked what he meant by "an inward monitor," he replied, "An iron-clad, sir," showing that his education in naval matters had not been altogether neglected, if his views on moral distinctions were not at all clear. And if "learned doctors" have shown much fogginess in defining the term, a boy could scarcely be expected to comprehend it.



Fig. 81. B. AUSTIN. Moral Organs Large.

Mental temperament; large head; very energetic, clear-headed, and liable to overwork.

Dr. Paley declared virtue to consist "In doing good to mankind, in obedience to the will of God, and for the sake of everlasting happiness." Sir James Mackintosh describes conscience to be made up of associated impressions, therefore a compound judgment. Mandeville declares that the moral virtues are only sacrifices of self-interest for the sake of public approbation.

So far as they go, some of these views are correct, but they are for the most part judgments of men having highly cultivated intellects; they are rational inferences, that they do not go far enough; they simply add to the world of speculation that has been ever enlarging, with regard to the moral conduct of men.

With the discovery of Phrenology and the settlement of the question of the endowment of man by nature with original mental powers, the question of the source of moral action is fully answered. Now we know that the different qualities that enter into a virtuous action are dependent upon the exercise of special organs. The moral act is necessarily combined; two or more faculties enter into it. The simple act of religious worship may associate with Veneration, Spirituality, Hope, and Conscientiousness, and also the intellect, when devout emotion would express itself in words.

Let us see for a moment how these faculties operate. It is Veneration that recognizes self-consecration to God, and stimulates reverence. It is Conscientiousness that impresses one with the feeling of duty, indebtedness, obligation for benefits received. It is Faith or Spirituality that opens the inner vision to an appreciation of the existence of a power supernal. It is Hope that reaches beyond the present to a joyful existence after this mortal sphere has passed. The intellect enters into the expression of worship; it may, by its conclusions born of reason, strengthen the sense of right and duty, confirming one's impression that sacrifice, prayer, and praise to the Creator are consistent and proper.

The moral sentiments are grouped together in the top-head and superior parietal region; there Conscientiousness, Hope, Marvelousness, or Spirituality, Veneration, and Benevolence form a close alliance, and these in the language of Phrenology constitute man a moral and accountable being, giving him the disposition to be of service to his fellow men, to worship his Creator, and to expect a future state of existence.

15. CONSCIENTIOUSNESS.

This organ is situated in the coronal region below and adjoining Firmness. See Fig. 92. Its office is to impress man with

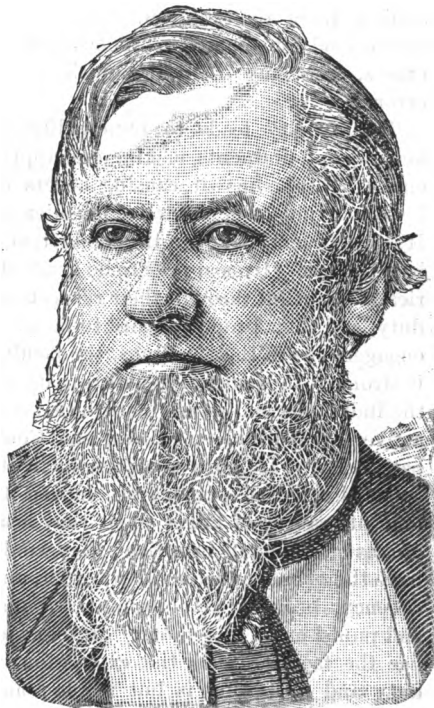


Fig. 92. HENRY B. ANTHONY, late U. S. Senator, R. I.
CONSCIENTIOUSNESS LARGE.

A well-balanced temperament, and a smooth, harmonious, substantial nature, sound intellect, prudence, dignity, and determination; was called "Father of the Senate," and was its President pro tem.

a sense of right, duty, and accountability. It bears a close relation to the quality so much talked of by moralists as "Conscience." It whispers its approval or disapproval of conduct. It is analogous to the original power recognized by Lord Kames, Dr. Brown, and others as instinctively discriminating between right and wrong. One in whom this organ is well developed, is naturally disposed to regulate his conduct by the standard which he believes to be right; and in performing his duty will sacrifice personal interest, and not allow himself to be interfered with by any considerations of friendship or affection. Conscientiousness prompts

those in whom it is strong to be just in judging of the conduct, opinions, and talents of others; such persons are scrupulous in the performance of promises; and when they make mistakes that in any way subject them to criticism, they are as much ready to condemn themselves as others, who may be guilty of the same errors.

This faculty leads to punctuality in keeping appointments, making one appreciate the injustice of causing others to lose their time or be put to inconvenience. It imparts consistency to the conduct, and in those whose lives appear to be symmetrically beautiful through their respect for duty, and their prompt regard to keeping engagements in their callings, the faculty is strong. In association with organs of the individual and selfish nature that are active, say Firmness, Self-esteem, Combativeness, it is more conspicuous in its expression; such persons are moved to loud utterances of anger when they hear of acts of cruelty or injustice; they would have the offenders against law, order, and decency, brought to a prompt tribunal and punishment meted out. In one who has the faculty small, the expression of duty and obligation is but feeble; and there is a corresponding laxity of principle. His conduct will take the direction of his strongest feelings without much respect to truth and justice. If Acquisitiveness be powerful, he will seek its gratification by the most direct means, regardless of the rights of others. If Approbativeness be active, he will adopt almost any line of conduct, however it may violate justice and propriety; he will be fair and specious to a friend, and appear to sympathize with his likes and dislikes; yet apart from him, will be ready to make fun of his weaknesses that were praised to his face, and join with others in condemnation of that which but a little while before he had shown a hearty approval of.

Strong Conscientiousness plays a conspicuous part often in insanity, especially if disease affect the region of the brain in which it is situated; and to that form of

insanity which is termed "melancholia" it may contribute much of the gloom and depression so marked in the unfortunate inmate of the asylum, although Cautiousness usually exerts the stronger influence. In the head of Laura Bridgeman, the celebrated deaf, dumb, and blind woman, the development of this organ is remarkable, and its influence as remarkable in her life.

Persons who have devoted themselves to a life of self-sacrifice in religious or benevolent lines, always show a conspicuous development of the organ. Howard, who gave the greater part of his life to efforts in behalf of reforms in prison management, both in England and on the continent of Europe; Florence Nightingale and Clara Barton, who have shown so much devotion for the wounded and suffering on the battle-field; eminent leaders of religious movements, like Calvin, Huss, Knox, Wesley, Ann Lee, Conscientiousness is indicated as a prominent organ.



Fig. 98. CONSCIENTIOUSNESS SMALL. See also Fig. 75.

On the other hand, however, notorious criminals, men and women who declare themselves out of harmony with the laws and principles that govern human society and take occasion to deny them whenever mooted, are distinguished for want of Conscientiousness; their heads in the region of the crown are conical; Firmness and Self-esteem may be strong, but the head falls off rapidly on both sides, indicating a deficiency in this moral element.

16. HOPE.

Directly in front of the organ of Conscientiousness lies the organ of Hope. A line drawn upon the head perpendicularly

upward from the opening of the ear will pass just back of the space allotted to it. See Fig. 95. The function of hope imparts the tendency to believe in the future attainment of one's desires or objects. It looks, so to speak, into the future, and de-

It is difficult to illustrate the development of this organ, but in the general rounded fullness of the top-head it is seen. Where the organ is small, and Cautionness large, a person is lacking in enterprise, easily disturbed by checks in his career. Clouds seem to hang over his future, and as business men say, he "discounts" his bargains in the start; sees lions in the way of success. With Acquisitiveness large, he will seek to acquire wealth by a slow process of saving, being disinclined to speculative endeavor.

Upon the influence of Hope our argument in favor of a future life is largely based. It inspires conceptions of a "new and better country," where the wrongs, and inconsistencies, and limitations of this sphere will be adjusted. "The course of life is quickly run, and our objects and aspirations, our joys and our sorrows, are in the course of a few years numbered with the things of the past. But even when our earthly expectations are extinguished in old age we are not left disconsolate, for Hope still reaches forward to the life beyond the grave, where happiness will abundantly compensate for the sorrow and pain we have experienced."

The poet Campbell has delightfully painted the relation of this faculty to man's after-sphere in the lines :

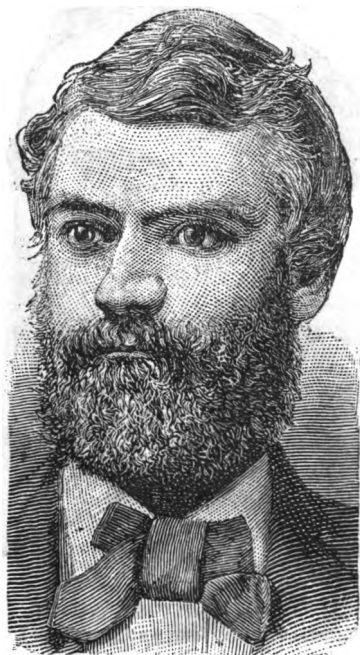


Fig. 94. GEN. R. R. BEATH. HOPE LARGE.

That face indicates bravery, earnestness, enthusiasm, and whole-hearted zeal. He is the commander of the Grand Army of the Republic.

lights in the contemplation of the accomplishment of one's purposes. When active, it inspires cheerful, rosy views of life, dispelling doubt and fear of failure; and so it furnishes strong incentives to the activity of other faculties.

A large endowment of this organ, associated with large Acquisitiveness and moderate Caution, is usually found in the speculator, the man who boldly ventures, urged on by a confidence in his ability to carry a project through; such a man rises above failure; when misfortune comes he requires but little encouragement to forget defeat, and easily responds to fresh suggestions of success and fortune in the undertaking of new enterprises.

"Unfading hope! When life's last embers burn.

When soul to soul, and dust to dust return,
Heaven to thy charge resign the awful hour!
Oh, then thy kingdom comes, immortal power!
What though each spark of earth-born rapture fly,
The quivering lip, pale cheek, and closing eye!
Bright to the soul the seraph hands convey
The morning dream of life's eternal day—
Then, then, the triumph and the trance begin,
And all the phoenix spirit burns within."

This organ was remarkably developed in Sir Walter Scott, and was the secret of his cheerfulness when bent down by misfortune and great debts. At the age of fifty-five, finding himself pressed by creditors, he calmly set to work to win by literary toil the money with which he should pay them, saying, "Gentlemen, time and me against any two; let me take this good ally into company, and I believe I shall be able to pay you every farthing."

A few years ago a case of the strong influence of this organ was brought to the notice of the writer. A school teacher in the West had been shot in the head by a jealous acquaintance, and although the wound penetrated deeply into the tissues

coming from a remote sphere with mis- sions of good or bad purpose. To use the language of a writer who has carefully analyzed the faculty of faith in man: "The truth that presses most closely upon the interests of a living man is that by which



Fig. 95. BESSIE INGLIS. HOPE LARGE.

of the brain, and was considered necessarily fatal by the physicians who attended him, yet he triumphed over its morbid effects and lived three years. Before and after the injury his disposition was distinguished for spirit and buoyancy, and by the ever present quality of high expectation. His conduct, indeed, in this respect seemed marvelous to all who knew him. After his death an autopsy was made, and his brain examined; and one of the physicians present described to the writer the existence of a remarkable elevation in a part of the superior frontal convolutions, the elevation rising considerably above the surrounding tissue. The region assigned to this conspicuous development accorded with the location of Hope; and the fact is a fresh addition to the surgical history of Phrenology.

17. SPIRITUALITY OR MARVELLOUSNESS.

Man in all ages has shown a strong conviction with reference to the existence of supernatural beings; he has always entertained instinctive ideas that there were powers or influences at work in the air, or



Fig. 96. F. LEYOLDT, Publisher.

SPIRITUALITY, IDEALITY, AND IMITATION LARGE.

A fine temperament, indicating the Motive and the Mental in predominance; that is a strong, self-reliant nose; that face shows push, positiveness, and power, and his Phrenology, broad above and about the ears, shows that he might have been a leading man anywhere, even in an army. His large Language perhaps led him in the direction of literature, and would have made him a fine orator. The large and well developed chin shows good vitality and strong affection; his large perceptive intellect made him practical, and that splendid upper forehead gave him far-reaching logical power, while the broad temples indicate invention, refinement, Spirituality, and elevation of mind. A good head and face.

he recognizes in himself the possession of an indestructible power, independent of and commanding his physical organs, and without the consciousness of which all his aspirations for future happiness, all his yearnings toward perfection, all his sense of responsibility for good or evil can only be regarded as vain and idle dreams. His reason will never prove the existence of a soul; it will show that the existence of a soul may be inferred from the tendency

of his desires, and that is calculated to encourage the belief. But is it to be supposed that our Maker would suffer us to roam without some instinctive knowledge of our dependence upon His power, His Benevolence, Justice, and perfection, and His inclination to bestow upon us future happiness? would leave to the inference of reason the belief that we possess an immortal, an indestructible soul, by which those qualities and hopes may eventually find exercise in a higher sphere? To this question, we believe that Phrenology will answer no." *

Phrenological science does teach, and in this respect it stands quite alone among the physical sciences, that man has been endowed by his Creator with a faculty that inspires a belief in the existence of a spirit or *Psyche*, and prompts us to consider with awe and wonder the phenomena of life and the mysterious relations or workings of the animate upon the inanimate world.

The situation of this organ is in the superior insipid region of the brain directly in front of Hope. Fig. 68. Its function, as already shown, is to inspire belief or trust in the strange or marvelous. The workings of Marvelousness may be deemed for the most part as of a religious nature, but it has an important bearing upon the relations of the physical life of man, and is the basis of our longing after novelty, thus becoming an important element in intellectual progress. Dr. Gall was led to its discovery by observing that some persons imagined themselves to be visited by apparitions of the absent or dead friends, and when he found that men of no mean intellect believed in the reality of ghosts and visions, he was compelled to ask, Are they fools or imposters? Or is there a particular organ or special faculty for impressing upon the human understanding those peculiar illusions of sentiment? Following up the matter by careful examination of the heads of persons known for uncommon qualities he settled upon the location and function of this organ.

* M. B. Sampson—Am. Phren. Jour. vol. I.

Leading men in every age have been eminent for their belief in some spirit demon or inexplicable influence that bore an important relation to their success or failure in life. Socrates had his *Dæmon*; St. Paul describes certain experiences with supernatural beings; Swedenborg believed that the Lord manifested himself personally to him, and that he was placed in communication with angels and spirits. The development of Marvelousness is very marked in the head of this last distinguished philosopher and church founder. Napoleon believed in his star; and women are to be met with in society who have irresistible impressions and leanings, premonitions, and communications. There are some who exercise the calling of "clairvoyants" who are thoroughly sincere in their belief that they are endowed with extraordinary powers in the way of reading the future, and some of these have given accounts of extraordinary events in the history of individuals and nations that subsequently were practically verified.

This organ when large imparts elevation and breadth to the top-head. Its action is marked in the language and character, lending enthusiasm to effort in any philanthropic direction, inspiring devotion and self-sacrifice. In poets, artists, and sculptors of eminence it is uncommonly large. In great inventors it appears to perform a very important work, and we think it lies at the basis of a disposition to pursue difficult or prolonged scientific investigations; suggests motives and quickens the impulse toward discovery that dominates the mind of the scientific enthusiast. In Ann Lee, the founder of the Shakers, this organ was most extraordinary in its development. In Loyola and Whitefield it was also very large. Those, however, who exhibit scepticism and in-credulity in regard to novelties or discoveries, and especially those who are disposed to carp at and ridicule religious subjects have it small or inactive. In Thomas Paine and Voltaire it was decidedly weak. In the late General Gordon, who perished in the Soudan war, Spiritu-

ality was large, and imbued his character with that enthusiasm and confidence that led him to despise danger.

It is in the class of faculties known as the moral sentiments that we find the leading marks of difference that distinguish man above the brute. To a degree, the lower animals possess mind, and observers have furnished us with surprising accounts of the intelligence of dogs, and horses; and some who have concentrated their gaze upon insects, inform us that bees, ants, wasps, show in their habits very surprising qualities of reason. When it comes, however, to the consideration of those elements that give man elevated views of life, that lift him above selfish considerations and open up enjoyments that are pure and unalloyed, he stands much above brute creatures. Man has all the physical instincts that are found in the lower animals; added to them are impulses, and yearnings, and sentiments that cast a flood of light over the common affairs of every-day life. The gratifications of the lower animals are found in the exercise of their selfish propensities; the higher enjoyments of the human being flow from the exercise of his spiritual nature—the development of his organism in which self-gratification has no place.

Considered in their special natures, the moral organs, as we have thus far defined them, have no selfish relation; they lead one to acts that are beneficial to others, or to confer some service, or make some sacrifice of himself. They are opposed to those sentiments that would promote the success or glory of the individual or distinguish man above his fellows.

18. VENERATION.

Through this organ the chief faculty of the moral nature is manifested. It is situated in the summit of the brain directly in front of Firmness; below it lie Hope and Marvelousness—a provision of nature which is very striking in itself. See Fig. 95. The influence of this organ is to produce the sentiment of reverence in general; a disposition to worship a Supreme Being. Its history is remarkable. Every

tribe of people yet discovered, whether savage or barbarous, have shown a disposition to worship something, whether stocks or stones, beasts or images, the sun, the moon, the stars, spirits of the air, of the ocean, or of the mountain, of light or darkness; and from this universal tendency to worship, it is but a natural inference that the disposition is innate. Strange as it may seem, however, Phrenology was the first of mental systems to treat Veneration as an original power.



Fig. 97. REV. DR. DOWLING, VENERATION LARGE.

Weighed nearly three hundred pounds, and had a mighty brain; was an orator, thinker, writer, and excellent preacher.

The phrenological writers have defined this organ as having special reference to man's recognition of his dependence upon God, and therefore as the inspiration to devotion, the rendering of praise and thanksgiving upon all suitable occasions. But the sphere of the organ is not confined to religion; it has an important bearing upon the every-day affairs of human life, inspiring respect for authority, deference toward superiors, and respect for the great and good. Combined with large Approbativeness and moderate Conscientiousness and intellect, it leads a person to pay court to persons of rank and wealth, and where the intellect is not sufficiently enlightened it may produce a bigoted respect for all old customs and absurd institutions. There are people of means who are given to making collections of old pottery, relics, brasses, postage stamps, coins, etc. This is one of the eccentric forms of the exercise of this organ.

We find instances of its excessive and disturbed action among the insane ; every asylum contains patients who have an excessive exaltation of the devotional feelings, and the organ in these cases is generally large in the head. But Veneration may be large, and unproductive of its special phenomena in a brain that is lacking in other moral qualities and excessive in the propensities. It has been found large in murderers, not only those, who were unbalanced generally, and by its undue excitement deemed themselves instruments of Heaven in riding the world of a person who had incurred their displeasure, but also in persons who in other respects showed little or no want of mental lucidity. The German woman Gottfried who poisoned upwards of fifteen persons, was much given to attendance upon religious meetings, and her fervor in such exercises disarmed suspicion concerning her connection with the sudden deaths of friends and acquaintances and people with whom she lived.

Those who have the organ small are known for a want of tender respect for God and man. They are careless in the observance of social uses, as well as the ceremonies of religion.

This organ is subject to culture and growth from a state of inactivity, until it exercises a profound influence upon the character. In the realm of moral sentiment organization is made happily responsive to methods of training, change, and conversion, and at any age there may be reformation and improvement.

A Western missionary having a large territory under his supervision, mentioned a case to the writer that came within his experience. A man of notorious character was converted through his instrumentality from his wayward life. At the time of the conversion his head was low and flat, and his physiognomy expressive of his lawless disposition, but a marked change became apparent ; the region of Veneration having risen fully one-half inch in height, as shown by careful measurements taken by the missionary himself, while the character had so remarkably al-

tered that the man was no longer recognized as the frontier ruffian, but as the kind and zealous Christian worker.

There have been many who have shown a cruel and vindictive spirit in the assertion of their religious convictions. Philip of Spain possessed large Veneration, and so did Loyola, the founder of the order of the Jesuits, yet these men possessed elements of coldness, severity, and cruelty that were shown in their efforts to enforce the authority of the Roman Church. There may be humility and zeal in religious observance, associated with a vacillating, selfish, and vicious character ; generosity, kindness, tenderness may be on one side, and disregard of duty, forgetfulness of obligation, injustice on the other. In the American character, speaking generally, there is comparatively little Veneration ; hence, the lack of deference that so much mars our society, and which is often so very conspicuous in the conduct of our young people, while Benevolence is developed in a good degree, and Conscientiousness is not without some influence.

19. BENEVOLENCE.

The relations of man to man and of man to his surroundings demand for their well being the exercise of sympathy and kindness. There are great differences in condition among us ; some appear to be born to sorrow and suffering, weakness and dependence ; for their support they must look to those who are strong and well. The sentiments of kindness, or in a broader sense, charity, incite those who are able to confer benefits on others, and with the doing, delightful feelings are experienced, and without any expectation of a return. The cheerful giver feels a fullness of heart and an exuberance of joy that can not be measured by words or counted by dollars.

Benevolence, as a faculty, has the welfare of mankind in general as its object. Other faculties are concerned in loving individuals, family, friends, objects in which we have personal interest, and therefore may be said to be influenced by selfish motives to a degree. Benevolence,

however, has a place entirely apart from selfishness; its universality of application excludes the idea of personal gain, the motives of self expansion. It would bestow its kindness upon all creatures. It goes out with pure and disinterested motives



Fig. 68. J. S. ROUETT, Chairman of the Cattle Convention, St. Louis. Benevolence Large.

A man adapted to be a leader wherever his culture may qualify him to move. A strong face, a good forehead, especially in the practical department; is a man of resources, faith in the future, inventive power, and ability to push the cause he adopts.

to the stranger, the afflicted, the humble, those whose condition precludes any return or degree of reward seem to afford it special pleasure in the exercise of its functions.

The organ of Benevolence is situated in the anterior part of the top-head in the centre just forward of Veneration. Fig. 68. When large, the forehead rises high and has an arched appearance, and when small the upper part of the forehead appears to recede and is comparatively low. This organ exercises a powerful influence upon personal character; when large and active it inspires sacrifice in leading the person to set aside his own purposes when they would interfere with the comfort of others. It is a sentiment that relates to the cultivation of character, sup-

pressing peculiarities that may be disagreeable or give annoyance to others; and so also it is conciliatory, and inspires allowance for what is irregular, improper, vicious, or even criminal in others.

In excess, and unrestrained by a well developed intellect and Acquisitiveness, it leads to extravagance in generosity, so that the person will impoverish himself and expose his health unnecessarily to injury in a career of supposed philanthropy. An Englishman by the name of Gosse was so largely endowed with this faculty that he gave away two fortunes to charitable objects. He could not resist any solicitation for alms, so that in order to save a third bequest from entire loss he placed it in the hands of an agent, who was to supply him with certain amounts of money for his purposes. In all men distinguished for philanthropical earnestness Benevolence is large. Men who give their time, talents, and money to promote schemes of benevolence, like Howard, Father Matthew, Elizabeth Fry, or Judson, have the organ very large. Those, on the other hand, who are distinguished for cruelty, avarice, and exaction in their business and social relations, have the organ in but small degree.

The organ is found large in some animals, especially dogs and horses may show it; in the latter it occupies the head above the eyes, and when that region is small and narrow the horse may be regarded as tricky and vicious, and disposed to bite or kick. A horse, on the contrary, that shows considerable breadth and fulness in that region, will be gentle, patient, and good-natured. Dogs that are distinguished for amiability and docility have the organ large. The head rises prominently above the eyes, and is rounded between the ears. Newfoundland, St. Bernard, and shepherd dogs are so characterized. The bull-dog and terrier, we find, have heads that are comparatively low and flat back of the eyes, and they are excitable, irritable, and peevish. The Skye terrier may have a well developed crown, but his head is very wide in proportion to its size, giving him large Destructiveness, which accounts for

known irritability when teased or annoyed. A Massachusetts paper lately published an interesting account of a dog's sagacity that illustrates the action of Benevolence in a striking way. A boy trespassed upon private grounds, and was

ness and Destructiveness to threaten immediate injury, but when he discovered that the boy was hurt by his fall, the faculty of Benevolence was aroused, and led the dog to make, in his dumb fashion, an appeal for the child's relief.



Fig. 99, FAITH; Fig. 100, HOPE; Fig. 101, DISCONTENT.

We see the calm, assured trust of Faith, and the exalted face of Hope, gazing with steady eyes on the rich prospect that mantles her horizon with glowing beauty. But restless, impatient, envious Discontent frowns, and would rob the sisters, Faith and Hope, of their joy; she is wretched, and the happiness of others adds to her misery and malice. Note the baleful glare of her jealous eyes, and the malice in the curl of her sneering mouth, while love and kindness dwell on the lips of the sisters.

seen and pursued by the dog which belonged to the owner of the grounds. While the boy was running to escape from the dog, he fell and injured his leg so much that he could not get up at once and he lay crying with fright and pain. The dog, though in full pursuit, on hearing the boy's cries stopped, and ran home, where by constant whining he insisted upon his master's following him out into the lot where the boy lay. In this we have an excellent example of the influence of the influence of Benevolence and other organs in a brute. When the dog found the trespassing boy on his master's property he was incited by Combative-

PHYSIOGNOMY AND RELATION OF THE MORAL ORGANS. Fig. 99.

All the moral organs have their signs more or less expressed in the physiognomy, and especially in the conduct and attitude. Conscientiousness strong imparts a grave and even stern expression to the face. Hope imparts light, a sort of forward look and cheerfulness; in one with a good degree of the Vital temperament, it inspires a marked sprightliness in the play of the features, and buoyancy and life in the attitudes. Spirituality imparts a calm, peaceful, confiding expression, with a tendency to uplift the eyes. We see it finely expressed in the portraits

of saints by old masters. Veneration strong, imparts a rather humble demeanor. Benevolence imparts a general air of tenderness and kindness; the expression is soft and pleasing, the voice is smooth and sympathetic, and the attitude is that of forbearance and concession.

The action of these organs is dependent upon the influence of other organs. Men with large Conscientiousness, strong physical powers, broad heads, Secretiveness, Destructiveness, and Combativeness being potent, and Benevolence being moderate, have been distinguished for cruelty and even tyranny. Who has not heard of the invincible Roman judge who could condemn his son to death with a calm voice, that the laws should be vindicated? We think it likely that the notorious Judge Jeffreys, in the days of the English Restoration, possessed a good degree of Conscientiousness that led him to an excess of zeal in his loyalty to the cause of the Stuarts, while his great Destructiveness was exercised in his terrible sentences upon the disloyal.

We have occasion often to say that a person under our hands shows "more honesty than piety," more kindness than spiritual aspiration. Faith, however, is widening to-day, and scoffers at religion, Ingersoll to the contrary notwithstanding, are diminishing. There may be less of ritualistic pretension, less regard for ceremonial observances and religious formality, but Faith is deepening its hold on the heart; the belief in the truth that God is the Father of all, and never wanting in care toward his creatures, is growing broader and more influential. The Humes and Gibbons, Rousseaus, Paines and Voltaires have done in their way work that was really serviceable to humanity. They have stimulated thought in the direction of religion and morality, and brought more conspicuously to our nature the relation of the soul to spiritual things; they have indirectly opened our vision to the unity and harmony of truth. Such unbelievers represent a class that is small as compared with the great mass of the educated, and their cynical flings and contemptuous allusions to religious faith help

to awaken minds that may have been dormant hitherto to an interest in matters of the higher morality, and stir up a disposition to a better recognition of duty toward God and man.

As an explanation of the true relation of man to the world of matter and the realm of Spirituality, PHRENOLOGY IS THE ONLY SCIENCE that can make them clear and harmonious. If the unity of science and religion can be demonstrated it must be the work of science, because religion is a sentiment, and therefore, in itself blind, while science is the offspring of faculties, whose function it is to see and know, and these faculties are brought by the very nature of Phrenological methods into the closest approximation to the feelings. The intellectual eye is made to cooperate in its upward range with the spiritual eye, the heavenly light illuminating and clearing the vision of the former. Thus Reason is led to wait in Faith, and that "pure religion and undefiled" that exalts humanity and makes it meet for a future and a better country is seen to be but a right and privilege founded in man's very nature.

SEMI-INTELLECTUAL SENTIMENTS.

20. CONSTRUCTIVENESS.

"Constructiveness lays the foundation for mechanical taste and skill, and from its exercise nearly everything which adorns and blesses life proceeds. If we look abroad we see scarcely anything that the hand of artistic and mechanical skill has not produced. Man has been called a 'tool-using animal.'

"Physically considered, independently of intelligence or tools, man is far inferior to some of the lower animals. Let man stand up in the forest naked, and if compared with a bear, to all outward seeming the bear has almost every advantage. He has a coat which keeps him warm in winter, never becomes unfashionable, never wears out, or needs repairing. His teeth are strong for defense and for providing himself with game as food. His claws are long, strong, and sharp, with which he may dig roots, or climb trees, or hold his

prey. Man has neither claws nor strong teeth, nor has he a garment of fur to protect him from storms and the cold of winter, but in process of time his intellect

ilization occupy the place where the bear once roamed the master, that animal having retreated to the forests and fastnesses of the mountains, and timidly fleeing at the approach of man who, at the beginning, seemed so inferior.

“Without Constructiveness, no men could live where winter reigns three or four months in the year; and we find in the hot climates, where houses and clothing are comparatively unnecessary, the faculty of Constructiveness is not much developed. Without the use of tools man would indeed be helpless. He might, like the squirrel, lay up nuts for the winter, but how could he construct a shelter or clothing with his naked hands? The squirrel has the means with which to dig and burrow, or to gnaw his passage into a hollow tree, but without the agency of tools man could accomplish neither of these results.

“The bee, the beaver, and bird build in a specific way in obedience to fixed instincts, but they use no tools, and the order of their mechanism is generally low and simple. And though the bird builds a nest, the bee its cells, and the beaver its dam, thus evincing the building instinct, but man possesses a manufacturing talent far beyond merely instinctive efforts. He combines intellect and senti-

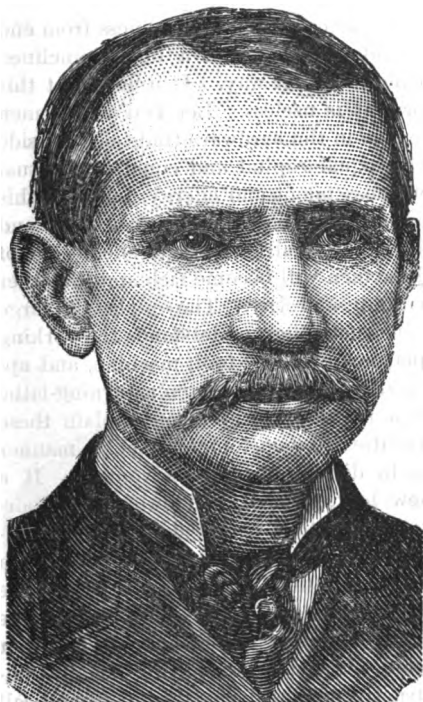


Fig. 102. C. C. BALDWIN, Commissioner of the New Aqueduct for N. Y. CONSTRUCTIVENESS LARGE.

He is a merchant of high standing and decided success; the fullness in the temples shows large Constructiveness, and the width above and about the ears shows force and executive ability, with talent for financiering; this is a powerful face and a grand head.

and constructive talent have projected those defenseless fingers of his into a thousand lines of productiveness. He contrives weapons of defense and offense which make the bear his prey, and converts his warm robe into a coat for the captor. To protect himself from the storms of winter he builds houses; he works metals into all sorts of tools, and uses those tools for every imaginable purpose. In the process of time, although the bear has remained stationary, man has made great progress, and populous cities, commerce and art, have sprung from his plastic hand, and all the appliances of civ-



Fig. 103. REV. GEORGE EATON. CONSTRUCTIVENESS SMALL.

ment with Constructiveness, and by invention carries out new plans for the production of whatever he desires. The printing-press and the art it subserves,

the power-loom which seems almost possessed of intelligence, the ship, the steam-engine, and the machinery it impels, electrical apparatus, and all the articles of convenience, utility and ornament which fill and bless the civilized world, grow out of this great but often much neglected element of our nature.

“If we would go out of the path of constructive and mechanical skill we must go into the wilderness where nature, rude and luxuriant, untrimmed and untrained, acknowledges not the hand of culture; but where civilization reigns, we can hardly see an object that mechanical skill has not wholly or in part developed. Mechanism now does much of the work of agriculture as well as of manufactures and art.

“A faculty so useful as this, so indispensable to the welfare, happiness, and development of the human race, should be carefully and perseveringly cultivated. Attached to every college, instead of the gymnasium, or in addition to it, there might be shops in which useful industry could be employed, and while the student would be taking needed exercise with the saw, the plane, and the hammer for the benefit of his health, he might learn to build wagons, make chairs, cabinet furniture, and a hundred other useful things; then, while following a ‘profession,’ if he were to lose his voice, he would not necessarily become a pauper. We have not the slightest doubt that any well-developed boy might obtain a good book education, and with proper opportunities learn some useful trade at the same time.

“‘But,’ says one, ‘I am to be a merchant, therefore what do I want to know of mechanism? Why should I cultivate my Constructiveness?’ To such a one we may reply, What do you intend to deal in? If in pork and lard, salt, grain, plaster, or lime, you could get along very well with small and untrained Constructiveness; but if you wish to deal in manufactured goods, in anything that involves the principles of mechanics, you will find your success greatly augmented by large, active, and well-instructed Constructiveness. Take, for example, the hardware

trade. Everything in that line is manufactured, combining various mechanical operations in its structure and use. The very simplest article in that line of trade, a cut nail, to be made properly, must be a slim wedge, equal in thickness from end to end one way, and a double inclined plane the other way. If it have not this form it is useless. Let two young men engage in the hardware trade side by side with equal capital and equal intellectual business talent and energy, but with this simple difference, that one has large and the other small Constructiveness—one of these men will become rich and the other will fail, and why? The one having large Constructiveness understands the working qualities of every tool, machine, and apparatus in his shop, from a turning-lathe to a mouse-trap, and can explain these qualities to a customer in such a manner as to display them to advantage. If a new lock, wrench, window-spring, door-knob, or other patented curiosity be offered for him to purchase, he sees at a glance whether it is likely to supersede all others or fail and be worthless, and he buys or rejects accordingly. The other man, his neighbor, having small Constructiveness, will show his goods and call them strong and handsome, but will never display and explain to his customers their internal workings, and show their new and superior qualities over all other methods, simply because he does not appreciate them himself. If the most desirable improvements are offered him, he dare not purchase on his own judgment; or if he buy a little of everything, he is sure to lose money on useless articles that will lie rusting on his shelves.”*

21. IDEALITY.

“This faculty is adapted to beauty, perfection, and refinement. The mind of man, to be in appreciative harmony with the wide domain of earth and air and sky, should possess a faculty bearing the same relation to beauty that the eye does to light.

* From “Choice of Pursuits.”

"As a counterpart to the plenitude of exquisite beauty and elegance which bestud the earth and sky—

"That warms in the sun, refreshes in the breeze,
Glows in the stars, and blossoms in the trees,'
the faculty of Ideality is given to man,



Fig. 104. MRS. W—, Poetical. IDEALITY LARGE.

Strong Mental Temperament; Reason, Imagination, Spirituality, Integrity, Reverence, with decided force of character, and an inclination to overwork.

by which he appreciates them; and not only these physical adornments furnish it food, but all the poetry of thought and expression that charms the world, and all the polish and elegance of manners which constitute the grace of good breeding, arise from and are addressed to this faculty. Moreover, Ideality, acting with Spirituality, is an element of imagination, and in conjunction with Constructiveness gives creative fancy and invention, especially to the speaker, the author, the mechanic, and the artist.

"If we look into the realm of manufactured goods, we shall find that more than one-half of all articles intended to serve

purposes of utility, have also qualities of beauty and decoration, so that although strength, durability, and convenience may stand forth so prominently that the purchaser may see and admire them alone, yet polish, neatness, gracefulness, and elegance of form and of finish are added to strength, in order to please the eye and gratify the sense of beauty; just as politeness of manner in human character adorns the sterner virtues of good sense and integrity. Surrounded, then, as we are, by all the gorgeous garniture of nature, and by so many opportunities for artistic decoration, how important does the cultivation of Ideality become, that we may properly enjoy the beauties of nature and the elegant adornments of art!

"Besides, these articles serve to refine and elevate the mind. Coarse thoughts are apt to dwell with coarse external objects, while beauty begets a polished imagination and correct taste, which flow out in politeness of language and manner. We therefore urge the cultivation of Ideality upon all who have the charge of the education of the young. Let every flower make its impress on their minds, and every form of beauty in nature and art exert its refining influence upon their



Fig. 105. AMERICAN INDIAN. IDEALITY DEFICIENT. characters. Teach them not only refinement of mental action, but an elegant and polished mode of expression, and you have done much to make them beloved and happy." *

* "Choice of Pursuits."

B. SUBLIMITY.

Sublimity appreciates the vast and grand. The organ (Fig. 106) is located between Ideality and Cautiousness, and



Fig. 106. AUGUSTE BARTHOLDI, Sculptor, France.

Author of the statue of "Liberty Enlightening the World," erected on Bedloe's Island, in New York harbor. Sublimity, Ideality, and Constructiveness large.

when large gives width to the upper and lateral portions of the head. Some writers speak of the sublime and beautiful, as if appreciated by the same sentiment; we think the difference is wide. Ideality recognizes the exquisite, the beautiful; Sublimity rejoices in that which is startling, terrible, majestic, like the tornado, or the cyclone at sea, which

"Takes the ruffian billows by the top,
Curling their monstrous heads and hanging them
With deafening clamors in the slippery clouds."

Some writers and speakers delight in a startling and majestic style; they use such words as terrible, vast, awful, tremendous. The thought of eternity awakens in the mind the most intense sublimity. The thought that there was no be-

ginning, and shall be no ending is food for this faculty. Those who delight in climbing high mountains or embody them usually in their paintings will be found having large Sublimity. It is located next to Cautiousness, as if there were a community of sentiment between the two, yet we occasionally find persons having large Sublimity, with a moderate share of Caution, and the reverse.

22. IMITATION.

This organ is located outward from Benevolence and backward from Agreeableness. Fig. 107. In the nature of things it is desirable that people should have some common mode of doing and acting. Public sentiment is the outgrowth largely of Imitation, hence in dress, furniture, houses, carriages, conversation, walking, working, people incline to conform to others. Children imitate their parents, and younger

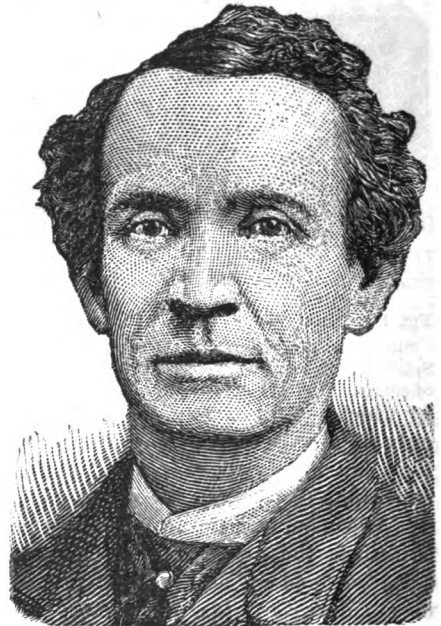


Fig. 107. W. A. DAILY, Life-Saver of California.

Has saved thirty-two lives. A large head, fine intellect, large Constructiveness and Mirthfulness, and especially large Imitation and Agreeableness.

children try to do that which their elders in the family do. It is amusing to see the little four-years-old girl manipulate her doll as the mother does her baby; she

wants a cradle, a perambulator and a crib for her doll, and studies to treat that doll just as the mother treats the baby sister. Little children are delighted with house-keeping implements, and go through with all the ceremonials of receiving calls, of setting the table, and even go so far as to have something they call tea, and food on their little plates, and invite their mates to take tea with them.

Thus it will be seen that the faculty of Imitation is a wonderful educator, especially in the human race; in general the lower animals follow a certain instinct, doing as their progenitors did, and without their present example. The gosling needs no advice, or counsel, or example to teach it swimming; the pet bird, or the lonely pair of birds, build without instruction a nest such as their ancestors had built since the flood.

The human race being endowed with reason and moral sentiments, and not confined like animals to mere instinct only, may well rise above instinct through reflection and imitation, and copy that which is higher and better than previous experience and custom had taught them; thus people go from rude conditions into better, and learn to conform to the refinements of culture greatly to their advantage.

It is interesting to go into a great hotel, where there is a rush of emigrants and pioneers, and adventurous business men, as well as men of better culture, and notice how such a variety of people will eat and drink. One man pushes his food into his mouth rudely with his fingers; another shovels it in with a knife; another will eat with his fork, but will use it as if it were a pitch-fork; another, even amid such coarse surroundings, will eat with all the grace and refinement that adorn table habits.

One of the marvellous results of Imitation is seen in the use of speech, in emphasis and intonation. If one travels in America from Maine to Texas, and thence by way of California and Oregon around to Minnesota, he will find that there are local fashions of pronouncing words, that

belong to and identify the people of the different States; and the man who resides in New York, which is cosmopolitan, will learn to recognize the people from the different New England States, from Pennsylvania, from Virginia, and notably from Tennessee and Kentucky and the Carolinas. Then in the great middle West there is an amalgamation of all the modes of pronunciation, that belong to the other parts from whence the inhabitants of these middle States have come. A man, living for instance, in Indiana and Illinois, will have something of the vernacular of the New Yorker and the New Englander in his pronunciation, with, perhaps, a touch of Scotch, English or Irish, as obtained in his neighborhood by a mingling of peoples from all these different parts.

People often think that Imitation must be employed in mimicry, in assuming character, in acting boyish pranks, facial contortions, and in the personation of people by pantomime, gesticulation and shrugging of the shoulders in speaking; but these are only some of the intentional methods; there are a thousand imitations that are without intention; they become automatic. In certain sections of England men can not use the h, when preceding the a or o, without a particular effort; they must say "orse" and "otel," "ouse," and "ome," and "Arriet," just as in this country it would be hard for a man to say "Honor" and "Honesty"; we pronounce these words as if they were spelled "Onor" and "Onesty," yet we have heard men say, "Hi ham ha honest man."

Let this faculty be used by persons in a proper way, copying those who have better culture; let it work toward refinement, and not toward the low and coarse, and it will be a blessing and a boon. And to intensify our idea of the reality of Imitation, and its fixed force upon character and speech, suppose the German and the Irish, the English and the French, the Italian and the Spaniard were to exchange babies, the German child would have the native Irish pronunciation, and a similar effect would result in the other cases, though the original dispositions of the

people might be largely maintained, the German-Irish baby would be cooler, and the Irish-German baby hotter in temper, than those by whom they were surrounded, but the associated speech would be copied.

23. MIRTHFULNESS.

Man is the only being that laughs, and although wit may be used as a lash with which to scourge others, or be made the basis of frivolity, nevertheless it is a hu-



Fig. 108. THOMAS LUBBOCK, Scientist in Natural History. Mirthfulness and Causality large

Comprehensive intellect; fine Imagination, financial talent, and business ability.

man trait, joy bearing in its nature, and rightly used is an aid to virtue and morality. This faculty, under the influence of the moral sentiments and the intellect, may be made salutary when used to shame error and impropriety out of countenance, and to urge a reform that would otherwise be out of the question. The organ of Mirthfulness is located at the upper and outer angle of the forehead, giving width, fulness, and squareness to that part. See Fig. 108.

No subject is better appreciated than wit or Mirthfulness, yet there is great difficulty in defining it. In the mind of man there is a primitive, independent faculty that enables him to enjoy sport, and to catch and appreciate the witty, the ludicrous, the comical, the incongruous, the eccentric, and the absurd. Animals do not laugh or comprehend the causes of laughter. Sometimes animals feel ashamed when laughed at, but that arises from Approbativeness, not from Mirthfulness. One of the wittiest definitions of wit is that of Heniker, who, on being asked by the Earl of Chatham to define wit, answered, "Wit, my lord, is like what a pension would be, given to your humble servant, a good thing, well applied."

We laugh at that which is absurd, though it be not witty. Innocent ignorance is ludicrous; that which is incongruous or ill adjusted is an occasion of laughter to others. The most laughable things are those which are called bulls or blunders. The first printed article of a burial society in Manchester, England, reads thus, "Whereas, many persons find it difficult to bury themselves." Sir Boyle Roche, a member of Parliament, was full of these bulls. Two or three of his immortal bulls may be here preserved. "Sir," said he, addressing the Speaker, "I smell a rat brewing in the storm, but mark me, I shall yet nip him in the bud." "Single misfortunes never come alone, and the greatest of all possible misfortunes is generally followed by a much greater." When contending for the proper dimensions of the wine bottle he proposed to Parliament that "it should be compulsory that every pint bottle should contain a quart!" Again, "I do not see, Mr. Speaker, why we should put ourselves out of the way to serve posterity; what has posterity done for us?" Disconcerted by the bursts of laughter which followed, he quickly added, "By posterity I do not mean our ancestors, but those who are to come immediately after them."

During the late American war, a famous Irish regiment was dining together while investing Richmond. Captain Mur-

phy offered a sentiment, "The Sixty-ninth, equal to none." The roar of laughter which followed this, aroused him to a fresh effort to say something which would retrieve his own blunder and the apparent disgrace of the regiment, and as soon as he could make himself heard, he mounted a chair and shouted, "The glorious Sixty-ninth, the last in the field, and the first to leave it."

An Arkansas soldier being wounded in the leg at the battle of Buena Vista, asked a fellow soldier, an Irishman, to bear him off the field. The latter did so by seizing the man and strapping him on his horse, Pat getting astride in front of him. During the ride the wounded Arkansian had his head shot off by a cannon ball. Arriving at the surgeon's quarters, the Irishman was asked what he wanted. "I brought this man to have his leg dressed." "Why," replied the surgeon, "his head is shot off." "The bloody liar," exclaimed Pat, looking behind him, "he tould me he was shot in the leg."

Genuine wit does not always excite laughter; it sometimes takes the form of satire. The retorting of one's joke upon himself, the hanging of Haman on his own gallows indicates wit; when a person is driven into a corner and can manage to catch his opponent's arrow and throw it back at him effectively, it shows the highest type of wit. It depends altogether upon the faculties with which wit unites, whether it be unwelcome satire, or a pleasant joke at which all may laugh, or that which rankles forever. Two sons of the green Isle traveling together came in sight of a gibbet or gallows in a lonely field; one of them said to the other, "Pat, where would you be if that gallows had its due?" "Och," he replied, "I would be walking alone."

Sheridan, the great Irish orator, was greatly annoyed by a fellow member of the House of Commons, who would frequently and inappropriately cry out, "Hear, Hear." Wishing to silence the brawling member, Sheridan took occasion in debate to describe a political contemporary that wished to play the rogue, and

who only had sense enough to play the fool. "Where," exclaimed he with great emphasis, "where shall we find a more knavish fool, or a more foolish knave than he?" "Hear hear," was shouted from the troublesome member. Sheridan turned round, and politely thanking him for the prompt information, took his seat amid the roar of the House.

The modern method of bad spelling is laughable because droll and unusual, but the wit does not consist in the bad spelling, but in the sentiments set forth.

When the organ is developed low down toward the Perceptives, there is a tendency to humor; when developed high up, as if working with Reason and Ideality, we have the highest type of wit. *

THE INTELLECT.

Phrenologically considered, there are two classes of faculties, the reasoning and perceptive powers; the two combined make up the intellect.

The reasoning organs are situated in the upper part of the forehead, while the perceptive organs are located across the lower part of the forehead, and impart to it sometimes a retreating appearance, especially if the organs of perception are much larger than the organs of reflection. These groups of organs are judged, not so much by their prominence as by the length of the head from the opening of the ear to their location. Some people have a short forehead, but it being perpendicular and high it is supposed by some to show a good intellect, when in fact in that head the anterior lobes of the brain in which the intellectual organs are situated are short and comparatively small.

For every quality of matter, man has a corresponding mental faculty; Individuality takes cognizance of things as mere existences, without reference to bulk, shape, density, color, number, order, place; it appreciates the divisibility of matter; Form judges of shape, Size of extension or bulk, Weight of density or ponderability, Color of hue, Order of ar-

* "How to Teach."

rangement, Calculation of number, Locality of place or direction, Tune of sound, Time of duration, Eventuality relates to scenes, facts, or transactions; these combined and well developed give practical talent and gather data for the use of the reasoning faculties.

that may be seen and nothing escapes their attention. It opens the door for the action of all the other perceptive organs.

25. FORM.

This recognizes another quality of matter aside from mere existence. In spel-



Fig. 109. C. E. CADY. IMMENSE PERCEPTIVE ORGANS.
Teacher of Penmanship and Business Education.

24. INDIVIDUALITY.

This is the first organ of the perceptive intellect; it is located just above the root of the nose, and gives a recognition of things and of the special points and facts of subjects; quickness of observation is an important element in the acquisition of knowledge, but this faculty has to do with the mere existence and not with the quality of things; it recognizes things merely as things, without caring to know whether what is seen is chalk or turnip, bees-wax or cheese, it is a thing, and that satisfies Individuality, that fills its mission. Those in whom it is large are eager to see all

ling, writing, drawing, mechanism, art, and in acquiring knowledge of things it is indispensable. The organ of Form is located on each side of Individuality, and when it is large it has the tendency to push the eye-balls apart, showing a distance between the eyes. When small, the eyes are nearer together, which gives a pinched expression to that part of the face; when the organ is large, the eyes appear to be separated, pushed away from the root of the nose. Distinguished artists have the eyes widely separated. Occasionally there are twins who so fully resemble each other in form and in other qualities that those best acquainted with

them can not distinguish them. Artists and mechanics who draw, paint, model, cut, fashion and shape things by the eye, need to have a large development of Form; those who learn to write handsomely do it much better if they have the organ of Form large.



Fig. 110. LOLA MONTEZ. FORM LARGE.
26. SIZE.

This faculty gives the power to judge of magnitude in general, distance, height, and depth. The organ is located outward from Individuality on the inner angle of



Fig. 111. J. S. MILL. INDIVIDUALITY LARGE.

the eye-brow. This faculty is adapted to that quality of matter called extension; everything that we can imagine that is

tangible occupies space, has bulk, extent, magnitude; this differs from the quality of Form, for things may be of the same form though of very different size; a ball or a circle, or anything having irregular form may be magnified a thousand diameters and yet retain the same form precisely; we photograph the human face as large as a silver dollar, sometimes half as large, sometimes a fiftieth part, yet the precise form is retained; the smallest shot and the largest cannon ball are identical in form, and the faculty of Form in respect to them is thoroughly satisfied, and knows nothing but shape; the fact of Size is the only subject of distinction, but that faculty is never deceived; the picture of a horse that is perfect, may not be more than an inch long, and that may be gradually magnified till it is ten times larger than the horse itself, and the faculty of Form is satisfied with any one of the pictures; all that the faculty of Form desires to see is the horse in each of the pictures, but Size enables us to judge of the difference between them. We see the pictures of men in fashion plates in tailors' windows; if the form is satisfactory it is what we look at, and when we look at a statue of a man that is of heroic size, if the form and proportions are satisfactory we accept it as correct; the faculty of Size appreciates the difference between the statue and the man, while Form takes no account of the difference in size. All mechanics require this faculty, especially the turner of wood, the carpenter, and the blacksmith; he requires the faculty of Form to give the requisite shape to his work, but he must have also the faculty of Size in order to make it of the right magnitude; he must measure the size of the work he is hammering; suppose it be a horse-shoe-nail, or a rivet, one who is experienced in making these will make them of the requisite size and length, and they will vary little indeed, all day. In every form of mechanism, and nearly every form of art, judgment of magnitude, where there is no opportunity for measurement, is requisite. The dress-maker, who has this faculty, will make the

folding or plaits without measurement, and gauge them with an accuracy which will be equal to the criticism of any other person. Without a good development of this faculty, the person must measure every time and thus be hindered.



Fig. 112. R. PHELPS. SIZE AND LANGUAGE LARGE.

Experienced cattle buyers will estimate by the size the weight of a hundred oxen in a hundred minutes, and not vary, on an average, five pounds on each, and butchers who cut meat for customers will estimate the weight by the size, to an ounce, though they have a method of giving a half pound more than is called for, and the writer has learned, if he wants two and a half pounds, to ask for only two pounds, and he is then sure to get the requisite amount.

The merit of a caricature artist is in making the form of different features so nearly correct that they will be recognized, yet pervert the size so as to make it funny and absurd; a man whose nose is large will thus be made with a correct form, but exaggerated, so with mouth and chin. A Governor of this State had an enormous chin, and used to have it clean shaved and brooded by an elegant mustache; the caricaturists would exhibit the chin in true form in a portrait intended for him, and by magnifying the large chin it was thereby rendered funny, and always was recognized as his peculiarity.

One who writes and keeps accounts, having this faculty well marked, will maintain the equality of the size of his letters and figures, so that each page of his work will have the appearance of method; some writers will begin a word with well formed letters, and end the word with a tapering, crooked line, violating the faculties both of Form and Size.

Wherever we look upon life's affairs, we have use for the faculty in question, and good judgment, quick perception, and rapidity of working depends so much upon the integrity of this faculty that as we think of it, it seems to be the chief one of the group to which it belongs. Of course it can be trained by use, or left without training, but a practical education trains the faculties quite as much as it gives us information.

27. WEIGHT.

This faculty expresses the idea of ponderability, which is an intrinsic quality of matter; things weigh more or less, according to the amount of matter which they contain. This faculty brings us into harmony with the law of gravitation; both men and animals being adapted to it by means of this faculty, it gives the power of balance or sense of equilibrium. Those in whom it is strong, obey this law in respect to themselves with more ease, accuracy, and grace than others; some walk with a swinging, lounging motion, and throw themselves from side to side, as if it were hard work to regain at each step the equilibrium; the very process of walking consists of projecting the body forward as if falling, and then restoring the equilibrium with the advancing foot; some walk easily as well as gracefully; some horses trot like a fox, lightly, easily, others punch the ground with their sturdy legs, and shake the rider from side to side very uncomfortably. When a horse rapidly turns a corner, he throws the weight of his body inward, and the driver sitting on his back, or on a seat in a vehicle, leans inward to keep from losing his balance; the circus horse in the ring leans inward at an angle of forty-five

degrees, if the ring be small, and he must have a bank of earth to travel against, and the rider, whether it be man or monkey, also leans inward to obey the law of gravity or Weight. Those who can walk the



Fig. 113. LORD RAYLEIGH. WEIGHT LARGE.

President of the British Association for the Advancement of Science. Large head, amplitude of forehead, power to gather and analyze thoughts and to study principles and their combined relation, rather than as an inventor or abstract thinker. Well-balanced temperament.

rope or perform those wonderful feats of balancing, where men build human pyramids, one standing upon the shoulders of another and all keeping balance, shows a marvel of activity in this faculty; men who are working on buildings, or seamen going aloft, require this faculty in a great degree of strength and activity, and we fancy that sea-sickness is largely a disturbance of this faculty. The writer has adopted, when at sea in rough weather, the expedient of standing as near the middle of the ship as possible and holding his head still, and then adapting himself to the motion of the ship, by permitting the body to swing, while the brain is kept in one position, and has avoided sea-sickness in that way.

The graceful walker, the graceful and

easy dancer, the rapid and easy worker, where the use of blows is required, will be found endowed with this faculty of Weight to apply just force enough to accomplish the work in hand; watch the person who cracks walnuts at his stand on the street corner, he will give a light tap to find that the nut will not slip, and then one blow will crack it just enough; an inexperienced person will strike a light blow and keep increasing in the weight of his blows until perhaps the sixth blow, being slightly mixed with anger, will crush the walnut to flinders, and perhaps damage the thumb at the same time.

Writers having this faculty, will slant their letters uniformly, not put one straight up and another leaning back, and two letters leaning forward and no two alike. Those in whom this faculty is well developed, will hang pictures, or nail up work as a carpenter, that will be plumb, without the necessity for using instruments; the eye, as the saying is, is level and plumb, and it takes the faculties of Form and Weight to know by the eye when things are horizontal, for we form an imaginary plumb line by the faculty of Weight, and then the horizontal is made at right angles with this idea of the vertical, the faculty of Form determines whether it is a right angle; in other words, we recognize a line which claims to be horizontal, we instantly judge the vertical line by the action of weight, and Form tells us whether the line which claims to be horizontal, and the vertical line which we have in the mind, form a right angle; if they do not, we change the position of the horizontal till it forms the right angle in question. This may be done a thousand times a day, and with a readiness that seems to elude or defy analysis, but the analysis is clear as any problem in mathematics.

28. COLOR.

The office of this faculty is to give a perception of primary colors, their shadings and blendings. It is located at the centre of the arch of the eye-brow, and when large, gives upward and forward

arching to it. Color is a quality of objects rendering them beautiful and distinguishing them from each other, even if they are precisely alike in form, size, and weight. Imagine an egg of the usual



Fig. 114. FRANK S. CHANFRAU, Actor.

Fine expressive face, dignity, force, discrimination, and intelligence mark that Phrenology and Physiognomy. Color large. See also Fig. 111.

form ; the oval shape satisfies Form ; another egg may be of the same shape but be of greater or less size. Form is satisfied with either, and don't know the difference ; Size knows the difference. Suppose we take two eggs of equal size and form, and puncturing the ends exclude the contents, leaving the shell empty ; Form and Size are satisfied with the shell and with the egg alike, but Weight only tells the difference. But eggs sometimes are of different colors ; the blind man would not see the color, he could feel the form and size and weight, and the color would be the only distinction. Thus we distinguish a thousand things by their color, where the form, size, and weight may be similar. In a well appointed park, one can see at a single stretch of a curving drive, trees whose foliage represent thirty different shades of green ; and when we think of the beauties represented in flowers, when we think of the world of material which belongs to the realm of decora-

tion, and the domain of art and dress, architecture, furniture, not forgetting the plumage of the birds, or the ever changing glorious of the clouds, color stands forth to the mind and memory as "a thing of beauty," and especially as an emblem of distinction in things. Think of the ornamental wood of which furniture is made, the rich, curly mahogany, rosewood, walnut, the beautiful shadings of birch and ash, where Color and Form vie with each other in expressing beauty, and we begin to appreciate the meaning of the term *perceptive power*. We wonder sometimes if horses, oxen, dogs, see these glories.

We meet men who seem to be very obtuse in regard to colors and forms, and the less cultivation people have the more they prize very strong colors, great solid patches of fiery red, or smiling yellow, green, or blue ; while culture in these faculties gives appreciation of the softer tints and the blended hues, what are called subdued colors. Savages paint their faces with vermilion and black and green ; they adorn themselves with ribbons and beads of the most pronounced colors, if they can buy them, and civilization says they are utterly without taste ; but the uncivilized and the cultivated nations show a similar distinction in regard to sounds ; the music of the uncultured is often rough and unharmonious.

29. ORDER.

Method, system, regularity—when we stop to think how Order is blended with nature, and how much we really depend upon the fixed chain of things, it would seem as if Order were not only "Heaven's first law," but its greatest law. There are two or three aspects in which the faculty of Order is evinced, one is in having things always in particular places, and having a uniform method of doing every thing ; another aspect of Order relates to the best rule of doing. Some have the first kind of Order, each thing belonging to them has its fixed place, and there it can always be found when not in use, but the appropriateness of the place where the

things are kept is liable to question and criticism. Men have their tools, their harness and things about the barn and stable in a particular place, but sometimes in most inappropriate places. We knew



Fig. 115. GEORGE B. LORING, U. S. Commissioner of Agriculture. ORDER LARGE.

Refinement and force, as well as critical intelligence; power to express himself, as shown in that face and forehead; is genial, harmonious, and balanced.

one farmer who always kept his saddle in the kitchen, and his best axe behind the head of his bed, where others would not be likely to get it; nobody doubted where they could be found, but most people doubted the propriety of their location. Some persons in their style of dress pile on incongruous things without regard to order or taste; some do that first which should be done third, and thus they lose time, have things mixed up, finished and unfinished work, raw materials, patterns, and tools, and they have to hunt for the things they want, and get out of patience because what they want seems to be lost. A lawyer in court had the habit of throwing his spectacles, after reading something, up on the top of his head. A brother lawyer, who was something of a

wag, bought or borrowed a half-dozen pairs resembling the old lawyer's glasses, and when he threw his glasses up on his head, engaged as he was in making his speech and arguing his cause, the wag would slip another pair of glasses upon the table before him, and when he wanted to use glasses, he would pick up and put on that pair, and then tilt it up, until he got six pairs of glasses on his head, and of course all the people in the court-house were convulsed with laughter; and, placing his hand up to his head, he found it covered with spectacles. It is said to have so disturbed his equilibrium that he became confused and lost his cause. A man in whom Order is large, will keep his store, factory, or shop according to rule; will be able to find his tools, even in the dark. The housekeeper who systemizes everything, will have a place for each thing, and not be obliged to grope and hunt and wonder what has become of this or that; a druggist, a librarian, a merchant in a retail store, if he have Order will regulate everything; it will not only look neat and tidy, but systematic; while the sloven, the man without Order, will have things confused and not be able to find what he wants, or will lose time in finding it, and everything gets damaged by want of method. The parent or teacher does the child or pupil a wrong who neglects the training of this important faculty. It is not enough to inveigh against persons for disorder; scolding does not teach method, though it is said that very orderly people are more likely to scold than others. Children should be instructed and trained to put up their playthings, when they get through with them, in a particular place, and an appropriate place should be provided for the child, and when his clothing is laid off at night, the child himself should put the things where they ought to be. Occasionally we find a child who takes it up by nature and insists on having everything of his put in just such a place—it may not be the most appropriate but it is his Order, and the manifestation of the faculty will signally mark his character for life.

Imagine the world without this faculty, everything that a man owns thrown in a heap ; it is sheltered by his roof, it is enclosed by the walls of his house, it is sustained by the floors, it is out of the reach of burglars, but without order ; how can he get what he wants without loss of time and damage of things ? But that is illustrated when, in the city, people have to pull up and move, and cart their furniture from one house to another and put it into the rooms, helter-skelter, just as they can, and the orderly family will say, "I don't know when we will ever get our things in place," and they will regulate one room after another till they have got all their household goods replaced, and then they begin to breathe freely, although they are wearied and tired and think moving is a bore ; it is more because of the disturbed Order than it is because the work is hard, but it is both, and therefore a double burden.

30. CALCULATION.

The faculty of Calculation or Number, is necessary in the mental constitution ; Number is a condition if not a quality of things. Individuality enables us to distinguish between one thing and another, but does not count the number of them ; it might give us the idea of many, as when we look at a load of sand, containing particles numberless. Thus we measure sand by the bushel, as we do grain ; we count sheep, cattle, horses, and buy and sell them by number, as we do eggs by the dozen, but beans, peas, and corn we cease to enumerate, and sell by measure. The faculty of Number, or the idea of Number, seems to be manifested in some of the lower animals which are usually most intelligent ; it is said that if ten men enter a cavern or a ruin which birds inhabit, they all fly away from their nests and perch near by ; if three men go out, they all eagerly fly back. Their idea of number has been exhausted on three, and they seem amazed to find that some men are left, and again retreat ; three more men going out, the birds rush back again, showing that three is the extent of their idea of Number.

Cats, when deprived of half a large litter, do not seem to appreciate the difference in number, but if five are taken away and only one is left, she has an idea of a difference between one and six, and will

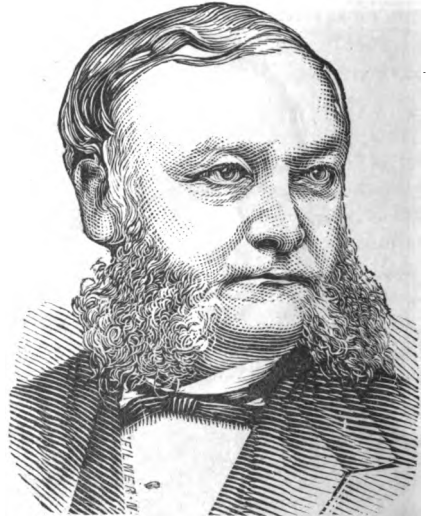


Fig. 116. B. J. PILLSBURY, Collector of Internal Revenue, Boston.

Calculation, Constructiveness, and Eventuality.

hunt to find that which is lost. Some negro tribes can count only to five, and use no compound terms ; they say five one for six, and five two for seven, or make a shift by using both hands for ten, both hands and one foot for fifteen, both hands and feet for twenty, and above this is "many" or innumerable. The Esquimaux Indians have no idea of Number above five, everything else is many. When mathematics are examined in the light of Phrenology, it apparently depends upon the addition of one or more of the other faculties to assist the organ of Number ; if mathematics be the doctrine of quantity, Size and Weight must be brought into use, and in geometry and trigonometry, Form and Locality as well as Size and Weight must be included. In the higher branches of mathematics, the aid of many faculties is demanded, commencing with Calculation or Number, and prosecuting the subject towards the higher branches. The scholar is compelled to use one faculty after another, until we

find the perceptive and reasoning organs all active and under control, which is the true abstract object of education to give the pupil a healthy, active, manageable brain. Those wonderful calculators who have astonished the world, such as Zerah Colburn, are generally not mathematicians, as he was not, though he was given culture in that direction, and it was expected he would astonish the world, but as the higher organs of the intellect, which comprehend the philosophy and relations of subjects were weak, he failed. A mathematical cast of mind requires that a person should follow something in which the exact and mathematical can be made serviceable. We often meet with pointed illustrations of this; a man brought his son to our office for examination; they looked sad, discouraged, and gloomy. When the young man took his seat, the father spoke in a sour kind of way, saying he wished to know what that boy could do to earn his daily bread. After careful examination, we said "Anything, unless it be something in its nature like wood engraving." They cast a quizzical look upon each other, and the father asked why he would not succeed in wood engraving. We replied, "He has so much Order and Calculation he would want to fix a machine or use gauges to space and govern his work, and do it as by machinery." The father informed us that he had then just taken the boy from a wood engraver who had been trying for six months to teach him the business, and complained that the boy wanted to use gauges and rules of measurement, and was not willing to work by the eye. We advised the father to let the boy go at architectural drawing or carpentry, where he would be required to work by mathematical rule, and where he could employ mechanical ingenuity and artistic taste at the same time. The organ is located back of the external angle of the eye, and gives squareness to that part of the head.* Fig. 116.

* From "How to Teach, or Phrenology in the School-room and the Family," by Nelson Sizer. Fowler & Wells Co. publishers.

31. LOCALITY.

This faculty has relation to position, place, and represents a condition of matter. Individuality recognizes matter as a fact, a thing. Form gives its outline,



Fig. 117. N. J. COLEMAN, Commissioner of Agriculture. Locality and Individuality large.

Size its dimensions, Color its hues, and the faculty under consideration gives it place, position.

As no two things can occupy the same place at the same time, each thing must bear, in regard to position, some relation in the way of direction to all other things; it must be above or below, at the right or the left, and the *where*, it is the function of Locality to recognize and remember.

Geography is the natural science of place, and Locality is the basis of it; there are those who will remember relative position, where things or places are in respect to themselves; they can find their way all over the house; they will remember roads and places and directions in a town; they will carry in their memory a sense of where Boston is, with reference to New York, and Albany, and Buffalo, and Philadelphia, and Montreal, and, if requested to do so, will point in the direction of the place suggested, so nearly correct that the line of extension would bisect the town if it were as large as Boston or Philadelphia are represented on the maps.

Certain animals manifest this feeling; it is said that dogs will find their way home from a strange place; they have been taken from France up the Mediterranean and the Black Sea to St. Petersburg, and they have been known to come back over land to Paris. Horses find their way, and pigs are remarkable for it; one may be carried for miles, a circuitous route, in a bag or barrel, and set free, he will make a bee line for home, swimming rivers on the way.

Indians manifest a remarkable talent in this respect; when they had neither roads nor bridges, and perhaps not even marked trees, they would go from any part of the continent to the point where Pittsburg, Pa., is now situated, and to other places where their tribes were located, over the trackless forest; they are distinguished for a large development of the organ of Locality.

If one would know what the influence of Locality is, let him lose his point of compass; let him feel that he is lost and does not know where to go for his home, and he will feel strangely disturbed. Yet there are some people who have so little of Locality that they never seem to know or care which is north, south, east or west; if they only know the road home they follow it until they get there. It is said that on the prairies when a man has lost his reckoning he leaves his horse to take his own course, and that the animal will find the way home. Such men as Captain Cook, Humboldt, Sir John Franklin, Bayard Taylor, Stanley and other travelers and navigators manifest a desire to see the world and to solve the mysteries of all countries; to go somewhere and see something is the strong trait with such men. The world is indebted to them for the explorations which have grown out of the activity of this faculty. Birds that migrate find their way back to the same place, and the bee is known to make a straight line for the hive when he has loaded himself with honey, and the straightness of that line of flying is called the "bee line." It is known that chess players will play several games while all

the boards are in another room, or they are blindfolded; they have the memory of place, and recognize the changed locality of the pieces on the board after each move. Billiard players mentally draw a diagram of the direction which the ball is to be driven in order to produce certain results, and this requires Locality, Weight, Size and Form.

When one thinks seriously of the sense of Locality, it appears of very great importance; the truth is, every faculty of the mind is important, just as every tooth in a handsome set is important to complete the beauty and utility of those organs. None can be spared.



Fig. 117. THOMAS STERRY HUNT.

Vital-Motive temperament; large Language; enormous perceptive and memory; large Eventuality, Comparison and Benevolence; a scientific writer and thinker.

32. EVENTUALITY.

This is the historic faculty; it has to do with events, hence its name; it takes account of life's affairs. That part of speech which in grammar is called verb, relates to those facts and conditions recognized by the faculty of Eventuality, such as "I came, I saw, I conquered," "I hoped,"

"I feared," "I suffered," "The battle was fought," "The ship was wrecked," or "The voyage was successfully made." We ask "What happened?" "What was said or done?" "What was attempted or achieved?" History, then, is a succession of transactions, doings, changes, and achievements. The memory of events gives a man the history of the past, and all its experiences stand before him as a guide, as an example, or as warning; when by illness people lose a year or five years, or when they are not informed as to occurrences, they come to themselves and find a great blank. A sea captain was on a cruise which lasted three years; he had ordered the *London Times* to be kept on file for him, and when his long voyage was ended, he shut himself up many hours in the day, beginning where he left off with the history of affairs, and going through the columns of the *Times* during the entire period of his absence, and then he said he was ready to go out among men and not seem to himself and to them to be a fool; he had really lost three years of England's and the world's history. True, he had his log-book and the chances and changes and labors and dangers of the sea as a narrow thread of history, but what the world had been doing, what history had been wrought among men, was blank to him.

Children like to hear stories; the narrative of Joseph has made millions of children deeply interested, and for life, in that name and history, and its repetition will have the same effect during all the generations of the future. The story of the Prodigal Son, the story of Ruth, how it crystallizes into the thought and memory of every generation that reads it!

The historian and the story writer need Eventuality as the leading element in their mental nature; the memory of incidents and the desire and power to tell them well, is the foundation, the inspiration of the history. Of course all the perceptive organs that have to do with time, place, quality, condition, and circumstances; all that is sympathetic, all that is imaginative, all that is pious, all that

belongs to heroism, art, to business success, and to the social life of men and nations comes to be a part of history, hence the historian should be endowed with all these qualities in order to express himself with success.

33. TIME.

Duration is an institute of nature, periodicity is a great law of phenomena, the revolution of the planets requires time;

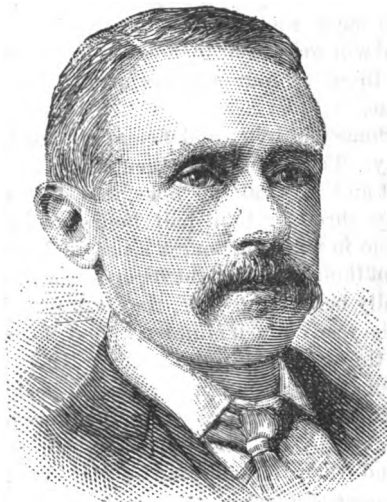


Fig. 119. W. B. DAWKINS, General Agent of the British Association. TIME AND ORDER LARGE.

A sharp thinker, a man of force, a great deal of push, and at the same time reticent, compact in his statements, and influential in his character.

the order of nature embraces times and seasons, so that we know when planets will come into such relations with each other as produces eclipses, and an astronomer would feel ashamed to make a mistake of three minutes in computing an eclipse which would take place one year or twenty years hence.

The faculty of Order, which combines with that of Time in recognizing the fitness of time and effort, and the faculty of Number or Calculation, acting with that of Time, constitute the trio which relates to dates, method and periodicity. The memory of dates is a most important matter, and it ought to be and can be cultivated; and most people complain of a

want of memory in this respect. When we hear a man say that on the sixth of October, 1834, or 1850, something occurred, and the fact that he remembers the date, helps to nail it as a fact. One who has the faculty of Time, finds chronology a pleasure to him; it is not difficult to carry the time of the day in his mind; he remembers dates, what month, what day of the month something happened, and if one having Time well developed has the care of a sick friend, and must rise every hour to give medicine, he can sleep soundly for fifty-five minutes and will wake hour by hour all night within three or four minutes of the proper time.

Some children are deficient in this faculty. The mother tells them they may go out and stay half an hour, and they will stay three or four half hours, and will come in with an honest sense of having kept their promise. Such persons are generally behind the time, they will promise to be ready in ten minutes, and at the end of thirty are not quite ready. Those in whom it is strong, never lose a boat or train, or a meal, or any other appointment, if by any possibility they can command their circumstances; they would commence a lecture or sermon at the tick of the clock, whether the people are all there or not. Janitors used to tell us when we traveled, that half-past seven in their town meant eight o'clock; we responded that half-past seven means thirty minutes past seven, sharp; they would tell us, "No audience will get here before eight," but when the hour arrived, we commenced if we had but six, and it was amusing to see the people come stringing in and hurry to a seat, as if ashamed; the next night the house would be pretty well filled; the third night filled and settled, and then perhaps for nine nights more the last man was ready when the lecturer stepped on the platform one minute before the time.

Time is employed in music, in dancing, in jumping the rope; some people count the steps, employing number and time to make them uniform; the writer has walk-

ed with a friend in a city, crossing the streets for three long miles, never breaking step, taking shorter steps when on the inside of a curve, and longer when on the outside of a curve. Military movements depend on time. *

34. TUNE.

To those who are fond of music, and have the talent to perform, it seems strange when told that there are some who can not recognize a musical sound from any other noise; one who has musi-



Fig 120. BEN. COTTON, Greatest Minstrel in the West.

Observe the fullness of the side of the forehead, upward and backward from the eye, near the hair, the location of Tune. He has strong vitality, decided force, but not a very lofty head, but lives in the musical and in the material.

cal sense, will detect the peculiar quality of all other noises. Let one make as many noises with the hands as he can, if he slaps them together, or smites with the fist in the palm of the other hand, if he rubs the hands together, he gets different sounds; persons in walking make different sounds with the feet, and those who have a keen ear for sounds will know each one of their acquaintances when approaching from behind, and call them by name.

We knew a livery stable keeper in the country, who would sit in the shadow of

* "How to Teach, or Phrenology in the School-room and in the Family."

the evening and hear his horses and wagons coming from every part of the town, and know every one by the travel of the horse and rattle of the wagon. One light horse had been sent out with a heavy barouche, and he heard the approach of the team and was puzzled, and said, "That is Joe's footstep, but what in the world is the rattle of that barouche behind him; they are never put together?" and he inquired in a puzzled way of one of the attendants, to know what vehicle that horse went out in, and the explanation was made that a gentleman wanted to drive a short distance and there was no other vehicle that the horse could be hitched to, and he said, "That settles it, I knew it was that carriage, and that it was that horse, but I could not understand how they were together."

A man who is superintending a room in a factory, will hear any peculiarity of noise and know whether it is right or wrong, in respect to the machinery, and if some noise is made a little different, will follow the sound of it till he finds it, though the room is crazy with a thousand sounds, but they are all legitimate except that one.

Elocutionists require the organ of Tune well developed; we have known one or two who attempted to study and teach elocution, who are unable to understand or appreciate music, and there was a drawling monotony and grating harshness to the voice, a lack of that flowing tone which a good speaker requires, and which is especially essential in a teacher of elocution in general oratory or on the stage.

There are three kinds of quality in sounds which the musician requires to appreciate, and the organ or faculty of Tune has three phases. One recognizes mere noise, as we have said, and judges of its quality without regard to its musical tone; the next grade above recognizes melody; the third recognizes musical harmony; many persons will sing one part, if we may say it, they are good soloists, but the duet or quartette confuses them and they can not carry their part. Savages, we believe, have only one

part and all sing that; culture and civilization develop the harmony of parts, and we fancy that the slaves of the Southern States learn their idea of harmony from the whites; they have, however, fine musical appreciation, and that seems to be one of the highest phases of their mental activity. Dr. Miller, of Columbia College, Washington, D. C., and, by the way, physician to President Harrison in his last illness, told the writer that a boy, a patient of his, had his skull fractured by a kick from a horse, near the external angle of the eye, where the organ of Tune is located. Soon after the injury he commenced whistling, though not much disposed to be musical before, and continued it through his waking hours, and would even hum and whistle in his sleep. This alarmed his mother, as she thought him deranged, and as the tendency continued and even increased, Dr. Miller made a more careful examination of the wound, and found a splinter of bone pressing into the brain three-quarters of an inch; this he removed, the wound gradually healed, and the boy whistled less and less, until fully restored, when he ceased to manifest the musical tendency altogether. The injury of the skull was at the region where we locate the organ of Tune, and the splinter of bone which pierced that organ produced inflammation and an unnatural activity of that faculty, and, said Dr. Miller, "That fact convinced me that I had verified one organ, at least, and thereby proved that Phrenology is true."

35. LANGUAGE.

This organ gives the power of expressing thoughts and feelings by means of speech; to talk is natural, but the special style of speech is artificial and conventional. Dr. Gall discovered the organ of Language when he was but a school boy; he noticed that those who had full and prominent eyes excelled in verbal memory; they could learn lessons and recite them with fluency, while others, including himself, were not able to commit or remember words as successfully. When he left his first school and entered another,

he was able to point out each one who was his superior in verbal memory. This, of course, was the observation of a child; he afterwards learned why the eye was pressed outward, namely, by a convolution of brain lying directly over the orbit of the eye, and when large, pressing the roof of the eye socket downward, thus crowding the eye outward, and the under eye-lid being prominent below it.



Fig. 121. J. E. HILGARD, Member of the Scientific Association.

Large Language, fine talker, excellent observation and memory, the lower and middle section of the forehead being full; decided force of character; persistent, individual, and yet social and cordial.

Mr. Combe mentioned a man in Scotland who lost the power of calling things by their right names; if he wanted bread, he would ask for something quite different, and this disturbance continued for some years. Finally the person died of some disease of the digestive system, which had no special relation to the brain, and the physicians held a post mortem examination, and on examining the brain, they found at the location of the organ of Language, as indicated by Gall, a lesion in the brain as large as a filbert. The doctors had said, however, "If the phrenologists are correct, there should be found a diseased condition of the brain where they locate the organ of Language," and when they found it, they looked at each

other and said, "Gentlemen, this subject deserves serious consideration," (and to their credit we may say that they have been presumed to have considered it seriously, though they never reported the result of their consideration). To-day, however, physiologists generally recognize the centre for Language, and its disturbance or disease is the formation of the disorders of the faculty of speech classified under the term of Aphasia.

Scientific men ought not to suppress truth, even though it may seem to militate against some of their previous ideas, but human nature has imperfections; physicians are human, therefore some of them may manifest imperfections.

Public speakers, or even common talkers, show a style of Language in accordance with the development of their other organs or faculties. A man with large Language, and having large Individuality, will have a mastery of the words which pertain to definiteness and distinction; if all the perceptives are large, he will tell of the existence of things and then of their qualities, their form, size, weight, color, order, in other words, he will use adjectives with readiness. Individuality relates to the "Thingness of Things," the noun element the substantive, while all the other elements have relation to qualities of subjects or objects, which are expressed in grammar by the term "adjective." If Locality be large, the place will be specified; if Eventuality be large, the story, the narrative, the history, and the speaker will talk of the build of the man or horse or house, of the magnitude, of color, of arrangement, and if the subject have number, that will be introduced and the time will be stated, if time forms a part of it. The talk of some men is mainly made up of adjectives, they may be beautiful but sometimes they are like soap bubbles, more magnitude than substance.

We remember the fragment of a speech made in Boston at a public banquet given to the famous Irish orator in 1877; the guest of the evening, after other speeches had been made, was called out by the sen-

timent of Ireland and her Orators ; in the course of that speech, he made use of this beautiful string of adjectives, "Americans, you have a country vast in extent, embracing all the varieties of the most salubrious climates ; the exuberance of your population is daily devastating the gloomy wilderness of its rude attire, and splendid cities rise to cheer the dreary desert" ; if we take the adjectives out of this it will read, "Americans, you have a great country ; your people are cutting down the trees and building houses" ; where Causality and Comparison crown the perceptive faculties, the oratory is massive, full of meaning, as when Webster in the Senate, talking to men who remembered history, said, "I will make no eulogium for Massachusetts ; she needs none ; the world knows her history by heart ; there is Boston and Bunker Hill ; there is Concord and Lexington ; the bones of her sons are bleaching on every battle field between Boston and Georgia, and there they will remain forever." One style of speech tickles the ear, excites the fancy ; the other makes a man's soul thrill with its majesty and might.

If the selfish feelings predominate, Language works in that channel ; if the religious and moral, Language is invited to give voice to those sentiments ; if the selfish sentiments prevail, persons talk of themselves, and laud their own graces and virtues ; if the social elements are strong, people talk of love, children or of home, but fulness and freedom of utterance, in whatever direction, whether sympathetic or scientific, historical or practical, Language is the instrument of the expression.

THE REASONING ORGANS.

In the brain, above the range of the perceptive, to which attention has just been called, lie the organs of Reflection, Comparison, and Causality.

These organs, in their very nature, show the prevision of the Creator in the distribution of the human faculties. Situated above, yet contiguous to those organs that simply recognize the qualities and constituents of external objects, it

is their special office to make use of the simple gatherings of the perceptive through processes that are essentially interior, and consist for the most part in discerning the relations subsisting between data by comparing, combining, and co-ordinating them, and deducing certain results or conclusions.

The practical philosophy of human life, wide and varied as it is, and withal simple because of common acceptation, is the outcome of reason. It is through the exercise of reason that man owes his great advancement in civilization. One conclusion but suggests new conceptions, and out of the consideration of these conceptions new theories and principles are evolved, and ultimately solid judgments are reached that contribute new truth to the world's store of wisdom.

Man, to be sure, in scientific researches, may exercise his imagination, his Spirituality, Ideality, Sublimity ; he may derive impressions through the moral sentiments, but the concrete, substantial work that leads to results that are expressed in terms of positive logic, is performed by the reasoning faculties, based, as we have said, upon the data furnished by the observing organs.

36. CAUSALITY.

This organ is situated by the side of Comparison and over Locality ; when large, it gives prominence to the upper portion of the forehead. Fig. 122. If the perceptive are small it seems to add an overhanging appearance.

It is the office of this faculty to take cognizance of the relations among phenomena that constitute cause and effect. As we have said, the perceptive faculties recognize the existence and qualities of objects. Eventuality notes the changes which they present, and in addition to the sequences perceived by Eventuality, "a notion of efficiency in the antecedents produces the second proposition arising in the mind when contemplating instances of causation in nature." This notion of power or efficiency, etc., has a special relation to the exercise of Causality. The

faculty, therefore, goes back of phenomena, and inquires into their source and observes the dependence of one class upon another. In looking at the actions of men it inquires Why? and considers the motives from which men act.



Fig. 122. EDWIN MAXWELL. CAUSALITY LARGE.

A temperament favorable to thought and endurance, and especially to the higher reason and moral sentiments; inclines to live in advance of his surroundings and to work for the future. Late candidate for Governor of West Virginia.

He in whom it is large sees relations between things that are incomprehensible to those who are not well endowed with it. Great discoverers in science are largely endowed with it. It was the activity of Causality that made Sir Isaac Newton the discoverer of the law of gravitation; such was the case with Kepler and Galileo in their development of the laws governing the movements of the heavenly bodies. They who deduce general principles and systems in the analysis of natural or physical phenomena are well endowed with Causality. Cuvier, Spurzheim, Humboldt, show it large.

Mr. Combe and other writers think that this faculty impresses the mind with the idea of the existence of a God, through a tracing of causes or investigation going from one to another until we reach a point where nothing is left but the idea

of a creative influence, a power that must have been at the beginning. This faculty prompts us on all occasions to ask, "Why is this so, and what is its object?"* It gives ability to look deeply into subjects, and to appreciate the logical sequences of arguments, hence it is large in persons who indicate genius in metaphysics, political economy, and all sciences of a profound character. Such men as Kant, Bacon, Lamarck, Herbert Spencer, are thus distinguished.

When prominent, and the perceptive faculties are moderate, and Comparison is not equally influential, it tends to speculative thinking. Men so constituted are given to spinning improbable theories; their notions are too abstract for ordinary minds, and they are looked upon as dull and heavy weights in society. On the other hand, when Causality is deficient, the individual is superficial and incapable of taking comprehensive views of subjects; of forming judgments that will apply to the affairs of life successfully.

In association with Mirthfulness, large Causality impresses the humorous allusions and *bon mots* of a person with a character much higher than the fun and grotesquerie of the punster and circus clown. The playful remarks of a Choate or Evarts have a significance that lies behind the mirthful surface, and is appreciated by the thoughtful; besides the wit of the thinker is definite, clear, and sharp because of its logical power.

Some of the lower animals appear to show this faculty, as they have the capacity of adapting means to desired ends that can scarcely be referred to mere unreasoning instinct. Beavers, for instance, adapt the structure of their dam to the pressure of the water; ants exhibit remarkable intelligence in bridging obstructions in the way of their movements. The faculty, however, appears to be limited in the lower animals; the horse, for instance, has been known to starve to death while tied by a rope to a tree. A little of the originative power of reason would

*"System of Phrenology"—George Combe.

have suggested the gnawing of the rope and so setting himself at liberty. A dog or a wolf would have bitten the rope to pieces, but they are "gnawing" animals. The horse is not, although to him a high degree of sagacity is attributed. We have seen trained horses tie and untie a rope at the command of their trainer, and search for and find articles that had been hidden in the straw. The reasoning of animals is chiefly of the associative order; it employs Comparison mainly when it rises above impressions retained by the perceptive organs, and has relation in nearly all cases to the physical wants or self-protection.

Man may reason associatively also, but, as Prof. Ferrier says, "We have the power of concentrating our attention on one idea or class of ideas and their immediate associates, to the exclusion of all others, a power differently developed in different individuals."* This concentration in man may relate entirely to ideas purely intellectual, whereas in the lower animals persistence of attention or purpose is due to the influence for the time of an instinct.

A recent writer in comparing man with the lower animals, says: "The animals require little intellect, for they are adapted to the external world, and their instincts are unerring guides to conduct. But man without the reflective intellect would not be adapted to all parts of the world in which he must live. He is not even able to get his food unaided by reason. He can not defend himself against the wild beasts unless he can command a greater physical force than that furnished him by nature. He can not live in all climates in a state of nature. In the North he must protect himself against the cold; in the South against the heat. He can not follow his instincts, for they conflict and prompt to opposite actions.

"Man has been endowed with a higher degree of the perceptive intellect. By means of these faculties he is able to observe the objects about him, can know

their relations to each other, and to himself. In memory he can keep his knowledge for future use. He has been endowed with the reflective intellect, by means of which he can look in upon the operation of his own faculties, compare impressions obtained, and arrive at general truths. By these he comprehends the relation of cause to effect. Then if he desires a certain result he may apply the cause and create what he desires. By the co-operation of all his individual faculties he is able to view external nature as it is, and not only this but he is able to know himself as he is. Through intelligence man is able to know the properties of all things, and their relation to one another, their effect upon one another. Furthermore, he is able to apply these relations and forces in such a way as to produce any result which to him seems desirable. By his knowledge and the manipulations of the forces inherent in thought he is all-powerful almost in his sphere of action."*

They who have relations to others as teachers and guides need to possess Causality in a good degree, for they have constant reason to exercise it in the explaining of causes and reasons. The natural leader is he who lives much in advance of those who surround him, and it is his ability to reason that gives him his forward position; that can take the common facts of every-day life and mold them into new forms and derive new ideas that will command the applause of the world. Such persons live in a mental sphere that is above the common level; they illustrate the principle of the growth of the immortal element of mind, and so make human nature ever an object of reverence. It is the man of Causality who appreciates the operations of the higher laws in nature and in moral life; it is he who grasps clearly the idea of the line of causation that extends from the natural to the supernatural. The infinite number and variety of the operations going on in the universe are but a constant source of pleasure to him; his spirit swells while

* "Functions of the Brain."

* "Science in Education," by U. J. Hoffman.

he contemplates them, and the inspirations derived enable him to feed lower minds with the manna of spiritual growth.



Fig. 123. LOUIS PASTEUR, M. D. COMPARISON LARGE.

Great scientist in the realm of medical discovery, especially in the realm of disease germs, notably in sheep and other animals. France awarded him prominent honor for his discovery.

37. COMPARISON.

The name of this organ suggests its function ; it perceives resemblances and differences. The other faculties compare objects of the same class, as the ideas which they peculiarly and independently form. The organ of Color, for instance, takes cognizance of the differences and resemblances of hues ; Tune, of musical sounds, and Form, of shapes, but it is the office of this organ to compare things which in their individual attributes are entirely unlike. Spurzheim says, "The great law of this faculty seems to be to form abstract ideas, generalizations, and harmony among the operations of the other faculties. . . . The laws of music are particular in tune, compares tunes ; yet Comparison compares music according to the situation where it is executed, it blames dance music in a church, and it is opposed to working with fine

clothes in the dirt ; feels the relations between the inferior and superior feelings, and gives preference to the latter. It presupposes, however, the activity of the other faculties, and can not act upon them if they are inactive."

Comparison frequently discovers unexpected resemblances among other things, and people who have it in a very active condition are constantly surprising those in whom it is dull by their novel illustrations. It is the source of the ability some writers and speakers possess of using frequently metaphors and analogies.

The situation of Comparison is in the middle region of the forehead, in the upper part directly above Eventuality. See Fig. 123. When it is large it gives a rather prominent and wedge-like appearance to that part of the head. It exercises a most important influence upon the mind in the way of analytical capability ; and one who has it largely developed is quick in discovering and understanding differences, enigmatical assertions and improper or inaccurate allusions ; hence, it is essential to critical acumen.

In all the sciences where nice distinctions are necessary it comes into play. Business men who are well endowed with it are quick in practical judgment, and without it their judgment is rather slow, and they are not fit for the places where ready decision is necessary. In speakers who are able to fix the attention of large audiences, this organ is large. It enables them to introduce many illustrations of the point that they would urge, and to present it in different lights, and so cover considerable ground. One may have large Language, but if the faculty of Comparison is small in his head, he will weary the company by repetitions and meaningless phrases. Lawyers as a class, who are powerful in jury trials, possess large Comparison. Daniel Webster, Rufus Choate, O'Connell, and President Lincoln were so endowed. Poets and literary writers require it. It aids Mirthfulness by suggesting similes, analogies, metaphors, etc., that point to the humorous or witty side of a subject. Mrs. Barbauld's beautiful lines

illustrate large Comparison and Ideality :

"How blest the righteous when he dies !
When sinks the weary soul to rest !
How mildly beam the closing eyes !
How gently heaves the expiring breast !

"So fades a summer cloud away ;
So sinks the gale when storms are o'er ;
So gently shuts the eye of day ;
So dies a wave along the shore."

While Comparison contributes to reasoning, it is not strictly so, *per se*. Its method is different from that of Causality, which is frequently deductive. It endeavors to prove that one thing is of such and such nature, because it resembles another that is so and so ; and because the majority of people have it fairly developed, they are prone to convert an illustration into an argument. One with large Causality and Comparison when discussing a subject cites this or that matter through Comparison as simply in illustration of the point he would make clear, while his conclusions are drawn from his premises, and not from Comparison.

Men distinguished for scientific ability show decided projection in the middle region of the forehead. Franklin, Roscoe, Agassiz, the late Professor John W. Draper, and B. W. Silliman had it very large. Franklin's conversation and writing were always replete with illustrations and similes.

Dr. Vilmont shows very clearly a special office of Comparison in the following illustration : When a piece of ice is placed in a vessel over the fire, Form, Size, and Color take cognizance of its appearance, and when it melts the change is perceived by Eventuality. All these processes may take place without any idea of sequence or relation between the state of the now liquid substance and the same state in other substances, such as lead, mercury or milk. What, then, is the faculty which recognizes the state of one part relatively to another so as to make its qualities expressed by adjectives in Language ? Doubtless, Comparison. Dr. Vilmont was led through his elaborate studies of the lower animals to conclude that some of

them, as the dog, elephant, oura-outang, and bear possess the faculty to a marked degree. *

C. HUMAN NATURE.

On the median line at the summit of the forehead directly over Comparison, is an organ which has been attributed by observers since Spurzheim to the faculty of judging human character, receiving



Fig 125. MAJOR A. E. BURKE, Director-General of the Exposition at New Orleans.

An active, practical, critical intellect, with large Human Nature, Combativeness and Destructiveness, ambition, and push. That nose means success or crashing defeat.

impressions, motives, manners, and conversation, and so on. Fig. 124. Man has an intuitive sense of what others are. He receives impressions that come to him instantly without the intervention of other agencies, although they may seem to relate to Comparison and Causality or Benevolence. These impressions may agree with the inferences of perception and the deductions of reflection, but they are not found of easy explanation, and they so quickly flash upon the mind that they can not be formed by the naturally deliberate process of reasoning ; therefore they are distinguished from the intellect.

* "Traite de Phrenologie Humaine et Compare."—J. Vilmont, M. D.

Some people are remarkable for the accuracy of their judgment, the success of their operations in business and the social world; yet they have but a moderate development of the intellect, and when asked what are the motives that govern their general conduct, they reply that they usually follow the bent of their *impressions*; and experience has proven that they will be most successful when so doing, in spite of their not being able to give a logical account for such conduct. In these persons we find all the region between Benevolence and Comparison quite prominent, while in people who depend upon their intellect for guidance in affairs that region is but moderate in manifestation. Women generally have the organ more conspicuously developed than men, and their character for forming judgments is in accordance with the development.

This faculty, we think, has much to do with the formation of the alliances and intimacies of life, for the reason that it helps people to discern those who are likely to be in harmony with them in the exchange of conversation and sympathies. We meet with people who are exceedingly unlike ourselves in general expression of character, yet somehow or other we feel drawn towards them, and even against the advice of others will become on intimate terms with them and suffer no injury from the association. As the author of "How to Teach" says: "The faculty of Human Nature may enable a man to find in others, not perfection, but what is needed to supplement himself; to make by association a sort of lemonade, if it can be mentioned that one is sugar and the other lemon juice. The man who is compelled to travel in the prosecution of business, having large Human Nature, he can read those he meets well, and be enabled to adapt his conduct and language to them; whether he can treat one with respect and distant courtesy, or whether it is best to walk up and offer his hand familiarly. He can be all things to all men, grave or gay, deferential or familiar, free and easy, changing his manner to suit the occasion.

One who is deficient in this organ has not readiness of adaptation to others, although he may be kind and gentle, yet he will not exhibit the promptness in understanding others that helps to put one on good terms with another in the start. Persons who are placed in those relations where they have to deal with a great many people—the manager of a hotel, a conductor on a railway, a military officer, lawyer, teacher, minister, need a liberal endowment of this faculty to get along comfortably with all. It is an essential in the skillful detective; Allan Pinkerton had it remarkably large, as well as very active perceptive organs, and of him a distinguished phrenologist said, when he came as an entire stranger and offered himself for examination, that he "could smell a rogue as far as one could be seen."

"No element of our nature," says Mr. Fowler, "should be so assiduously improved, because none confers a capability more useful or delightful. To effect its culture, note all that every one you meet says and does. Look through conduct to motives, ferret out disposition and character wherever you go, form your judgment of men, and then inquire of yourself from what in them you deduced your conclusions. Little things will often put you on the track of the entire character, and tell the hidden story effectually because done unconsciously, where more important acts are guarded."

D. AGREEABLENESS—SUAVITY.

This organ, like Human Nature, is a comparatively recent addition to the list, but it has a large array of evidence for its location and function. It is situated just above Causality and outward from Human Nature. Fig. 125. Sometimes it has been called Suavity, because its function is to give blandness to manners, the disposition to make one's self agreeable, to ingratiate one's self into the favor and good will of others by adopting a pleasant and conciliatory mode of address.

Some observers have claimed that the manifestation of this organ was the result of a combination of other organs, like Ap-

probativeness, Secretiveness, Benevolence and Veneration, but a little thought upon the subject will convince most of our readers, we think, that the peculiar office of Agreeableness proceeds from an original



Fig. 125. ALFRED SPRINGER, Secretary of the Scientific Association, Philadelphia.

His large Language and Agreeableness qualify him to put his thoughts into agreeable words; has large Imitation, Ideality, and Constructiveness, with strong Comparison and Causality. Such men make their way easily by pleasantly adapting themselves to all

power of the mind. We meet with persons who possess the organs we have mentioned in a good degree, and also a fair intellect, and yet are lacking in courtesy, or the ability to make themselves acceptable to others; they do not feel at ease in mixed company, although they have kindness, deference, and are much disposed to please. Then, again, some people who have no great amount of moral sentiment, are small in Approbativeness and Caution, yet are able to insinuate themselves into the good opinion of others, and pass off for good fellows. The gallants and Beau Brummels of society as a class are those who are not at all remarkable for Benevolence or Conscientiousness, and far from profound intellectuality.

It is this faculty that supplies one with grace and urbanity. Some persons have a great deal more of it than others. It is

shown in the manner where no words are spoken. They who have the power to take with equanimity the rude assaults and unpleasantness of life; who never bristle up when jostled by others, or when their "pet corn" is crowded by an encroaching shoe; they who are prompt in accepting an apology, and as prompt in offering one, where they are less to blame than another, have the organ large. We can easily credit Sir Philip Sidney and Sir Walter Raleigh with a good share of this faculty, as their well-known courtesy could not have all proceeded from Benevolence or the mere appreciation of expediency.

This faculty is especially noticeable in children who have it large, as it impresses their character with very charming acts of politeness and grace, so that we are disposed to say that they are "born" ladies or gentlemen; while other children connected with families of position and wealth, in spite of all their opportunities for culture, are pert, blundering, and coarse. So important is this faculty as an aid to harmony in society, that parents and teachers can scarcely give it too much attention. It is one of those faculties, too, that readily respond to cultivation. We have known persons, who, when we first became acquainted with them were boorish, rough, and disagreeable in their conversation and manners, but through patient study and effort, became in the course of years greatly changed, and passed in society as a decidedly agreeable associates. Nothing helps so much to lubricate the wheels of social intercourse as a smooth, pliable, kindly manner.

Manner is even more important than matter in our dealings with the world. We can say severe, rebuking things to our acquaintances, if our language is kind, soft, and mellow. "Men will often swallow bitter doses of truth if expressed in a sweet, acceptable manner,"* and the effect of moral teaching generally when courteously given, is excellent in its influence upon the whole nature of the recipient.

* "Self Culture."

HOW FACULTIES COMBINE AND GIVE PECULIAR SHADES OF CHARACTER.

In mental character much depends upon the combined activity of the different faculties, and the influence of given groups. Phrenology is the only feasible explanation of these phenomena. When we look at character as a whole, the sweep and average of that character may indicate a man who is gentle, patient, quiet, and loving. We may again see him under extraordinary conditions when he will be raspy, rough, insolent, quarrelsome, and domineering.

Sometimes we see men who manifest a pious sympathy and a devout spirit. Perhaps before the week is out, we see them tearing about in anger, talking loudly, and perhaps profanely; and the contrast from their ordinary current of life is a mystery and a marvel.

As eight musical notes contain, by their repetitions and combinations, the whole realm of music; as twenty-six letters in the English alphabet by their combinations make its whole literature, so forty-two faculties of the human mind, already discovered and defined, make and maintain all the variety of character, talent, propensity, and peculiarity which is seen in the different persons whom we meet.

Among a hundred men there may be an equal amount of mental vigor, but it is diversified by the different degrees of strength in the groups of faculties, and by the circumstances which call out these different groups; thus we find the basis of all the variety which exists in human life.

It is said that no two men are alike. Phrenology detected difference in the dispositions of the Siamese twins, whose experience of life had been, in all respects, more alike probably than that of any other two human beings who have ever lived. While they had a common circulation, they had differences of mental de-

velopment, which gave to each his own individuality; and thus, although men may resemble each other, and in many respects their life may seem to flow in the same channel, yet circumstances will call up peculiar combinations of faculty in each, which will lead them to present traits different from those of any other human being.

Person sometimes speak to our shorthand reporters, who take descriptions of character from our dictation and write them out, and say, "I suppose you get used to the threadbare story of mental development and find it very easy to report it." Such interrogations never fail to receive the answer, that all the vast variety of characteristics, and peculiarities, and shadings of character, which the reporter has to take and write out in a month or a year, are simply a marvel. We have heard a reporter who had worked three years steadily taking these dictations, say, "That he never had taken a character that did not in some marked peculiarity differ from every other that he had taken."

When mind is studied as a whole and in detail, it is found that there are different groups of faculty; these are spoken of and considered under several heads: First, the Social; second, the Selfish Propensities; third, the Selfish or Aspiring Sentiments; fourth, the Moral; fifth, the Semi-Intellectual Sentiments, or *Æsthetical* and Mechanical; sixth, the Intellectual, including Perception and reason. If these different groups of faculties could be equally developed, could possess an equal degree of strength and activity, the character would be harmonious; but in a thousand heads we may not find more than one, or not even one, in respect to which we can not very readily distinguish a difference in the development of

these groups as compared with each other.

If we consider the social group as a whole, and find it amply developed, all its faculties in equal degree, and decidedly stronger than the other groups, the character will of necessity be of a social type; that part of the nature will lead, and everything else will be subsidiary; it will be like one leading mind in a party of persons each one of whom is less strongly marked; the strong man draws the co-operation of others; he becomes as it were the hub of the wheel, all the rest acting subordinately to his will and wish.

Another man is amply developed in the animal or selfish group; that class of faculties dominate in him over the intellect, the moral sentiment, the pride and ambition, the social and æsthetic qualities, and all these will be likely to second the purposes and endeavors of that strong selfish nature. In that group the faculties that make war are conspicuous; and how these warlike faculties subordinate the finest intellect! how they arouse the pride, the martial spirit, the sense of glory in that direction; how the social nature clusters around these selfish forces, and gives the basis for that fraternity which exists among soldiers!

In another organization the group of the Selfish Sentiments, that has to do with ambition, aspiration, and fame will draw around it the force of character, also the policy, prudence, and tact; will arouse the group to which belong skill and artistic taste and mechanical talent; and the intellectual forces will also be called into requisition to sustain, plan for, and carry out the behests of ambition.

If the groups of Intellectual faculties be most active, the person craves knowledge of books, education, and information; and all the qualities that give force and ambition, that give taste and skill, power to make money, will be called into use to second the purposes of intellect, and to lend a worthy hunger for knowledge and intelligence, for distinction in the world of letters, and to acquire the means for the culture desired.

And lastly, of the groups, when the

moral and religious qualities predominate, which are the noblest and highest part of human nature, all the other groups of faculties cluster around and sustain this. Then courage backs heroism, then ambition and the desire for fame are sanctified, then social affection becomes saintly, and intelligence and philosophy are consecrated to the cause of the highest human conception.

Thus the general framework of character can be viewed, by considering the controlling groups which are constituted in the nature of human development; and if we look out upon general society without stopping to be critical or specific, it will be seen in a company of a dozen people, that one is genial, loving, friendly; he shakes hands heartily, and seems so glad to see people; he lives through the social elements, and to him love and friendship seem the centre of life, and he is known far and wide for his social force, and indeed he is known for nothing else especially. In that company we will see another whose talk is money, business, achievement, overcoming, meeting and mastering difficulties; and if one is wanted for such a vocation or service, he gets a unanimous vote. Another in the same group may have a serene respect for his own dignity, he is ambitious for distinction, is known to crave and to be proud of high associations. Another is its artist, its ingenious mechanist, its man for comprehending and conducting combinations that require skill and tact. Another is the fact-gatherer; another is the reasoner in respect to facts gathered; another still is the monitor and moral guide and director, the one who presides over the ethics and the piety that belong to life and society; so nature, stamping different men with predominant forces, according to the different groups of organs and faculties, will thus assign them to appropriate lines of duty, usefulness, responsibility, and service in the social and business world.

If the reader will study the engraving, Fig. 65, page 54, he will learn the location of the groups; and Fig. 68 will enable

him to locate the special organs, and this knowledge will enable him to recognize in the head he meets what group of faculties predominates, and thus may he read character at a glance and know what respect and confidence each deserves, and how to move safely and successfully among strangers.

HOW THE SOCIAL FACULTIES COMBINE.

Having spoken of the influence of the different groups of faculties in leading off and exerting influence, and laying the foundation of success, in different persons, we come now to consider how the different faculties in each of the groups may give shading and peculiarity to the character; and we hope to make the matter so plain that good observers will be able to judge by the motions, attitudes, and language of nearly every person, which of the faculties in any group is most strongly developed.

It will not be a difficult thing for a person, who knows what faculties belong to a special group, to lead the conversation in the direction in which faculties in that group will be interested. In some characters the faculty of Friendship is strongest. That relates us fraternally to persons of either sex or any age. In the lower animals strong friendship is sometimes established between a horse and a cat; between a dog and a horse; between a cow and a sheep; transcending the ordinary affection existing between members of the same species of animals. There are a few classes of animals that do not have gregarious or friendly, grouping instinct. Cattle, horses, sheep, and birds of different kinds go in droves and flocks, and defend each other and make common cause against the common enemy. There are some birds and animals which hunt alone, and in the main live apart from their fellows.

The remarkable engraving (Fig. 126) represents the head of a young French lady who was strongly attached to a lady of her own age, and neither offers of marriage nor influence could induce her to

leave her friend; this friend, however, died suddenly, and a day or two after the burial, she was found in her chamber dead, having committed suicide; she left a letter addressed to her parents which revealed the state of her mind previous to the fatal act, the substance of which was that she could not survive the loss of her friend. If the reader will consider the immense mass of development backward from the opening of the ear; that the whole back-head is heavy and long in that region, the excessive development of all the social organs, especially the



Fig. 126. FRENCH LADY. LARGE SOCIAL ORGANS. organ of Friendship, will be seen. One who has the social development weak (see Fig. 126), will have a short back-head; it will not be more than half as long from the opening of the ear backward as is the other head (Fig. 127).

When Friendship predominates in the social group, it will absorb all the other faculties and lead them to act as it were through it. Instead of falling in love, such persons must be addressed through Friendship, and a fraternal feeling awakened and strengthened; afterwards Conjugality and Amativeness will be called into action. This is illustrated by young ladies and gentlemen who attend school. When the term at the academy closes, those who have admired each other's intellectual attainments, and who have formed a friendly regard, will agree to write "friendly letters," and perhaps for six months this friendly letter-writing is

carried on, when all at once, the lady, for instance, becomes conscious that something more than friendship is now awakened, and if that consciousness becomes reciprocal, it is easy to see that Friendship becomes the initiatory of conjugal and matrimonial attachment.

In age, when Amativeness is supposed to have little influence in the tie that unites the elderly people who have lived happily in marriage, Friendship becomes the strong tie, along with Conjugal, and their last days become so influenced by this bond of Friendship that they feel greatly troubled when separated, and are likely to follow each other to the grave without a long interval.



Fig. 127. SMALL SOCIAL ORGANS.

Persons with predominant Friendship will seek to call their little children upward toward fraternity; instead of stooping down and petting the child, and wishing it to remain little, Friendship associates, fraternizes, says *we* to the little one, and desires to have the child grow tall and seem old and companionable to herself. Thus the mother will come to our office with her little boy, perhaps seven or eight years old; he has boots like a man, is dressed like a man, has a watch and a high hat and a cane, and the mother has trained him to act like a man; her request is made that we would examine "this young gentleman and see what his proper vocation will be." Another woman, in whom Parental Love is stronger, tries to keep the child back, to keep it young and little. She will dress him with a wide collar, parting his hair in the middle, curling it into ringlets;

will keep infantile kilts on him as long as possible, and when he *must* dress like a boy, it is like a *little* boy, with a jacket. She will lead him in by the hand, he being almost as tall as his mother, and she will say with the tenderest kind of a smile as she looks upon him, "I want you to examine my *little* boy, and tell me what he is going to make." She will take off his hat or cap, and help him to the seat, and sit and smile on the "dear little thing" during the whole operation, and when she is ready to go she takes him by the hand carefully and leads him away, his head and shoulders nearly as high as her own—Parental Love being unwilling to let go of him as a baby. Such a woman when she becomes a grandmother will call her great, six-foot high, bearded, grizzly sons *boys*; she can not let them be men; to her they are always children, always boys. One of the other kind will speak of my sons, my eldest son, when he is not more than seven years old, provided she has one younger; and we never saw such a manifestation, without finding in the mother's head the organs developed according to the principles here set forth.

Where Conjugal Love is the strongest, men for instance, and notably women are never flirts; they never pay attention to the other sex for the pleasant excitement of it. Any attention which such a man may offer, he considers of a matrimonial nature. Any attention received by a woman having Conjugal Love strongest, will think of it in the light of matrimony, and if she cannot reconcile herself to the idea of marrying the man, she will have very little to do with him in the way of sociability. Such people never "court for fun"; they are generally sober and earnest about it, and to them attention means matrimony; and when experience and acquaintance seem to indicate that they are not so well suited to each other as they ought to be, they drop the subject so as not to be the occasion of establishing any expectations which may not be realized. We see ladies who will hardly treat a gentleman with ordinary respect, certainly never permit the remotest cor-

diality and freedom unless she has her mind made up that matrimony might be, if offered, desirable.

There is many a gentleman who seems quite distant and dignified among ladies, as if he hardly liked their society; he acts, in fact, among ladies as if he were engaged to some one who is absent, or like a man who is married and feels that general courtesy is all that is permissible; but let that young man find one whom he thinks he may marry, and his Conjugal affection will be awakened, and there will be an intimate, confidential sympathy established which will lead everybody to suppose that they are already engaged. To such a person courtesy means love, and love indicates the lifelong matrimonial bond.



Fig. 123. LOVE DEFICIENT.

By this it will be seen that ladies or gentlemen of culture, reputation, and refinement, may sometimes seem peculiar,



Fig. 129. AMATIVENESS, SELF-ESTEEM, AND FIRMNESS SMALL.

singular, and capricious in their conduct toward people of excellent standing and character. Where Conjugal Love is

not well developed, matrimony is based upon some of the other faculties; it may be upon Friendship, as we have said, as the leading principle in the transaction; it



Fig. 130. ELIZA COOK. A loving face and head.

may be on Amativeness mainly, and then their continued harmonious relations are likely to be doubtful. People who are attracted by passion are not likely to continue in harmonious relations unless they are so equally mated in that respect that the bonds shall be thereby made continuous. If one should be less developed in this respect or have less constitutional energy to sustain it, and the love were to falter, disagreement, disgust, separation, or divorce might be the result; but if Conjugal Love and Friendship were equally strong, the bonds of union might be unbroken, though one strand, Amativeness, of the threefold cord were weak, or did not work in harmony with the others.

There is one more organ in this group, namely, Inhabitiveness. If the reader will think for a moment, one or more persons will be recalled whose attachment to land and house, and home, and home affairs, seems to be the strong, central element in their social life. When they receive company, they will show the rooms, the conveniences, the beautiful outlook this way and the other; they will show the garden and the land, the spring, the bird-house, the orchard, and will seem to worship all that belongs to the home.

Like a young bird that has just built her first nest, it is looked upon as a marvel and a paradise. Such a mother or father will inspire their children with the fondest regard for the home, the land, the roof, everything that constitutes the place called home; and memory, when they separate, will come back to the old hearthstone, the "old oaken bucket," the "old arm-chair," the old shade-tree, and thus it seems to be the golden censer in which the incense of love is contained, and without which it would be in danger of being dissipated. Patriotism is the name for this feeling when it widens sufficiently to take in one's whole native land, his own home being, of course, the one bright, central point of it. It is beautiful and wonderfully useful to have this faculty strong. Such men when they have closed their store, or shut down their mill, or unhitched their team, will go as straight home to their house and the family, as the horse would go to his stall if unhitched a mile from it. Add to this Parental Love, Conjugal Love, Friendship, Amateness, and we have the entire concentrated force of all that is social in our being. If this home-feeling be weak, men and women like to "go somewhere"; women will make many calls; like to make little trips to neighboring towns to see anybody they can think of as an excuse for shaking off the tedium of staying in one place. A man will go to his club or lodge, or to a bar-room, or the bowling alley, not that he loves his wife and children less than many others, but the home seems to him a kind of pen, prison-house, enclosure, restraint, and lacks elbow-room and freedom; he might take his wife and children with him to make excursions that were delightful and unexceptionable. The German takes his *wrau* and the children to the lager-beer saloon; they sit around the table and sip their lager in company, and even the baby in arms is given a taste of it, and they go home together. In such a case it would be presumed that the family loved each other better than they loved the place where they lived; but the society and the

lager take them away; their love and fraternity with each other take and keep them together, in going, remaining, and returning. Commend us to the men who have no fugitive entertainments to which the wife and children might not be introduced and become participants.



Fig. 131. M. GODIN, OF GUISE, FRANCE.

The founder of the "Familiere," or Co-operative Home. The structure is large enough to house most handsomely 20,000 working people in suits of rooms adapted to small families, and costing but \$2.50 per month. The Home stands on forty-four acres of ground, the whole costing \$216,000. It has proved a splendid success. He has all the Social Organs large, with Benevolence and intellect strongly marked.

The love of home, Inhabitiveness, is also indicated by the manner in which men and women are willing to spend money. Those in whom Inhabitiveness is predominant and the other social organs well developed, will earn money with pleasure, and pay it out liberally in whatever is calculated to make the home rich, pleasant, and valuable. In New England, particularly, the house is the great thought; money is expended for that without stint, and there seems to be a pride in having a good house well furnished and the home made attractive.

We have never been in any region where the houses were so good, so nicely kept, and so attractive, in proportion to the ability of the families to expend money, as those of New England, or their descendants in the West. In the German settlements through New York, New Jersey, and Pennsylvania, the people are great admirers of stock, and the barns are generally a great deal more costly and elaborate than the houses. We have seen many a farm in Pennsylvania worth from a hundred to two hundred and fifty dollars an acre, with a barn perhaps costing from six to twelve thousand dollars, and the house roomy enough, to be sure, but in which a man in New England would dislike to live, though his income were not more than a dollar and a half a day. We have seen men, however, in New England, who would spend earnings freely on horses and vehicles for driving, dogs, guns, boats, fishing-tackle, and the like, who would permit broken windows to be mended with paper, or old hats, and doors to drag and not latch, the roof leaky, and everything indicating a kind of squalor inside.

Women sometimes worship their houses, and are more anxious to have a coat of paint, or new carpet, or nice curtains than they are to have good clothing or luscious food; others are the reverse, and dress themselves and their children finely, and eat sumptuously, but leave the house with shabby appointments, and seem to care but little about the general appearance.

The people in the South are less inclined to spend their money on houses than on lands and horses and hospitality; yet they have that kind of Inhabitiveness which gives an intense patriotism; they think a great deal of "My State," "My section," "The South," and we commend the spirit. Perhaps the New Englander is equally proud of his State, but specially desirous to have his house as good as he can afford it, and often considerably better. A Southerner's house or a Pennsylvanian's farm-house are not much of a criterion by which to judge of their wealth. The New Englander's house is

sometimes all the property the man is worth, and he has to work at a trade or on a salary to eke out an economical existence; but his door-yard, fence, green blinds, white house, must be kept in shining array, and he may not have a hundred dollars to his name, except the house, after his incidental debts are cleared up.

THE SELFISH PROPENSITIES.

This group of organs is made up of the selfish propensities. These are Vitativeness, Combativeness, Destructiveness,



Fig. 132. SELFISH PROPENSITIES LARGE. Head wide above the ears.

Alimentiveness, and Secretiveness, and they are possessed by men in common with animals, though in the lower animals



Fig. 133. SELFISH PROPENSITIES SMALL.

JAUP, President of the first Peace Society.

the organs are modified in regard to relative strength somewhat as they are in men. Some animals have a feeble development of Combativeness and Destructiveness, others have small Secretiveness and

Acquisitiveness. The fox and cat are sly ; the dog is frank and open and combative ; the squirrel lays up treasures for the winter. Fowls like grain as well as the squirrels do, but they never lay it up. These propensities have to do with maintaining personal existence, and are therefore related to self.

The organ of Vitativeness, located a little upward and backward of the opening of the ear, and giving width from side to side through the head at that region, gives the desire to exist here and hereafter. When it is deficient, a person is careless as to the preservation of life ; does not seek to avoid exposure, difficulties or dangers ; and, in view of the life to come, has his doubts, in fact does not care. This sometimes becomes a central element in the manifestation of the selfish feelings—"to be or not to be, is the question," with such persons. When this faculty works with Caution, the fear of death is the bane of the person's life. With Combativeness and Destructiveness it makes one fight to the death, and as a soldier to sell his life as dearly as possible. Persons with it large recover from injury or illness that would cause others to succumb of equal strength of constitution.

COMBATTIVENESS,

by its name, expresses, in a measure, its nature and mode of activity, namely, defensiveness, and this is especially its function when it works in conjunction with Cautiousness ; but standing by itself it gives the disposition to assail whatever threatens the welfare of the individual in any of his interests. This organ lies next to Conjugal Love, Friendship, and Amativeness. It notably defends in the direction of the social feelings ; whenever the child, the wife, the friend, the home are assailed, Combativeness vaults into the saddle and draws the sabre, is ready to join issue and sacrifice anything for the defense of the home and the home-circle. A professor in one of our American colleges, who has more wit than wisdom, made himself at once merry and ridiculous some years ago by ridiculing the idea that

the conjugal and friendly elements were located next to Combativeness, and insisted that the armor of war and the arbor of love should not be located side by side, and therefore Phrenology must be absurd in thus locating these organs. Our reply to that is, that animals and men will fight quicker for that which relates to love and friendship than they will for anything else. Take the male of any tribe of animals, from the horse to the cat, and if more fierce battles are not waged on account of love and fraternity than on any other account, we will confess that the witticism of the professor is sound philosophy. But the mere statement of the juxtaposition of those organs is demonstration of a philosophy in mental organ-ism as wise as it is beneficent.

When Combativeness is uncommonly strong men will go to war for anything that is a decent provocation ; they are fond of argument. Combativeness will work with Causality or wit ; it would work to defend that which the sympathy approves ; it will work to defend conscience, or ambition, or pride ; or, working with Caution, defend against danger. We once examined a man in public, and said that he was very fond of argument, and no subject would need a contestant if he were present. Whoever might start either side of an argument would find in this man a respondent. He leaned back and looked up, sitting as he was on the platform, and remarked, "I must join issue with you on that point, sir." My quiet reply was, "That is so, you always join issue."

Men who are required to drive business, push work, and oversee, and urge matters, need large Combativeness, and many a man is thereby made eminently useful, and is esteemed indispensable. For instance, in railroad work a man who is called to be a "wreck-master," in railroad parlance, to prepare and hurry to the place where trains have been wrecked, and clear the track rapidly and promptly, needs Combativeness enough to assail anything. We have witnessed work of that sort when waiting to have the track cleared

so we could go on with our train, and it was marvellous to see how the broad-headed man would command his men, and the affairs under his control, and roll a car over and over as if it were but a basket, and yet he was thoroughly good-natured. Although this is a faculty which has a good deal to do with quarrelling, there is a world of legitimate energy required in the management of affairs, in respect to which there is nothing of anger in its exercise. When boys play fiercely on the common, running, wrestling, jumping, tussling, rushing things, rolling snow-balls, and whatever else the philosophical and mild manners of boys will concoct to be done, requires all the Combativeness that one can carry without explosion, and sometimes they do explode; and while boys are terribly in earnest in their vigorous play, they are not hateful or angry. Thus a driving business man, whether he runs steamboats or trains against competition, or whether employed to construct railroads during a given time, or to clear the wreck where trains have been in collision, or whether to break colts or govern restive horses, or manage rude and uncultured men in masses, or go into battles for the country, and fight at Balaklava, or anywhere else, with a fierceness which is terrible—this faculty comes into play; and, in the light of these great enterprises, the little, contemptible disputes and squabbles which arise from an irritated state of Combativeness become ridiculous.

“The function of this organ Prof. Bain elaborates fully and clearly. He is almost persuaded that it is properly localized, and is inclined to recognize it as an element in our constitution. His exposition of its scope and function is masterly, and shows a power of keen analysis. He discovers the combative propensity to be made up of two distinct ingredients: the superabundance of central energy, and the love of power in its most wide guise: successful rivalry. He criticises George Combe’s definition of Combativeness at certain stages of his delineation of this organ. But it seems to us that the ob-

jections to Combe’s definition urged by Bain springs from a failure upon the part of Bain to comprehend exactly what Combe intends to convey; in other words Bain puts an unfair (not intentionally, Bain is too much of a Scotchman for that,) estimate upon Combe’s definitions.

“When Combe declares that the propensity of Combativeness is necessary even for philanthropic schemes, he does not mean the pure pleasure of fighting, but simply means that Combativeness supplies courage in advancing those schemes, and the power to resist all opposing obstacles. There is no difficulty, as Bain declares that there is, in ascertaining whether a man is combative or not when a motive influences him to undertake some courageous enterprise. There are motives which enlist every faculty of our constitution, and yet we do not find any difficulty in separating the adjuncts or supports of that motive. We know perfectly well, for instance, that Luther was exceedingly combative, and that Melancthon was not. There was the same motive: both sought to reform the Church; but both were not equally bold. Luther feared neither devil nor man, but Melancthon shrank back even from a public avowal of his faith. When the combative Luther was by his side, Melancthon displayed a good deal of courage; but when Luther died, Melancthon completely broke down. Now here were two men, both inspired by the same motive, yet the difference in their combative spirit was immense. Was not the combative temper of Luther of immense aid in propagating his religious reforms? There is no difficulty in deciding which was the more combative, Melancthon or Luther; for the physical development of the back-head of each is a perfect revelation.

“A mere novice in portrait reading ought to be ashamed to say that he can discover no difference between Melancthon’s and Luther’s Combativeness. We would differ also, in some respects, as regards the definition given by Prof. Bain that the combative principle is the love of power in its most wide guise, successful

rivalry. That there is an element of power in this propensity we admit, but aver that this power is different from the power enumerated under the function of self-esteem.

"It is a power of resistance to aggression, not a feeling of authority. The feeling of triumph which arises whenever a successful combatant defeats his opponent is incidental to the combative propensity, and would arise upon the success of any other of our faculties. The martial ardor displayed by troops, the love of debate, the spirit of contention which characterizes some men, is the real element in Combativeness rather than a feeling of power. And if Prof. Bain would carefully ponder the definition given by phrenologists, that all our faculties have various degrees of activity, from a low state of manifestation to a high or passionate state, much of the confusion incidental to criticising the phrenological analysis would vanish."

DESTRUCTIVENESS.

Sometimes Destructiveness becomes the leader in this group, and all the other faculties minister to its success. There are people who carry with them quiet revenges, waiting for a convenient time to bite or strike; in that case Secretiveness co-operates with Destructiveness; it steps lightly like a cat, it hides and waits like a tiger, and strikes, when the fitting time comes. But Destructiveness has also its virtues; it gives staunchness, executive-ness, endurance under pressure and difficulty, and enables a man to suffer without complaint, to hold on to his cause to the bitter end. We fancy there is a little of this feeling in the statement, "Though he slay me yet will I trust in him." Working with Vitativeness, or the love of life, it is an element of endurance. For instance, all the carnivorous animals which have Destructiveness large, many of them also Secretiveness and Combativeness, will endure, before they die, a great deal of abuse. It is hard to kill a cat, and a catfish so-called, that has a wide head, and is so great a fighter, and so cruel in

its battles; it will live all night in two inches of water in the bottom of the boat, half cut in two with a spear. While all the rest of the fish thus caught will be dead in five minutes, he will be alive in six hours after and ready to fight. The men who in the hard struggles and work of life endure all things, and master the situation, are generally well endowed with Destructiveness. The surgeon requires it, the dentist needs it, the man who blasts rocks, or cuts stones, or fells trees, needs it; or those who work at anything that requires heavy blows or hard smiting are the better for having large Destructiveness; and when Destructiveness and Combativeness unite, then the highest order of physical courage is the result.

Destructiveness produces cruelty and severity sometimes in animals, though the animal may not have large Combativeness, and lacks courage. People speak of "brave as a lion." The lion is not brave; he is a coward when the royal Bengal tiger, regarded as his equal, or when a lion that is fully his equal, is presented; he hesitates, makes a great parade, but does not get very near. The dog, on the other hand, will assail a lion, a tiger, a grizzly bear, an elephant, a dog, or a man, and he does not stop to count the size of his opponent. Many a man has been saved because his little dog, who is as quick as a flash, has annoyed a bear, behind, that was pursuing the man to the death; he would turn to take care of the dog, which would, of course, dodge back and keep out of the way of the bear, while the man would be gaining distance, and when the bear turned for the man again, the dog was at his heels biting his hamstrings. We know of nothing but the dog that will fight a foe forty times his bigness, or one of its own kind and bigness to the death, with such unqualified and eminent bravery; and, therefore, we account the dog the bravest thing that lives.

SECRETIVENESS.

Before dismissing the subject of Combativeness and Destructiveness, we may remark that Secretiveness often works

with Combativeness and Destructiveness in the play, and in the fighting, of animals largely endowed with these organs, located in the middle lobe of the brain. Some dogs lack Secretiveness, and they know of no way but to go straight at their fighting, without tact or policy. There are some small dogs that are largely endowed with Secretiveness, which gives them the policy that enables them to fight a larger foe and win a victory by tact. We have seen a dog that, being overtaken by a larger one, would fall on his back by way of submission, and if the dog dared to approach his throat, he would catch the dog's foot and bite it so sharply, that the big dog would quit the fighting from sheer pain, and go off on three legs arguing against that kind of tactics, while the little dog would make good his retreat, looking back occasionally as much as to say, "I have met the enemy this time, and won the victory by stratagem."

The fox is known for Secretiveness, and that is his central quality of character. The first skull of the fox ever presented to me as a Phrenologist was an interesting study. Having no idea what animal was represented by it, because the skull looks so much smaller than the fur-covered head of its owner, I remarked that "the location of the organ of Secretiveness was uncommonly developed, and whatever animal it was, he must be distinguished for Secretiveness, as that was the master quality in that group of organs." At that moment an elderly man came up to me who proved to be an old hunter, and some one asked him what that skull was, and he replied with a kind of contempt, "That is a skull of a fox ; I have shot many a dozen of them; I have a good many of their skulls now laid up." Secretiveness, then, would seem to be the central faculty of the fox ; some dogs have it, all cats have it, and they do things indirectly where most dogs would do them directly. A cat does things by stealth, especially watching slyly until its prey comes within reach ; while a dog sniffs the track and follows, announcing that he is coming, and, of course, warning the

victim of his approach. Men are found whose development of Combativeness and Secretiveness resembles that of the cat or the dog, and therefore the study of animals aids in the study of men.

ACQUISITIVENESS

is located in this group, and gives wideness to the head about two inches upward and forward of the ear. As this organ gives the desire for property and possession, we study its nature wisely by studying the lower animals. Those that lay up their food, as squirrels lay up grain and nuts, have strong Acquisitiveness ; and generally the element of Secretiveness will be found strongly marked too. We have known a fox to kill several chickens, and bury them for future use. Acquisitiveness led him to possess all he could get, and Secretiveness to hide what he did not then want. If he had had an equal amount of reason he would have known that he had taken twice as many as he could have used up ; but this faculty was wanting. We know that dogs bury bones ; there are two or three reasons for that : one is that the meat may become softened and mellow, so that it will come off from the bone easily, and they have enough of the gentlemanly sportsman to like their meat a little mellow ; and thirdly it hides, in a measure, the booty away from other dogs.

In the human development where Acquisitiveness is strong, a man desires property of every kind. If he has large Alimentiveness, an organ located just forward of the ear and below Acquisitiveness, joining it, he will lay up food, articles to eat to gratify his appetite ; some take a great pleasure in laying up nuts, fruits, vegetables, and meats, and have things dried and corned and preserved, and, as the Bible says, "much goods laid up for many years" ; and in proportion as people take pleasure in laying up articles of food, we find them amply developed in Alimentiveness, or appetite ; thus these faculties combine in that way. Others use Secretiveness in conjunction with Acquisitiveness, and keep it a secret as to

how much money they are making. Men will go from New York to Boston or Philadelphia and quietly purchase stocks or real estate, and let it seem at home that they are worth but a hundred thousand dollars, when they have perhaps a million. That gratifies Secretiveness and Acquisitiveness too; it may also help them by saving local taxation. If Secretiveness be strong and Acquisitiveness active, there will be a co-operation of these faculties in the shrewd, secretive way of carrying on business. We may say that nearly all the adulterations of everything, from the alloy of silver and gold, to the putting of sawdust into indian meal, or cotton into flannel cloth, or linen into silk, or water into milk, comes from the combined activity of Acquisitiveness and Secretiveness, with Cautiousness and Conscience low enough to permit it; but Secretiveness and Acquisitiveness work together in all the sly tricks and "corners" and overreaching and under-getting which are so prevalent in all the traffic from Wall Street to a peanut-stand. In the manufacture of paper which publishers use, clay and divers other things are used which increase the weight and help make up the solidity of the paper, and costs but perhaps a tenth of a cent a pound, while the paper may be sold for twelve cents a pound. Of course the intellect has to devise the ways and means, but the desire for gain, and the cunning way of using intellect to cover up, for the time being, the tricks of trade, illustrate the activity of these organs. It would hardly be exaggeration to say, that a store full of goods of almost any kind, is, what a blunt preacher once said, "made up of falsehood"; and one has to be a good judge not to buy that which would be to him a cheat; and when the public, through Secretiveness and tact, learn how to detect one kind of trickery, those that perform the first act will study a shrewder way to hide the defects; consequently, men in whose eyes one can look with confidence and believe their words are truth and truth only, are more rare than they ought to be. The blood of Ananias and Sapphira has not run out,

because, perhaps, the method of treatment of that kind of people has been somewhat relaxed.

ALIMENTIVENESS,

the last faculty of this group, works naturally with Destructiveness and Secretiveness. Some animals are obliged to use Destructiveness to capture their prey, and that severe element is aroused and intensified by hunger and the keen demands of appetite. If the prey be such as can get out of the reach of the cat, for instance, that deals with rats and mice, she needs Secretiveness to capture the prey by stealth, because a cat is too large to follow the rat or mouse into their narrow retreats. On the contrary, the weasel, being smaller and strong and active, can follow a rat, has no Secretiveness, and appears to have no Caution; he does not mind going around where men are; he can slip away into any hole he likes, when the occasion requires it, and he will chase rats in all the labyrinth of their hiding-places throughout the house, and there is a wonderful squealing and running when his majesty comes to encounter his enemies, because he can follow his game. He does not need Secretiveness, and his skill does not show itself as it does in the cat. So in turn each one of these faculties becomes a centre around which all of its immediate associates cluster; each supplements the other, and aids in carrying out in turn the desires and purposes that are born of each faculty; and the infinite variety in the tendencies and co-ordinations of these faculties shows better when contemplating them in their activity. There are methods of determinating how these faculties are accustomed to co-ordinate.

THE SELFISH SENTIMENTS.

The functions of these faculties, viz., Cautiousness, Approbativeness, Self-esteem, and Firmness, work partly in respect to ourselves: hence they are called selfish, and partly in our relations with others: hence they have the nature of a sentiment.

We have only to imagine a person to be

utterly destitute of Cautiousness, which imparts the sense of fear ; or Approbativeness, which gives the desire for approval of our fellows, whether friends or strangers ; or Self-esteem, which lays the foundation for personal self-reliance and ability to adopt a course of responsibility without flinching ; or Firmness, which gives strength of purpose and steadfastness, to see what a blank the deficiency of any one of these would make in the character. It would be almost equivalent to taking a cog out of a wheel in machinery, which would suspend the motion or render it exceedingly rough and jangled. Yet we have men who seem almost wholly deficient in respect to them, as we have also men who seem excessively developed in one or another of them. As we have stated in the early part of this subject, character is made up of a combination of faculties, and the shades of character depend upon the relative strength or weakness of the different faculties.

CAUTIOUSNESS.

Let us consider the effect of Cautiousness on the character of a human being ; premising that an equal and fair development of this important function is intended to be, and works as a judicious, prudential regulator of the whole life and character as it stands related to the troubles and dangers belonging to life.

In the child, the proper development of Cautiousness will keep it on the alert respecting difficulty and danger, and is worth more in the promotion of its safety than the care of half a dozen nurses. When a little child can get freed from its attendant on the street, it runs with all its might, and the nurse generally runs after it, and perhaps, when overtaken, there is a battle for liberty ; but let the nurse remain fixed, and as soon as the child finds it is not pursued, it will cautiously proceed a little distance, and on seeing something that it does not understand, and finding itself, as it were, thrown on its own resources and responsibility, it begins to hesitate and retreat, and perhaps is glad to run back to its nurse's arms.

When the faculty of Cautiousness is very weak, the child or man seems to have very little idea of danger, and it should be remembered that while grown people suppose their intellect is their guard in reference to danger, the interior sense of the possibility of danger comes from Cautiousness, and the reason helps to study the relations of the outward world to us in respect to danger. For instance, while driving, a man sees a black shadow, or a muddy hole, he can not tell which, in the distance ; he has seen such things before, and has found by experiment that danger may be connected with them. The intellectual appreciation of that which he has seen awakens at once a feeling of cautiousness ; but remember, it is Cautiousness, not the reason, that feels the fear ; because the fear arouses before the intellect knows whether it is a deep mud-hole or merely one that has been dried up and made solid and safe. Yet Cautiousness, that knows nothing but fear, raises an apprehension, and the imagination may come in to recount all the troubles that ever have arisen to the man in a lifetime in regard to such apparent danger, and drivers will remember how flat they feel when having approached near enough to such a dangerous-looking place to see what it is, they find that there is no danger at all. Thus Cautiousness mingles with every faculty that can possibly be interested in personal safety. Caution combines with other faculties in many interesting ways. When the intellect, through observation and memory, brings to Cautiousness a picture of that which may be dangerous, Caution insists on a careful investigation and prudential approach to the difficulty, and does not cease its monitions until judgment and other sources of knowledge, have, by their co-ordinate action upon Caution, allayed its excitement.

It is interesting to notice how far fear arouses courage, or how Cautiousness awakens Combativeness and Destructiveness ; hence, if a man is cornered and assailed, although if in an open field he might obey Caution and run for his life,

when brought to bay will fight with something fiercer than courage—with the desperation that fear begets, and in its action upon Combativeness and Destructiveness makes them terrible. It is not courage but desperation that leads one to fight when cornered. A dog will fight better in an open field than he will in a corner, for when cornered he is apt to submit, while if assailed in an open field he fights back. In fact, a dog will fight a lion or a bear, or bite a wagon-wheel; but a cat assailed in the open field will retreat up a tree or anywhere else that promises safety; but let a cat be cornered, and she will fight ten men and ten dogs—the more there are the fiercer will she fight, and perish fighting. Men who have rambled in the forests where partridges are to be found will recall instances in which they have surprised the timid hen with her chicks, and the first intimation the innocent wanderer has that he has disturbed the home of the timid partridge with her brood, is, by feeling her fighting at his legs; of course, impotently in this case, but with a fierceness begotten of parental love and fear as connected with the chicks; for without the chicks she would have taken wing and gone with a whirr out of sight; but with her chicks she would fight an army. In this case parental love overcomes Caution or arouses Caution in behalf of her chicks, and then Combativeness and Destructiveness are brought to the work of defending the chicks at the risk of her own life. We have many a time fled from such an encounter with a sublime admiration for the heroic self-devotion of the mother, who is known to be, in respect to herself, extremely timid. Thus we see how Cautiousness, which is called a selfish sentiment, becomes a social element when fear is excited in behalf of progeny that is cherished by parental love. In this case Caution is not a selfish sentiment.

Where Cautiousness is moderately developed people appear rash, and lacking in good judgment, with respect to danger. We have seen a man working on a scaffold high enough to break his legs or

neck if he fell, and with nothing to support him but a single board twelve inches wide and twelve feet long; to be sure, it was made of spruce timber, which is tough, but it would bend more than a foot when he walked from end to end. Every one else was excited, through the monitions of Cautiousness; but he had studied it from an intellectual point of view and felt safe, just as the most of us would have done if the board had been only two feet from the ground; then the discomfort of the yielding to the tread in walking upon the board would be the only inconvenience, as there would be no danger to excite Cautiousness. He insisted upon it that it was strong enough to hold him; so it was, but we were studying to be certain that there was no flaw or knotty place in the board which would make it liable to break. Thus Cautiousness was our guide. Any one of us would have run, on what we call a "spring board," if properly made from selected material. Such a board is sometimes used where swimmers dive into the river or lake, and therefore involves no danger to neck or limb; but our friend would pick up a board, apparently with carelessness, and slap it on its supports, and walk on it as if it were solid ground, so far as any sense of danger were concerned. Men with little Cautiousness often leave out important matter in writing a letter or an important contract; they are apt to take things for granted. Theirs is not the motto of large Caution, namely, "Sure bind, sure find," but rather, "I think it will be all right."

An error in educational government often arises through the excessive action of this faculty in those who have the charge of children. Such persons will try to frighten the little subject, threatening to go away and leave it, or to give it to some stranger to carry off, or to hand it over to the policeman, or say that some dangerous agency will seize upon it and carry it off in the dark; and confiding and timid childhood respects the monition and, perhaps, submits through fear. When old enough to know that the fears were fictitious, it learns to discredit anything

the person may say ; but the evil effects of the excessive activity of his Cautiousness is not necessarily abrogated by time, and the probability is, that that same child, when it becomes a mother or father, will repeat the same terrible treatment toward children. We would emphasize this to condemn it, and appeal to mothers especially to rectify their error in this regard. If a child has excessive Caution it is generally appealed to through Caution, just as, if it has excessive Alimentiveness, candies and cakes and something to eat will be promised. A person with a full share of Cautiousness, without excess, will feel cautious in regard to reputation, in regard to one's dignity and standing, in regard to one's property, working with Acquisitiveness, or in regard to one's friendships and social interests.

Let a person love another, and with what prudence and anxious care everything will be done or avoided that will be calculated to disturb those delightful relationships. If one wants vivid evidence of Cautiousness as connected with the social nature, let him watch a young mother as she exhibits it in her tender interest for the little sleeping infant ; how carefully she walks lest it be awakened ; how silently she closes doors or opens them ; how she refrains from permitting any person to make a racket ; how she will cover up the face with a double green veil, then a blanket, and perhaps a shawl, in the middle of July, when the child wants all the fresh air possible ! We have seen a child pinned up like a sore finger in cold weather until it required a mother and grandmother to find out where the head was, and undo it ; and one, the first baby, was so wrapped that it was black in the face when undone. And we can see it in a hen when she comes, the first time, from the nest with a dozen chicks, how every feather stands on end perpendicularly ; how she swings on her centre and squalls defiance at everything that might alarm or harm a chick ! In other words, it is Parental Love and Cautiousness combined ; and on the eve of insanity. If she were a human mother

she would bundle up her chicks and pin them tight.

APPROBATIVENESS.

Approbativeness brings us into relationship with our fellow-men. Since we must live with others, the desire of approval is apparently necessary, though some people seem so utterly deficient in this faculty that they seem to care nothing about public opinion, and "I don't care" is the frequent remark. This, however, is sometimes mere bravado and a kind of defense against criticism ; but generally people *do* care, some excessively so, and they suffer untold agonies through their fear of ridicule, censure, or disgrace ; and if the reader will think what is done and avoided for the sake of the speech of people, he will get an idea of the influence of Approbativeness upon the action of nearly every other faculty. Let some new style of dress or of dressing the hair be introduced, and how much ashamed and mortified people soon become if they are not able to copy the fashion and adopt the usage. Dr. Franklin said that "if everybody were blind but himself, he would not care particularly about the color or cut of his clothes," and the supposition is that people are not blind ; we therefore do care about the color and cut of our clothing. Watch a party of ladies and gentlemen as they meet on the street ; see how the eye sweeps from foot to head to take in the whole make-up of a person's wardrobe. If the fashion is a little out of date there is a curl of the lip and an evident, "Oh, how can she be so dowdy as to wear that old thing, a last year's hat trimmed in the old style ; why does she comb her hair that way ? why don't she cover up her forehead with a bang ?" And in phrenological examinations we are sometimes required to brush away the bang from the forehead in order to judge the developments, and the girl or lady will scramble to fix it back again as if it were shameful to show her bare forehead, forgetting that six years before she combed her hair away from the forehead, and from the back up-

ward to the crown of the head, and tied it with a cord, and that it was then the thing to do. When the style is to have the sleeves flowing and open clear to the elbow, or to have them so tight one can hardly get them on, or to have the skirts so long that they trail the sidewalk, or, what is much better, short enough to be kept clean and tidy, whatever is the fashion, the usage at any time or place, or demanded by public sentiment on the subject, Approbativeness seizes upon, and Imitation helps to carry it out. A few years ago the white houses were painted a soft brown, which perhaps was an improvement, making them easier to the eye. At one time the sashes are painted crimson, at another time green; curtains must be at one time of lace, again of soft brown muslin, again Chinese red; and we have seen within a year or two plaid for parlor curtains, and a whole block of houses would be curtained exactly alike; one following another. Let us see how Approbativeness, then, co-ordinates with other faculties to bring about results; how it arouses Combativeness to defend the reputation; how it makes the person who is combative feel ambitious to be the best fighter, or the best runner, or the best swimmer; or with Tune, the best musician, the best chess-player, or billiard player, or walker. How Approbativeness excites Acquisitiveness, or masters it, so that it will spend its earnings on whatever is fashionable. Everybody knows that many people have to suffer and sacrifice in certain directions in order to have their curtains, their carpets, their furniture, their dress and appearance, such as the public seems to require; each is ambitious to stand well in the esteem of all; hence a point is strained to have things nice, like other people, and Acquisitiveness and Secretiveness are enlisted to earn the money; hence the endeavor of people in great money centres for the acquisition of wealth to live on a fashionable street, and drive a stylish carriage, and have a desirable and prominent opera box, and an ambitiously located pew in the best church.

Around these desirable things points are strained, and Conscience is twisted, and energy is aroused and policy is invoked, and the desire and skill to make money strained to its highest tension, to satisfy these exorbitant and many times foolish claims of Approbativeness. Of course, Inhabitiveness gives a desire to have a home, but it does not necessarily say that it must be four stories high, if two stories are enough; or that it should cost sixty thousand or a hundred and sixty thousand dollars.

A gentleman in Brooklyn who resided on a famous and beautiful corner, had a wife, without children, and they maintained their great four-story house, and had a drove of servants. The man finally sold his house, and when questioned on the subject, replied: "I have kept a servants' boarding-house long enough." Everybody knows that the desire to have a stylish home and keep everything going as if there were abundant wealth and refinement and taste to be ministered to, as well as to entertain friends for the gratification of the social nature, was the prime motive of keeping up such an establishment. We hear ladies talking to each other, "They live in handsome style"; "they keep four servants"; and perhaps in six months the man fails and pays thirty cents on a dollar, and they call that "being unfortunate in business." How Approbativeness is fostered by Ideality, by the sense of the beautiful; how Approbativeness and music work together; how historical and educational elements minister, by success and eloquence and intellectual power, to the gratification of Approbativeness; nay, how does Approbativeness sting and inspire the student to "consume the midnight oil," that he may win the prize of his academic course and stand first as a scholar; how we boast of the splendid intellect of our friends, of their excellent culture; and Approbativeness sits like a queen and plays upon the faculties, and they work to win our applause and to gratify our ambition, and the result is called happiness.

SELF-ESTEEM.

Unfortunately, in America, this organ is not so large as Approbativeness, while it ought to be better developed so as to give a man an intrinsic, interior, personal sense of his ability, worth, and power;



FIG. 134. SELF-ESTEEM AND FIRMINESS LARGE.

and then, if people censure him injuriously, if they ridicule him contrary to propriety, he can stand erect and wait until he gets appreciation. Self-esteem gives a man a sense of individual honor, while Approbativeness gives one a keen sense of the honor which other people may bestow; in other words, reputation. Let it be remembered that the sentiment of honor which is born of conscience, reason and Self-esteem, is individual, intrinsic, and interior, while reputation, being only what other people think of us, not that which we think of ourselves, comes through Approbativeness. Those with large Approbativeness are often called proud, but more correctly vain; those with large Self-esteem are often thought not to be proud, yet they are really the only proud people we have; such a man, when conscious he is in the right, moves onward with dignity and self-possession; looks with pity or contempt upon the trifling vanities of life and the varying currents of approval and disapproval, according to the guides of fashion; can stand erect as St. Paul stood up, saying, "None of these things move me."

A man with large Self-esteem, good intellect and good morals, and with Approbativeness subordinate, so that its voice is not permitted to be very distinctly

heard, moves with a dignified self-respect, stands erect, draws his head well upward and backward; does not brag; does not try to show off; doesn't seem to care whether people appreciate the good things he says or does; whether they admire his excellent team, or handsome fields, or snug and comfortable home; he does not dress to attract attention, but to clothe himself with decency and cleanliness, and with sufficient regard to public sentiment as not to be eccentric, and he moves with steady strength of character, and many people think that if he had any pride he would try to do as other people do.

The difference between Approbativeness and Self-esteem is marked, yet they are often blended in people's estimation, and are convertible terms. Phrenology understands it differently. To illustrate: A farmer's wife had large Approbativeness, and wanted to be in style and have her husband dress handsomely. He was going with a load of potatoes to the village, where he was well known, and a deacon in the church. She ran to the door as he got ready to drive off, saying, "Here, John, put on a better coat." "Oh, pshaw, Mary, they all know me down there"; and he wore the old coat that was fit for the work. The next day he was going with a load of potatoes to a neighboring village, and she insisted that as he was going over there he must put on a better coat. "Oh, never mind, Mary, nobody knows me over there." She wanted him to wear nice clothes where he was known, because he was known, and also where he was not known; and for the same reason the man insisted on not wearing such clothes as were not adapted to the dirty work he had in hand. Self-esteem serves to give a man a consciousness of his own talent and worth, and to esteem himself justly, or rather does not produce a desire to be estimated beyond his merit; it gives him a sense of his own personal worth, and makes him believe that he can do whatever it may be his duty to do. If elected to preside over a public meeting, he accepts the position and tries it; but his want of knowledge

and expertness is soon seen to the whole house ; yet he looks on the congregation with dignity, and will follow the suggestions which intellectual men of experience may offer in the way of motions ; while a man who was too diffident to believe himself capable of occupying the position, and declined the election *positively*, as soon as the man with large Self-esteem is fairly seated and his inexperience is shown, the modest man takes exception to the ruling of the chair, argues the points ; he really knows how, but he was afraid, with his Approbativeness and Caution, to try it. The other with large Self-esteem and neither Approbativeness nor Caution large enough to alarm him, presides, and does not know to this day but that he did it handsomely.

A man with large Self-esteem governs ; he likes to govern ; believes he is capable of governing ; and sometimes, if he has Combativeness and Destructiveness large, and not very strong Benevolence or social feeling, becomes tyrannical in his control of others. Such a man acquires property to give him power and independence, and sometimes wears poor clothing and drives a shabby team ; has a house meanly furnished, and sets a parsimonious table for the sake of gaining property, or saving expense that he may increase his wealth, that he may ultimately stand serenely supreme, the richest man in town. He has real pride in being shabby in his dress and appearance ; the pride consists in his feeling that he is not a servant of public sentiment ; it gratifies his Self-esteem to feel that he is above public opinion. He dignifies work and calls it by its right name ; he doesn't talk about obtaining a position and getting a situation. If he is in a bank or store, he will speak of being very much confined by his *work* in the bank or store ; and if he wishes to do it, he works in his garden and calls it work ; he works in his hay-field and trims his trees and his grape-vines ; he carries his own valise, if convenient, and is neither afraid nor ashamed to serve his own wants or those of his family.

A dudish and dandy young man in Boston, eighty years ago, started housekeeping in a small way, and having bought a couple of pounds of meat, wondered whom he could get to carry it home for him ; and there was a plainly dressed, elderly man stood there and asked what he would give to have it carried home, and he told him a dime ; he said, " I will carry it for you," and he trudged along, following the slender understanding of the master of the ceremonies until he came to the door, and as he paid him his money he thought he would ask the old man his name, thinking he might want to get him to do other errands ; he replied, " They call me in Boston Billy Gray." He was the John Jacob Astor of Boston ; the millionaire of his time. We did not learn whether the business relations were continued ; of course it was fun for Gray ; we fancy it was not fun for the other, and perhaps he never repeated the story. We judge the young man had the larger Approbativeness and " Billy Gray " had the larger Self-esteem. But there is a point with some men which the possession of a million dollars or fifty millions enables them to reach in character, namely, as Mrs. A. T. Stewart said in a little party of ladies, when she appeared without jewelry, without a ribbon or a flounce on her dress, and saw she was being scanned by some old friend : " This is one of the privileges of wealth, that one can dress as one pleases." Of course, she knew she was richly and nicely dressed, but she did not feel the need of putting on flounces and trimmings and trappings, as everybody knew she could have all she wanted.

FIRMNESS.

Firmness may be said to co-ordinate with nearly every faculty, and that sensibly and palpably. What a wonderful hitching-post is Firmness to Conscience, to Self-esteem, to Cautiousness and Approbativeness. When Pierpont cried in a poetic fervor,

" Stand ! the ground is your own, my braves :
Will ye give it up to slaves ?
Seek ye greener graves ? "

he exercised his own tremendous Firm-

ness and invoked every faculty to permanency, courage, and self-reliance, and the manifestation of power. When Veneration was excited in conjunction with Firmness in the Psalmist, he says: "My heart is fixed; O God, my heart is fixed." So,



Fig. 135. GEORGE BANCROFT—FIRMNESS, SELF-ESTEEM, AND CONTINUITY LARGE.

also, when Isaiah said, "Trust ye in the Lord forever, for in the Lord Jehovah is everlasting strength," Firmness and Veneration acted together. When Ruth said to Naomi with the activity of her friendship, stimulated and strengthened by Firmness, she uttered the words which immortalized her name and her friendship: "Entreat me not to leave thee, or to return from following after thee; for whither thou goest I will go, and where thou lodgest I will lodge; thy people shall be my people, and thy God my God; where thou diest I will die, and there will I be buried; the Lord do so to me, and more also, if aught but death part thee and me." What reader has not felt at times—I must stand firmly in this position; I must call on courage and hope and fear and shame; I must summon affection and conscience and reason, and rally all that I know or dream or fear, to abide by this central and necessary resolution? "I am in earnest, I will not equivocate, I will not excuse, I will not retreat a single inch, and I will be heard," said the brave but persistent William Lloyd Garrison; and with less Firmness than he had, he never would have taken and maintained as he did a stand so un-

popular, so unprofitable and so dangerous.

CONTINUITY.

Continuity is located between the Selfish Sentiments and Social feelings, as if it were a middle-man between the two groups. It is different from Firmness in this, that it gives patient application, or persistency, while Firmness gives steadfastness and determination. Let us illustrate the two faculties. There is ice on the Hudson River, and it is capital sleighing to Poughkeepsie, seventy-five miles. On the turnpike it is also good sleighing along the shore. Two men starting for Poughkeepsie with an equally enduring team, one takes the straight, level, solid track on the ice, because he has large Continuity; he has also large Firmness, and the faculties would naturally co-ordinate. When he has wrapped himself in his blankets and furs, and only his eyes and nose are exposed to the stinging frost, he is extremely happy in the fact that he has nothing to do but plod, plod, plod, and stick to it until he has conquered the seventy-five miles. The other man has moderate Continuity, but equally large Firmness. He prefers to go winding through the villages where every variety surrounds him, where no two half miles of road are alike consecutively, and his love of change, the up and down hill, and turning curves, and passing elegant dwellings through the villages, keep his mind on the alert all the time, and yet Firmness says, go on, go on, go on, to his team, and the two men reach the hotel in Poughkeepsie at the same moment; each has been persistent and happy in the performance of the journey. Suppose we change, and let the man fond of monotony take the field of variety, and he that must have variety to be happy takes the monotonous route on the ice; certainly the man on the ice would have nothing to keep him from freezing but the blankets; he would wonder when, when shall I reach that far-distant point? Fourteen miles and not a turn! The man on the shore, with large Firmness and Continuity, would feel annoyed by the variety; everything

would seem to be an obstacle, every curve a difficulty, everything that diverted his attention from the central thought an interference, an impertinence, and he would reach his destination very sour and feel much broken up. The other would emerge from the icy road on the river, saying, "You will never catch me on such a journey as that again; pelting away in the northwest wind all day, with not anything but ice, and ice, and ice, and distance."

THE MORAL AND RELIGIOUS FACULTIES.

See Figs. 16, 81, 92, 98

Situated, as these organs are, in the superior part of the head, they give roundness, fullness, and breadth to the top-head; height from the opening of the ear to the region of their location, is the chief indication of their large development. The moral nature gives man the supremacy over all creatures, and in proportion as a man has a large development of these faculties does he become supreme over his fellow men. There is a brute force, dynamic power, courage, and fighting qualities, which give men a certain kind of physical domination, but after all, Integrity, Hope, Reverence, Spirituality, and Benevolence give to a human being value, a character that takes hold on the immortal verities, and thereby he is placed in a serene and superior altitude, as compared with men who live for sense and things physical, merely. Imagine the world and society, with the element of Integrity blotted out. When men and nations become demoralized, and cities are given over to rapine and plunder, we see what men would be without the moral sentiments; the animal nature seems then to be set free to revel with all the impetuosity of blind passion. The whole realm of law and righteousness, the whole sweep and scope of rectitude and propriety, finds its seat and centre in this moral group, more especially, perhaps, in Conscientiousness. These faculties sit regnant over the others, and teach us to feel responsibility in regard to our duty to

our fellow men, and even to the lower animals. Justice may be said to be the bulwark of human society, without which it would become disintegrated, when might would become the only right, and power would become privilege; but under the domain of righteous law, born of Conscience and reason, the world's passions are held in check, and men learn to do each other justice and refrain from the wrongful exercise of power.

All nations have some system of religion, varying according to their circumstances, and somewhat according to the development of the other faculties, but the religious basis is in this moral group, the tendency to worship some Supreme Being, to acknowledge allegiance to higher power, to feel the spirit of incumbency and obligation, and to stand in the midst of temptation centered in rectitude.

There is no feeling in human life so strong as the religious; the world has fought more battles, wasted more strength in argument on the theological points, than on any other. When we look at men casually, we sometimes think the love of gain, and the desire for ascendancy and power are the strongest motives, but the deeper we study the subject, the more we investigate history, the more we must be convinced that the moral nature is dearest to all nations. The persecutions and privations and martyrdoms, which men and nations will suffer on account of their religious opinions, astonish the reader of history. While the territory may be obtained by conquest or cession, and the boundary lines effaced without an ending scar; the religious controversies, the wars and persecutions on that account stand forth in history with fearful distinctness.

The religious feelings give us emotions in the direction of integrity, worship, sympathy, hope and faith, but the religious feelings need for their proper aid and guidance a harmonious development of intellectual power, otherwise the religion is liable to become cruelty, or to be warped into superstition. But how do the moral faculties work together? Veneration may not be large enough in a given

head to prompt a person to the performance of religious duty as it is understood. For instance, a person says, "I think I won't go to church this morning, I am wearied and tired," and Veneration and Spirituality are not strong enough to lead to the performance of that service; but Conscience begins to nibble at the man, and after the first bell has rung he feels that it his *duty* to go; he don't want to, but can't be comfortable under the lash of Conscience without, so he gets ready and hurries off to church; and when he hears the music and listens to the prayers and the sermon, his other religious faculties become awakened, and he goes home happy to think he did not miss the opportunity of being in church, and he wonders how he could have hesitated.

A man with moderate Conscientiousness, if he have large Spirituality and Veneration, will listen to the commands of the Scriptures, or the monitions of the priest, in respect to rectitude; he may be informed that God will hold us responsible for the performance of duty, and the fear of God, or the thought of God, will lead to an awakening of Conscience; many a person will say "I would not do this if it were not for God's all-seeing eye." "Thou God seest me," makes hundreds of men more honest than they would otherwise be. Some, without Veneration, neither fear God nor regard man, but having large Conscientiousness they do right because it is right; hence we find many an upright man who has but very little regard for things spiritual and sacred.

Benevolence sometimes becomes the master spirit, and the philanthropist makes a specialty of his brilliant endeavors. Mr. Bergh has large Benevolence, and fortunately he devotes himself to the speechless animals, who have been abused beyond mention, and now everywhere, under the blaze of civilization at least, the officers of the "Society for the Prevention of Cruelty to Animals," are supposed to be going to and fro, and when a man is seen to whip his team in anger, and some respectable man stops and looks,

the irate Jehu will put up his whip, and let his horse rest a minute or two and get breath, and then he will go of his own accord; and Mr. Bergh has done a great work for the horses, and for the men who own horses, and has taught kindness and humanity and self-restraint to those who drive other people's horses, and every owner of a horse in the country could afford to pay five dollars a year to the maintenance of that excellent institution.

It is amusing to see how Benevolence will excite Combativeness; if one having large Benevolence sees a horse, or a child, or other person abused, how quickly it will arouse Conscience, Firmness, perhaps Self-esteem and Combativeness, and the man is ready to fight in defense of the defenseless; kindness excites the spirit of chastisement, and it frequently happens that Mr. Bergh's officers have a sharp set to with selfish, half-drunken men, who are trying to wreak their anger by abusing the horse.

Hope and Spirituality work as coadjutors; Faith or Spirituality gives us a belief in the possible, while Hope gives us the disposition to expect what we desire; many a man believes that much is possible, but he has not Hope to expect what is possible. Some have great Hope, and yet moderate Faith, and they are somewhat in the condition that Pat was about his pig when it was killed; somebody asked him how much the pig weighed, and he replied, "He did not weigh half as much as I expected, and I never thought he would."

Sometimes people lack Conscientiousness, and have wonderful Caution and Approbativeness; these organs being located in juxtaposition with Conscience, help to spur it up and excite it, and a man with small Conscientiousness will do very much more if he have Caution and Approbativeness large than if they are deficient. Sometimes Approbativeness seems to be almost the only Conscience a person has, it works instead of Conscience; with such a person the inquiry is not "What is right?" but "What will the people think?" "What will the public say if I do, or fail

to do, this or that?" Sometimes men are sent to church through the activity of Approbativeness or fear of public sentiment.

As Veneration or the sense of God is a centre faculty, coming in contact with all the other organs, it naturally tends to excite each and all, as it sits regnant in the centre of the top-head; it is a pleasant fancy at least to think that it is the crowning element of the mind, and broods over all men's conduct and character. The Bible says, "The fear of the Lord is the beginning of wisdom," Man recognizing a Supreme, just and merciful Ruler of the universe, will see and feel the propriety of every law of justice, of prudence, of respectability and kindly and friendly sympathy; thus Veneration may become a centre faculty, the inspiration of all the others, and we always have a feeling when we find the moral organs large, and especially Veneration, that the person has an alliance with the higher life and that the common and subordinate duties are much more likely to be respected and reformed, than when we find Veneration moderate. It is a great defect in character, to lack the respect which Veneration, imparts towards eminent and venerable human beings, and towards that which is highest and best in all we think and know.

SEMI-INTELLECTUAL SENTIMENTS.

This class of organs is located in the region of the temples, and when large, gives width to that region upward and backward from the external angle of the eyebrow, and an expandedness to the upper part of the side-head. In this group are located Constructiveness, Ideality, Sublimity, Imitation, and Mirthfulness. These faculties tend to humanize, and refine, and elevate life and character.

CONSTRUCTIVENESS.

Constructiveness is eminently an inventive and tool-using faculty; it is possessed by men in common with some of the lower animals; and if we look about us, we shall see that mechanical invention and ingenuity constitute the source

of much of the wealth, and nearly all of the comforts, conveniences, and elegances of life; this faculty, therefore, is one of very great importance. It is located in the region of the temples, backward from the external corner of the eyebrow directly forward of the organ of Acquisitive-



Fig. 136. CONSTRUCTIVENESS LARGE—COUNT VON MOLTKE.

ness. Without the faculty of Constructiveness no man could live where winter reigns three or four months in a year; and we find that in hot climates, where housing and clothing are comparatively unnecessary, the faculty of Constructiveness is not much developed. The North American Indian, living in a cold climate, where he is obliged to fabricate ingenious contrivances for catching fish, killing game, and making for himself clothing and shelter, has a good development of this organ; while in the torrid zone, especially in Africa, the negro is seldom much developed in that organ. When removed, however, to a cooler climate, and work more or less mechanical becomes necessary, this organ becomes better developed than it is among the people of his native land. In any climate suited to the best development of the human race, employment that calls into use Constructiveness and ingenuity, seems to be

about as natural as walking; hence, we notice the little girl enjoys life as well while using her scissors and needle in the construction of dolls' clothes, as she would in mere play and sport; and a boy tries to build a cart, and constructs railroads, and boats, and water-mills, and appears



Fig. 187. PRINCE LUDWIG. IDEALITY LARGE.

to take great pleasure in the processes. There is no education in life in which a good development and proper training of the faculty of Constructiveness would not be a benefit to the person. If he be a



Fig. 188. RUBENS. IDEALITY, FORM, AND COLOR. lawyer, cases arise in which mechanical invention may be in question, or the excellence of workmanship in some manner may be the point, and it is a pity that the great lawyer should have neither talent

for mechanism nor any knowledge or training in respect to construction in general. Three-quarters of the merchants require mechanical talent to understand the construction of the articles which they have occasion to sell; and to be a hardware man, one needs all the talents that are required to manufacture the goods that are to be sold. If we think over the great names which history delights to honor, those who have benefited the world by inventions come to the mind and the lip instantly. The steam-engine is doing so much, that its inventor, James Watt, may not be forgotten. When we think of electricity and the uses which are made of it, the names of Franklin, Morse, and Edison are suggested. In this age of steam navigation, Fulton, Ericsson, and Roach may not be forgotten. The sound of the power loom and the spinning-jenny reminds us of Arkwright and Slater. Our morning paper should call to mind Hoe, the inventor of the mammoth printing-press. Whatever is made by the sewing-machine will keep the memory of Howe in the minds of the public. And whoever crosses the wonderful suspension bridges of Cincinnati, Niagara, or Brooklyn, will remember Roebling. And the farmer old enough to remember the old-fashion scythe and cradle, will think of McCormack with thankfulness and pride, when he sees the golden harvest or the waving grass levelled without severe labor of man by the reaper and mower. And not to forget the special service of Ericsson in the invention of the propeller steamship, and especially in the total revolution in naval warfare by his invention of the *Monitor*, must lead us to feel that those of the human race most deserving of honor, not to say crowns, must be looked for not alone among poets, and orators, and philanthropists, but among inventors whose inventive talent and skill have made the earth smile with improvements, and changed the solitary ocean into a field of pleasure.

This faculty has two or three modes of activity; one is that of invention, another is that of practical construction. It some-

times seems to work with perception, and then the development is toward that group of organs. When the mind takes on the financial speculative spirit and Constructiveness seems to be the chief factor, it works in conjunction with Acquisitiveness, and the two organs will seem to be developed, as it were, from one base. When it works in the direction of invention, the development is upward in conjunction with Ideality; and the practical phrenologist will readily infer the mode of activity.

IDEALITY.

Ideality is located directly above Constructiveness, and its office appears to be adapted to appreciate and minister to beauty, perfection and refinement. The artist whose skill is employed in works of beauty, must have this faculty strongly marked. We look abroad into life, and find that nature is full of beauty; utility seems to be sought in a thousand things, but generally that utility will be glorified by beauty. The orchard is fragrant and glowing with blossoms, even the thistle, which is a standing declaration of war against nearly everything but donkeys, who are said to eat it, is surmounted with a crown of glory. In the depths of the sea, shell and the coral bespeak beauty in a thousand forms. The taste for decoration and elegance which is manifest in a thousand ways of dress, and houses, and furniture, and with almost everything that has a utilitarian purpose, must be crowned with ornament. Ideality enjoys beauty of thought, of motion, of language, and of colors; co-ordinating as it does with the faculties which produce these results, it tends to beautify the whole. Without Ideality a man's language may be logical, but it will be as dry and as sharp as a last year's chesnut-burr. We find strength in straight lines; but the curved, by mechanism and art are employed to give beauty as well to articles of strength, and thus the most massive machinery will have its graceful lines and its decorative forms. Ideality seeks elegance of diction; it does not ignore logic,

but adorns it. It seeks the truth, but chooses a beautiful dress in which to clothe it.

SUBLIMITY.

This faculty becomes a co-worker with Ideality and Constructiveness, in the tendency which it gives to enjoy and deal in that which has grandeur. One can not cross the Brooklyn bridge without feeling a peculiar inspiration of Constructiveness when he considers the combinations that go to make up that wonderful structure, and as soon as his mind has comprehended the construction, and feeling, as it were, the strength and stress of each part, and how they co-ordinate to make up the ultimate of strength and harmony of power, all at once there flashes over him a sense of the greatness of the work; if he lift his eyes to the granite towers that seem to challenge the sky and the storm, it almost takes his breath; then those long stretches of cable, sweeping from shore to shore with graceful curves; and taking the whole structure into one whole grand idea, a feeling of sublimity is awakened; the question leaps to the lips, "And has man, puny, slender, small as he is, done this majestic work, wrought out this mighty plan to span the stream?" If one sailing up the harbor gets a good view of the bridge two miles away it looks like a delicate, slender structure, and the sustaining cords which attach the roadway to the cables, that seem large and strong when one is present, dwindle into thin, almost spider web lines in the distance, and then Ideality takes it as a picture of beauty, harmony, elegance, and even delicacy.

Men in whom this faculty of Sublimity is strongly marked, especially if Firmness, Self-esteem, Combativeness, and Destructiveness are well marked, enjoy grappling with great works like the Brooklyn bridge, the tunnelling of mountains, making aqueducts, rending of rocks, and lifting ponderous weights, and building structures that are marvels of bulk and power; while a man with large Ideality, Constructiveness and a Mental temperament, with

but medium Firmness and Self-esteem and Sublimity, and the organs of force moderate, will dwell with delight on the little, the ornamental, the delicate; he will enjoy working at jewelry, at fine engraving, and the lighter kinds of mechanism.

A man was under our hands for examination; we found in him a combination which indicated a desire to do something startling, large, brave, peculiar, and we described him as fond of engineering, blasting rocks, tunneling mountains, anything that would furnish an outlet for force, and that grasp of spirit which seeks to master the ponderous and the resistant. When we had finished the examination, we asked the name to attach it to the written statement, and he looked up with a puzzled, queer expression, and answered "John Smith"; we entered it on our book of record as "John Smith" to be attached to the statement, and then inquired where we should send the document by mail, and he said "I will call for it;" and at the time appointed when it should be done he came in, read it carefully, and found that all the statements were faithfully copied, and looking up with a smile said, "My name is not John Smith. I gave you that name because my name is peculiar, and you would have remembered having heard of it, and I did not wish you to hear until I had got the full report copied and in my hand, and I wished to get the statement without any inkling on your part as to my name and career." He then said, "My name is Sutro, the maker of the Sutro tunnel so called, which drained the great Comstock mine near Virginia City, Montana."

Readers who may not be familiar with the matter, will understand when we say that the mine had been sunken into the mountain to a very great depth, and the water came into it so rapidly that it cost too much to pump it, because the heat in the mine had become very oppressive and it was difficult to ventilate it, and they were about abandoning one of the richest mines the history of the West had revealed. Of course it was talked about, and while engineers did not solve the

problem, a man in San Francisco, whose pursuit and occupation was that of a tailor, studied up the subject, quietly stepped from the board, and commenced at the base of the mountain, ran a tunnel in on a slightly upward grade, and tapped the great mine, allowing the water to flow out, permitting the air to work its way in and ventilate the shaft and the works, and thus furnished a channel for a railway to bring out the material from the mine, without the labor of lifting it to the mountain top, and this man was Adolph Sutro. He had in his organization the tastes which belong to such engineering, and when the want of such a work came to his knowledge, his Constructiveness, Sublimity, Combativeness, Destructiveness, Firmness, Self-esteem, and Hope, with large perceptive power, combined to bring out the result; he was an engineer and did not know it, but common engi-



Fig. 139. LIEUT. JAMES B. LOCKWOOD, the Arctic Explorer. **SUBLIMITY AND IDEALITY LARGE.** He went nearer the North Pole than any other man.

neering would not have aroused him, would not have developed such activity in his strong faculties, but he could see a million of money for himself, and such prosperity for the interests involved, as to make his own reward sure, and he made a single bound from the tailor's bench to successful engineering. It was said of Roger Sherman, that he laid aside his shoemaker's apron and signed the Declaration of Independence; the shoemaker's bench contained a statesman, and the fatherhood of an eminent posterity, and the occasion called him out.

IMITATION.

This faculty seems to be a modifier, it works in every direction ; it teaches us to imitate in the way of art and mechanism, in the way of manners and habits, whether religious, æsthetical, intellectual or social



Fig. 139. GEN. J. A. MARTIN. IMITATION LARGE.

or selfish ; if a child sees selfishness manifested by his seniors or his equals, he repeats it ; and if good manners are exhibited Imitation leads it to conform to it. The little rag pickers in the gutters of Paris speak and act with the politeness of well-bred superiors. A girl eight years of age will call one of seven "Madamoiselle," and the seven-year-old child will speak to the one who has the good fortune to be her senior as "Madame"; of course this is an imitation, but it is an excellent thing to imitate. As Imitation leads to conformity, the tendency to copy is a wonderful educator of the young and of the uncultured, and if we have Veneration enough to respect our seniors, if we have taste enough to appreciate their superior culture, Imitation inspires us with the idea of doing likewise, then we get the approval of Approbativeness, and we come more into the socialities and the blessings and immunities which they bring, by a successful imitation of the

usages and habits of those who may be superior to us ; in fact Imitation enables people one step below to form an alliance with those above them, and thus it becomes an elevator ; it sometimes is servile and ridiculous, nevertheless it points in the right direction, and is, on the whole, a blessing.

THE PERCEPTIVE ORGANS.

The organs of Perception are located above the eyes, and occupy in the brain the convolutions of the base and anterior part of the frontal lobe, and constitute about one-third of the depth of the forehead, beginning at the arch of the eye. These bring us into relation with the external world, and enable us to recognize the conditions and qualities and peculiarities of matter. This group of faculties when strong give practical judgment, business talent, and common sense, and when we analyze their action, we will see the value of their separate as well as their combined action.

INDIVIDUALITY.

This organ takes cognizance of things as things, without any regard to their form, density, magnitude, or color. If one takes up a handful of pebbles and sand, each grain of sand and each pebble is an individual thing apart from other things. It has been said that Individuality recognizes the "thingness of things," the quality of being something, no matter what, whether a grape, or leaf, a twig, an insect, an ox ; it is a something separate and distinct from other things which we can see, feel, conceive, or imagine.

Those in whom this quality is strongly marked, are quick to notice everything that is presented to the eye ; and it goes farther, and enables us to recognize that which we touch, or sounds that we hear. The rattling strokes of a drum are distinct noises, and each is an individuality.

There are those who seem desirous to see a great many things, and do not stop to study the nature and quality of things they observe. For instance, if there are many pictures on a wall, they are to such

persons so many individualities, whether portraits or flowers or animals or landscapes or insects; and we have seen persons go from one end of a room to the other, thus filled with pictures, and apparently not study any one, except to see that it was not the one they had just before seen.

This faculty co-operates with others in calling attention to that which may be beautiful or valuable or useful. An uncut diamond and a bit of quartz in a heap of sand might look very much alike, and Individuality would see the two as things without regard to their relative or real value; but if other faculties of this group



Fig. 140. SIR J. A. MACDONALD. PERCEPTIVE ORGANS LARGE.

In traveling, a person with large Individuality desires to sit by the window, and will thus sit all day to see rocks and stones and trees and cattle and the same things repeated. To a person of artistic taste, the scenes that are thus devoured by the mere observer are regarded as well for their beauty. Occasionally an artistic person will see a vista, a natural picture, that would look well on canvas; he sees combinations of beauty, but a mere observer might think it uninteresting. A child will pick up chips and bits of cloth and buttons and pebbles and have a basketful of those (to him) precious things, without doing more than to pass them over and look at each one without any apparent study of its uses or qualities; he would call the collection "A mess of things."

were to study the qualities belonging to the observed articles, new and beautiful recognitions of quality might be seen.

FORM.

Form is located between the eyeballs, and, when it is large, pushes them asunder; in anatomical parlance, it is in a convolution of brain, located on each side of the "crista galli," on the plate of the ethmoid bone, directly back of the nose, and the width between the eyes is the indication of its development. Everything has Form, and that is the second quality which we recognize. First, that the thing exists; this comes from the faculty of Individuality. Form next considers it, and it is of *some* shape. No two grains of sand will be found of the same

shape; no two leaves on a spray are of such shape as to be identical; hence the faculty of Form recognizes the difference.

This faculty remembers countenances. It aids in drawing, copying, sketching, shaping things by the eye. Persons who are cutters of clothing or boots, or who are skilled in ornamental decoration, need this faculty. Form can be wrought out by rule; we can strike a circle with a compass; we can make a square, triangle, oblong, or a cylinder, with instruments;



FIG. 141. HARRIET HOSMER, Sculptor. FORM, SIZE, WEIGHT, AND ORDER LARGE.

but whatever the form, this faculty judges it, and aids in the production of it, especially if it be done without instruments. The man who takes a piece of chalk at the blackboard and tries to draw a circle, will see that he has more or less facility. Some would draw a circle almost equal to instruments. Let a man try to make a square or triangle without measuring, and he will see his facility or lack of it. In penmanship, as in other kinds of drawing, Form is useful.

SIZE.

The next organ out toward the external angle of the eye-brow is that of Size, which enables the observer to measure magnitude and distance. Two articles may be of the same form, yet of very different size. In sportsmen's shot we have a birdshot and a buckshot, and grades running all the way through. The form

of each satisfies the faculty of Form, but the faculty of Size is required to detect the difference between the larger and the smaller to the lowest grade

WEIGHT.

The next organ is Weight, which is located above the inner part of the eyeball, across the ridge of the brow, rising somewhat above it. This enables us to recognize the law of gravitation, as it acts upon objects which we lift, or as it acts upon our own persons. The design of the faculty seems to be primarily to aid us to keep our own balance, and in perceiving and obeying the law of gravitation. Those in whom it is best developed walk with less surging, with more grace, and a better balance; they dance with more ease, they work at anything with more harmony and a better adjustment of force than those in whom the organ is less developed. In the process of intoxication, the faculty of Weight seems to be chiefly disturbed. Men sometimes see double, it is said; that is, doubtless, a disturbance of the organ of Individuality. Men who are expert in handling a rifle, or who can play billiards with skill, or balance on horseback, or on the trapeze or the tight or slack rope, must be prominent in this faculty. Blondin, who crossed the Niagara river on a rope, had the organ very large, and it was noticeable in his photograph.

COLOR.

See Rubens, Fig. 137.

Color is located on the brow almost directly above the eyeball, or of the outer half of the eyeball, and gives an upward and forward arching of the brows. Those in whom it is large and active experience great pleasure in studying colors, and are adapted to become colorists or painters or dyers, and know when the right shade is attained. Persons who are in variety stores, and those engaged in millinery or in the manufacture or sale of dry goods, should have the organ large. The world of beauty, as evinced through the myriad shades of color, is rich in its manifesta-

tions of enjoyment to those who have the organ large.

In our large public parks the landscape gardeners have studied and arranged the mere color (green) in the foliage of the trees in such a way that a man can stand at one end of a drive and have twenty-five or thirty shades of green under the eye at once. There will be trees, the dark shade of whose green borders on the black, as seen contrasted with the very light green of another tree; so all imaginable shades of green are thus represented, and in driving for miles hardly two shades of green can be seen alike at a given sweep of the eye. Then the realm of flowers and fruits and shells and the plumage of birds opens a world of enjoyment to one who is well endowed with Color.

ORDER.

Order is the next organ in the range, and almost explains itself; its very name tells what it is for, and those who have it well-developed will feel and appreciate it without remark.



Fig. 142. RICHELIEU. ORDER AND CALCULATION LARGE.

There is as much difference in people in respect to order as in respect to color. Some are satisfied to have everything mixed; all they want to know is that the article is in the drawer or bag or basket, and they will mine for it; another will have all things fixed—a place for each thing and expect to find it there.

A venerable gentleman of Philadelphia whom we knew, named Townsend Sharpless, was a merchant, but he had a tool shop where implements were kept, and he arranged them according to his idea of propriety, had them hung on the walls so as to occupy all the space, and then he employed a painter to paint the form of each tool as its shadow would be cast on the wall when it was hung in its proper place—then, no matter who took down a tool, he would always know by the picture of it where to hang it when returned.

Those in whom this is well developed can find their books in the library, their dishes in the pantry, their things in the drawer, and if called suddenly in the night-time will go to any drawer or pantry, and with very little trouble lay their hand on the article required. They have a systematic way of laying off their clothes at night; always do it in the same manner, and put them in the same places. In short, everything they do is systemized, and people learn what their custom and rule is, and do not need to violate it, to the annoyance of the master or mistress or friends. We know persons who, if another came to their desk in their absence and took a pen, an eraser, a paper-knife, or a bottle of gum for a minute's use and purposely tried to put it back the same as it was found, the owner would know on returning that it was not put just where and how it was kept.

If the faculty of order were abrogated in a whole community, as it seems sometimes to be in one person, it would make a great disturbance; and when we think of the wonderful order that is kept in nature, especially in the motions of the planetary world, it would seem that "order is heaven's first law" indeed.

CALCULATION.

Calculation relates to numbers or to numerical calculation—it is the multiplication of individualities. A handful of sand is recognized by Individuality as being a congregation of units, and Calculation undertakes the process of numerating the units and finding out the number; dis-

cerns that two are more than one, and three more than two, and so on to the end; it is an element of course, in accounts, and the basis of the great science of mathematics.

Some people are counting constantly. We have just received a letter, in which a lady is described as having a mania—at least, a persistent habit of counting things; but she counts five, and then five more, and asks how she can get rid of the tendency. There are others beside her who have a passion for numeration. We knew a lady who counted the stitches of a whole evening's knitting; she could not knit without counting the stitches, or she felt lost if she did. Others count the steps from one place to another.

One man would say it is four hundred or eight hundred steps from the house of A. to that of B; another counts the steps that enter a house; or that go from one story to another, and knows every flight of stairs in the house in respect to its numbers and also the numbers pertaining to the stairs of neighbors' houses. Another will count his inspirations of breath in walking or riding from one place to another place. Numbering the times that we step or breathe seems to cut the distance up or shorten it.

THE SEMI-PERCEPTIVE OR LITERARY FACULTIES.

Those are Locality, Eventuality, Time, Tune, and Language; they have an intimate relation to the perceptive organs proper, which have to do with the existence and quality of things. If there be individualities, and those have form, size, weight, color, order and number they must have a place, a situation, they must have relative positions, and Locality takes that fact into account, if there be any occasion, in connection with things; if any effort be made in the way of force, Eventuality which is the natural historian of the mind, takes into account transactions. The part of speech called the verb, is the quality which belongs to action or doing, is recognized by the faculty which takes account of events, and when an event oc-

curs at some place, it must be at some time, and the faculty called Time is present to take note; and when a man tells an anecdote, and tells when it happened, and where it happened; if he describes the forms, and qualities, and peculiarities of the factors which entered into the transaction, all the perceptive and semi-perceptive faculties may be brought into use. Time has to do with periodicity, as Eventuality has to do with occurrences, and Locality to places. Time is also co-ordinate with Tune, and with Language; the musician, the public speaker, the conversationist need both Tune and Time.



FIG. 143. ADELINE D. T. WHITNEY, a fine writer of prose and poetry. See also Figs. 19, 26, 29, 33, 35, 70, 95, 109, 117.

We sometimes hear speakers that will rattle on their words, and pile them in heaps, blend them together, so that it is extremely difficult to understand; while others, whose Time and Tune are well marked, with perhaps strong Individuality and Number, or Calculation, will enunciate with definiteness; they will articulate their syllables and words in such a way that there is no confusion to the sounds, and such a speaker may be heard with very little effort on his part, to the remotest corner of the auditorium, while

another will rasp his hearers with his strained voice, but there is a husky mixing of words and syllables, to an extent that makes it difficult for persons not far from him to hear distinctly what he says. In colloquial discourse it is not uncommon to hear people utter sentences as one might throw a shovel of coal, all in a heap, and one must know the voice well, and also what kind of answer is to be expected, in order to make it out. We remember a clerical friend, who was a marvel of distinctness of utterance, and he came into our office and left a little four-year-old girl, during our temporary absence, and went out; on coming in the writer said something to the child, and she answered with such peculiar distinctness and precision of tone and utterance that it instantly reminded us whose child she must be. We then inquired, "How many brothers and sisters have you?" Her reply was "There—are—three—of—them"; and the incident was exceedingly interesting and amusing, the exact repetition of the father's style of expression and distinctness of utterance, was an evidence of the law of inheritance, and also of the law of training; she had inherited the tendency to speak distinctly, and the example added to the inheritance had made it perfect.

LANGUAGE.

LANGUAGE combines with all the faculties; its nature is to give expression by words; we sometimes widen the thought to that of pantomime action as well as utterance.

There is no doubt that animals can talk to each other, they express their wants and wishes, they negotiate and form plans, and some of these are so significant, it would seem as if they could also use the power of reasoning to a considerable extent. As an incident illustrating the conversational ability of animals, we may refer to an anecdote which recently appeared in one of the London magazines, written by a clergyman. It was this:

"Within sight of his window, connected with the wing of the dwelling, there was a narrow recess in which a pair of swal-

lows builded their nest. The recess had considerable depth, with one opening; they went back perhaps a foot under the cover and got their nest completed, and they flew away for a kind of 'honeymoon' previous to setting up housekeeping. Meantime a pair of sparrows came, and took possession of the nest, and when the swallows returned, and the time had almost arrived for the first egg to be deposited, the birds that owned the nest, were astonished and annoyed and angered to think that their handiwork, their home, their nest, had been stolen; they flew about and scolded, and the sparrows sat there, and would bite at the owners of the nest when they approached too near. The swallows, seeing that they were not able to contest the matter with an equal number of sparrows, flew away, and in half an hour came back with a dozen others, and then the battle began, but the swallows were poor fighters, and the sparrows being the pugilists of the air, on a small scale, were able to hold the nest. The flock of swallows retired, as if abandoning the nest, but in a short time swallows were coming in from every direction in squads, until there were hundreds of them, and they did not attempt to drive the trespassers away, but they began to bring mud, and four or five swallows, acting as masons, built up a wall in front of the nest, shutting in completely the sparrows with their stolen nest, and hermetically sealed it in a very few minutes; while fifty swallows were bringing mud, the few that could work at it were piling it in the wall, and then the sparrows and the nest being disposed of, utterly imprisoned, the swallows brought material and built and finished a nest in front of the mud wall, and yet under cover of the building, and the same day, or the next day, a swallow's egg was deposited." The truth is, the bird wanted her nest for the purposes for which she had built it, and the other swallows knew it, and they helped her out of the trouble, and executed capital punishment upon the invaders. There is another story, of a dog that, following his master's wagon to the market town, had been assaulted and

severely whipped by a big mastiff that came bounding down the lawn, and without just cause had severely punished the passing stranger. The small dog was too much injured to follow his master, and made his way home two or three miles back. In the course of a week or two, he had become so far recovered that he could sally forth again, and it would seem that he had communicated his mishap to all the dogs in the neighborhood, and one morning when the master started for market, our little maltreated dog, with five or six others that were larger, and one bouncer, equal to his enemy in size and strength, started with him, and thus they trotted along, and they must have had a signal agreed upon, as Judas did when he said "Whomsoever I shall kiss, that same is he, hold him fast," and when they reached the farm where the old battle had been fought, the flock of dogs had been left a little distance behind; the big dog came out to repeat his cruelty, and the little fellow pitched into him as if he were able to give him battle. The crowd of dogs that came there to avenge the insult and injury, pounced upon the invader and left him dead; his big antagonist had taken him by the throat, while the other dogs had belabored him until his breath was gone, and then all the helpers turned about and trotted back to the place where they came from, and the little dog hurried on uninjured, rejoicing in the retribution, and overtook his master.

Articulate speech belongs to the human race, though parrots and some other birds learn of men to speak; but the chattering of geese, and ducks, and sparrows, and other birds is doubtless articulate to the ears that are native to it; they understand each other as we understand ourselves; their language doubtless being simple, according to the instincts and talents and wants and dispositions that constitute their mental life.

If any one of the perceptive or semi-perceptive organs be comparatively weak while the others are strong, there is a deficiency in the manifestation; many a person is rich in knowledge, but weak in

speech; another is redundant in speech, and not very strong in the philosophic side of the mind; he talks much and says little. Where all these organs are of equal and large development, a person will take in all the shades and peculiarities of things and life and action, and if endowed with good Language will be able to express in a clear, full and efficient manner all the facts, their shadings and blendings, which he has been able to comprehend.

THE REASONING ORGANS.

These are Causality and Comparison, the first gives a logical tendency, the ability to plan and understand causes and effects. There are those who have wonderful practical perception, but not so much of what should be called intellectual grasp, or comprehensiveness of thought; they



Fig. 145. PROF. H. A. NEWTON, of Yale.

President of the Scientific Association. A fine Mental-Motive temperament. We notice that the head is lifted upward and forward, so that from the opening of the ear to where the hair joins the forehead, the length is great; his knowledge of character, power of criticism, ability to think and make sharp analysis is his forte.

perceive the outward things; doubtless a dog sees as well as his master does all that comes within his range of vision, but he does not see it in the light of higher logic, or in the light of art as men do; some men will gather history, acquire in-

formation, learn all the practical details of business, and yet can not conduct a business, can not see beyond the reach of their eye; while, with large Causality, a from the beginning, and from things present reach back to their origin. Comparison, working with Causality, gives the power of analysis, while Causal-



Fig. 146. ADELINA PATTI. HUMAN NATURE, AGREEABLENESS, AND THE REASONING ORGANS LARGE.

man will close his eyes, will see into the future, and study causes and consequences, and relate himself to that which is distant in time and place and condition; he has excellent common sense, and he has a strong tendency to be logical, to study the why and wherefore, and know the end ity gives the power of synthesis; Comparison takes the subject to pieces, and studies the differences and peculiarities, while the reasoning powers combine to put together forces, or comprehend the combination of forces. When the upper part of the forehead is largest, there is a

tendency to be abstract and heavy and apparently dull ; such men should relate themselves to persons who have large perceptive organs. The head of Lubbock, Fig. 108, shows great grasp of thought, while John Stuart Mill, Fig. 116, and C. E. Cady, Fig. 109, show wonderful perceptive power, while Thos. Sterry Hunt, Fig. 117, shows a large development of the semi-perceptives, as well as the perceptives, and a fair development of the reasoning organs, especially Comparison.

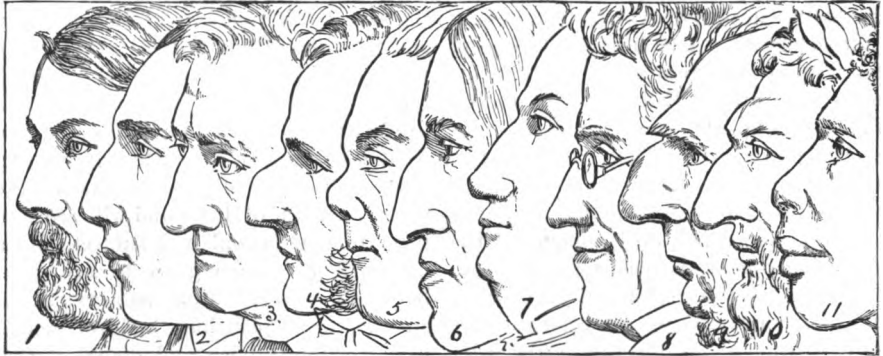
Persons with large Causality will give, in their conversation, an explanation or an exposition of a subject from first principles, while one with a predominance of Comparison, will use parables, figures of speech, will remember and utter fables, will give illustrative anecdotes, especially if he have large Eventuality and Language.

HUMAN NATURE AND AGREEABLENESS.

Working with the intellectual faculties, we have Human Nature and Agreeableness, though they seem to stand as a kind of arbiter between different groups of faculties. The first appreciates disposition, the upshot and make-up of a stranger, and according to the sagacity which this faculty imparts to an observer, will he relate and co-ordinate his other faculties in their treatment of strangers. If the faculty of Human Nature sees in a man a lordly, selfish, hard person, Caution, Approbation, Secretiveness, perhaps Benevolence and Ideality, will be awakened to the fact that the stranger needs to be rubbed the smooth way, then Agreeableness comes in to apply the remedy ; if through Human Nature one sees in a stranger a person who can be dominated, who needs to be advised and expects it, who wants to be assisted in making his selection in purchasing, or deciding what it is best to do, the observer will reach a conclusion as to which method will best serve the object or occasion of their meeting ; hence a person is silent and dignified, is modest and deferential, is arrogant and stiff in his treatment of a stranger, according to

what he sees in the stranger may be required. A man who travels as a canvassing commercial agent, will have as many sides to himself in a day's work, as he meets of different characters, and according as the faculty under consideration exerts influence with him, in teaching him what the stranger he meets may need in order to produce desired results, all the other faculties of his mind will seem to bend to that errand and subject, and a man will go "from grave to gay, from lively to severe," from subservient to austere, from plausible, mellow, genial, to a spirit of advice and dictation, and succeed in every case. And there is no fraud in this. A man is not obliged to sell to the modest, quiet man, goods at any other prices, or on any other terms than he would condescend to sell to the arrogant, lordly man ; he may sell all day, on the one price system, and treat everybody alike as to the absolute facts, and yet he will tell one man how much he ought to have, and give it to him, and not overload him. He will modestly leave one lordly man to select what he wishes, and give him all he requires, and so changing with every variety of character, and this illustration may be applied in as many ways as there are different characters to be met. The man who has caliber and can do this succeeds. In fact, a man who understands men needs less force and talent to succeed.

AGREEABLENESS seems to work with all the faculties, and will serve to lubricate them and make their action acceptable, after Human Nature has taught us how the person being treated ought to be dealt with, and how to utter disagreeable truths without giving offense, and make the language and conduct welcome to others. Agreeableness tends to put honey into the voice, and a wavy ease into the gestures and the bow, and the possession of it is a fortune to a man who has a good general organization, for he can occupy places of difficulty where most men are too tart and curt to be employed, and he will make himself so useful in the business that he will seem to be indispensable.



1. JAMES PARTON. 2. A. M. RICE. 3. WM. M. EVARTS. 4. GENERAL WISEWELL. 5. EMPEROR PAUL OF RUSSIA. 6. GEORGE ELIOT. 7. KING FRED'K THE STRONG. 8. PROF. GEORGE BUSH. 9. GENERAL NAPIER. 10. OTHO THE GREAT. 11. AFRICAN.

PHYSIOGNOMY, AND THE NATURAL LANGUAGE OF THE FACULTIES

Everything, from head to feet, of form, size, and action, indicates, in some degree, the character of the individual, or state of mind and feeling in exercise for the time being. The arching or depressing of the eye-brows, the full opening or partial closing of the eye, the pursing or pouting of the lips, the firm set jaw, the elevated head, the lofty shoulders, the stiff attitude, the dignified and stately step, or the reverse of this, will impress each observer in respect to the changing moods which may exist in a given individual. A horse pricks up his ears when he is interested or pleased, or puts his ears back if a motion be made that displeases him.

Each of the mental organs has its natural language, as shown in pantomime, which is exhibited by the gestures and motions of the head, hands, and body. Children and animals read the feelings of their parents or masters by their motions and attitudes, which are often more influential than words. The brain is the central source of motive and mental power; every action has its root or seat of impulse

in the brain and its connections, and as the mind forms purposes, the will is sent out to the extremities, and the external motions express the inward thought and feeling.

Habitual states of mind tend to produce habitual forms and expressions of face and body; a person who suffers pain for years, will have in the face an expression of the internal state; one who has been nurtured in gladness, though the face may not be beautiful, it will wear the sunshine of joy; one who has had care and responsibility, will come to show it in the face, in the walk, and in the voice, as one who has been subjugated and kept subordinate will have the word humiliation written in his features not only, but in all his movements and attitudes. It is interesting to observe an individual who is acted upon by different and contradictory influences. Let the reader watch two young girls as they are engaged in animated conversation. The speaker suits the action and facial expression to the thought she is uttering, while the listener will have a smile or a cloud flash over her face; there will

be a frown to her brow and eye, and as the sentence changes in its nature, the face will be lighted up with joy, pleasure, mirth, and interest, and thus her face becomes a kaleidoscope, expressive of the subject matter which is being uttered to her. Watch the speaker, and you will

and looks sour, her Combativeness and perhaps Self-esteem are excited, and when she smiles at the next breath or sentence, her Approbativeness, Benevolence, and Friendship are awakened.

In the illustration, Fig. 147, are two characters, as different as circumstances



Fig. 147. SUBMISSION—AUTHORITY.

see her mouth smiling approbatively, or the lips will pout and curl in contempt or anger at the very next sentence. For instance, we may hear her say "I don't like her, she is real mean," and she will look sour and bitter for an instant, "But Katy is real nice, I think ever so much of her," and the sunshine of pleasure wreathes her face in smiles. The phrenologist understands that when she frowns

could make them. He who stands erect, with head thrown upward and backward, showing a large full crown as the seat of pride and Firmness and positiveness, with his full and proudly expanded chest, with one hand in his embroidered coat front, and the whole attitude one of dignified pride and positiveness and severity, the features meanwhile with their rugged sternness fixed in hard keeping with the

whole body, and the dispositions which are distinctly seen in all the form and pose of the person, combine to show him to be a man that will never be trifled with; he is the "Man of Authority" and property and standing and power, accustomed to give orders and be obeyed. His very looks are law, and if he but nod the head, or point the finger, those having less of the characteristics of power and dignity, instinctively obey his will. The "Submissive Man," whose back is half bent, whose hips look as if in an irresolute position, his knees suppliant, and his feet occupying space by permission, not by right; his down stretched arms, holding his hat, and the crown of the head at the region of Self-esteem and Firmness in striking contrast with that of the other figure; his soft and infirm face, his yielding and submissive countenance, his flabby lips and irresolute chin and cheeks, show him to be the tenant in arrears of rent, standing in the presence of his lord, or landlord, pleading excuses for his inability to pay, hardly daring to expect leniency, and fearing eviction; the plea of short crops through drought, or by destruction of crops by insects, or through through too much rain, or frost early or late, avail little in the presence of such dignity and domination. The submissive man expresses in every appearance Veneration and deference, and utter lack of dignity and pride. The heads of these two figures are directly opposite in the development of Firmness and Self-esteem, and of Benevolence and Veneration.

If we could reverse their relative positions, then the tenant would stand erect and the landlord would receive him with the most gracious bow of condescension. The present landlord has the development of body and brain which belongs to or grows out of long usage in being master, while the poor tenant, owning no land, and cultivating it as it were on sufferance, is robbed of his dignity and individual selfhood; and his Veneration and Benevolence, the elements of subordination or humility are, on the contrary, strongly developed.

The contrast in the attitude of these two persons is not greater than that in the conformation of their heads, and the expression and build of their faces, and these differences of appearance are justified by the differences in their organization. Our lordly dignitary, destitute of Benevolence and Veneration, but amply provided with Self-esteem, Firmness, Destructiveness, and Combativeness, is not a man to relax his hauteur and importance; he seems to enjoy the degradation of his subordinate. We may learn from his development of the organ of Language, which swells the lower eye-lid, that the harangue with which he rebukes the delinquent will be no less prolix than severe; the gift of speech is sometimes lavished on a man who abuses it prodigiously; others, on the contrary, have extreme taciturnity; excess in one case, defect in the other. It need hardly be said that these persons exhibit the extremes of arrogance and submissiveness. If we can imagine a just medium between these two extremes of character, we will then have no excess, but everything needful to secure efficiency, self-reliance, and avoidance of that weakness which spoils the one, and that arrogance which makes the other offensive and tyrannical.

Physiognomy, we use the term in this case in its broad sense, not meaning merely the cast of the eye, or the pout of the lip, or the length or breadth of the nose, the peculiarity of the chin, but the whole make-up, involving temperament and the general harmony of character, is a great aid in reading people as they are casually met in daily life. In discussing and estimating character by physiognomical methods, the public generally takes in the whole man; we are impressed by the harmony or want of harmony in the figure, the poise of the head or the shoulders, the hanging of the arms, the firm or shambling attitude of the legs and feet; if a man stands firmly on his pins, and is balanced on his spine as if he were not maintaining his erect position by voluntary muscular effort, but as if he were built for a harmonious well poised man,

the general impression and frequent expression is "He is a fine looking man." there is nothing to criticise, everything is so harmonious that a general commendatory remark, if anything be said, will be the result.

It is interesting to sit on a balcony, where one can watch the facial expression of half a dozen persons who are looking at the passing throng. One man comes stubbing by; he is stumpy, with short limbs, and body all the way of a bigness, a childish face, and with no point or positiveness in his whole make-up; another is tall, bent, lithe, swings as he sweeps along, and his motions natural and easy but aimless; another is tall, angular, stanch, gaunt, muscular, positive, as if he were half angry and in a hurry; and the faces one finds on the balcony will put on a new expression as each person of diverse form and motion passes. Then the strong, loud, and coarse methods of dress; some affect a finical precision, a kind of "Don't touch me" appearance; one prides himself in his neat foot and polished boot, and steps as if the earth were hardly good enough for his precious feet; another is proud of his hands or his gloves; another of his necktie; another man's central point of thought seems to be his moustache; another will nurse a long beard, and pet and coddle it, as if it were the object of his thought, and the god of his idolatry; another is fond of his hat; we know several persons who take pride in a very broad brimmed soft hat, which they wear jauntily, and have the crown run up to a point, or it is dented into Alpine spurs or other grotesque form; another cherishes a shiny silk hat, and whenever he has it in his hand, he brushes it with his sleeve, showing that he does this at home, and unconsciously does it in company, but it tells where the man's fancy is.

A young lady connected with business in New York, rides up in one of the lines of stages to her destination, and by her dress, she exemplifies a peculiar artistic taste; her hair, which is abundant and dark, is not dressed according to the prevailing style, but is divided into strips as

wide as one's finger, and tastily looped up or festooned, and, so far as has been seen, it would appear that it had been carelessly fastened without any regard to duplication, but each lock had a graceful curve on its own account; and then her hat is trimmed with pendant members, and around her neck she wears a scarf made of silk net work and long fringe, maintaining the same thought or taste, and then the jacket or short cloak is trimmed after a similar style; her reticule has trimming with the looped and tasseled swinging sort, and as she gets out of the stage and walks away she attracts the eye of people, but there is an air of ladylike grace and taste and peculiarity about the whole make-up, and the willowy swing of the person, as she gracefully walks, bears out the same idea. The writer being at least fifty years her senior, takes the liberty of observation, without feeling that it is obtrusive, or impertinent, and also without attracting attention.

There is another who rides up in the same line of stages, and her whole make-up of dress and appearance is in direct contrast with the other; her hair is massed into a solid heap, as if it were frozen, and there is a kind of fixed severity in all the outlines of her dress, her form, and of expression of face, and her walk is of the same type; she is solid, healthy, vigorous, has a firm expression of face and lips, and the general features appear about as inflexible as if they were marble, while the other lady has a face of varied expression, mobile, a little lank but very interesting; she never has a set, fixed look, while this lady's look is as fixed as if made in bronze. Now the whole contour and method of dress and taste in displaying trimmings, including the walk, we regard as manifestations of Physiognomy; an outward show of inward character.

With this prefatory thought before the reader, let us look at a few portraits.

Fig. 148, B. F. P., is nearly six feet high, and well proportioned; he has a calm, self-satisfied face, seems impressed with his own dignity and worth, moves among men as if he had no favors to ask,

and was under no compliment to anybody; he seems to have no doubt of his being acceptable and welcome wherever he chooses to go, and takes no second place. He evidently takes much pride in

ologist will recognize Firmness, Self-esteem, Approbativeness, Cautiousness, and Ideality; there is no special expression of talent; good sense and judgment are all that can be predicated of the face; we see



Fig. 148. B. F. P. HARMONIOUS ORGANIZATION.

his hair, and well he may, for it is very nice; he is handsome, and is relieved from any embarrassment which singular and inharmonious features impose; in that face and build of body, that erect and quiet defiance of attitude, the phren-

no look of tyranny, no tendency to lord it over others, but a desire to be admired by respectable people and especially by the ladies. Such an organization enjoys life, and is likely to have and deserve many warm friends.

Fig. 149, Parson Brownlow, was a most conspicuous figure at Knoxville, Tenn., for many years as preacher, editor, politician, and aggressive critic; what audacious expression of face, the nose and the lips, the chin and the broad cheek bone,

him to be honest, and knew him to be plucky, and willing to oppose openly all that he disapproved; he seemed to take delight in pushing his views into prominence, especially if they were deemed important, and more especially if he knew



Fig. 149. PARSON BROWNLOW, OF Tennessee.

wide jaw, and the fullness of the lower part of the brow, as well as the broadness of the head, spell out the literature of audacity and courage. In that face we see no duplicity, but aggressive courage. In his day and time he was a thorn in the flesh of all who, as he deemed it, opposed that which was right; he was a man of wonderful daring, would utter language from the stump, that no other man of his time could utter and carry off his head unharmed. Everybody believed

they would meet with the hottest opposition.

Parson Brownlow and Wendell Phillips were as far apart in their exterior form and manner, and in their style of utterance, as two men could well be, and at the same time they possessed certain traits in common; both were honest, both courageous to the last degree, both aggressive and defiant, and each seemed to take delight in acting upon public sentiment, as the coulter acts upon the soil in

advance of the plowshare, which goes ahead and cuts the turf and severs the roots, and makes it easy for the plowshare to turn over the tough soil.

Phillips was refined, polished, scholarly, pungent, analytical, definite, honest, and as true as steel to his convictions; Brownlow was noisy, broad in his statements, sincere in his convictions, and defiant

of himself. We have seen him stand on a platform in New York, making a speech to people who differed from him in opinion about the subject of slavery; he uttered a polished, bitter, and scathing sentence, which called out roars of applause, and an avalanche of hisses; he stood quietly with one arm behind his back, with his pale intellectual face, and his eye



FIG. 150. WENDELL PHILLIPS, THE SILVER-TONGUE ORATOR.

towards the opposing crowd; he lost his voice at one time, so that he could hardly speak aloud, and he said he was determined to "die game," and if he "could not talk he could at least make faces at the Abolitionists and the loco-focos," he being what was called a Whig, and we think editing a paper called the *Knoxville Whig*.

Let us look at the portrait of Wendell Phillips; the face was classical, the features were handsome, even in old age; he has a broad, strong chin, and therefore unlike Brownlow, always had command

glittering with apparent joy, that he could stir up the elements, and when the applause and hisses that alternated till all were tired, had died down, he reiterated the same statement in a calm and level voice which had called down the storm, and then it roared again; when it ceased, he uttered it the third time; there were fewer hisses, when that ceased he uttered it again, and went on, and if ever an audience was flayed alive, if ever political parties and theological institutions were stung to the quick, for their part in the subject of slavery which he was de-

nouncing, then and there was it done; yet he was not boisterous, his thin hand, delicate features, and slender form did not provoke muscular opposition. If the burly Brownlow had stood there, and uttered similar words, there would have been a riot.

Brownlow had muscular Christianity, combined with talent and integrity; Phil-

and a gentleman from Tennessee heard the lecture, and although Phillips vigorously, without modification or without palliation, scathed the subject of slavery, the Tennessean accepted it, recognized its logic, and believed in it in the abstract.

He started on the Cincinnati train the next morning, and fell into conversation with a gentleman who happened to be at

the lecture and remembered having seen the Tennessean there; and he asked him how he liked the lecture, and he replied, "Admirably; it was God's truth," and added, "Now, if your Garrisons and Phillipses and Beechers would talk as that man did, there would be no just occasion to criticise." And when he was informed that the man he had heard was Phillips himself, though he had the Oliver Wendell as a prefix to his name on the hand-bills, the Tennessean said "Never mind, I won't take back what I have said, I stand by it." The truth is, Phillips had a wonderful method of making that which he said seem to be right, and men had to get away from the place before their previous notions would come back and oust the influence which the discourse had awakened in their minds.



Fig. 151. THE RIOTOUS REGULATOR.

lips did not appeal to the muscular element, never manifesting anything that would excite it, but his polished invective, his vivid arguments, and his scathing condemnation of immoralities as he viewed them, made him a power unequalled in his time during the great excitement of abolitionism.

Phillips was invited to lecture in Cleveland, Ohio, and by a strange and singular blunder, the association which invited him posted the town with bills headed "Oliver Wendell Phillips" will address a meeting at such a place, mixing the name of the "Autocrat of the breakfast table," with that of the autocrat of abolitionism ;

Fig. 151 is also a man of might, but employs different methods from the others in expressing his opinions. When Phillips and Brownlow were excited it set their tongues running, it awakened the intellect, and the moral feeling. When the person under consideration was excited, he stopped talking, and began to use his muscle and his club; in the field of rioting he was master; he had courage, but it was rough; he had opinions, but they were expressed by blows, and addressed to the physical consciousness of his opponents. Every feature of this man; the very form of his hat brim, the grip of his hand upon his stick, the length

of his upper lip, the rough outlines of his face, all mean power, but power in the rougher form, power governed by the base of the brain, not by the top.

Both Phillips and Brownlow have met such men as the man with the club, Fig. 151, have seen audiences where there were perhaps hundreds, ready to wield their force in a muscular way, and though they might howl and threaten they rarely advanced to the conflict; they would expect Brownlow to meet them on the same terms; Phillips did not so much excite the muscles or the passions that find vent through the muscles, as he did the intellectual and moral powers.



FIG. 152. JOHN WESLEY.

John Wesley is another man of mark; the battle he fought was against the wickedness of his time, and often led to noise and riot, but his weapons were of the religious type. His features express decision, positiveness, thorough conviction of the righteousness of his cause, while his large Benevolence, and strong religious feelings, would carry to the hearer assurance that he believed himself in the right.

Here is a fine temperament, sensitive to all that is tender and rich in human

life and experience, braced up by that which is courageous, conscientious, steadfast, and intellectual; the words sincerity, goodness, and intelligent interest in humanity, express much that may be seen in his face, and in the whole contour of the head and body.

There are those who stride forth into the world of effort, and every motion seems a challenge, every attitude a menace to their opponent; Brownlow has something of that appearance. Fig. 151 is a muscular menace, blind to reason and moral sentiment, and his sympathy a factor of unregulated power; while Phillips and Wesley appealed to the better sentiments of human nature.



FIG. 153. HEALTH AND COMFORT.

What shall we say of the physiognomy, of the general make-up, also of the Phrenology, the temperament, and constitution of Fig. 153? He looks comfortable, as if he owed no man anything, and as if he had "much goods laid up for many years," or an income that would supply food and raiment, rest and recreation, and all that the physical man needs without anxiety and without effort; a picture of health physically considered, but no expression of the face which means much; he looks as if he had no special purpose to accomplish, and as if he had never done anything that gave him much anxiety or much pride; his eye is open,

indicating frankness, but not expressing culture or definite opinions.

There is enough of forehead to indicate fair talent, but it does not seem to have been much exercised. His head is broad enough above and about the ears, to give him a fair degree of force, if there were anything to call for it, but he does not look as if he would take much interest in that which should happen to be the bottom dog in the fight; he would say "They have begun it, let them fight it out; neither dog belongs to me."

His development of the superior sentiments would keep him from being suspected of anything detrimental to good morals; he would be more likely to become voluptuous in appetite, and in the pleasures of sense, than he would to do anything offensive to good order in an overt and noisy way.

If we study the faces of Phillips, Brownlow, Wesley, and of our muscular friend, Fig. 151, we shall see expression in all but when we come to Fig. 153, it is difficult to say what definite expression he has, except a good-natured contentment, without an object for endeavor, or any special purpose in life but to have a good time without much effort.

Fig. 154 is an expressive countenance; we may say an open face, an animal face without vicious inclination; his heavy cheek, especially the lower part of it, indicates that the dinner bell rather than the church bell calls him to his devotions; that he loves to eat, that he enjoys nearly everything that is eatable, especially if there is enough of it. Alimentiveness, in phrenological language, would seem to be his forte, that he would meditate on the probabilities and desirabilities respecting dinner, as soon as he had finished his breakfast; would know the lore of the dining-room, more than of the library or the church.

We have seen some men of whom his head and face remind us in a meat market, and if there is anything in the way of work that he would do with a gusto, it would be farming out the roasting pieces in a quarter of beef; he would know

where the tender steaks could be found; he would understand the best cuts, and be ready to cut them; he would charge a high price, and do it with the utmost sang froid; he would never blush if he were caught in making wrong change or wrong

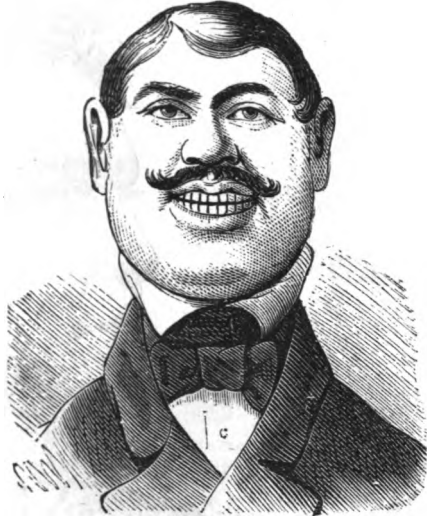


Fig. 154. AN OPEN FACE.

weight, he would simply laugh, and correct the error and seem to do it in all innocence.

That is a one story head, the talent is practical, so far as it goes; he is energetic, strong in muscle, willing to use it when he has anything to do; he will square off and spar with his best friend. If he had sufficient intelligence, he would make a capital cook; he would prefer to be the lord of the larder, than to be very far removed from his base of supplies. He would be fond of horses and dogs and dinner, and when not annoyed, one of the best natured men in the world, for he is physically comfortable, and relishes life through the physical senses admirably. This man represents a class whose brain is mostly in the base; they are "of the earth earthy," live for the body and the pleasures of physical sense solely; generally get, if they have a good chance, only enough of education to write their names, and poorly at that; they deride all that is religious or spiritual, and pursue anything that will gain for them food and fun.

In portrait 155, we have the expression of strength, earnestness, persistency, positiveness, intelligence, integrity, and magnanimity; unlike Fig. 153, though his eye is wide open, hers means something; the

see that chin, how full of meaning and decision; the elements of love are strongly manifested there, as well as resolution and power. There is in that cheek, especially in the corner of the mouth, the indication



Fig. 155. ELIZABETH NEY, German Sculptor.

features are regular, but they are full of power; compare that nose with Fig. 153, the lines of which may be more classical, more elegant, but how deficient in character; the nose of Fig. 155 means "Clear the track for I am coming," "I am in earnest," "I will not compromise," "I will not extenuate," "I will be heard." Compare the lips with those of Fig. 148 or Fig. 153, and see the world of character by contrast; they carry resolution, determination, affection, ardor, strength;

of delicacy and refinement, combined with strength; look at the pose of that head, defiant, determined, ambitious, proud, positive; how firm the neck! the breadth and strength of the shoulders, how imposing! What an intelligent forehead, prominent in the lower region, indicating method, discrimination, practical talent; memory, power of analysis, and knowledge of character. That is a dramatic head and face, and every expression and attitude means power and purpose.

Portrait 156 indicates reserve power; the head seems to be large and well poised, the forehead massive and thoughtful; the gathering and holding power is represented, rather than the power to ex-

thus opened before her a life of achievement and endeavor, it would have made a marked difference in her expression of face, as well as in her character; a woman surrounded as she has been, is more gen-



Fig. 156. GRAND DUCHESS MARIE ALEXANDROVNA, OF RUSSIA.

press it; in that face we see prudence, steadfastness, breadth of life, not so much activity and animation, as power to act under circumstances of pressure and importance. There is in the nose and lips, and outline of the face, and expression of the forehead and eyes, and in the ears, indication of refinement, culture, taste, and discrimination. Her cultivation has tended to prune and guide, and perhaps consolidate, but at the same time suppress the strong outward workings of her efficient nature; if she had been a man, and had received a military education, and had

erally like a pruned hedge than like the luxuriant growth of the thorn bushes that constitute it; but the face is handsome, refined, and massive; the head is broad, strong, comprehensive, with solid talent and character.

Fig. 157 has a fine expression of face, rather harmonious, indicating substantial characteristics, definiteness of purpose, but not much aggressiveness; there is the basis of good scholarship, sound sense, strong moral feeling, great dignity, firmness, and self-possession, with decided force of character, but held under restraint

by cultivation and strong moral power.

The head rises high, upward from the ear, in the region of the crown, where elements of prudence, reputation, integrity, steadfastness, and dignity are prominently manifested.

in his face; see what refinement of mouth and nose and eyes; we do not in his features see the strength of Brownlow or Phillips or Wesley, and what a contrast between his features and those of Fig. 151. In Neal, logic, criticism, wit, taste,



Fig. 157. Miss A. ARNOLD.

Fig. 158, Joseph C. Neal, a natural wit, philosopher, and poet; he never weighed more than 115 pounds, sixty pounds too

poetic refinement, imagination, and sympathy were the law of his life. He was a writer for the press in Philadelphia, and said the wittiest things of his time. His great brain wore out the weak body with which it was allied, and he went early to the grave, one of the most delicate and sensitive of men.



Fig. 158. JOSEPH C. NEAL.

little, and his head measured twenty-three inches; he had the delicacy of girlhood

Fig. 159, and those of the silhouette sort which follow, give vivid illustration of the effect of mere outline. Where the writer sits in his office, he sees at a long distance the front door, which opens on Broadway, and when people come in, the light in the early part of the day is mainly delivered upon the back of those who enter, thus leaving their faces in entire shadow; nevertheless he has learned to know every person he is acquainted with, by the mere outline of the body, accom-

panied, of course, by some indications which motion supplies.

Imagine a picture cut out of black paper, representing the outline of a friend, in full front or back view, of course no feature of the face appearing,



Fig. 159. SILHOUETTE.

and it will be interesting to consider how perfect the impression will be, as to the identity of the person and his peculiarities; in point of fact we see people's faces more in the profile than we do in direct front view, for third persons listening to the conversation of two who are facing each other, will present their side view to the spectator, and we can with propriety look at an individual while his face is turned at right angles from ours, and gaze at the features until every line of the profile becomes thoroughly impressed on the memory; but when the person turns and faces us, we either look directly in his eyes or else avert the eye. Thus we look at our friends ten times more in profile than in full face, where there are half a dozen in a company, for people do not feel at liberty to stare squarely in one's face and study the features. Now in Fig. 159 we see the high crown of head, the dignity and determination which that evinces; we see the length of forehead from the ear, showing intelligence; we see the fullness of the lower part of the

forehead, indicating practical talent; we see the dignity, the steadfastness, the aggressiveness of the nose; we see the protruding lip, indicating affection and sympathy, and the prominent chin evincing affection, and any one would be prepared to lift his hat if he met such a face and head.

Contrast that with Fig. 160, that chunky, stubbed head; high enough, to be sure, but short from the ear forward; a snubbed nose with Celestial tendencies, indicating neither culture nor intelligence; and such a voluptuous lip; a mouth without expression, except of animalism and sneering contempt; the chin with no definite relation to the rest of the face, except its clumsy awkwardness; and a big short neck without lines of grace, beauty, or strength. In some out of the way neighborhood, or bye-lane, we have met with such a face; we have seen it in a little obscure shop selling salt, molasses, cider, and stronger drinks; the impression



Fig. 160. SNUB NOSE.

it makes is one that is far from elevating; we feel at once that we are in the presence of a man whose life, like his character, is swinish; the yearnings and aspirations for the higher and nobler, if he have them, are but fleeting and speculative; the present, with its enjoyments, and all the sensual gratification that he can obtain from it, is enough for him.

In the study of outlines or profiles, the common observer may acquire some skill;

the readiness with which they may be compared helps him toward positive convictions; there is so much of detail and complexity in the full face, with its rapid transitions of expression, that much time, and close scrutiny are necessary to the establishment of a single principle; in fine it is the changes wrought by the active mind upon the face, that make it most difficult, if not altogether impossible to formulate a series of definite scientific physiognomical principles; we nevertheless have our convictions, that are based upon certain parallelisms existing between types of face and character, and their general truth we are not willing to question.



Fig. 161. GOOD GRANDMOTHER.

In Fig. 161 we have an outline that is agreeable; at first sight it reminds us of the genial, compassionate, talkative grandmother; the neatly arranged cap satisfies us of the fact of her double motherhood, and we are led to envy the household that claims her as one of its members.

The high and well rounded forehead, indicates poise of intellect; a mind stored with experience. We know that her advice is prudent, and in the giving of it she uses words that are kindly and gentle; if she must reprove, it is with forbearance, and her sympathy for the little ones who come crowding around her knee,

knows little imitation; in the seventies she may be, yet she is still mirthful, artless, curious to know what is going on in the neighborhood; whatever concerns her long list of friends and acquaintances, be it ever so trifling, engages prompt atten-



Fig. 162. HOPE AND ENTHUSIASM.

tion. She is lively, quick, rarely at rest; from the hour of waking till bed time, tongue, hands, and feet are alert and responsive to every occasion for their exercise; when the reaper takes her from the home circle, her empty chair becomes long a sad reminder.

Then comes in fine contrast to grandmother, Fig. 162, the girl just on the margin of maidenhood and the side of indulgence; she is quick witted, eager and ready; one minute deeply interested in describing some ever-so-funny occurrence at school, but before the denouement has been reached, she suddenly breaks off to ask you a question about some entirely remote matter, suggested by one could not tell what, it might have been a fly on your face, or a straggling lock. A girl of twelve or thirteen is a problem, a mixture of incongruities; at one time surprising us by a remark that seems to be the outcome of an unusual philosophical insight, and at another manifesting an arch, yet exasperating stupidity, with regard to the simplest truth; she can, however, pour in upon one a broadside of questions, from which we would fain fly in utter confusion.

Look at her in our picture, keen, bright, ready, pert, coy, confiding, loving, a reservoir, as it were, of untried possibilities.

On the street we frequently come in contact with the character represented in



Fig. 163. THE PROFESSOR.

Fig. 163, we know his style and gait at once; people dub him "Professor" for he affects the student, the man of ideas, especially of new and peculiar ideas, of which he claims to be the discoverer; usually he is related to some vocation of an artistical nature, upon which he depends for his living; a painter, draughtsman, a photographer, and in this he has grand schemes for improvement, and lacks only the pecuniary means for their development which would certainly startle the civilized world; give him the opportunity, and he will butonhole you for an indefinite period, and if you do not indicate some respect for his views, he mentally pronounces you wanting in culture, or wrapped up in a mantel of profound selfishness; nothing, however, can shake his self-possession; no emergency disturbs his composure, and his glib tongue can frame with extraordinary definiteness, a pretext for conduct, however, inexcusable in a truly practical sense. He belongs to the large class termed cranky, and any imputation for eccentricity that comes to

his ears, is flung back scornfully as the utterance of old fogysim. The wearing of the hat, style of the beard, its antiquated point, long hair, the nose, all manifest an individuality that irresistibly impresses one.

These are but parts of the tremendous whole, of variety of profile which must strike the reader when in a mixed company; there is always room for speculation in such study, and the speculation may not be altogether without result. Deviations from the normal or standard type of face, suggest impressions favorable or unfavorable, and he who follows them is not often led far wrong.

It is startling to observe the striking differences between people; all observers will bear in mind that it is a rare thing to see a face or form, in respect to which no criticism will be suggested, and rarely the features are so harmonious as to balance each other, and yet be expressive. Where, all parts of the head are equal and fully developed, where nothing can be desired as to form of head and face and body, where the size of the head and that of the body indicate harmony and balance, so that health and strength and longevity



Fig. 164. JULIA DOMINA.

may be reasonably inferred, the cases are so rare, that one fails in his investigations; though he sees much to admire, he inclines to ask "Where can perfection of organization be found?"

Julia Domna, Fig. 164, has a classical head and face, one is impressed favorably in respect to every feature; the head and face seem to harmonize, and each part appears to be well adapted to the other parts.

In Polly Bodine, Fig. 165, the reader may see opportunity for criticism. The



Fig. 165. POLLY BODINE.

head from the opening of the ear upward and backward, in the region of Self-esteem and Firmness, is enormously developed; the middle of the top-head seems depressed, and there is not a line in the whole head that seems right. There is evidently a great deal of power, but it exists in the direction of pride and stubbornness and passion.

There is enough of intellect to show tact and ability to plan, but it would be supposed that such a head would work in the direction of selfishness. The face lacks the loving mouth; the lips look pinched, critical, fault-finding, unloving, and unlovable; the nose is long, sharp, inquisitive, inclined to interfere and disagree, and with that broad head and high crown she is not likely to make herself loving and agreeable.

Many years ago she was accused of and tried for murder on Staten Island, but from some cause was acquitted. The head and face show a great contrast with those of Julia Domna.

A quick observer will notice anything that is strange or peculiar in the make-up of a person, and as one moves about a great city, his attention will be called to people who don't care for their appearance, on the one hand, and to those that are dressy, vain, and finical in all their make-up, on the other hand.



Fig. 166. THE DECAYED POLITICIAN.

In Fig. 166 we have the outline of a man "who has seen better days," and who has "hope for better things"; he has a pretty good face, originally he was good looking; had good altitude and good form; he belonged to a respectable family and attended to business for years, dabbled in politics, became dissipated, his business was neglected, and we find him on the shady side of a downward career.

He seems to be in a bar-room discoursing to others relative to public affairs; the chances of the election of his candidate in the ward. He has a long narrow head with but little force of character, it is narrow between the ears and flattens his hat at the sides; each feature indicates dissipation, and yet the general make-up of the man gives us a sense of his former respectability. He appears to have his enemy behind his back; the bottle and the glass, which he had just courted, and the bar, have been his bane, and it is evident but that for drink and unworthy associates he might have been a gentleman and a success in life.

"MR. TURVEYDROP."

Fig. 167 is a startling contrast to Fig. 166; in him is seen the dandy, from head to foot; care and pains and pride, sweetened with vanity, seem to prevail. See that wealth of hair piled up on a depressed forehead; how carefully it has been treated. The face and forehead indicate superficial and ready intelligence, while his fullness of head at the crown shows predominant Approbativeness; his dressing of the neck, the buttoned coat, the frilled front, the gaitered pants, the massive watch-chain, the style of coat, the way he holds his hands and the manuscript which he is evidently presenting to some dignitary in the form of an address; the whole make-up of that man indicates the dandy, the "Mr. Turveydrop" of his time; the pink of respectability, of style and fashion; "deportment" with him is the dream and labor of his life; he is polite, refined, attentive to the amenities of life, but superficial, heartless, and largely insincere. If such men have money and

do not become dissipated, their vanity will lead them to make life pleasant and acceptable to others, but they generally make themselves objects of good-natured and half contemptuous criticism.



Fig. 167. MR. DANDY "TURVEYDROP."

Fig. 168 represents a type of character which may be found in connection with seats of learning; he may be called the profound thinker; absorbed in his own reflections he dreams as he walks; his arms are crossed behind his back; his head bent forward in proportion as he is destitute of Firmness, Self-esteem, and Approbativeness, and, in general, weak passions.

The base and back region of his head is deficient, the great mass of his brain is forward and in the superior region of the head. A man of this character will be inoffensive; he dwells in the realms of

fails to recognize acquaintances, and scarcely perceives what is passing during his long preoccupation.

It is not Causality alone, but strong Spirituality and Ideality which give him his dreamy look and abstract condition of mind. Behold the contrast in almost every respect between this and the following likeness.

In this, what a sluggish, hard, coarse-



Fig. 168. THE PROFOUND THINKER.

metaphysics and abstractions; he is fond of solitude and protracted meditation; he is inattentive and absent-minded, as he walks, he knows not and cares not where; is entirely absorbed in his own thoughts; sometime goes astray, forgets the time,

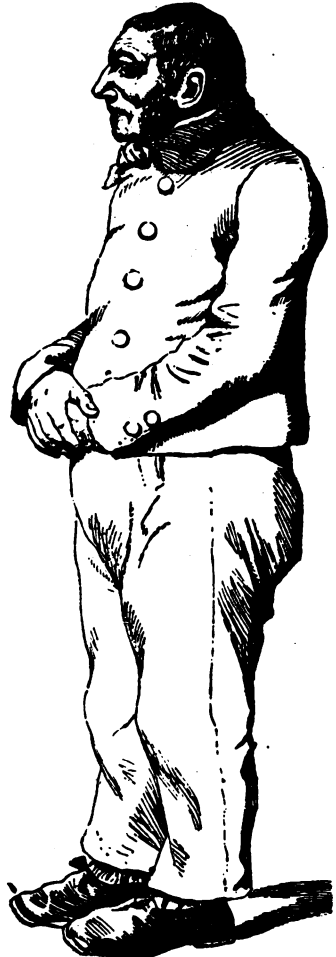


Fig. 169. BAD ORGANIZATION.

grained organization! Not of the head and face merely, but extending to the very feet. Is there an outline, a feature of the feet, the legs, the hips, the arms, the trunk, the shoulders, the neck, or the head and face which seem easy, natural,

and desirable? Here there is too much body for the head, and what he has of head or brain is all in the base, while in the former figure the upward and forward parts of the head are large, and the base and back-head are small; exactly the reverse indeed of this.

This we call a bad organization, defective in quality, rude in form, an animal in brain, without intelligence, morality, or dignity; he will use his intelligence only to pander to his propensities; such a man given up to himself inclines to evil by the vileness of his propensities, and after great crime against nature and society he is liable to fall into the hands of repressive justice.

In the expression of this head and face one can hardly anticipate anything but propensity and passion, not guided or regulated by intelligence or morality. The face has a greedy, stealthy look, and so far as he manifests intelligence, cupidity, cunning, brutality appear; such an organization if traced, would be found the product of generations of people who have lived in poverty, ignorance, and brutality. If we can cultivate such a person in any degree out of his debased condition, persons similar to this can be produced from better soil by adverse cultivation continued for generations.

Our profound thinker, represented in Fig. 168, is the result of culture towards intelligence, refinement, and morality, to the neglect of bodily vigor, and the homely virtues of energy and industry; one has been so much reined as to amount to little of value to the solid working realities of daily life, the other has been cultivated away from morality and intelligence, and all that is brutal has been developed. Each is an illustration of culture, but in opposite directions.

Habit and health do much to modify organization, and especially to build up or pull down physiognomical expression.

A MARKED CONTRAST, Figs. 170-171.

In these two figures, how marked the contrast. When they were boys together in the academy and college they looked

more alike than the pictures present them at the age of forty, yet of course they had differences of character and constitution, but their mode of living, their method of exercising the functions of the mind and body, have produced largely the modified



expression. In Fig. 170 we see excellent health, a harmonious face, as if it had been influenced by virtue, intelligence, and favorable surroundings; in fact, when he was in school, his parents being without extra pecuniary means, he was obliged to work his way through the academy, making himself useful in the family of a physician who kept two horses, a cow, and had a few acres of ground. He had no idle time, had an abundance of exercise of a laudable kind in the work and care he was obliged to bestow as an equivalent for his board; his thoughts were concentrated on useful topics, not engaged in cogitating



how he might have what young men sometimes call "a good time" at the expense of some farmer's cherry trees or watermelon patch, or how gates could be changed on door-yard fences, or a billy goat taken to the belfry of the church and tied to the clapper of the bell. He used no tobacco, no liquor, ate wholesome food, sought his pillow because he was weary and awoke in good season because he had something to do, and acquired an appetite for his breakfast while he earned it, and at the tap of the school bell was ready and prompt in his attendance.

Now let us study the contrasting face and character of his proud classmate, Fig. 171,

DISSIPATION.

who had plenty of money; he knew every brand of cigars, the cigarette had not yet come to curse the youth of the land; he was familiar with the opera, knew about the rules of yachting and base ball, visited the shooting gallery and was accounted a good shot; was considered a good judge of every luxury that stimulates and excites; talked horse and devoted himself more to these topics than to his books, often "went to bed mellow" and stupid in the head, and when he managed to graduate he considered himself a gentleman much superior in standing and prospect to the poor young man who had *worked* his way through college. In twenty years they met, one stalwart, healthy, respected, happy, honored by his fellow citizens with office and trust and emolument; the other having squandered his estate "with riotous living," is troubled now to get even the husks of charity to keep his demoralized soul and worthless body together; he drains lager beer casks for his stimulus when no one treats him, because he is now too low to be treated often, and sneaks into the gutter to pick up cigar stubs with which to load his black pipe; is glad to find an old hat that has been thrown into the ash barrel, and his face shows the history of his downfall. We have seen men as low as he who have become reformed, well housed, and well fed, and in two years' time he would plump out the face and give a new cast to the eye, new expression to all the features, and a new pose to the head; yet a careful observer would see lines and shadows which demoralization had left.

The physiognomy of virtue and vice startles us as we view the extent to which the features may be debased, and also the degree to which plain features may be illumined by virtuous success. These must be seen to be fully appreciated, and yet our fallen friend, Fig. 171, has never become what the world calls criminal, he has simply been the victim of pride which scorned industry and worthy work of any

sort, and was of that easy, pliant type, yielding to habits that have unmanned and unstrung his whole physical and moral make-up; he has not necessarily been vicious and outrageous, but has sat in a half-drunken mood and sung, "We won't go home till morning," and sometimes not even then; his life has become simply a worthless nuisance. There are those so organized that they become fearfully depraved and outrageously wicked, a terror to all their acquaintances, if they indulge in drink and other demoralizing habits; but here is a son of respectable parents who were wealthy and brought him up with a sort of contempt for work and for people that had occasion to use endeavor for their own support, and his luxuries united with false pride made him a wreck.



Fig. 172. PHYSIOGNOMY OF DYSPEPSIA.

We now have another pair of faces with contrasting Physiognomy and Physiology and mentality. Fig 172 has a long face and massive and dignified chin, with lankness outward from the mouth and only a fair degree of fullness outward from the nose; he has good reasoning intellect, but not a great deal of force; is upright, kind and moral. Among other things aside from the indications of love attributed to the chin, he has in the chin the sign of steady and substantial circulatory power; his heart moves as steadily and strongly as "the old clock on the stairs," is never in a hurry, never behind hand; whatever he may suffer in the way of disease, a disturbed circulation will not belong to the list; he would be more likely to have dyspepsia, or difficulty with the lungs.

Fig. 173 is, in most respects, a contrast; the head is apparently broad at the region of the ears; the face between the eye and the mouth is very broad, and the cheek



Fig. 173. CIRCULATION POOR.

bone broad, high, and large, which indicates abundant breathing power, while the cheek outward from the mouth is apparently well developed, indicating good digestive power in contrast with Fig. 172; but behold the little chin, the face is utterly demoralized by its want of development; such a man's heart flutters at every excitement and he is liable to what is called an affection of the heart, or a stoppage of it, especially if he is in the habit of using coffee and tobacco, or spices. He has the practical intellect, quick intelligence, and good talking power; he is brisk, thorough, earnest, but lacks the calm stability of Fig. 172.

And thus we may go on showing contrasts, just as a person walking among strangers or watching the crowd on a thoroughfare as it passes and wonders when and where a harmonious face and form, constitution, and mental development may be found; it is a much more difficult thing to do than one at first would suppose. Let the reader try it as he watches the well dressed throng passing any given point on the street, and he would not see a face in five thousand that he could not instantly see something in respect to which his mind would criticise; a face is too long or too short; the nose is too large, too thin and long, too broad and square; the mouth, if it be looked at as a special feature, how often in a thou-

sand can an unexceptional mouth be seen; sometimes the upper lip is too thick and overhangs the under; sometimes the reverse; a mouth looks like a square cut in the face; again it is severe, angular, contemptuous, bitter, hard; again it is soft, characterless, a mere port-hole for food, and an export hole for talk. We remember one lady without going back far to find her, whose mouth under the closest study was perfect, artistically, physiognomically, and physiologically correct; she may have known it herself but never appeared as if she had recognized it; she was a teacher in the art of vocal utterance to mutes, based on the science represented by signs, indicating the position of the tongue, the teeth, and the lips, and there is a literature of these signs which is rapidly made on paper and a mute will read these indications aloud; hers was the proper mouth for perfect teaching by the motions and formation of the lips in utterance.



Fig. 174. ABBOTT LAWRENCE.

Fig. 174, Abbott Lawrence, was a man of magnificent figure and proportions, was as straight as an arrow, formed faultlessly, and his motions were easy and dignified; he was a wealthy man of Massa-

chusetts, after whom a prosperous city was named, and at one time he was United States Minister to the Court of St. James, and it was the remark in England that he

regular features, without doll-like beauty, we will not offend any lady by presenting Jenny Lind, and a description of her organization; while it will not savor of the



FIG. 175. JENNY LIND (GOLDSMITH.)

was the finest looking man England had seen from any foreign country.

We do not offer his features as beautiful but as harmonious; each part of the face being well developed, and the whole expression being that of intelligence, morality, harmony of mind and character, and eminent virtue and respectability; yet even that noble face can be criticised; we would make it a little larger from the nose to the chin.

Fig. 175. In selecting a lady of harmonious temperament, with grand and

beautiful will impress the reader as a majestic presence; large, finely formed, massive without coarseness, strong without roughness, health without obesity or vulgarity, intelligence without asperity, with breadth of thought, geniality of spirit, and the whole crowned with an expression of the high moral type of development.

The reader should have heard her sing as did the writer, and he would have thought of the angelic, both when he looked at the figure, or when closing his eyes he listened to the song.

Another type of manly beauty we offer in Fig. 176, Sir Isaac Newton, indicating more of the Mental temperament, not quite so much of the Vital, and more ten-

whoever expects to outstrip or out-wind or out-work or excel him in persistency and unflinching tenacity, will, in all probability, soon learn his mistake.



Fig. 176. SIR ISAAC NEWTON.

dency towards the philosophical and the scholarly, and had rather more of the classical type of nose, mouth, chin, and eyes.

There is a type of face and form which is called aggressive; a person is inclined to assail, overcome, and conquer; some have the real fighting Physiognomy; others that kind of pushing enterprise that overcomes distances and impediments, it does not take the angry type or severe form, and yet it is aggressive in a certain sense. Captain Stevens was the first man who crossed the Rocky Mountains from the United States, taking a colony with him. He is still living in California, and, of course, this picture being taken when he was old, there is some lack of plumpness which even his now lank form may have had in earlier time; the nose is of the eagle type, and the mouth seems to sympathize with the same idea. In his prime, he was a power where he moved; keen, alert, self-reliant, positive, and plucky, more intent on success than personal safety; to be a daring pioneer, making the first line of foot-prints was as natural as for a fish to head up stream. A person of that type always says "I will try"; he may not boast, but



Fig. 177. CAPTAIN ELISHA STEVENS.

In the face of General Napier, Fig. 178, is the regular fighting Physiognomy; what a massive, bony outline is expressed



Fig. 178. GENERAL NAPIER.

in that nose; it is wide at the base, long in the wing, high at the crest, long and

prominent at the point, with that eagle form which means fierceness and power; then the shelving eyebrows and the cast-iron upper lip, long, broad, square, and massive, overhanging the under lip as if it were master, then the prominent chin, the broad head, the firm neck, is the embodiment of resolution, severity, courage, and power.

GENERAL PHIL. SHERIDAN.

Doubtless the chef d'œuvre of fighting generals of modern time, or of any time, is represented by Fig. 179, General Phil. Sheridan, but in this case the Phren-



Fig. 179. GENERAL PHIL. SHERIDAN.

ology is more conspicuous as the basis of his power and achievement than the Physiognomy; there is, to be sure, a sharp, piercing eye, there is a prominent brow, perception is keen, and General Grant says of him that he knew more about the locality and number of the enemy than any general in the field.

That is a firm, projective nose, that is a very solid and stanch chin, and the cheek bone and the muscles covering it show rigidity and resolution, and such a neck and such shoulders show a fine pedestal on which to put such a capital.

The head is long from the opening of the ear to the root of the nose, indicating wonderful perceptive power and clear, sharp, intellect; but notice the massiveness of the head above and about the ears; Destructiveness, Combativeness, Secretiveness, all large or very large; we never saw a head with more Combativeness, and there is Destructiveness enough to give efficiency and push in the final pinch; he may safely be regarded as the greatest general of modern times, especially in aggressive assault. While there are those who will mine and manœuvre, and perhaps ultimately compass their ends, Sheridan's hobby was to have a fair open field, and to lead his cavalry charge like an avalanche upon the enemy. We wonder how he can comfortably contain himself in the dull routine of peaceful military detail; he has, however, large Benevolence, and we should expect he would treat his friends and conquered foes with liberal consideration.

SEVERITY AND LEVITY.

This is unique; probably no other one like it was ever taken since photography was known; it is a double face, half laugh and half frown, which a person will the more readily discover and appreciate if he will lay a card over one-half the face, he will then see it is indulging in a hearty smile; if he change the card and cover the laughing side, the other is frowning as if it would take a man's head off, or enjoy biting a ten-penny nail. Janus the fabled had two faces, one looking forward and the other backward; here is a man who has two half faces and both looking in one direction but not according to one manner. This is the face of a gentleman who was a student in Columbia College, and having facial pliability and a control of his muscles he sat to a friend of ours for a photograph, with the result indicated by the engraving, and we have the photograph which shows that it was not a made up picture. Children sometimes speak about making up faces; one-half of this is made up and the other half made down.

We have seen people who carried two mental faces; they were very sour and curt with their family, very gracious and polite to outsiders, but we never expected to see such a demonstration of character as is here portrayed; perhaps that face may be said to be a medium between "the grave and the gay, the lively and the severe." One would hardly suppose that an upper lip could have a smile at one end and a frown at the other; that one eye could be lifted with an arching brow



Fig. 130. LEVITY AND SEVERITY.

and the sunshine of joy over it, and the other lowering as a thunder storm; but we leave the face to speak for itself.

We believe that most people have more of good than ill in them, although our engraving seems to show that there is an equal amount; and the reason of our thought is that nearly every person who looks at this, bursts out into a hearty laugh, as if the good-natured side was more acceptable to their life than the frowning side.

This certainly is a study, a unique study, with more in it of fun than of philosophy, but it shows that the face can be moulded according to the inner thought

for the time being, and be made to express nearly any sentiment.

Did it ever occur to the reader, speaking of eyes or thinking of them, that it is the scenery around the eye and not the eye itself which gives it the cast and character; yet all writers of stories, nearly every person speaks of the eye as lighting up with beauty, sparkling with animation, or lowering with rage, as if the eyeball itself had all these changeful manifestations; when, in point of fact, a well fitted glass eye, which mates the original, will carry with it, sometimes for months, to those who sit at the same table, all the changing peculiarities of the natural eye. Under certain lights and under certain states of mind, and especially of health, the pupil of the eye will enlarge or contract. This, of course, will not occur to the glass eye, and if a person were in the right light, it would be seen that a strong light would contract the pupil of the natural eye and show a difference between it and a glass eye; but when the eyes are thrown in a softened light, such as we generally live in within the house, the glass eye will smile and melt and sparkle and frown and weep, exactly like the other eye; and it is simply the *surroundings* of the eye, its *scenery*, which makes the difference. Now in this picture, one eye has the arched brow and the upward lifting, and the elevated angle which makes it look smiling, then the cheek itself below the eye is lifted and dimpled and the corner of the mouth is lifted, giving scenery that supplements the eye; look at the other eye; it must be the same color; it must have the same expression, but the eyebrow hangs like a cliff and the fringe hangs over and shadows the orb; the cheek drawn down as in sadness and the mouth sympathizing with the frown of the brow, makes the eye look severe, while the other eye is melting with mirth.

Many will object to this idea, that it is the scenery around the eye, not the eye itself which gives expression. Remember we are speaking of a given person's eyes, not that one eye is not more expressive in-

itself than another; a deep blue or glittering black eye has its own characteristics, so the gray eye, but in a given pair of eyes it is the scenery not the ball of the eye itself that gives the chief expression.

GIST OF PHYSIOGNOMY.

Thus character is evinced by outline, development, expression of face, attitude and motion, the whole resulting from the pregnant brain which is master of all the outward developments and which vivifies and controls its action and its growth. If the brain be inspired by noble thought and excellent sentiment, the body becomes also inspired; and though the manners have been uncouth and uncultured the intellectual development and mental awakening will make plain features luminous and an indifferent form graceful in its action. Men are not aware how much possibility they carry in their mental and physical constitutions, or of the extent to which culture may educate, develop, and refine them; truly man is the temple of the living God, of the soul immortal, and it doth not to many at least appear what they can do, or what under favorable conditions they may be; not one man or woman in a million is fortunate in all the influences which tend to mould or mar their form and character, and we sometimes wonder how so delicate a structure, so liable to perversion, so susceptible to external influences, can endure the shocks and conflicts incident to miscellaneous modes of life, without suffering even more than it does. Therefore when we find a person who is healthy, harmonious in development, agreeable in manners without flatness, strong without rudeness, wise without pride, gentle and loving without weakness, we thank God that we have met His image and have some idea what is possible to the human race; then for the moment every human being seems sacred, though abused and scarred by neglect and wrong conditions, and it is a pleasure to hope that when the conditions are improved, each human life will have room and right opportunity to reveal all its possibilities.

ADAPTATION IN MARRIAGE.

"Two souls with but a single thought,
Two hearts that beat as one."

This is the idea that has dominated in literature wherever and whenever the very interesting topic of marriage has been discussed, and it pervades most of the thought to-day, in poetry or prose, which has a bearing upon the relations of the sexes. Mr. Stedman says,

"I hold the perfect mating of two souls,
Through wedded love, to be the sum of bliss.
When Earth, this fruit that ripens as it rolls
In sunlight, grows more prime, lives will not miss
Their counterparts, and each shall find its own,
But now with what blind chance the lots are
thrown."

It is the chief study of the romance writer to evolve as best he may his views upon the proper elements that should enter into the marriage relation; he would show how the best interests of two persons shall be promoted by union; he is thoroughly aware that society is largely disturbed and muddled on the subject; statistics show him clearly enough that a vast number of unions, consummated with the aid of the church, prove unhappy, and dockets of court are crowded with suits for divorce, especially in this country, where the procurement of a divorce is easy, as compared with the situation in Europe.

All who are conversant with social affairs know that in the majority of families there is dissatisfaction; it may not be always apparent to the casual observer, but its effects are none the less sad. Two young people apparently satisfied with each other are united in the mysterious bonds, in the presence of a large circle of interested and congratulating friends; they receive an excellent "send off," in the way of rich presents for housekeeping and for personal use; their sky appears radiant with bright prospects. They begin life together, buoyant with hope; but scarcely has a month passed, when lo! a cloud of disappointment in regard to some matter lowers; there is bickering, recrimination, mistrust, perhaps jealousy, and we find them before the year is out, bitterly set against each other. The world

without may not know it, but their most familiar friends are made sorrowfully aware of the unpleasant situation.

Among reasons people assign for this by no means uncommon occurrence is that such a marriage was one of *sentiment*. These two young people met each other at some evening entertainment, and were struck at first sight by Cupid's dart; that is they felt a passionate interest in each other, because of some superficial attraction. Neither being mature enough, or thoughtful enough, to consider the actual nature of the feeling entertained; they concluded suddenly that they were in love, and in course of time pledges of eternal constancy were exchanged, and soon the altar made them husband and wife.

Another reason assigned in behalf of the young lady, is that her relations at home are not pleasant, and she wants to be free and independent, to do as she likes. Another reason is a want of sympathy; it is applicable to either sex; each has found in the other, one who seems to enter into his or her thoughts, to understand their inner meaning, and to express a kind congeniality that is most consoling. We might enumerate other reasons, of a lower and more practical character, in which the element of selfishness is dominant, but these may be supposed by the reader. When one of the parties expects to find in marriage encouragement and support for some capricious motive, like that of fine dress, or sensual indulgence, of a disposition to indolence, or to fashionable dissipation, unhappiness should be expected in the domestic sphere.

A marriage of caprice or of passion is usually followed by an awakening to the fact that a terrible mistake has been made, and there follows a period replete with vain regrets and agonizing uncertainty. The rapturous fondness is turned to bitter repulsion—the elysium of yesterday is the gehennah of to-day. They who plunge into matrimony find themselves in a situation comparable with that of the citizen of Oshkosh who had a maple tree in his garden. Having heard that such trees yield a delicious juice if tapped in spring time,

he went out one day, struck an axe into the stem and inserted a wedge in the cleft. Then he applied his lips in the cut, and proceeded to regale himself with the slowly exuding sap. Unfortunately through want of skill in its adjustment the wedge was forced out of the cleft, and our Oshkosh citizen suddenly found himself caught by the nose in the closing slit, and in this painful and ridiculous position he remained over two hours before some one came to his relief. If ever that worthy man is tempted to imbibe maple juice again from a tree he will doubtless make sure that the wedge is firmly inserted in the gap. So some unfortunates in the connubial bond zealously protest that they will take great care before they are caught in such a fix again—if they ever get out of their miserable predicament.

Some insist that when the parties really love each other they will be happy, whatever may be their condition physically or financially. Yes, it may be so—but what is the nature of *love*? We can imagine persons who are by no means adapted to each other, mentally or physically, to have such a love for each other, but we do not expect to find a case that illustrates the assumption. Indeed, we can not understand how two persons who are differently constituted, whose motives morally and intellectually are different, can associate in harmony, since the law of consistent, peaceful association prescribes adaptation, congruity, a blending of feelings as well as interests, an understanding of the purposes of their companionship, and a mutual desire to promote those interests by practical endeavor. We believe that the companion, such as the true conjugal mate should be, is a kindred being who can respond to the spiritual needs of the other, almost before they are expressed. Companionship is perfect in the measure that unity is secured; this unity may extend to every faculty of the mind and to every desire of the heart, and every experience of life; the true marriage is a companionship wisely not recklessly entered upon, and therefore will be productive of joy that is sweeter

and higher than any words can describe.

In the outset it was designed by the Creator that men and women should find in the conjugal relation the promotion of their best interests, but as in all other relations, prudence, care, discretion, the sense of duty should be exercised. We look upon marriage as a law of nature, and therefore as a divine institution, and on account of its effects upon society, no human relation is of more importance. It was not designed that it should be entered upon in a haphazard, careless, spasmodic, thoughtless fashion, and were half the care that is exhibited in a well ordered business of the day, exercised by persons contemplating marriage, in the selection of their companions, we would see but little of the misery and crime now pervading domestic life. As the world goes, marriage seems to be a lottery; and it need not be so, with our present means of physiological and social education.

Would you take away all the romance of the relation between the sexes? we are asked. Yes, if the happiness of married people must depend upon the removal of the romantic side; but it is not at all necessary to do that. Those who truly love each other think little about romance, for there is a method in assured affection, that disposes of the uncertain and hazardous phases in love life. The fact remains and it is implacably prosaic that as human beings, we are not sent into the world paired and fitted to each other without some agency of our own; we have selfish natures to be subdued, and angelic qualities to be unfolded; the true life in its every department is a career of self-training and culture, and a high ideal of attainment is only secured through constant endeavor, self-denial, and moral discipline. We believe that a couple who find themselves ill-matched, could, through earnest effort, attain to a good degree of adaptation; mutual forbearance, kindness, conciliation, would bring about a happy concert, and they would enjoy more than the average amount of satisfaction in each other's society.

So close is the married relation that the innermost characteristics are brought out,

imperfections, blemishes, vices of character come to light that were previously undreamed of. We have heard a young wife say, "Before I was married I thought I knew him well, and thought he was two-thirds angel, but I was sadly in error, for he is nearly all devil."

Theodore Parker once wrote on this subject in the following terms: "Men and women, and especially young people, do not know that it takes years to marry completely two hearts, even of the most loving and well assorted, but nature allows no sudden change; we slip very gradually from the cradle to the summit of life; marriage is gradual, a fraction of us at a time; a happy wedlock is long falling in love. I know young people think love belongs only to brown hair, and plump, round, crimson cheeks; so it does for its beginning, just as Mount Washington begins at Boston Bay, but the golden marriage is a part of love which the bridal day knows nothing of."

In the very outset then, it is evident that for a happy marriage there should be a fitness of character or mental constitution between the parties; harmonious conditions are essential. There must be certain compatibilities of organic development and such a relation of temperament that one will as it were fit or match the other. There should be certain constitutional endowments, that mutual likings, sympathy, friendship, and love, spontaneously grow out of their association.

Some physiologists teach that the constitutions of the parties should be similar so as to insure similar tastes, habits and modes of thoughts, while others contend that contrasts should be sought, so as to give room for variety, prevent a tendency to mental stagnation, disagreeable sameness. Neither of these views express fully the true law of selection, although both are partly true. There can be no harmony without some difference; there may be difference without harmony. It is not because she is like him that a man loves a woman, but because she is unlike. For the same reason she loves him. The more womanly the woman, the greater

her power over men ; in proportion as she approaches the masculine in person or character does she repel the other sex. So a woman admires manliness, strength, force in men, and contemns effeminacy, weakness, supineness, whenever she finds it in masculine dress. In the matter of



Fig. 181. HARMONIOUS MAN.

physique, nature inclines us to select our opposites ; the dark haired, swarthy man, is inclined to admire the light-haired, blonde woman ; the lean and spare admire the stout or plump ; the plain man generally admires and associates with the fair and beautiful woman ; and on the other hand, we find plain and apparently unattractive women, so far as face and proportion are concerned, united to handsome, striking men. Nature abhors extremes, and gives an impulse to the production of harmony and proportion ; would make the husband and wife not counterparts but complements, that the results which appear in their children be intermediate, symmetrical, and therefore an improvement on either parent. The temperaments, unless they are nicely combined on each side, so that the organization is well balanced and the character as finely proportioned as the mind is harmoniously developed, should be different ; too close a similarity in special, one-sided constitution should be avoided.

The Mental temperament when strongly developed in both parties has the tendency

to intensify their intellectual activity, and their offspring are likely to inherit in greater excess the constitutional qualities of the parents. In an analogous way, a preponderance of the Motive or the Vital system in both parties tends to connubial discord, and a lack of temperamental balance in their children.



Fig. 182. HARMONIOUS WOMAN.

Figures 181 and 182 represent persons of highly organized brain and a nice combination of qualities; there is a similarity which is at once noticed; the elements are so well proportioned on each side, that we should not hesitate to say that the union of such parties would most likely prove favorable both for their own happiness and for the constitution of their children. The delicacy and refinement of their organizations are sustained by strength of physique and excellent recuperative power, as can be seen in the fullness of the cheeks and chin. Veiled by the rounded curve of the features but not entirely concealed, is a tenacious frame-work of bone and muscle. These portraits are taken from life and represent a young husband and a young wife who are married and mated.

Physiologists proscribe the marriage of cousins, and rightly so, because in the majority of cases their union is attended with disastrous results; but we think that the unfortunate effects of such marriages are mainly referable to the similarity of

constitution inherited from a common stock. If two cousins who wish to marry were different in temperament, inheriting their more striking qualities of physique and brain organization from the unrelated sides of their parentage, we should not object, other things being equal, to a

should remain single; and if he married it should be merely for companionship and with the expectation on the part of the lady that she must act the nurse to him. Such a woman as Fig. 185 might be willing to do so, if he had ample means, and would have confidence in her man-



Fig. 183. THE BRUNETTE.

union. A close investigation into the circumstances of inter-marriage, that has resulted in deterioration of families while it shows a striking similarity of temperamental constitution, as a rule whatever may be the temperament, disclose a more marked deterioration where the mental is in excess on both sides. Generally one with such a marked expression of the mental, as in Fig. 31, should either remain single, or marry a woman organized like Fig. 183, she having a good degree of the motive temperament, with vitality, and sufficiently educated to share in his aspirations and intellectual avocations. It scarcely need be said here that we do not favor marriage between parties, one or both of whom are diseased, and we approve the view of physiologists that condemn marriage on the part of one who has pulmonary disease, or any constitutional disorder that may be transmitted to posterity. It is a crime against society and against Heaven to bring innocent children into the world fettered and tortured with inherited ailments. A man like Fig. 184

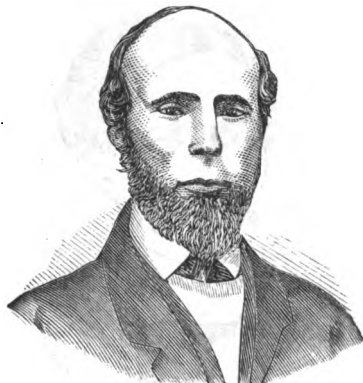


Fig. 184. INELIGIBLE.

agement. An organization like Fig. 104 depleted and dyspeptic if not consumptive would be unfortunate as far as the children were concerned in any relation; they would be few and puny and die young; their too keen sensibilities, the excess of mental activity soon would drain their



Fig. 185. HEALTH AND HAPPINESS.

inadequate supply of physical strength; especially would this be the case did she consort with a man like Fig. 17 or Fig. 184.

The Motive temperament needs an association with a partner giving a pre-

dominance of the Vital or nutritive system. Fig. 186 should look for a lady with an exuberant stock of vitality, similar, for instance, to Fig. 187; the union in such case imparting energy, strength, impulse to the family circle and investing offspring

pointments that occur in the course of their married life, are fully deserved.

One of the natural qualifications for complete satisfaction in the conjugal sphere is health. This point should not be lost sight of, but as has been already



Fig. 186. POSITIVE AND ENDURING.

with physical activity, good health, and good nature. One with a strongly developed Motive temperament united in marriage to another whose organization is similar, would lack the warming, genial influences which modify slow, rough, austere features, characteristic of the constitution; the pair would not move along in the current of progress, they would be drags upon the life of society—unless awakened by some exceptional impulse, and their children would inherit in a still higher degree their parents homely angularities of person, and their sturdy, energetic, and rough traits of character.

We have said that men having dark hair, or the motive constitution, feel drawn toward the fair-haired and plump women; but it sometimes happens, from expectations of personal advantage that the motive man is joined to the motive woman. Pecuniary considerations should not be permitted to influence one's views in the all important matter of marriage; we severely condemn the man or woman who marries for money, and we think that the uncongeniality and the train of disap-



Fig. 187. GENIAL AND ADAPTIVE.

intimated, the Vital temperament should not be excessive on both sides, since the ardent, impulsive influence of this temperament leads to excessive indulgences of passion and appetite. One does not restrain the other and hence they are likely to dissipate their strength, become fitful, vacillating, and indolent, and the children inherit too much of the animal nature; and not enough of mental power: too much appetite, and love of pleasure, with indifference to motives of aspiration, industry, economy, and refinement.

A good development of the Mental and the Motive elements as are indicated in Fig. 119, should be looked for by one having a full Vital temperament, as the association will help to impress him or her with ideas of steadfastness, industry, and personal advancement, and discourage the disposition to ease and self-gratification. A finely organized, æsthetic constitution, so well shown in Fig. 29, should be matched with one possessing energy, sprightliness, culture, and sympathetic feelings. Fig. 73 might meet her want. Discordance in the close intimacy of marriage would render such a woman desperate, while harmony would make her one of the happiest on earth.

From what has been said it may be inferred that the point we aim to indicate is that fair or approximate balance in the temperamental elements should be sought in marriage; what is lacking in the husband

should be made up as much as possible by the wife, and *vice versa*; one being a complement or counterpoise to the other, tends to an harmonious adjustment of their domestic relations, and to the transmission of a better development than either possess to their children.

It would be impossible in a single volume to present this subject in all its length and breadth; we know that it is specially interesting, and that what has been said will only incite inquiry and desire to know more, we must therefore refer the reader to the books on the subject of marriage and its physiological and social relations. We recognize the inharmories of ordinary domestic life, and a decided improvement should be brought about in them. The home and the family are the centre of human interests, and with their perfection will come the perfection of the great body civil and political.

The time will come, we are assured, when men will touch with no uncertain

fingers the keys that are to render the sublime anthem of disenthralled humanity; the chief agent of this long desired condition will be mental science, through the diffusion of which among the people, all shall be enabled to study themselves mentally and physically, to know how they are made up, and how they may promote in themselves a growth of the higher nature, and become in all respects well rounded, symmetrical men and women. He that would be truly mated, should first see to it that he possesses all the qualities of the true husband, and then by careful observation he will become acquainted with her who will be to him a true wife. Beginning first with a knowledge of self, the study of others becomes of little difficulty, and one may determine in reference to any particular individual of the opposite sex, whether there is between him and her the graduated difference which shall contribute to harmony and beauty in marriage.

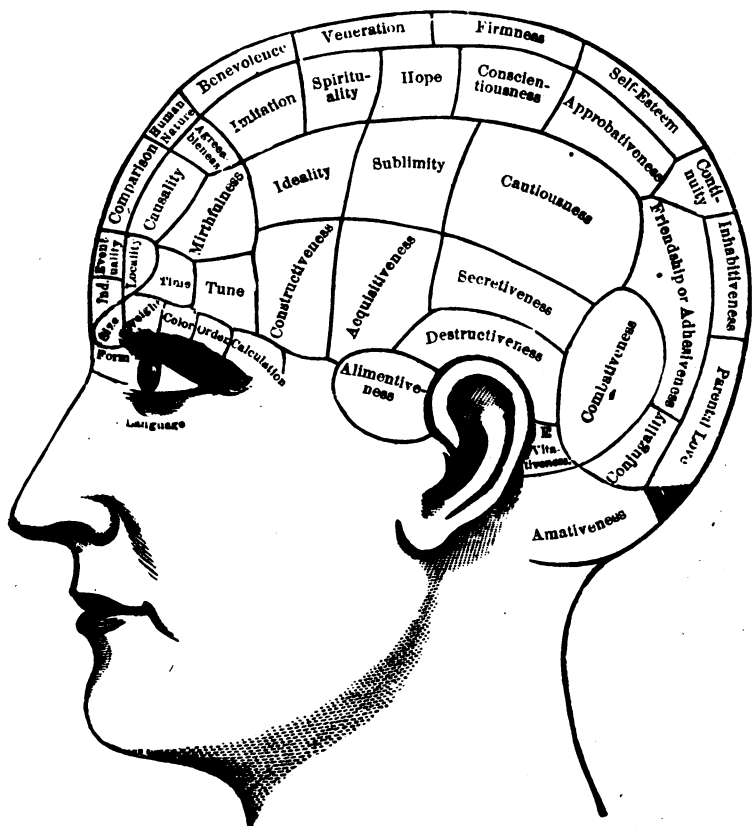


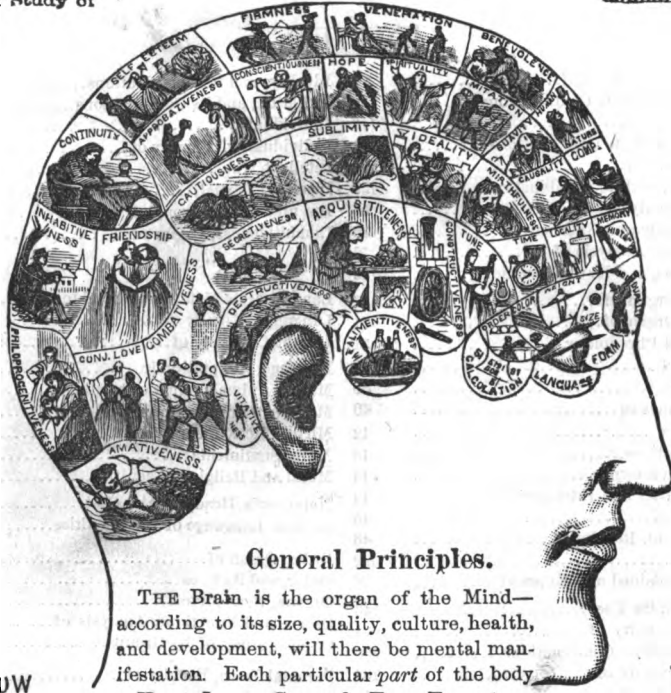
FIG. 188. NAMES AND LOCATION OF THE PHRENOLOGICAL ORGANS.

INDEX.

Acquisitiveness, Analysis of.....	71	Ideality, and its Combinations.....	141
Acquisitiveness, and its Combinations.....	128	Imitation, and its Combinations.....	94-148
Agreeableness.....	116	Individuality.....	143
Agreeableness, and its Combinations.....	151	Individuality, Faculty of.....	98
Alimentiveness.....	70	Intellect, The.....	97
Alimentiveness, and its Combinations.....	129	Insanity, Partial.....	15
Amativeness, Analysis of.....	56	Insanity Cured through Phrenology.....	16
Antipathy, Family and National.....	38	Inhabitiveness, Organ of.....	63
Approbativeness, Analysis of.....	76	"Jay Eye See," Portrait of.....	34
Approbativeness, and its Combinations.....	132	Language, its Nature and Combinations.....	148
Benevolence, Organ of.....	87	Language, Faculty of.....	109
Bibativeness, Organ of.....	71	Locality, Faculty of.....	105
Blackwood and Phrenology.....	51	Marriage, Adaptation in.....	178
Brain and Mind.....	12	Mating Animals Superior to others.....	58
Brain and Skull.....	38	Membranes of the Brain.....	40
Brain, Membranes of.....	40	Mirthfulness, Faculty of.....	96
Brain Substance.....	42	Moral Sentiments.....	79
Brain Cell Functions.....	43	Moral and Religious Faculties.....	137
Brain Cell, each a centre.....	44	Napoleon's Head, Size of Cast.....	51
Brain, Gray Matter and Intelligence.....	44	Natural Language of the Faculties.....	152
Brain, Growth of.....	45	Order, Organ of.....	102
Brain Experiment, Results of.....	46	Order, and its Uses.....	146
Brunette, The.....	182	Organs, Perceptive.....	143
Bumpology Explained and Exposed.....	8	Organs and Functions, Analysis of.....	56
Calculation, and its Uses.....	146	Organs, Study of by Groups.....	54
Cautiousness, Faculty of.....	74	Parental Love, Faculty of.....	60
Cautiousness, and its Combinations.....	130	Phrenology, Outline of.....	7
Calculation, Analysis of.....	104	Physiognomy and Relation of Moral Organs.....	89
Causality, Faculty of.....	111	Physiognomy and Natural Language.....	153
Comparison, Faculty of.....	114	Plurality of Mental Faculties.....	14
Combining of the Faculties.....	118	Plurality of Mental Organs.....	18
Combativeness, Organ of.....	67	Reasoning Organs.....	111, 149
Combativeness, combined with other faculties.....	125	Self-esteem, Faculty of.....	77
Conjugalitv, Nature of.....	57	Self-esteem, and its Combinations.....	134
Continuity, Organ of.....	65	Selfish Propensities.....	66-124
Continuity, and its Combinations.....	136	Selfish Sentiments.....	129
Conscientiousness, and its Combinations.....	81	Secretiveness, Faculty of.....	73
Constructiveness, Faculty of.....	90	Secretiveness, and its Combinations.....	127
Constructiveness, and its Combinations.....	139	Semi-Perception, or Literary Faculty.....	147
Color, Analysis of.....	101	Semi-Intellectual Sentiments.....	90, 139
Color, and its Combinations.....	145	Sheridan, Gen. Phil.—Portrait.....	176
Destructiveness, and its Combinations.....	69-127	Size and Capacity.....	32
Dissipation Illustrated.....	172	Size the Measure of Power.....	47
Diversity of Character.....	17	Size, Organ of.....	99-145
Dogs, a Variety of.....	36	Sinuses, The Frontal.....	42
Dreaming Proves Plurality of Faculty.....	17	Skull, Structure and Relation of.....	41
Eventuality, Faculty of.....	106	Social Cranks.....	58
Face, Of the.....	5	Social Faculties—How They Combine.....	120
Firmness, Faculty of.....	78	Spirituality, Faculty of.....	84
Firmness, and its Combinations.....	135	Sublimity, Faculty of.....	94
Form, Faculty of.....	98	Sublimity, and its Combinations.....	141
Form, and its Combinations.....	144	Temperaments, Human, Illustrated.....	19 to 38
Friendship—Adhesiveness, Organ of.....	61	Temperaments in Literature and Art.....	30
Gist of Physiognomy.....	178	Temperaments, Excess of the Mental.....	31
Heads and Faces.....	5	Temperaments an Index of Character.....	37
Health, its Influence on Character.....	47	Time, Faculty of.....	107
Hope, Organ of.....	83	Tune, Faculty of.....	106
Horse "Jay Eye See".....	34	Vitativeness, Nature of.....	67
Horse "Percheron".....	85	Veneration.....	86
How the Faculties Combine.....	118	Weight, Faculty of.....	100
Human Nature, Faculty of.....	115-151	Weight, and its Uses.....	145
Idiocy, Partial.....	15		
Ideality, Faculty of.....	92		

PHRENOLOGY.

PHYSIOGNOMY.



General Principles.

THE Brain is the organ of the Mind—according to its size, quality, culture, health, and development, will there be mental manifestation. Each particular *part* of the body—Heart, Lungs, Stomach, Eyes, Ears, etc.—performs separate and special functions.

"Know

Thyself."

Different parts of the Brain perform different functions. The forehead is the seat of Intellect—the knowing faculties; the lower back head of the Affections; the side head of the Executive, propelling, constructive, and economical powers; the top head of the Moral, Spiritual, and religious sentiments. And all these are subdivided, as seen in this pictorial head. To read character correctly, one must know something of the Temperaments, and the more he knows of Physiology, Physiognomy and Ethnology—the more perfectly can he judge the character, and capacities of his fellow-men—their adaptation to this or to that pursuit, and in what sphere they may be successful. It answers the question, "WHAT CAN I DO BEST?"

Names, Numbers and Location of the Mental Faculties.

- | | |
|---|--|
| <ul style="list-style-type: none"> 1. AMATIVENESS.—Connubial love, affection. A. CONJUGAL LOVE.—Union for life, pairing instinct. 2. PARENTAL LOVE.—Care of offspring, and all young. 3. FRIENDSHIP.—Sociability, union of friends. 4. INHABITIVENESS.—Love of home and country. 5. CONTINUITY.—Application, consecutiveness. E. VITATIVENESS.—Clinging to life, tenacity, endurance 6. COMRATIVENESS.—Defense, courage, criticism. 7. DESTRUCTIVENESS.—Executiveness, push, propell. 8. ALIMENTIVENESS.—Appetite for food, etc. 9. ACQUISITIVENESS.—Frugality, economy, to get. 10. SENSITIVENESS.—Self-control, policy, to keep. 11. CAUTION.—Guardedness, care-taking, safety. 12. APPROBATIVENESS.—Love of applause and display. 13. SELF-ESTEEM.—Self-respect, dignity, authority. 14. FIRMNESS.—Stability, perseverance, steadfastness. 15. CONSCIENTIIVENESS.—Sense of right, justice. 16. HOPE.—Expectation, anticipation, perfect trust. 17. SPIRITUALITY.—Intuition, pre-cience, faith. 18. VENERATION.—Worship, adoration, deference. 19. BENEVOLENCE.—Sympathy, kindness, mercy. 20. CONSTRUCTIVENESS.—Ingenuity, invention, tools. 21. IDEALITY.—Taste, love of beauty, poetry and art. B. SWELLMENTY.—Love of the grand, vast, magnificent. | <ul style="list-style-type: none"> 22. IMITATION.—Copying, aptitude for mimicry. 23. MIRTH.—Fun, wit, ridicule, facelessness. 24. INDIVIDUALITY.—Observation, curiosity to see. 25. FORM.—Memory of <i>shape</i>, looks, persons, things. 26. SIZE.—Measurement of quantity by the eye. 27. WEIGHT.—Control of motion, balancing. 28. COLOR.—Discernment, and love of colors, hues, tints 29. ORDER.—<i>Method</i>, system, going by <i>rule</i>, arrangement. 30. CALCULATION.—Mental arithmetic, numbers. 31. LOCALITY.—Memory of place, position, travels. 32. EVENTUALITY.—Memory of facts, events, history. 33. TIME.—Telling <i>when</i>, time of day, dates, punctuality. 34. TUNE.—Love of music, sense of harmony, singing. 35. LANGUAGE.—<i>Expression</i> by words, signs or act 36. CAUSALITY.—<i>Planning</i>, thinking, philosoph 37. COMPARISON.—Analysis, inferring, illustration. C. HUMAN NATURE.—Sagacity, perception, motives. D. SUAVITY.—<i>Pleasantness</i>, blandness, politeness. |
|---|--|

For complete definitions of the organs, with functions, culture, etc., see the new work, "Brain and Mind," or Mental Science Considered in Accordance with the Principles of Phrenology, and in Relation to Modern Physiology. Illustrated. Extra cloth, \$1.50. FOWLER & WELLS, Publishers, 733 Broadway, N. Y.

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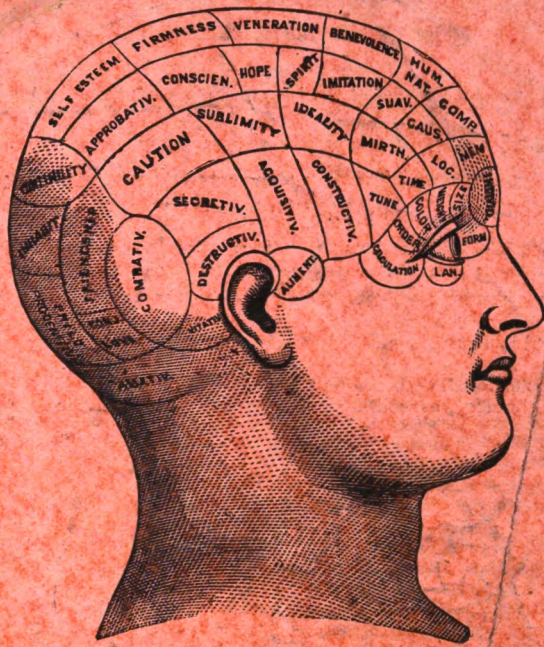
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