



THE
PHRENOLOGICAL JOURNAL
AND
SCIENCE OF HEALTH.

A REPOSITORY OF
SCIENCE, LITERATURE AND GENERAL INTELLIGENCE.

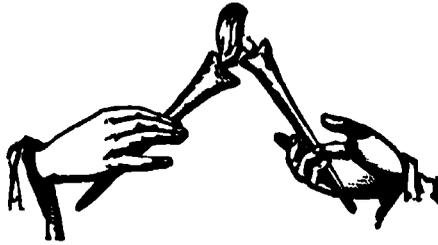
DEVOTED TO
ETHNOLOGY, PHYSIOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSY-
CHOLOGY, EDUCATION, MECHANICAL INDUSTRY, HYGIENE, AND TO
ALL THOSE PROGRESSIVE MEASURES WHICH ARE CALCU-
LATED TO REFORM, ELEVATE AND IMPROVE MANKIND,
SPIRITUALLY, INTELLECTUALLY AND SOCIALLY.

EMBELLISHED WITH NUMEROUS PORTRAITS AND OTHER ENGRAVINGS.

VOL. XCVI. OLD SERIES—VOL. XLVII. NEW SERIES.

JAN. TO JUNE, 1893.

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1893.



“Quiconque a une trop haute idee de la force et de la justesse de ses raisonnemens pour se croire oblige de les soumettre a une experience mille et mille fois repete'e ne perfectionnera jamais la physiologie du cerveau.”—GALL.

“I regard Phrenology as the only system of mental philosophy which can be said to indicate with anything like clearness and precision, man's mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power ; with his wants, as a creature of necessity ; and with his duties, as an agent responsible to his Maker and amenable to the laws declared by the all-wise Providence.”

—JOHN BELL, M. D.

CONTENTS.

S	PAGE	S	PAGE	U	PAGE
Sex and Crime.....	41	Self-Dosing with Drugs.....	287	Unlovely Children, poem.....	60
Sermon by Dr. Abbott.....	154	Stature of Ancient Races.....	289		
Science of Health		Sisters, Unlike.....	297		
30—80—133—183—231—232		Sizer, Sarah H.....	298		
Science and Cure.....	80			V	
Suggestion to Chicago Uni-		T		Vegetarianism and Endur-	
versity.....	97	Teachers' Sources of Inspir-		ance of Heat.....	185
St. Vitus Dance.....	98	ation.....	25		
Subscriber, A Cordial.....	99	Trembling Voice.....	49		
Sensible Treatment of the		Therapeutic Uses of the		W	
Sick.....	123	Rectal Injection.....	82—135		
Stenography, Talents for.....	147	Talent and Character		What They Say.....	50—59
Some Special Talents.....	169	119—161—211—261		Wisconsin Mound Builders... ..	91
"Sleeping I Dreamed".....	179	Thirty Minutes with a Child..	127		
Sex in Brain.....	196	Tomb of Darius.....	139		
Surgery among Mound		Teacher's Need of Psychology	173		
Builders.....	238	Trial by Ordeal in Africa.....		X, Y, Z.	
Sex of Crania.....	241	"Then," a Poem.....	210	"Yes, Ma'am!".....	128
Sponge Bath.....	246	Too Broad.....	293	Yawning as a Remedy.....	136
Smiling Muscles.....	280	They would be Welcome.....	294		
Successful Idiot Training....	281	Thought Transference.....	295		

ILLUSTRATIONS.

A	PAGE	G	PAGE	O	PAGE
Abbott, Dr. Lyman.....	151	Gould, Jay.....	5	Outline Heads.....	20—21
				Outline Heads.....	255
B		H		P	
Besant, Annie.....	39	Heads, four types.....	22	Portraits, Agassiz, Bancroft,	
Brain, Views.....	67—74	Harris, Carlyle W.....	109	Hind, Raymond, Roebling..	170—171
Blaine, Jas. G.....	101	Hadlock, Harvey D.....	114	Paderewski, Ignace Jan. 199—200	
Black Hawk.....	120—121	Hambleton, Chalkley J.....	208		
Base of Skull.....	126	Hambleton and Butler.....	209	R	
Bradford, Dr. A. H.....	249	Howe, Dr. Samuel Geo.....	247	Race Studies, 6 Portraits. 104—108	
		Human Pursuits... ..	266	Race Studies, 6 Portraits. 202—205	
C				Ruskin, John, Portrait.....	257
Columbia Exposition.....	10—11	I, J		S	
Class of 1892, Frontispiece....	4	Judd, Orange.....	180	Skull, well balanced.....	119
Crawford, F. Marion.....	157			Skull, six views.....	161—164
Conner, Eliza Archard.....	275	L		Somerset, Lady Isabel.....	175
D		Lamb, Martha J.....	112	Skulls, seven views.....	212—216
Diaz, Porfirio.....		Life Line.....	123	Simms, William Gilmore.....	258
Depew, Chauncey M.....	62			Storrs, The Rev. R. S.....	266
Double Picture.....	265	M		T	
E		McGlynn, Dr. Edward.....	59	Terry, Seth.....	15
Evarts, William M.....	65	Motor Centres.....	98	Tilden, Samuel J.....	63
F		Miller, Robert H.....	130	W	
Football Players.....	34—35	Matthews, Claude.....	221	Webster, Daniel.....	23
				Willard, Frances E.....	175



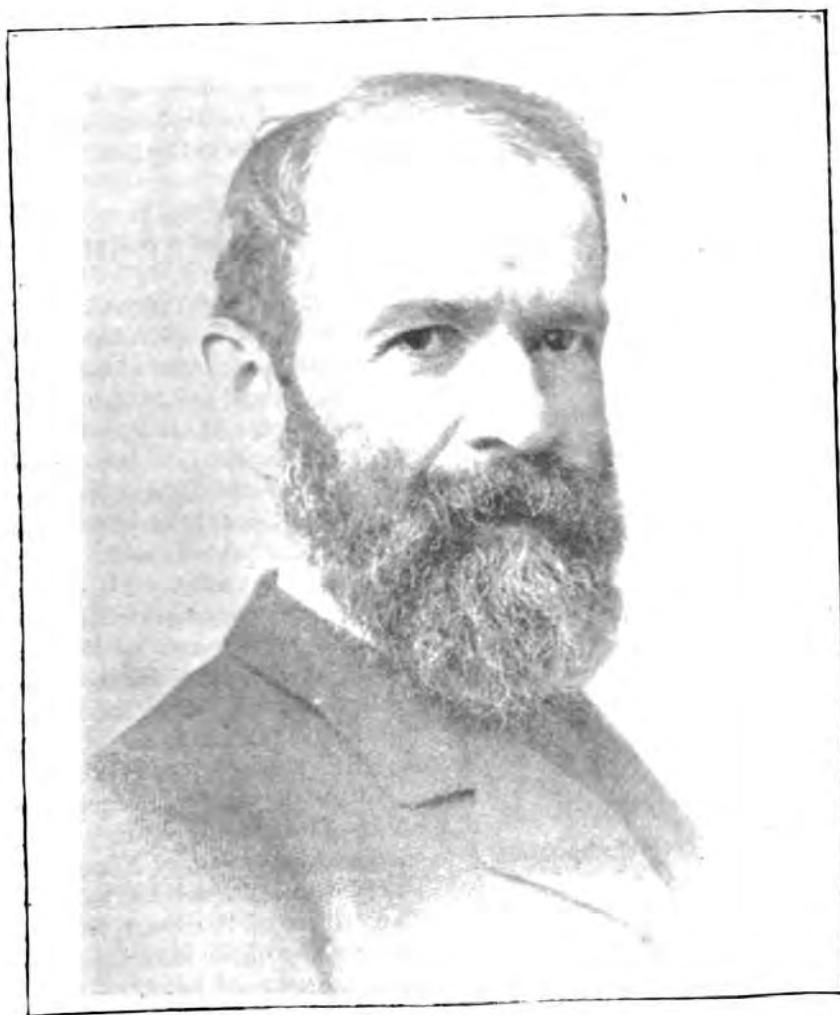
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NUMBER 1.]

JANUARY, 1893.

[WHOLE NO. 649.



JAY GOULD.



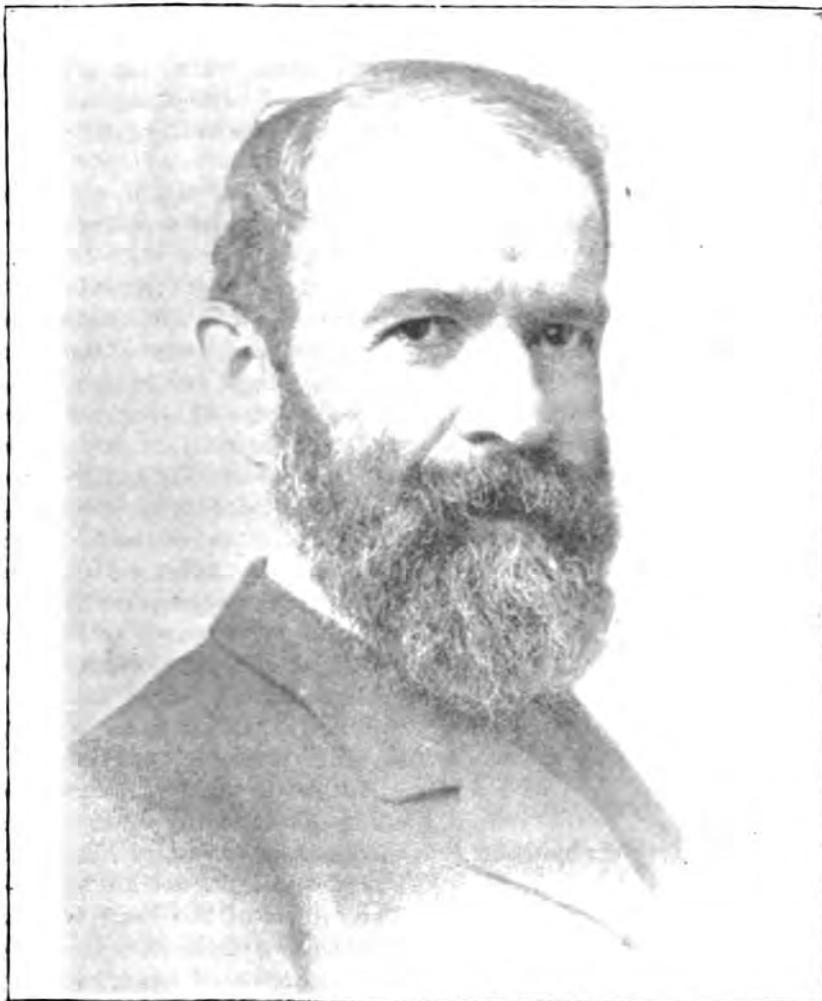
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JAY GOULD.

MR. JAY GOULD,

THE EMINENT FINANCIER.

THIS most remarkable of men died on the 2d of December, 1892, aged 57. Probably as a financier no man in America outranked him in the vastness and boldness of his operations, and the clear-cut sagacity with which he administered them. He was a very quiet, unobtrusive man, seeking to live plainly and to keep himself private and apart from external display.

We have before us a recent photograph, which is evidently an excellent likeness; it is one of Sarony's, and the work is admirable, therefore the likeness must be close. We never met the man, therefore the picture is our only guide.

In temperament he was fine in quality, with a tenacious endurance. He was not robust and strong for heavy work, but he was susceptible and intense. His hair was fine, nearly black, but wiry and hard, while his skin was thin and of fine quality, indicating quickness of feeling and clearness of thought. The form of the head and the expression of the face—in fact the whole make-up—indicate a thin skull, and on that account his brain was large for the size of his head. His was a type of mentality and organic development, which serves to evolve thought and intensify ambition. Those who are keen in feeling and clear in thought, vigorous in judgment and perception, are found to have very deep foldings of the brain, the convolutions deepening sometimes to the extent of an inch. In the *post-mortem* examinations of men whose mental character have been of a low order they have always found the foldings of the brain much less deeply marked.

We judge this brain to be decidedly large for the size of the man. In figure he was slight, made up of fine fibre without fatness. He was lithe and limber, quick as a cat, sharp as an

eagle, and thus there was ample foundation for whatever he has been able to do mentally. In the temperament and make-up of this organization lay the foundation for the peculiarities of his mind and character.

From the opening of the ear to the root of the nose there seems to be enough distance to show ample perceptive power, the ability to acquire facts. But he was known specially for intellectual grasp, for the far-seeing power that deals with sense and consequence, or for that mental grip that seizes upon all salient facts and appropriates them to use. Nothing escaped his attention or consideration. He was a great master of facts and of the logical forces that would minister to the furtherance of his plans.

The middle of the upper part of the forehead is quite prominent, showing he was a critic in a high degree. If he had been educated for the law or for the domain of philosophy he would have been a sharp exponent of the distinctions and relations of facts and subjects. He was the master of his theme. As a reasoner, he let no fact escape; no cause or reason which might be brought to bear upon the conclusion was neglected.

The upper part of the forehead seems to be large not only, but has the appearance of an extended growth and development in later years, as if it had outgrown the foundation, the base of the brain, showing he had used the reasoning power much more than the observing.

He had a wonderful faculty for the study of mind and character. He knew men and how to adapt himself to them in order to influence and control them. The crown of the head is high, from the opening of the ear over the top, and in that crown of head, in conjunction with the intellectual breadth and sharpness we have mentioned, lay the emi-

ment power of the great railroad and stock operator. He believed thoroughly in himself, relied upon his own judgment and an inward consciousness that he knew as much about the subjects he had before him as anybody. Then his Firmness, being exceedingly large, enabled him to hold himself up to the work in hand and to stand against any amount of opposition. He was ambitious to be approved; suffered if he were scandalized or censured, but he had a desire to overcome opposition and difficulty, and he silently pushed his cause until he had reached the desired result.

He had great power of construction and understood combination; appreciated the interworking of complicated affairs, and had he been devoted to machinery would have succeeded as an engineer. His was a mathematical and mechanical head, and was well qualified therefore to deal wisely with the facts and forces within his reach. His regard for property was strongly indicated, but it did not originate so much in the love of money as in the love of power which the possession of money gives. He was anxious always to be master of the situation, not so much through muscular force as through tact, policy, shrewdness, oversight, keenness and persistency. He took few men into his confidence, and the great mystery of the street and newspaper world was, "Where is Jay Gould? What is he planning to accomplish?" Nobody seemed to know where he would come to the surface, and the very fact of his reticence and silence gave him great mastery over other people's plans and operations: but he concealed his own till he was ready to act. If he had been a player of chess or checkers he would not have held his hand over the board as if he were going to move this or that, but he would have sat silently, and when he got ready would have made a move perhaps on the side of the board remote from the one expected. Hence he found out the

strong and weak points of other people without exposing his own plans.

The crown region of the head and the upper part of the forehead, the first giving determination, self-reliance, aspiration, persistency and independence, and the other giving logical power, reasoning and criticizing ability, power to combine, organize and arrange affairs so that everything should fulfill its proper mission and be under his direction and supervision, were the great features of his mental constitution.

His constructive and inventive power, bringing into use his Ideality, Spirituality and Constructiveness with Causality, were the working forces of his planning talent. He appears to have had rather large Benevolence, and those who understood his private life inform us that he was liberal in his gifts, and that for years an eminent man of New York, no less a man than the late Thurlow Weed, was the almoner of large amounts of his money given for charitable purposes. We have known of several wealthy men who did not want everybody running after them for gifts, who would put a large sum of money into the right person's hand to be distributed, without the recipients knowing from what source it came.

Mr. Gould's manner and history would seem to indicate that he had a clearly-defined purpose which he followed with a persistent assiduity; that he had ambition to achieve the work he undertook, to win his way without help in spite of hindrance and opposition. The modesty of his mode of life, the simplicity of his style and the simplicity of his funeral ceremonies, in accordance with his wishes, serve to emphasize his whole manner of living. s.

Jay Gould was born at Roxbury, Delaware County, New York, May 27, 1836. In spite of adverse circumstances he acquired a fair education, found a place as clerk in a grocery; later ob-

tained employment in making surveys for a county map, published a history of Delaware County, and before 20 years of age had, it is said, acquired several thousand dollars. After different business ventures he turned his attention when about 21 to railroading, and became a broker in railroad stocks in New York. General attention began to be attracted to his name in connection with that of James Fisk, jr., in the Erie R. R. affairs. It has been said that he withdrew all connection with Fisk at some personal sacrifice, and it is safe to infer from the man's social purity and distaste for everything rough and vulgar that personal considerations had not a little to do with their separation of interests.

Great speculators get their wealth either by securing something through fortuitous or preconcerted circumstances at much less than its real value, and afterward building it up on a business basis, or by a steady rise in holdings through increase of population, and preventing successful competition. Through these means, which are always possible in proportion to the natural resources and growth of population of a country, backed by faulty politico-economic laws, the subject of this sketch made a large sum of money during a "corner" in gold in 1869, and later added greatly to his wealth by getting control of such important lines of communication and transportation as the Missouri Pacific, the Texas Pacific, the Union Pacific, the Wabash, the Manhattan Elevated, and other railroads, and the Western Union Telegraph. In all large accumulations of wealth, unless it be through mere growth of holdings, when it is less noticeable, some persons lose while the other gains, and we are not surprised that some harsh things have been spoken of the "Little Wizard" of Wallstreet, who by financial adroitness, amassed the largest fortune in a given time of almost any man in history. If one did not wish to be deceived,

he would have to make careful investigation before believing special charges which have appeared in the papers against Mr. Gould's conduct from time to time, yet the very nature and magnitude of his undertakings must have made it necessary for him frequently to show an apparent coldness of heart and indifference to misfortune and suffering, something which those more humbly situated in life have less occasion to do unless naturally disposed. Through this feeling of "lead us not into temptation," some reject opportunities to grasp for wealth even when it seems within easy reach. Such individual accusations against Mr. Gould's conduct have been made less frequently of late years for two reasons: First, as Prof. Sizer has said in the description of his character, that the reflectives have been more active of recent years compared with the perceptives and love of accumulating-power while certain of the organs pertaining to physical life, never very strong, were waning; second, because he operated more to build up and make secure the great interests already in his possession, than to gain control of others, which might imply on the street their depreciation and afterward their rise.

While Mr. Gould was free from many of the sins of commission that some place against themselves, in relation to gluttony, drink, etc., yet it is a question whether he did not commit to some extent sins of omission in regard to the same mental and bodily organs that have to do with physical integrity. It is more than likely that most men with the same body which he had would have died sooner, but we are disposed to think that had he rested more from his mental work, given less attention to business, and taken some healthful physical exercise, which implied mental relaxation, that he would have gotten a pleasure which justly goes with physical well-being, and which would have amply repaid him for any resulting contraction of business enterprises, and

perhaps have prolonged his life. Still, as length of life is, by some, measured not by years, but by certain results, Mr. Gould may have enjoyed better the work accomplished than an increase of years which called for some change of habit and thought.

In 1856 he married Miss Miller, the daughter of a wealthy New York citizen, to whom he was very much attached during her life, and whose death in 1891 was a severe blow to his health and happiness. They had three sons and two daughters, George J., Edwin, Howard, Helen and Annie. Only George and Edwin are married, the former to Edith Kingdon, the latter to a step-daughter of Dr. Geo. F. Shrady.

His winter home was in New York City, his summer residence at Irvington, on the Hudson. His will, recently probated, covers seventy-two millions. His chief holdings were left

"trusted," i.e., not to be broken up. In person he was small of stature, somewhat stooped, wore a full beard, had sharp, piercing black eyes, was modest in demeanor but self-possessed. It is said that he was kind to all subordinates, from the greatest to the least, but doubtless with his keen judgment of men, and intense desire to carry out his purposes, he chose them for their ability to fill a particular place, and expected them to discharge fully the duties devolving upon them.

The exact cause of his demise has not been made public, but it is pretty certain that his lungs were affected, and the narrowness of the temporo-sphenoidal lobe would show that these organs and those pertaining to alimentation were not, especially of recent years, strongly innervated by the brain. His body lies in the family mausoleum at Woodlawn cemetery.

R.

THE COLUMBIAN EXPOSITION.

(CONTINUED.)

CONTINUING our descriptive series of the larger buildings that will form the nucleus of attraction to the expected throng of visitors this year at the great Exhibition, we introduce to the reader the structure to contain the naval exhibit. This will be an essentially novel affair, as a glance at the illustration shows. To all appearances it is a full-sized model of one of the new coast-line battleships. It is erected on piling on the lake front in the northeast section of Jackson Park. It is surrounded by water and has the appearance of being moored to a wharf. The structure has all the fittings that belong to the actual ship, such as guns, turrets, torpedo tubes, torpedo nets and booms, with boats, anchors, chain cables, davits, awnings, deck fittings, etc., etc., together with all appliances for working the same. Officers, seamen, mechanics and marines are detailed by the Navy Department during the exposition, and

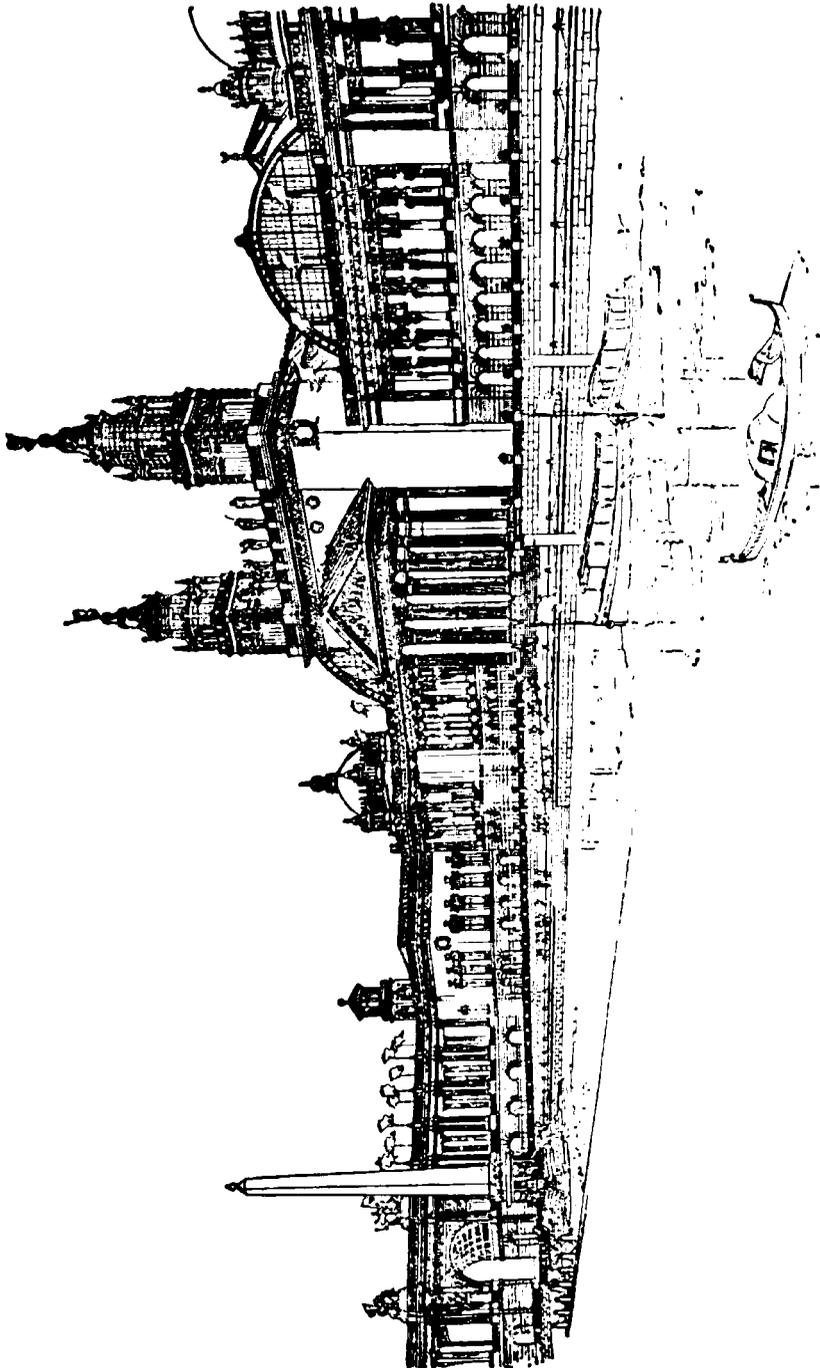
the discipline and mode of life on our naval vessels are completely shown. The detail of men is not, however, as great as the complement of the actual ship. The crew gives certain drills, especially boat, torpedo, and gun drills, as in a vessel of war.

The dimensions of the structure are those of the actual battleship, to wit: length, 343 feet; width amidships, 69 feet 3 inches; and from the water line to the top of the main deck, 12 feet. Centrally placed on this deck is a superstructure 8 feet high with a hammock berthing on the same 7 feet high, and above these are the bridge, chart-house, and the boats. At the forward end of the superstructure there is a cone-shaped tower, called the "military mast," near the top of which are placed two circular "tops" as receptacles for sharpshooters. Rapid firing guns are mounted in each of these tops. The height from the water line to the summit of this

military mast is 76 feet, and above is placed a flagstaff for signaling.

The battery mounted comprises four

non; twenty 6-pounder rapid-firing guns; six 1-pound rapid-firing guns; two Galling guns, and six torpedo tubes



THE MACHINERY HALL.

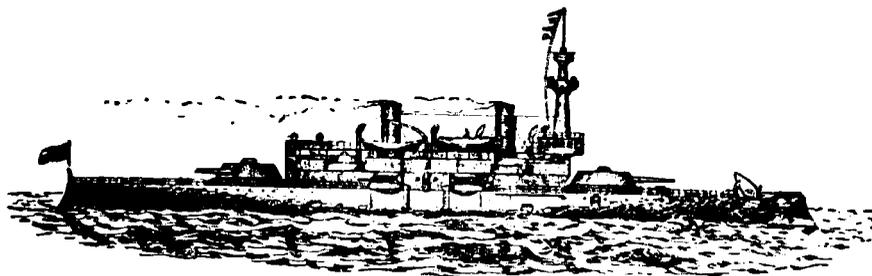
13 inch breech-loading rifle cannon; eight 8-inch breech-loading rifle cannon; four 6 inch breech-loading rifle can-

or torpedo guns. All of these are placed and mounted respectively as in the genuine battleship. On the starboard

side of the ship is shown the torpedo protection net, stretching the entire length of the vessel. Steam launches and cutters ride at the booms, and all the outward appearance of a real ship of war is imitated. This unique element must claim a large share of the interest of visitors, illustrative as it will be of recent advances in naval equipment.

Another structure of imposing dimensions that will contain material representing scientific and industrial achievements from all parts of the world, is Machinery Hall, of which the design

of and across a lagoon from the Agricultural Building. The building is spanned by three arched trusses, and the interior presents the appearance of three railroad train-houses side by side, surrounded on all the four sides by a gallery 50 feet wide. The trusses are built separately, so that they can be taken down and sold for use as railroad train-houses. In each of the long naves there is an elevated traveling crane running from end to end of the building, for the purpose of moving machinery. These platforms are built so that visitors



U S COAST LINE BATTLE SHIP
UNITED STATES NAVAL EXHIBIT.

was furnished by a firm of Boston architects. This has been pronounced by good authority second only to the Administration Building in the magnificence of its appearance. This building measures 850 x 500 feet, and with the Machinery Annex and Power House will cost about \$1,200,000. It is located at the extreme south end of the park, midway between the shore of Lake Michigan and the west line of the park. It is just south of the Administration Building, and west

may view from them the exhibits beneath. The power from this building is supplied from a power-house adjoining the south side of the building. The engraving shows a part of the main facade, sufficient to impress the reader with its really beautiful style. The situation is very convenient for access of both exhibitor and visitor by land and water, and its relation to other buildings of the main group has been defined in a former number.

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

MR. B. J. GRAY.

The early part of Mr. Gray's life was spent in teaching and in the dissemination of the science he loved—Phrenology. He was for some time in the "forties" a student of the Fowlers, and for the most of two years he made phrenological examinations in their office. He was a natural teacher and an easy writer, stating his facts succinctly; a close observer, he loved Phrenology as

he did his life and placed it always on high moral ground.

In the earliest days of the California gold fever Mr. Gray was stricken with it. He thought that, by going to California, he could secure money which would be of benefit to Phrenology. He went, but was soon prostrated by illness and died, and Phrenology lost one of its early advocates.

He was gifted and well qualified to

make a mark in the world, but his journey to the west coast proved an unwise step, as it resulted in his early death. His purpose was good, but his physical strength was not equal to his desires; being accustomed to the comforts of an eastern home, he was deprived of what had become necessities in his life by going to the region of the "golden gate" when California was in its transition.

Mr. Gray was an accurate delineator of character; very intuitive and quick to draw inferences. He had a large development of the perceptive organs, and they, in connection with the organ of human nature, were specially interested in the action of the organs as exhibited in character, hence phrenological facts seemed to be specially in his line, and he communicated many such to the JOURNAL, and philosophised upon those exhibitions of character. We will give one fact in illustration. It is "the case of a man about fifty years of age, illiterate, who had previously given but little thought to religious or moral subjects; but, becoming much excited, and having his fears unusually alarmed under the influence of a protracted revival meeting he attended, his organs of Veneration and Marvelousness became excessively exercised, so much so as to produce violent pain in the coronal region of the brain; the corresponding mental manifestations were coincident with the doctrines of phrenological science. The intense action upon these organs caused him to have visions in his sleep. At times, as he supposed, Christ, clothed in white, appeared at his bedside and conversed with him, until the pain in the organs of Marvelousness and Veneration became so intolerable as to wake him from his reverie. The cause of his headache was ascribed by both friends and physicians to a disordered stomach, hence he resorted to medicine. But on hearing him relate the story of his vision, and that the pain became more intense immediately

after it than at any other time, I was satisfied that this was its procuring cause, and accordingly advised him to bathe his head (especially the top portion) freely in cold water, to labor moderately, and especially to divert his mind as much as possible from the subject upon which it had been excited."

Among the articles Mr. Gray contributed to the JOURNAL was an instructive and interesting one on "Continuity." Another was on "Education," from which we make the following quotation: "The true nature of mind has not long been understood, nor have the exalted ends to which this knowledge would necessarily lead, been appreciated until the cheering rays of Phrenology dawned upon our mental sight. Phrenology furnishes a standard by which all the phenomena of mind are clearly indicated, and its laws easily comprehended. These laws are permanent and uniform, and may be as certainly known and defined as mathematics, or any of the natural sciences, and that system of mental discipline can only be a correct one which harmonizes with them. The fact that the character of mind is solely dependent upon the kind and quality of organization, and the modifications made by culture should ever be kept in view. Although much of the existing error is owing to hereditary influences, yet it is chiefly attributable to improper training. Culture should be so directed as to train the faculties, as they are successively developed by nature. There are few with naturally so unfortunate an organization as not to yield to the reforming influence of a judicious and virtuous instruction. Nor would this ever be the case, were not nature perverted. So long as the organization—and consequently the character—is modified and changed by the plastic hand of culture, neither fate nor necessity can attach itself to the conduct of morals farther than the force of circumstances exerts its influence. Both indi-

viduals and masses must either improve or degenerate according to the natural or unnatural exercise of the faculties, which are educated continually by all the associations and influences brought to bear upon them, whether designed or accidental.

MR. J. STANLEY GRIMES.

Mr. Grimes is a native of Boston, Mass., and probably became interested in Phrenology at the time Spurzheim visited that place. In 1838, he was active in the phrenological field as a lecturer and practitioner in the science. In 1839 he wrote a book entitled, "A New System of Phrenology," in which he seemed to take satisfaction in making divisions and in giving names and definitions which no other "Phrenologist" had ever done. In the preface he says, "Admonished by the history of the past, it is without any feeling of presumption, that I present to the notice of the scientific public my new system of Phrenology; conscious that it must contain many errors which future experience, and just criticism cannot fail to detect. I appeal with confidence to the justice and candor of phrenologists. I invite their criticisms as a favor, and when I am convicted of error, either in facts or conclusions, I shall take great pleasure in making acknowledgments." He also said, "Spurzheim greatly improved the nomenclature and classification of the organs; and also contributed much towards giving a more philosophical account of the anatomical structure of the brain."

Mr. Grimes, following in the footsteps of Spurzheim endeavored also to improve the nomenclature and classification of organs as given according to Spurzheim. His book was criticised somewhat, and his system of Phrenology seems to have been adopted by few.

To the writer it seems to be very crude, as well it might be, as it was written in Mr. Grimes's youth and when he had studied Phrenology but a short time. Not being a scholar, he wrote

then some things which probably now, in his mature years, would not be satisfactory even to himself; however, his temperament was of the enthusiastic kind, and he became very sincerely interested in Phrenology and deserves credit for trying to do his best.

Mr. Grimes still lives, and is doubtless as much interested in the subject as formerly, although we have not heard of his lecturing for many years. He was president of the "Western Phrenological Society at Buffalo," when he wrote his book, and successfully labored for several years in New York and other States. The book is full of statements of facts that came under his own observation and which he used as illustrations of his argument. The following is one: "When I visited the State prison at Auburn, N. Y., in company with several of my class, I called their attention to the general deficiency of Conscientiousness among the convicts; it was in some instances so striking as to be perceptible by all of us at the distance of several rods."

CHARLOTTE FOWLER WELLS.

CHRISTMAS BELLS.

I heard the bells on Christmas Day
Their old familiar carols play,
And wild and sweet
The words repeat
Of peace on earth, good-will to men;

And thought how, as the day had come,
The belfries of all Christendom
Had rolled along
The unbroken song
Of peace on earth, good-will to men;

'Till, ringing, singing, on its way,
The world revolved from night to day,
A voice, a clime,
A chant sublime,
Of peace on earth, good-will to men.

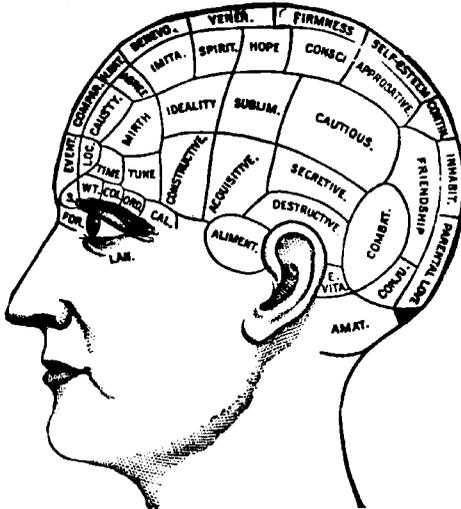
Yet, unforgotten where it lies,
That seed of generous sacrifice,
Though seeming on the desert cast,
Shall rise with bloom and fruit at last.

Whittier.

PRACTICAL PHRENOLOGY.

[CONDUCTED BY PROF. NELSON SIZER.]

PHRENOLOGICAL HEAD.



HUMAN PURSUITS, AND HOW TO STUDY THEM PHRENOLOGICALLY.

A FRIEND and former graduate of the American Institute of Phrenology has written a letter asking information through the JOURNAL relative to the faculties and talents necessary for the different forms of legal practice, or what special faculties and temperaments are related to the different phases of law practice, in reply to which we propose to respond through the JOURNAL. The letter is this :

Professor Nelson Sizer—Will you kindly inform us as to the requisites necessary to the different classes of lawyers to make each a success.

1. Criminal lawyer ; 2. Railroad lawyer ; 3. Real-estate lawyer ; 4. Corporation lawyer ; 5. Pleaders ; 6. Advisers ; 7. Drawing legal papers, and any others here omitted.

I would like to have you name the faculties necessary for each one, the temperaments, etc. I believe that Lincoln could never have succeeded so well

as he did had it not been for his faculty of Mirthfulness, and some lawyers seem to achieve wonderful success without the faculty of Wit. I have a great admiration for the profession, although I wish people would do so well that most of the law practice would be unnecessary. Your remark in the course of lectures that "A lawyer should be honest," strikes me favorably. In a criminal suit crime is not necessarily on both sides, and a lawyer might not espouse the side of wrong. Then what would the wicked side do? I know a lawyer whom I believe in, and who has good success on either side of the question, and I do not see how he can, and be strictly honest. Some lawyers can carry conviction on the side of error. There is a sentiment that a lawyer is true to his client, though that client may be a double dyed villain.

Yours truly,
E. C."

This opens a broad field for thought and comment, and possibly a difficult one. The general question arises, "What kind of an organization is necessary for a lawyer?" A man who has intellect can deal intellectually with the practice of the law, but how he shall deal with it must depend largely upon what his other faculties are." If a man has strong moral sentiments, Conscientiousness, Benevolence, Veneration, if he loves God and desires to work righteousness, if he loves his fellow men and wishes to do justice, he can be a lawyer, and make it a noble profession; and it may properly be said just here that I sincerely believe that a man who knows enough, and has moral power to appreciate duty and truth, can practice law in the fear of God and in the love of

the human race. He can be as clean and untarnished in his thought and word and work as Infinite Wisdom and Truth wishes him to be, and to emphasize this thought, it affords me pleasure to refer to a man who figured liberally in the law during this century, and who resided in Hartford, Conn. His name was Seth Terry, and he was always spoken of as "Deacon Terry." A glance at his picture will show that he had a massive intellectual development. His front head is high and broad and



SETH TERRY.

massive; it also shows a good development of the moral region. He was believed to be as honest a man as ever lived in that ancient commonwealth; but he found that the way law was ordinarily managed, he had to come in contact with chicanery and all kinds of trickery and unfair dealings on the part of those opposed to him, and he became disgusted; so he quit practicing in the courts, and he opened on his own account a kind of court of counsel. He would meet persons who had a disagreement, and by mutual consent they would come to-

gether to his office, and each state his case to Mr. Terry, and he would examine each party carefully, sit in judgment upon it, and decide the question for them, and they would accept his decision as final, and unite in paying such a fee for his services as was deemed requisite; and so he practiced law as a kind of judicial manager, or mutual judicatory.

Men who study law are as varied in their talents and character and mental make-up as men who follow commercial or mechanical or other industrial pursuits, there is likely, therefore, to be a grade of lawyers at the opposite extreme of the one to which we just referred. There are some in the opposite end of the scale, we know, who are called "shysters"; they are, in their profession, what some men are who do not conform to the honorable rules of labor, who are called "scabs." I suppose that men who are admitted to the bar are technically understood to be men of good moral character, as a man who is granted a license to sell liquors is supposed to be or, at least, is technically required to be, a man of good moral character. A man went before the Board of Excise in New York, desiring a license for the sale of liquors, and he was told that he would have to bring some reference as to his good moral character; his other requisites appeared to be satisfactory. He looked up in astonishment, and asked "What has a good moral character to do with selling whiskey?" and some lawyers perhaps may have the same idea; they might not expect or desire to practice law morally. The bad and dishonest habits practiced by this lower grade of lawyers have led some people to think that a practicing lawyer could not be an honest man, and that a strictly honest man would not practice law. We suppose there are honest merchants and honest mechanics and honest public office-holders—why not honest lawyers?

A lawyer may be talented, as keen as a razor, and yet immoral. If we are not

misinformed, there are lawyers in large cities whose business it is, or who accept it as a part of their business to give advice to rogues as to how they may commit their crimes and evade the punishment of the law—lawyers, in short, who advise villains how to be more villainous, and cover up their tracks. Hence, if a man wants to take a bribe, he is counselled not to accept it in the shape of a check, not to accept it in anything but money, and not to accept it apparently himself, but to have it passed over to some friend of his, who, perhaps, will receive just such another or similar service as an exchange for his part in this dirty work. Lawyers, doubtless, are like other people—graded from top to bottom. We have no idea that lawyers are any worse than other people; they may know better than other people how to do wrong and avoid detection.

If the people at large, aside from lawyers, were to become moral and correct in conduct, character and purpose, the lawyers would not have the temptation offered them that they now have to do rascally tricks. If a man accepts a temptation, there is also a tempter, and he is as bad as the one tempted.

Every day, if occasions offer, we advise young men who are our customers, that they may study law and keep a conscience clean and clear, and practice law to the honorable end of life. If one-half of the accusations brought against lawyers for being dishonest are true, I know of no field so promising as that of the law for strict integrity, with talent and culture sufficient to make one's excellent character available and well-known.

If so great a number of lawyers are dishonest, an honest man among them will count; his services will be sought.

I had a man under my hands for an examination, and when I had finished, I said to him: "Sir, what is your profession?" "I am a lawyer," he said. I replied, "You ought to succeed well from the description I have given you; you ought to be able to command re-

spect, and keep a clear conscience," I said. "Where do you practice?" He replied, "I practice in Springfield, Ill." This happened perhaps ten years after Lincoln's death. I laid my hand on his knee, and said, "Then you knew Abraham Lincoln?" "Yes; I knew him well." "What about him as a lawyer and as a man?" I asked. He replied, "Mr. Lincoln and I were not on the same political side; I did not vote for him, and what I say has no political bias; but I was really glad when he was elected. He was a fine lawyer; he was getting all the best practice; he would not take a case into court which he did not honestly think ought to win, and when a client came to him and stated his case, if occasion seemed to him to require it, he would say, 'I cannot take that case into court.' 'Why not? I will pay you well for it.' 'Of course, that you are able to pay is well understood,' Mr. Lincoln would reply, 'but I cannot afford to take it.' 'Why?' 'Because you ought not to win; you cannot win honestly; I cannot try to help you win.' 'But I will pay you well for the work, I want to give my opponent all the law he wants, and I want you to help me win.' Lincoln would say, 'You have no money to lose in punishing this man; you cannot afford to waste \$100 in a case like that. Bring the man here to my office, and I will see what I can do toward making a settlement without the cost of a trial and a judgment.' So in this way Mr. Lincoln would settle more cases out of court than he tried. In this way he would not smother his reputation or try to help some villain hide his crime. The result was that Mr. Lincoln got nearly all the good practice in that vicinity, and when he brought a case into court, it was tacitly understood by the bench, the bar and by the populace at large, that Lincoln was on the right side, and that he would get a verdict."

Men who practice on that principle rarely lose a case, unless it is through the stupidity of the jury, or by the brib-

ing, through friendship or by money, some members of the jury, and then a costly new trial may rectify it. It may be asserted, and perhaps without dispute, that there are less temptations for dishonesty and fraud in cases before court than there is practiced in commercial transactions, because before a court there is a judge, and the proceedings must be in accordance with legal forms. The judge often prevents questions being asked that might be treacherous, and lawyers that want to take advantage are often snubbed and sometimes rebuked by the court, and occasionally they are disbarred.

I have had a grocer's clerk tell me several lies or misrepresentations in regard to a fifteen-cent scrubbing-brush, which he said was composed of the best material and workmanship, which led me to look at it; if he had said nothing, it would have gone into the basket and passed, but the veneering which was nailed upon the back of the brush, to cover up the butt of the bristles, was a thin piece of sappy pine timber, and it was cross-grained and very rough, and it was tacked on with common carpet nails, and wherever a nail was put in it cracked the timber, and the first time it went into the water the back of that brush would crack, warp and come off. If a lawyer misrepresents relative to a case involving hundreds of dollars and also reputation, it is not quite so mean as to tell two or three lies about a fifteen-cent scrubbing-brush.

If A. T. Stewart had no other claim to memory and respect, he should not be forgotten, for the fact that he established in New York and indirectly in the whole country, the one-price system of selling goods, which now prevails widely; it is now the rule rather than the exception. It used to be said that a man's coachman or cook could buy anything at Stewart's on as good terms as the millionaire master himself could.

The first question of inquiry relates to criminal lawyers. Of course, all law-

yers need general intellect, and the better it is developed the more capable they are. If, then, any lawyer requires clear Perception, a good Memory, Comparison and Casuality, a criminal lawyer should possess these, but we think a criminal lawyer should have in addition large Conscientiousness to give him a sense of justice and a clear sense of moral motive; he should also have large Cautiousness to make him wary, guarded and careful. He ought also to have large Secretiveness to make him able to trace criminal purposes, and to account for various acts of the criminal before and after the fact. A person with small Secretiveness would have an idea that a person would take a straight line if he wanted to commit some crime. A man with small Secretiveness would have no idea that a person who wanted to crack a bank or rob a store or commit a highway robbery at a certain place, would start and go the other way, when he set out to do the work, and if it were proven that a man was seen going down the street at noon in an opposite direction from which the crime was committed, he would have no idea that he would slip out at some lonely place in the road, and go around the mountain or hill and double back uptown where he expected to meet at a given hour his victim or his opportunity for crooked work; but a man with large Secretiveness would be suspicious, and likely to think of all such double methods.

A criminal lawyer should have also a first-rate judgment of human character, should be able to appreciate the motives and purposes involved in a transaction. A criminal lawyer on either side needs the qualities that belong to a detective. In 1851 or '52 a young man came into our office and asked me for an examination. I noticed he had a wonderful development of the organ we call Human Nature, located at the centre of the top of the forehead, about where the hair generally commences. Laying my hand on the organ, I said to him, "You

would make a good Police Justice in New York. If twenty five culprits were brought into your court, you would, on coming in, take a seat, and quietly scan each person, and you would adjudge, in your own mind, the class of crime each would be likely to commit, and there would be one or two in respect to whom you would wonder what they were there for; you could not see anything of the criminal in their looks, and when the cases were presented, you would be pleased, and possibly proud, of the fact that you had been all over the matter in your own mind, and that you were correct." He said, "that's enough—that will do," and he jumped up. I said, "Hold on, I have but just begun." He said, "No, that will do, that is all I want to know. Mr. Fowler was in our city (I live in Chicago) a short time ago lecturing, and some of my friends persuaded me to go upon the platform, and be examined in public, and the first thing Mr. Fowler said was, 'This man would make a good policeman; he would smell a rogue three miles.' I am not much known in New York; my home is in Chicago; my name is Allen Pinkerton; possibly you may have heard of my name."

He would have made a good lawyer, a good magistrate, and he became a good and world-renowned detective.

A lawyer who has Human Nature large, and Secretiveness and Language large, will cross-examine a witness who is telling a lie, and do it in such a manner as to entrap the false witness. We are not now speaking of modest, bashful witnesses; they are sometimes perhaps unfairly treated by men who do not know anything but the thought of victory. A criminal lawyer ought to have large Firmness and Self-esteem so as to be persistent in his line of duty, and also command the respect of all men. We hardly need to add that a criminal lawyer on either side should have a good memory to hold the knowledge of law and also to be able to carry in his mind

the history of the case. He should have good Language to express handsomely and definitely his thoughts. A court should not have to sit all day and listen to an untrained and uneducated man in his blundering methods of treating cases. Keeness of intellect and culture belong to such a profession. Eloquence, ordinarily, and a good memory, large Language and a fertile imagination are indispensable to complete results in that noble profession—the practice of law.

It is supposed that a lawyer knows if his client is guilty. Some criminal lawyers demand to know the whole truth of the whole case before they will touch it. I have frequently read of instances in England where a barrister would throw up his brief, and abandon the whole case in the midst of it because he had been deceived by the solicitor who had instructed him, and this act put a hundred feathers in his cap of honor.

Another abuse in the trial of criminal cases is the clogging of the progress of the trial by bringing about a disagreement of the jury, taking exceptions, and carrying the case to higher courts. In this State, cases which had been sentenced to execution by electricity have been sent to the Court of Appeals, and an effort was made to carry one case before the Supreme Court of the United States, and the men who did it were not ostentatiously trying to prove the man innocent, they accepted his guilt, and were trying to baffle the law, and make a miscarriage of justice through some technical flaw at a needless and useless expense to the State of many thousands of dollars. Sometimes the indignation of the public makes short work of a circuitous and tardy management in court, and takes justice in its own hands; it is called "Lynch Law." We must defer the consideration of the other types of lawyers mentioned in this article, as there are many phases of law practice, as in commercial business and other vocations, but will continue the subject in future numbers of the JOURNAL.



HEADS AND FACES AND WHAT THEY INDICATE.

By NELSON SIZER.

CHAPTER I.

We are sometimes questioned in this manner: "How do you study a face? How do you study a head? How do you study the whole constitutional make-up so as to feel a good degree of confidence in the result? I am interested in faces, and I think I can determine intelligence by looking at a face as a whole, and I can tell Amiability from Severity of disposition. But how do you study the complexities of mental development? The great outlines of character, I suppose, are not difficult to be understood, but the biography, the warp and woof of a man's character and a woman's or a child's spirit and disposition, how do you get at all that? For instance, I see an eminent and excellent person, who has lived long enough to have a bald head, it may be as round as a billiard ball. Men talk

about bumps, but there are no bumps in such a head, therefore, how can you determine characteristics?"

In replying to such questions, or any others which may arise in the minds of thinkers, readers and observers, we beg to say, in the first place, that we never have studied heads by means of bumps. Nothing pleases us so much as to see a handsome, well-formed head, or a face without any peculiarities of facial expression, or a head without any bumps, hillocks or inequalities of cranial development; the most evenly developed head and the most uniform type of face is artistically and practically the best.

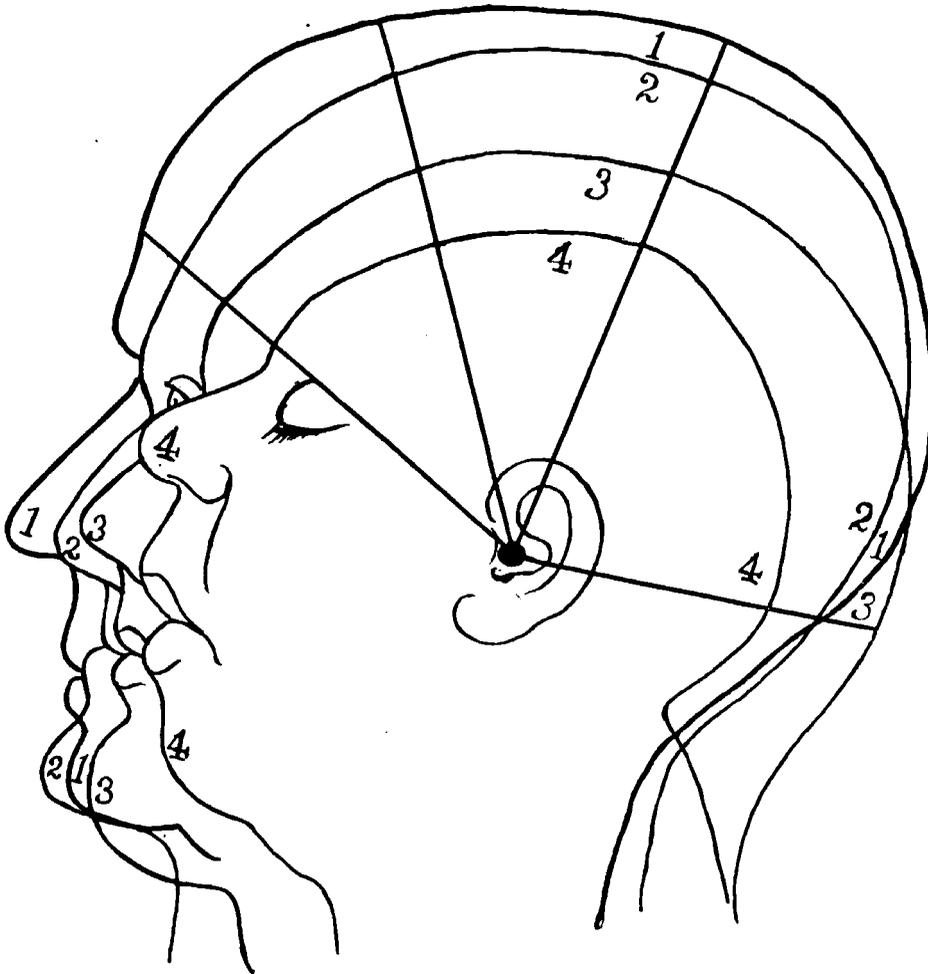
We study these heads from the centre of the brain at the medulla oblongata, or the capital of the spinal cord. The brain is developed by fibrous extension, and the length of these fibres which

terminate at the surface of the brain determine the development of the cerebral mass.

In these outlines we present to our readers, in one sense, a new departure in phrenological illustrations. There are several lines radiating from the opening of the ear in these outline heads, and represent the mode of brain growth and development as we study it

taken by photographic process, the distance from the lens to the centre of the bust in each case was the same; so the result of the different outlines represents the relative size and form of each of the casts.

In Figure 1, we have the great Daniel Webster, who, in his lifetime, was called "godlike," for his majestic presence and his superb breadth of mental life.



FIGS. 1 TO 4.—1, WEBSTER. 2, CALHOUN. 3, MARTIN. 4, HILLINGS.

in real life by distances from brain centre, not by bumps. The four busts which are represented in each of these groups of drawings, one a set of side views, and the other the outline backview of each head, are copied from original casts, taken from the heads during life; and these pictures being

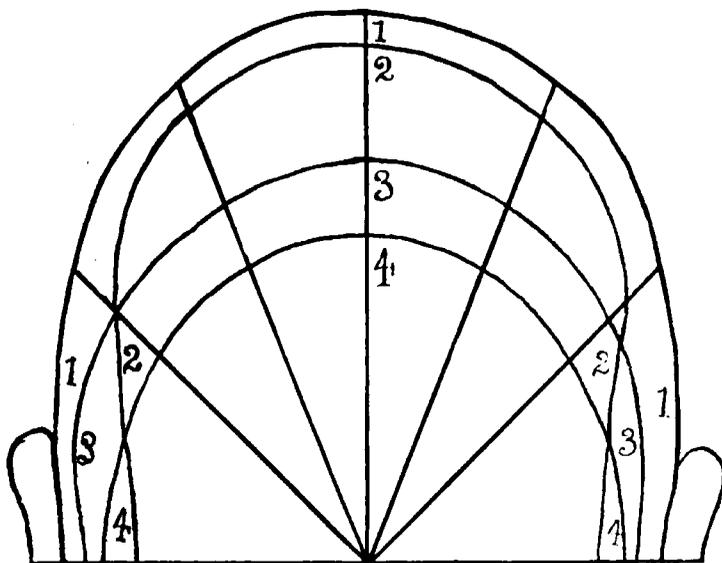
Figure 2, is that of the cast of John C. Calhoun, the great southern statesman. These two busts were the only casts ever taken of Webster and Calhoun. They were carefully taken by the artist, Clark Mills, of Washington, in Washington, therefore being casts and not models, they represent the exact size and form

of the heads of these two great men ; there is not the difference of the thickness of a postal card, at any rate, on the portions that were not covered with hair, and this was wet and laid close to the head ; and Mr. Webster had but little hair in 1847.

Figure 3, Martin, the murderer, it will be observed, has a low and retreating forehead, the moral region is low, and

was 7 inches ; that of Calhoun was 6 3-8. The vertical elevation, from a linedrawn from the opening of each ear, in Webster was 5 3-4 inches ; that of Calhoun was 5 1-4. The caliper measurement, from the opening of the ear to the centre of the tophead, making rather a diagonal line, was in Webster 6 3-4 inches ; and in Calhoun 6 3-8 inches.

The head of Martin (Fig. 3) is 7 7-8



FIGS. 5 TO 8.—1, WEBSTER. 2, CALHOUN. 3, MARTIN. 4, HILLINGS.

it is broad and heavy at the base, and extends backward from the ear, considerably beyond either that of Calhoun or Webster.

Figure 4 is a drawing, taken as we have described, from a cast of the head of one of the Hillings family of idiots. We have the mother and five adult children ; this is one of the children.

Remember that the opening of the ear in all these portraits is the central or focal point ; they are matched at that point, and the development in each direction is in exact accordance with nature.

The caliper measurement of Webster's head, from the centre of the forehead to the most prominent part of the back-head was 9 1-4 inches ; that of Mr. Calhoun was 8 1-4 inches. The diameter of Webster's head, just above the ears,

inches from front to rear. The vertex at Firmness—the head runs up narrow at the top, a kind of wedge—is 5 1-4 inches high, and it is 6 1-4 inches from ear to ear, and from the opening of the ear to the centre of the tophead by calipers—that is, a straight line from the opening of the ear as a caliper would measure it—is 6 1-8 inches. The head No. 4 measures 6 inches from front to rear ; it is 4 3-4 inches high, and 5 inches wide just above the ears.

We may say, therefore, distinctly that phrenologists, who understand what has been taught, from the days of Gall and Spurzheim until now, do not look for bumps, as many persons seem to suppose, as if the last half inch of a man's head was made into waves like those of the sea, the crest showing power and the trough weakness. We

sometimes find heads of the same length from the forehead to the back head, but one will be two inches wider above and about the ears than the other, but they may also be of the same height from the ear upward, the difference being in the development of the side head, and

that the phrenologists who understand the subject do not look for hills and hillocks, for bumps and ridges; yet, sometimes one part of the head will be an inch farther from the centre than another part. It is not uncommon to find the front half of the head to resem-



FIG. 9. A WIDE HEAD.

yet there is no bump, no little hill or hollow, but the general breadth of the head shows it. A small apple may be as round as any other, there are no hollows in it because it is small; another apple is large, but there are no bumps on it, it is made up of general fullness



FIG. 11. A HIGH HEAD.

ble one parent, whose head measured 21 inches, and the portion of the head back of this part will abruptly increase in size, representing the other parent, who had a twenty-three inch head; it does not make a bank nor a wall where it meets the smaller half of the head, but



FIG. 10. A NARROW HEAD.

and length of fiber from the centre to the circumference; and if the reader will bear this thought in mind, as we proceed to explain and illustrate this important matter, and we hope to settle it once and for all time, and it is this



FIG. 12. A LOW HEAD.

it rises rapidly to a larger form, and thus represents a head that measures 23 inches. Nothing is more common than to find the forehead constituting about one-third of the length of the head, and the back and front head rep-

representing a 22-inch head, but the section between being piled up massively, so as to represent a 23-inch head, and nothing is more common than to find the middle section of the face, from the corner of the eye to the corner of the mouth, large as compared with the forehead and chin; and that middle section of the face corresponds to the middle section of the head; and while we are here, we may say also that the chest

the heavy eyebrows, and with it a masterful constitution, imparted that peculiarity to his progeny, which is not easily effaced. Another line of people will have the marked development of a long nose with a peculiar straightness; another family or line of families will have the Roman nose; another family will have the nose broad at the bridge, or broad at the wings. Then there are peculiarities of mouths in some fami-

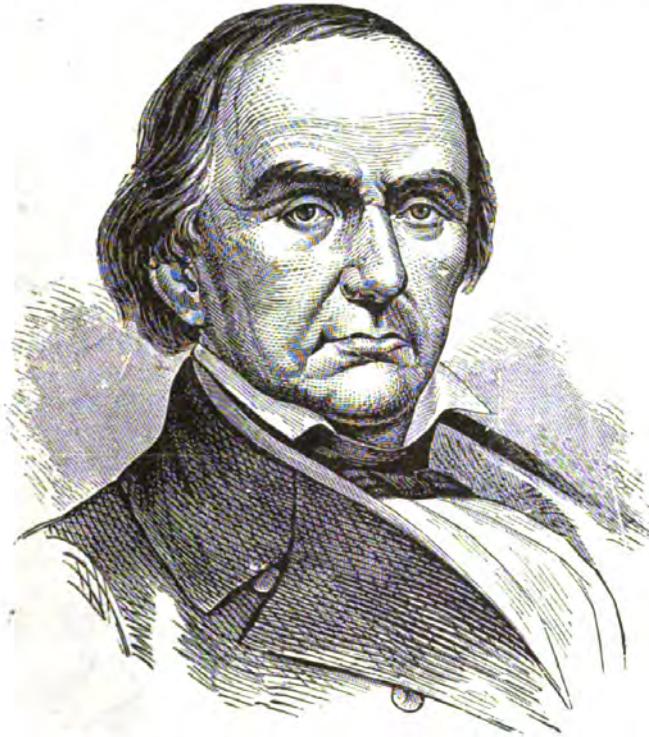


FIG. 13. DANIEL WEBSTER.

corresponds with that portion of the face and head; and we hope to make these points as clear to others by comparison as they are to us.

In the wonderful intermingling of peculiarities of character by marriage and birth we find developed eccentricities of features and eccentricities of head. In one line of progenitors there is sometimes a characteristic feature of the face, a massiveness over the eyes, and heavy eyebrows, which will run for half a dozen generations, and mark all the children, because the ancestor who had

lies, in others we find the mark of some progenitor who had prominent teeth, and a heavy, hard-looking upper lip, with a great groove in the centre, and some men who have that, and who shave, the upper lip looks like a mass of granite, quarried and sculptured into shape. Another family will have the softer upper lip, rolling out instead of being curved partly under; then there are families who will have the heavy under lip, heavier than the upper, a prognathous under jaw. In another family we see the retreating chin, almost

absurdly so, and a short under jaw, and we advise such men to wear a beard to cover it, if they can; then other families will have a broad, strong, protrusive chin. Now, none of these peculiar forms of features are beautiful; they may be majestic, they may be resolute, and they may indicate steadfastness, they may indicate duty well done, or being well done, or determination to do duty.

In studying heads, we sometimes find a forehead very protrusive in the lower part, but retreating upward and backward. Another person has a moderate development across the brows, and heavy upper forehead—what we call a beetling forehead; another is narrow at the temples, and the face is comparatively sharp; another is bulged at the temples, wide and massive; one head is heavy just above the ears, and tapers off both ways, front and rear. Another is wide at the upper back region of the head and wide or narrow in front; one is straight up and down at the back, another stands out, and has a long, and graceful curve. Another is high at the crown; one is well rounded in the middle and top-head, and another is comparatively flattened, and in some heads there seems to be a kind of hollow at the top, it is less than flat in that region.

In speaking of faces, one has broad cheek bones and another narrow; one a long, protrusive mouth and heavy lips; another has a prim mouth with thin lips. When people talk of heads and faces they seem to appreciate and enjoy saying, "A person has regular features, a fine, expressive face." Another has a "well-rounded, handsome head." Women, when talking of their babes, will speak of one as having a very beautiful head, so symmetrical and graceful in all its lines; and another has a long head, sharp in front and rises at the crown, and they think it is queer, and wonder what it indicates, and especially young mothers when they see their first

babe, almost without any forehead, and the crown looming up, they are afraid, and sometimes ask us if the child will ever have a better-shaped head, and if we think the child will ever know anything; four months afterward they forget to ask such questions; the head comes into shape and is amply developed. Of course, the infantile head changes rapidly in form.

A cat's brain is about the size of an ordinary apricot or the egg of a bantam chicken; it is developed by fibres, and



FIG. 14. A CAT. FIG. 15. A MONKEY.

when the fibres stop extending the limit of the brain development is reached. A dog has a larger brain, and a monkey still larger; and the length of fibre is the mode of the increase of brain from that of the smallest to the largest.



FIG. 16. A DOG.

When we examine a given head we measure it in circumference and in several other ways. We study its relation to the size of the body and the manner in which it is nourished.

The method we adopt in the cases of Figs. 1 to 8 shows the relative size of the head, and the measurements which we give indicate the real size.

CHILD CULTURE.

THE TEACHER'S SOURCES OF INSPIRATION.

IN the school-journal, Mr. James Buckham speaks warmly and appreciatively of the teacher's vocation.

The profession of teaching is one whose success very largely depends upon the enthusiasm with which it is conducted. A teacher who lacks this quality seldom accomplishes the best results in his work, no matter how faithfully he may toil. The laborer's soul must be in his task. The way to impart knowledge is to love, not only knowledge, but the privilege of sharing it with others. And this sincere love of the teacher's chosen task grows out of the inspirations peculiar to it. No profession has nobler ideals or more inspiring possibilities to uplift and inflame the souls of those who devote themselves to it, than the profession of teaching. Let us glance at a few of the sources of the teacher's inspiration.

First of all, there is the lofty consideration that the teacher's influence is, above all others, save that of a parent, the formative influence in the life of the young. The hand of the teacher, like the hand of the potter, determines the shape and character of that finer human clay, which God sends into the world so plastic and impressible, but which so quickly hardens into the fixed and firm outlines of character. There are other processes in life which contribute to the development and completion and embellishment of character, just as the potter's clay must go from his hands to those of the glazier and the decorator; but the shaping of life, the determination of its general purpose and trend, depend in large measure upon the kind of instruction and the kind of influence which are brought to bear upon the young in the school-room. Let the teacher reflect that each day and hour he is shaping, from material in compar-

ison with which the finest Parian marble is gross and worthless, statues more beautiful and more immortal than those of Praxiteles, and the inspiration of the thought should flood his whole being with such a joy and passion of service, that every day of toil should be haloed with sanctity, and every hour of restful reflection filled with thankfulness and consecration. "What chisel can carve an angel?" asks the poet. Truly, no chisel of steel; but with a diviner instrument, the influence of character upon character and mind upon mind, the teacher is every day cleaving and shaping some immortal son of God, whose being shall outlast the sun and stars.

A second source of the teacher's inspiration is the thought that education is the great world-moving and world-determining force of to-day. The avenue to success in any department of life now lies straight through the temple of knowledge. All great industrial, mechanical, scientific and literary achievement must be purchased with the gold of education. The teacher, then, stands at the gateway of power. He is the guardian and the steward of the world's most priceless treasure. In imparting knowledge to others he is discharging the most noble and important service possible to man. The teacher sustains very much the same indispensable relation to the intellectual prosperity of a nation that the farmer sustains to its material prosperity. All material wealth depends upon the fruit of the soil. So all intellectual wealth depends upon the fruit of the school, the kind of equipment which our boys and girls, our young men and women, are getting from the educational institutions of the land.

Once more, there is inspiration for the teacher in the fact that the greatest

minds in the history of the race have believed in him, extolled him, and encouraged him. Where will you find, in all classical literature, ancient or modern, a passage which belittles or condemns the work of the educator? While other professions, even the most sacred, are often assailed and decried, genius has but one sentiment, one utterance, for the instructor of youth. The salvation of literature to the educator is always, "*salve! benedicite!*" From the earliest bard to the most modern of essayists, those whom God "whispers in the ear" have a message of kindness and respect for the teacher. What grander inspiration than to be well thought of by those who have thought the best? When the poet and the philosopher, the essayist and the preacher, the scientist and the man of affairs, with one voice unite to honor the teacher, is there one who shall stand up in our midst and say that the life of the educator lacks the power of inspiration?

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"APPERAFILE"—(AFTER A WHILE.)

HE was the sweetest little boy you ever saw, charming in every way. He was only three years old, and he had a wonderful intelligence and the most angelic nature. He was always winning and friendly. He talked all the time, and wanted to be talked to as well. With all his amiability and winsomeness he was not one of those babies than can be set down with a lot of wooden animals or tin soldiers to amuse themselves; he wanted real flesh and blood to match his powers with, and a great deal of what he called "tention." His poor little widowed mother was very sad and distraught, losses and troubles had come upon her so thick and fast; but she loved her boy to her very heart's core. She was often absent-minded, and failed to answer his little demands, and this he resented sadly with a trembling of his pretty lips. He told his old auntie of his troubles:

"My mudder wont lissen to me when

I tells my 'tittle stories; she des doze and fits in ernudder tair and 'ooks in defire."

The dear little dimpled sweet faced angel of a boy had only one failing, and that was procrastination; he never was quite ready for anything. Were his hand to be washed? "Wait a minit; me'll tum apperafile." Was he called to dinner? "Me ain't hundry now; me'll be dare apperafile." Was a drive proposed? "Me's payin' fait tain now; me'll be yeddy apperafile."

It came to pass in this sad world of ours that the poor little sorrow-worn mother fell ill. The dear baby hovered around her all the time, performing lovely little ministrations that seemed strangely wise for his tender years. His little hands, like crab-apple blossoms in their pinky fairness, were so helpful and steady; the tiny feet, winged with love, were fleet to do his "mudder's" bidding. Finally, the day came when his dear "mudder," or the mortal part of her that he loved, could not last much longer, and, calling the dear, wise baby to her side, she talked to him in her low caressing voice.

"Now, darling, mother has to go on a visit to a sweet, far-away country, where God lives; she can not take you with her now, but you must be a good boy, and you can come there some time. She will see your papa and your pretty aunties who went there when she was like a June rose—and all this pain and coughing will be over."

His great, wondering eyes rested on hers, not sadly, but full of interest in his mother's pleasant journey. Then she kissed him, and oh, how she strained him to her heart! Friends gathered around to say a few last faltering words; she answered them calmly, with that unselfishness that had made her life so beautiful, but the last low whispers were for her little man:

"You'll come to see me sometime, won't you, darling?"

He nestled his bright head down on the heart that was growing chill, and said: "Yes, mudder, tell Dod me'll be dare apperafile."—*Harper's Young People.*

A WORD TO MOTHERS.

“THE only efficient temperance society will be that made up of conscientious mothers, who not only add line upon line and precept upon precept, but who are willing also to add an every-day example.”

This remark, or something like it, was made by an old gentleman lately who was giving his opinion on the prohibition question. The only way to bring about the long desired result according to his argument is to educate the children up to it, and although I fully agreed with him as to the feasibility of inculcating temperance principles in the minds of the young, I could not help thinking that it would be wise to continue working in other ways meanwhile.

But his words brought to mind a conscientious mother whose acquaintance it was my good fortune to make years ago. I well remember how scrupulously she carried her temperance principles into her cookery. It was the custom of the women of that locality to use cider in their mince pies, as this was a home product and more easily obtained than brandy, but not a drop of it would this consistent temperance advocate use. She hated the vile stuff. It was the habit of an old gentleman who lived in the family to keep a mug of cider standing in the pantry, from which he would occasionally take a swallow. This he thought no harm, and not a man in the neighborhood considered himself more temperate. But I can see now the look of disgust which would pass across that lady's face when occasion required her to touch that mug.

When her youngest son had grown to manhood he became the owner of a certain lot upon which he was advised to erect a cider-mill, and for the locality no building could have been made more profitable. But this young man had been too thoroughly trained to be willing to barter principle for profit, and the cider-mill was never built.

This lady had a daughter who was the mother of two fine girls. From babyhood these little ones evinced great love for the cause of temperance, and when but 7 and 9 years old drew up a total abstinence pledge, and obtained the names of nearly half the people in the neighborhood, both old and young. The youngest would often mount a cricket and deliver a temperance lecture, much to the amusement of the family.

These children lived in a by-place, and had never heard a temperance lecture in their lives, and though well provided with suitable temperance literature, I doubt if they ever had seen a pledge. Neither did they belong to that unfortunate class who learn to hate alcohol through acquaintance with its terrible work. I doubt if a more temperate family could be found. Even to the fourth and fifth generation back upon the mother's side, these children might trace a clean ancestry, and nearly as good a record could be shown upon the father's side.

The mother of these little girls would sometimes say “If my girls were boys, what grand temperance men they would make,”; but was always reassured and more than satisfied when she remembered that through these little women the chain might be indefinitely lengthened. The grandmother of these children was not one who advocated the cause with many words; in fact, I think she said less than most, so it was not what she did, so much as what she was, which sent a long train of influences adown the years.

Let us then, dear sisters, live out the old aphorism, “Be what you would have your children to be.”

MRS. S. E. KENNEDY.

EDUCATING THE WHOLE CHILD.

WHILE the common sense of mankind teaches that the whole nature of the child—body, mind and heart—should be educated, a common notion has prevailed that the school

should educate the mind alone. Nor has the current psychology corrected this notion. Separated on the one hand from physiology, and on the other hand from sociology, current psychology has become but little more than a logical consideration of the mental powers, according to the conception of some one man or of some school of philosophy; and, what is worse, the intellect has usually been made so prominent that the feelings and the will have been almost left in abeyance. The connection of mental life with organic life has received but little, if any attention; even the nervous system, upon whose action the mental and spiritual life of man are so dependent, has been hardly touched by the current psychology. Moreover, the study of animal life, of savage life, of child life, and of man as shown in biography, history and literature, has been lost to the common psychologist engaged in studying the workings of his own mind, and in metaphysical speculations too fine or too lofty for common humanity.

Dr. Hopkins in this country, and Froebel in Germany, have taught that the whole nature of the child must be understood in order that he may be trained aright. "The whole child must be sent to school," and so trained there that his whole nature will grow in beauty and strength. Then the shortcomings of the schools will diminish; word-knowledge without a basis of reality will disappear; the minds of children will take in what is adapted to their nurture and culture; and the powers to strive for and to accomplish will be strengthened and perfected.

ELLIS PETERSEN.

EARLY MENTAL DEVELOPMENT.

BOTH common observation and the closest scientific study have made it plain that youth is the period of sense ascendancy. From this most important conclusions follow, which we can not ignore without paying a heavy

penalty. Attention has been called to the infant in order to show that, prior to all school education, Nature asserts herself, and points the way in which the human brain and mind develop. Any education that overlooks these facts is directly against the organization we possess, and must be more or less of a failure. How far our methods have been and are in harmony with them I shall presently attempt to show.

For the moment let me follow the child out of the stage of infancy into that of school age. The boy of five, let us suppose, is sent to school a perfect stranger to books and the usual educational equipment. Everything on the road to school attracts him to such an extent that likely enough he may arrive late. When at school the teacher may find him so restless that the question of keeping him in order so that he shall not disturb others is a matter of serious difficulty. So long as he can be kept in action things go well enough, but to keep this activity within conventional bounds is the problem.

Very often repressive measures that quite paralyze his nature are resorted to in order to adapt his organism to the environment instead of the reverse being attempted. It is forgotten too often that if this young creature were not active, even restless, impulsive, inattentive—i. e., ever ready to secure some new impression—he could not develop after Nature's plan.—*Popular Science Monthly.*

THE CHILDREN'S BUILDING.

IT should be noted that the young folks of American society will be represented at the Chicago Exposition by a special department, where their interests in many ways will be cared for. From the circular on the subject sent out by the managers, it will be seen that the object is not only to provide a place where children can be cared for, but to be instructed as well. This building will prove an attractive feature for

many besides the mothers. It goes without saying that in many cases it will be impossible for women to visit the World's Fair without taking their children, and in so doing they will wish the little ones, as well as themselves, to take the fullest advantage of the educational facilities there offered. With these ends in view, the children's home has been designed, which will give to mothers the freedom of the Exposition while the children themselves are enjoying the best of care and attention.

In the children's house will be presented the best thought on sanitation, diet, education and amusements for children. A series of manikins will be so dressed as to represent the manner of clothing infants in the different countries of the world, and a demonstration will be made of the most healthful, comfortable and rational system of dressing and caring for children according to modern scientific theories; while their sleeping accommodations, and everything touching their physical interests, will be discussed. Lectures will also be given upon the development of the child's mental and moral nature by improved methods of home training.

The building will have an assembly-room containing rows of little chairs, and a platform from which stereopticon lectures will be given to the older boys and girls about foreign countries, their languages, manners and customs, and important facts connected with their history. These talks will be given by kindergartners, who will then take the groups of children to see the exhibits from the countries about which they have just heard. This audience-room will also be available for musical, dramatic and literary entertainments, which will be carefully planned to suit the intelligence of children of varying ages.

TO KEEP EYES BRIGHT.—A Frenchwoman who appears to know what she's talking about, has this to say on the subject of eyes :

"Never rub your eyes, nor allow your children to do so from their cra-

dles. Veils are bad for the sight, especially those spotted or covered with a pattern; so eschew veils when you can, or wear the softest, clearest net when obliged to do so. Never read in bed or when lying on a sofa. Always sit with your back to the light when engaged in reading or working. Pale blues and greens are the most restful wall papers for the eyes, whereas red is exceedingly fatiguing. Do not read, write, or work longer than two hours together without resting your eyes and closing them fully five minutes. Be most careful to live in a dry house on dry soil. Attend to the digestion, for did not Milton declare his blindness to proceed from the effects of dyspepsia? If the eyes be weak, bathe them in a basin of soft water, to which a pinch of table salt and a desert-spoonful of brandy (or alcohol) has been added."

~*~*~

Mamma, is
the sky a cur-
tain hiding heav-
en from our sight?
Are the moon and sun
but windows made to give
the angels light? Are the
stars bright flashing diamonds
shining from God's hand afar,
and the clouds, but veils of vapor
dropped from heaven floating there?
If the sun's a window, mamma, don't
the angels through it peep, ere it kisses
earth at even watching o'er us while we
sleep? Is the rainbow just a
ribbon, girding heaven and
earth about, or a railing
made of roses, so the angels
won't fall out? Is the sighing
in the tree tops songs of
praise some
angel sings, and
the snowy
flakes of winter
feathers falling
from their
wings? Are the
dew-drops
brightly shin-
ing in the early
morning hours
kiss-spots left
by elves and
fairies, where
they slept
among the flow-
ers? Is the
lightning rock-
ets flying when
the Prince of
Glory comes?
And
the thunder
but the rattle
of the baby
angels'drums?
? ? ?
—*Good Housekeeping.*



KNOW, THYSELF.

ONE can not help admiring that exhortation which was written on the wall at Delphi, for in it is found the true key-note to success and fame. We find it to be the foundation upon which all the truly great men of all times have built, for he who would improve himself must first know himself. History shows that this was inculcated by Socrates, the pre-eminent teacher of practical ethics, who measured every species of knowledge by its tendency to make man better, and regarded this maxim as the summary of wisdom. Foremost among the various divisions under which man may be studied are anthropology, psychology, and physiology.

As the term implies, anthropology treats of the entire man, body and soul, physically and intellectually. It treats of man in natural history; it investigates him as a complex whole, as varied in temperament, race, sex, and age; as affected by climate, civilization, and various other surroundings. It even inquires into the formation of man and discusses the influence of the soul upon the body and the influence of the body on the soul, and various other phenomena often considered as confined to other special divisions; but it notices and records these phenomena only as they may be seen by general observation and require no scientific analysis or

demonstration. Psychology, the term meaning discourse of the soul, takes up the study of the soul where anthropology lays it down, and in the term are included the ordinary terms mental philosophy, intellectual philosophy, metaphysics, etc. Since psychology is built entirely on experience it is an intensely interesting as well as instructing *science*. This part of the study of man is one that should be pursued by every one, for it teaches the methods for making ourselves better by reflecting upon our own natures, and our own personal experience. It teaches the principles of self-control and self-improvement, for it is obvious that one can not improve his character until he knows what his character is. Moreover, psychology teaches us how to put ourselves in the condition of others and thereby causes us to cast off the ungainly robe of selfishness and replaces it by unselfish feelings, sympathy, and divine charity. That psychology is indispensable to education needs no argument, for those who impart knowledge to others must become so thoroughly acquainted with their own infirmities and sensibilities as to be able to answer questions which may arise regarding the methods of imparting knowledge to others through the habits and knowledge which result only from intelligent self-study.

It should be remembered that psychology is by no means antagonistic with material science, although in reflecting upon our intellectual faculties we discover in them certain laws which seem to differ widely from those to which we have been accustomed. This generally results from a tendency to resolve the soul into matter or to study matter by the soul, which is in every instance a serious fault, for the soul must be regarded as governed by the laws of psychology or spiritual laws, the material by material or physical laws. And while material science is parallel to psychology it does not, in reality, conflict with it, and they may be compared to two trains which may move along in the same or opposite directions without collision.

Physiology treats of the more thorough examination of the functions of the body, and is one of the most important divisions of the subject under consideration. We can not look upon the wonderful machine which the deity has placed upon the earth to preside over creation without admiring the beauty of its form and the symmetry of its parts, yet how often we see this noble structure deformed simply by disobedience to the laws of nature. Nature governs all her works by simple laws, and when these laws are discovered the explanation of her most involved phenomena are often brought within the grasp of human reason. It is the duty of each individual to study the laws of nature, and especially those which are known to govern the operations of the human frame in health and disease. It may be argued that this is the duty of the physician and the surgeon, and others more intimately connected with medical science. Certainly it is, but it is also the duty of every person to study the wise ordinations of nature that regulate the operations of the human system, so as to avoid doing those things which tend to interfere with the workings of nature, for when nature's laws are dis-

obeyed, disease invariably results. As the beast is endowed by nature with instinct which teaches it to avoid the poisonous herb, so are human beings endowed with certain mental faculties, by the proper employment of which they are taught to shun those things which will prove detrimental to them, as well as to grasp that which will prove beneficial.

There are certain deformities of the human body which result from accidental weakness or unfavorable circumstances surrounding the individual, but now and then they fall upon the innocent child as the bitter curse of Providence upon the errors of the parent and seem to stand out as monuments of Divine wrath. As examples may be mentioned curvatures of the spine and club foot. But there are certain deformities that are brought upon individuals by a lack of knowledge or judgment on their own part or on the part of parents or instructors and a consequent violation of natural laws. For instance, curvatures of the spine often result from relaxed ligaments and weak muscles, which are caused by imperfect nutrition of the osseous and muscular system; and the habits and attitudes at many schools of our land, and even in some homes, are admirably adapted to give the greatest possible effect to these causes of deformity, and not until the study of *man* himself become more general, and the relations he bears to his fellow-beings and the duty he owes to himself and his Maker be made the subject of more thorough investigation, will these evils be obviated. J. H. E.

OVERCOATS AND CATCHING COLD.

SOME practical comments by the editor of the *American Medical Journal* on the common use of overcoats are worthy of a much more extensive reading than that obtained by even a popular medical monthly. They are the following:

This is the season most appropriate for a little serious reflection on the sub-

ject of clothing. Nothing seems more simple than to adapt clothing to the weather by the addition of thicker flannels and overcoats as the occasion requires. It must not, however, be forgotten that just in proportion as the garment superimposed upon the ordinary clothes is effective in producing warmth, it acts by arresting evaporation of warm vapor from the body. The warm vapor rises through the clothing, and is prevented from escaping in proportion to the thickness of clothing. Thick garments become saturated with the vapor.

An overcoat has a good general effect while kept on, but the moment it is removed evaporation takes place more readily, and the body is placed in a "cooler" as it were. Place a damp cloth around a butter-dish, and the vapor passing off abstracts the heat and leaves the contents of the cooler refrigerated.

An overcoat does not prevent the underclothing from being saturated with moisture, but actually tends to make moisture accumulate therein. The evidence of this is the sense of genial warmth felt while the coat is worn, and the moisture perceived especially under the arms and sides of the chest.

We take off the overcoat as we enter a house, and that, too, precisely at the moment when muscular activity is suspended. Our change in environment now is greater than we sometimes imagine, and nothing requires greater care than to know just how to protect our bodies from "catching cold" at this unguarded moment. It is opposed to all the rules of health to allow clothing to become saturated with perspiration and then take off the external covering and suffer rapid cooling by evaporation. While if it were designed to do this at the worst possible time, probably none worse could be found than when muscular exercise has been discontinued.

It would be far better to wear but one

coat at a time and make whatever change may be necessary by removing a thin coat and replacing it by a thicker one when going out doors, and the reverse when coming in. If, instead of wearing overcoats, people would wear coats of different thickness, according to the weather and the atmosphere of rooms, they would avoid the dangers of cooling by evaporation. The saturated garments with moisture would be thus removed, and the body would be dried off instead of the garment.

We believe no inconsiderable proportion of colds, lumbago, muscular pains, rheumatism, and the more formidable results called chills and fever, may be traced to the carelessness and want of knowledge upon the methods of protecting the body in these particulars. The avoidance of these perils require the greatest care and a thorough knowledge as to the laws of evaporation.

IRREGULARITY IN EATING.

IT is most evident that people of all classes need frequent admonition with regard to eating at regular times. The following from the *Boston Journal of Health* is therefore appropriate :

A common cause of indigestion is irregularity respecting the time of meals. The human system seems to form habits, and to be in a degree dependent upon the performance of its functions in accordance with the habits formed. In respect to digestion this is especially observable. If a meal is taken at a regular hour, the stomach becomes used to receiving food at that hour, and is prepared for it. If meals are taken irregularly, the stomach is taken by surprise, so to speak, and never in that state of readiness in which it should be for the prompt and perfect performance of its work.

The habit which many professional and business men have of allowing their business to intrude upon their meal hours, quite frequently either wholly

depriving them of a meal, or obliging them to take it at an hour or two later than the usual time, invariably undermines the best digestion in time. Every individual ought to consider the hour for meals a sacred one, not to be intruded upon by any ordinary circumstances. Eating is a matter of too tremendous importance to be interrupted or delayed by ordinary matters of business or convenience.

The habit of eating should be cultivated early in life. Children should be taught to be regular at their meals, and to take nothing between meals. This rule

applies to infants as well as to older children. The practice of feeding the little one every time it cries is a most serious one to its weak, digestive organs. An infant's stomach, though it needs food at more frequent intervals, two to four hours, according to its age, requires the same regularity which is essential to the maintenance of healthy digestion in older persons. The irregularity usually practiced is undoubtedly one of the greatest causes of the fearful mortality of infants from disorders of the digestive organs, as appears in our mortuary reports.

MODERN FOOTBALL.

[ILLUSTRATED.]

IN the PHRENOLOGICAL for December we published photographs of some notable bicycle riders. In the present issue our readers are treated to views from another field of athletics or sport, that of football.

Love of muscular amusement or sport is a characteristic common to human beings and of many of the lower animals. In the former, it is partly the outgrowth of mental faculties which, comparatively speaking, are above the physical, and partly of those intimately related to the bodily organs and of the demands of those organs themselves. The desire for lively sport depends to some extent also upon the stage of growth of the tissues or their degree of maturity. This fact accounts in part for the greater playfulness of children and young people, and also of pups, kittens, calves, colts, etc., than of the older being. In the case of the human race artificial conditions and false education have much to do with the more or less complete eradication of the playful tendency in maturer years. Some children are taught to believe that it is morally wrong to "waste" time in play, while others, through want, are compelled to labor constantly; and still

others, through desire to acquire fame or wealth, smother any natural tendency to relaxation and play.

The mental and physical peculiarities of the individual will determine the choice of any particular kind of sport. Persons of active temperament and large development of a part of the temporo-sphenoidal lobe of the brain, usually indicated by wide or projecting cheek bones, love that kind of sport which takes them out of doors into the fresh air. This tendency is enhanced by a projecting lower forehead, or perceptive organs; and if there be breadth between the ears, indicating Destructive venes, while the top and back head are not strongly developed, indicating rather small social and moral organs, the individual will prefer hunting and fishing. Older years will shun such sports as require much suppleness of body and quick mental change. It must be remembered, however, that some persons remain young in body as well as mind longer than the average, and longevity seems dependent to a great extent upon capacity for youthfulness and liveliness in the mental tone.

To excel in football and enjoy it, one must have good physical development,

predominance of the motive and vital temperaments, suppleness and toughness of tissue structure, good health and rather strong cerebral organs related to

viduality, Comparison and Eventuality. This is a rough-and-tumble, sociable game, and is more likely to be participated in by those who have large



GROUP OF FOOTBALL PLAYERS OF A COLLEGE TEAM.

animal life. In the intellect the per- ceptives are called into play, especially Weight, and we may mention Distance (recognized by Vimont), Locality, Indi-

Friendship, Combativeness, Approba- tiveness, Self-esteem and moderate Cautiousness than by those with a dif- ferent development of these organs. To

make success more probable, there should also be a good development of Firmness and Destructiveness.

There is no doubt but that in a community the governmental regulations of which were based on strict justice and



AN INCIDENT IN THE GAME.

Ideality, Cautiousness and the mental temperament restrain from rough or coarse-play. Mirthfulness, Suavity, Benevolence, Hope and Social organs tend to produce a bright and beneficent expression in after years, and lead the person to enjoy mirth and fun in others, while they do not in earlier life take so much pleasure in the coarser plays of overflowing animality and health. These organs deficient, and Conscientiousness, Firmness, Cautiousness and Wonder large, cause the person to be the opposite of playful.

A strong development of the motor-nervous system in the cord, as well as of certain of the basilar organs of the brain, produces desire for sport calling for bodily exercise and display of strength. With large Acquisitiveness, a person with such a development soon passes out of the period of play into that of work for gain or business.*

*To avoid misinterpretation it may be stated that all the phrenological organs in one's make-up exert their own peculiar influence in giving color to his mirth or sport. As suggestive of further combinations it may be said that Imitation, Human Nature, Tune and Secretiveness are often promotive of fun, while Causality, upward development of Comparison and Veneration, have rather the opposite effect.

economy, man could produce all that is necessary for his physical and higher



A DISABLED PLAYER.

needs with a few hours' daily labor, and under such circumstances the playful tendency (not meaning competitive athletics) would remain more active throughout life.

Football, as it has been played in the past, is a dangerous game, and has caused some broken bones. Of late it has been modified somewhat, so as to make it more manly and scientific, and less brutal, yet its very nature implies some risk to bone and soft structures.

While believing in sport and anything which will prolong youthfulness of mind and body, we think carrying football or any other game in our colleges to the extent of making it a matter of national competition and display, is

glorifying the thing too much and debasing the spirit, the objective end of higher education.

College sports are primarily intended for physical culture in order to sustain the mind during the years of study, and give a bodily basis for future usefulness of the cultivated brain. As soon as competitive games between different universities take place, witnessed by the general public in distant cities, an amount of training is called for out of all proportion to the needs of health and backing of the mind. The only good which we can conceive as coming from this perversion of the sport is the widespread attention which it calls to the need of exercise by those who work with the brain.

FRUITS MEDICINALLY CONSIDERED.

THE products of the field and garden were designed to serve as food for man. The "Fruits" of the trees is spoken of in the Old Testament as an important part of the food that the Creator had supplied for the early inhabitants of the earth. To-day we read of the "medicinal properties" of fruit as if there were some elements in apples, pears, grapes, oranges, etc., that made them part of the druggist's stock in trade. The truth of the matter is that people at large do not eat fruit as they should, do not make it a part of their daily diet in a rational fashion, and consequently suffer from many forms of functional disturbance. One of our medical contemporaries thus summarizes the uses of fruits in relieving diseased conditions of the body: It should not be understood that edible fruits exert direct medicinal effects. They simply encourage the natural processes by which the several remedial processes which they aid are brought about. Under the category of laxatives, oranges, figs, tamarinds, prunes, mulberries, dates, nectarines and plums may be included; pomegranites, cran-

berries, blackberries, sumac berries, dewberries, raspberries, barberries, quinces, pears, wild cherries, and medlars are astringent; grapes, peaches, strawberries, wortleberries, prickly pears, black currants and melon seeds are diuretics; gooseberries, red and white currants, pumpkins and melons are refrigerants; and lemons, limes, and apples are refrigerants and stomachic sedatives. Taken in the early morning, an orange acts very decidedly as a laxative, sometimes amounting to a purgative, and may generally be relied on. Pomegranates are very astringent, and relieve relaxed throat and uvula. The bark of the root, in the form of a decoction, is a good anthelmintic, especially obnoxious to tapeworm. Figs, split open, form excellent poultices for boils and small abscesses. Strawberries and lemons, locally applied, are of some service in the removal of tartar from the teeth.

Apples are corrective, useful in nausea, and even sea sickness and the vomiting of pregnancy. They immediately relieve the nausea due to smoking. Bitter almonds contain hydrocyanic acid,

and are useful in simple cough; but they frequently produce a sort of urticaria or nettle rash. The persimmon or diospyros is palatable when ripe, but the green fruit is highly astringent, containing much tannin, and is used in diarrhoea and incipient dysentery. The oil of milk or cocoanut has been recommended as a substitute for cod liver oil, and is much used in Germany for phthisis. Barberries are very agreeable to fever patients in the form of a drink. Dutch medlars are astringent and not very palatable. Grapes and raisins are nutritive and demulcent, and very grateful in the sick chamber. A so-called "grape-cure" has been much lauded for the treatment of congestions of the liver and stomach, enlarged spleen, scrofula, tuberculosis, etc. Nothing is allowed but water and bread and several pounds of grapes per diem. Quince seeds are demulcent and astringent; boiled in water they make an excellent soothing and sedative lotion in inflammatory diseases of the eyes and eyelids.

The effects of fruit-eating are hygienic rather than "medicinal," but it is to be understood that discretion is to be observed in the use of fruits as well as in the use of any good thing.

NEW YORK GRADUATES OF THE INSTITUTE.

A MEETING of the New York Association of Graduates of the American Institute of Phrenology was held in the hall of the Institute at 27 East Twenty-first street, December 5, the president, Mr. Albert Turner, in the chair. *

At the last meeting Mrs. Cora M. Ballard entertained and instructed a large audience, including many teachers, choosing for her subject "How Phre-

* A meeting is held the first Monday evening of each month, but as the first Monday in January falls on New Year's, the meeting for that month will be on the second Monday. Until further notice the public as well as all graduates are invited to be present.

nology may be Made Useful to the Teacher."

The speaker explained that the brain is the organ of the mind, that the skull conforms in growth and shape to the brain, and indicates the relative development of the regions of the brain and of its individual organs. Numerous illustrations decorated the walls, representing the three temperaments and their combinations, as well as varieties of phrenological development. As the speaker proceeded with her subject she selected children from the audience as examples of the different temperaments, of the neat and orderly or the careless tendency, of ability or lack of ability to learn easily, of the perceptive and reflective types, of fondness for mental arithmetic, etc.

The value of such knowledge of character to teachers, and also to parents, was clearly pointed out, and a tragical example was referred to, in which, owing to misunderstanding of the boy's natural defects by his parents and teachers, and the consequent degradation and abuse heaped upon him, he shot himself.

At the conclusion of the address some questions were asked by the audience, which were answered to their satisfaction.

The president made some remarks upon the necessity for proper training of the moral and social organs of children instead of giving exclusive attention to the intellect. He believed the time would soon come when all students, especially those in normal schools and preparing for the career of teacher, would have opportunity to listen to lectures on Phrenology as formerly physiology was taught, until it became a part of the regular school curriculum

THE HOME BUILDING.

YOU are contemplating the erection of a house in which you intend to live with your family as a future home, and so far as your means will

permit, you are naturally desirous of making this house a perfect home. In this home nest that you have decided to build, there will be gay gatherings of happy people; there will be quiet, peaceful hours to be spent in rest and recreation; there will be work to do; there will be weddings, births, sick ones to be nursed, deaths, funerals. The sad side of life cannot be cancelled by the architect, the artist, or the builder. But these, intelligently exercising their skill, may do much toward lessening the unavoidable ills of life. They can plan, and build, and decorate in accordance with known sanitary principles.

Health, above all things else, ought to be the first and paramount consideration in the construction of this house you propose to build. To this object all other desires should be subordinated. Of course the site selected must be salubrious, but even upon a perfectly healthful spot of land it is easy to rear a manufactory of disease. There are many—far too many—such houses to be found. The doctor's bills paid in this country by reason of unsanitary plumbing, unsanitary heating, bad ventilation, and lack of ventilation, probably would aggregate a sum ample to cover the first cost of sanitary construction, to say nothing of the pain and suffering endured by both sick and well that such construction would save.—*Engineering Magazine.*

MEDICAL ADVANCE.

THE following, from the *British Quarterly Review*, can be said to apply to the American public with nearly as much force as it does to the British people. The sentiment of the well-informed writer shows that in the ranks of science the treatment of the sick is considered to be a matter that involves more important considerations than the selecting of indicated drugs:

"It is to be feared that to most people medicine is not a science or learned art, but little more than the common ad-

ministration of physic. They can not understand medicine without drugs, and their virtue and power are popularly measured by the violence of their operations. *Take away pills and potions, and you take away its whole art and mystery.* They do not believe in a scheme of treatment, however deep-laid and skillful, which does not include dosage; so that, as a rule, medical men are practically compelled to give their patients a visible object of faith in some form of physic, which may be at most designed to effect some very subordinate purpose. Cure by the administration of mixtures is so fixed and ancient a tradition that it is only very slowly that the world will give it up. The kindly anxious friends of the patient want to do more than follow the simple directions of nursing which have been so carefully indicated and possess apparently so little remedial power. *It is necessary to educate the world into a belief in medicine apart from drugs—an art which finds its power in curing by adaptation of the common conditions of life, and applications of physiological facts; a medicine which takes into its hands the whole life, and orders and fashions its very details with scientific definiteness.*"

A MODERN MIRACLE.

A singer for breath was distressed,
And the doctors all said she must rest,
But she took A. Q. D.
For her weak lungs, you see,
And now she can sing with the best.

An athlete gave out, on a run,
And he feared his career was quite done;
A. Q. D., pray observe,
Gave back his lost nerve,
And now he can lift half a-ton.

A writer, who wrote for a prize,
Had headaches and pains in the eyes;
A. Q. D. was the spell
That made him quite well,
And glory before him now lies.

Query—What was the remedy?

MRS. ANNIE BESANT.

MRS. ANNIE BESANT, well known in England as a promoter of advanced or independent ideas, is now on a lecture tour in this country, and as a leading representative of a more or less rapidly-growing religious body, the Theosophic Society, we presume our readers will be interested to know how she looks, and something about her life and work.

The picture represents a woman of much intensity of organization ; the three temperaments are rather harmoniously blended, the mental and vital being somewhat in the ascendant over the motive. The head is larger than the average for woman, and is of that form which, with her quality and temperament, gives earnestness of conviction and purpose, an ideal tendency in belief, with aspiration for its realization in art and character, besides love of reciprocity of thought, feeling and ambition.

We judge the head to be high in the crown, including Firmness, Conscientiousness, Self-esteem and Approbation, that the social organs are well represented, while the front head shows in the photograph sharp Human Nature, a good development of Suavity, Ideality, Comparison, Language, Order and Tune, and a rather harmonious representation of most of the other organs of the intellect. Her language is both fluent and pointed, and when addressing an audience each person is apt to feel that she understands him individually—his needs and desires, and that her suggestions are put forth with unselfishness.

Mrs. Besant has evidently given her

body a fair chance to grow, has not restricted the development of the physique or of the vital organs within by undue tight dressing or finical methods; yet she is neat in costume and habit, and dislikes coarse ways and vulgarity.

The activity of her vital organism well meets the need of an elastic, incompressible brain and nervous system, so that her mental faculties work with



MRS. ANNIE BESANT.

great promptness and ease. With such excellent powers of analysis and the disposition to close inspection she should be a good critic and capable in the investigation of matters that require a nice discrimination. Her judgment is prompt, yet she appreciates facts sufficiently to seek a sound basis for her judgment, and so render it acceptable to others as well as satisfactory to herself.

Coming as this lady does with the prestige of a good home reputation of her own, added to that of her late husband, as a writer of superior power in the field of fiction, she would receive not a little consideration from educated Americans. Her ability as a speaker is above the average for clearness of articulation, definiteness of statement and an agreeable manner. Her topics relate chiefly to a subject regarded by the masses of lecture-going people as obscure and mysterious, yet that quality is attractive to many, and coming as she does with the authority of a mind specially endowed by study and experience for their exposition, Mrs. Besant will probably meet a good audience whenever she appears upon the platform.

WHAT IS THEOSOPHY?

In this connection it may be well to reply to the interrogation of a reader—suggested, doubtless, by what has been said—as to the nature of Theosophy. It is a very difficult thing to condense in few words so elaborate a system of divine and human being as theosophy claims to be, but an extract from a writer who appears to have examined the subject with some care may serve our purpose at the present time:

Theosophy regards the universe as a transitory manifestation of the Eternal Reality whence all else proceeds, and into which it ultimately returns. This "Eternal Reality" is, to quote the words of the late Mme. Blavatsky, "the rootlets root of all that was, or is, or ever shall be." Life is but one aspect of it. The spirit or divine soul of man is a spark of it "undifferentiated from its parent fire, and, therefore, alike for every human being." This spark has to pass through various forms, until at length it reaches the human stage; and, from this stage, its further development is a matter of personal endeavor on the part of the individual man. He has to win for himself, or rather for that principle which is his true self,

that final perfection in which his lower nature will be suppressed, and his higher nature will be once more absorbed in the Eternal Reality from which he originally proceeded. This gradual advance to perfection involves a long series of metempsychoses and reincarnations. If he has lived a life of virtue and merit in one of these he will, on arrival at the next stage, find himself encompassed with beneficent "thought-forms," or influences that will aid him to a still further and nobler struggle after the higher life, and will hasten his advance toward the final goal. Thus advancing, he deserves, at length, to be reckoned among the Mahatmas or great souls, the saints and demigods of theosophy, to whom the unexplained wonders of modern science—the phenomema of Spiritualism, Hypnotism, Thought-reading, etc., are the A B C of knowledge.

After a certain number of these successive reincarnations the final stage is reached. In the case of the man whose course has eventually led him on to perfection, the great reward to which he at length attains, is the privilege of Nirvana or absorption into the Eternal Reality from which he at first came. But this absorption does not involve the loss of individuality. If, on the contrary, the unhappy man has pursued a downward course, his only prospect is the terrible doom of annihilation.

The happy soul, standing on the brink of Nirvana, has the choice of a different lot. It may by a noble and generous act of self-sacrifice postpone its final happiness for the good of others. It may choose to become again incarnate in order to devote itself to the regeneration of others, and undertake to continue separate from the Great Reality as long as there remains a single member of the human race unfitted for Nirvana.

The Theosophists discern no less than seven distinct components of man. Of these, four are transitory and perish-

able, three eternal and imperishable. The perishable elements are the physical body, the vital principle, the "astral body," and the animal soul. The three imperishable principles are the spirit, the spiritual soul and the mind. The four perishable principles form the *personality* of man, the three imperishable his *individuality*. The "Adepts," who constitute a privileged circle below the Mahatmas, claim to have the power of projecting their astral bodies to a distance and of holding intercourse with members of the Brotherhood through the medium of their astral senses.

The doctrine of "Karma," an important feature in this wonderful scheme, involves the unvarying chain of cause and effect that governs the universe in the spiritual as in the physical world. It is not fatalism; for Theosophy asserts most distinctly the freedom of human action. It is the moral order and the law laid down by St. Paul

in the words, "Whatsoever a man soweth, that shall he also reap." But Theosophy differs from other religions in the absolute universality of the law. Reward and punishment have no place in its systems, except so far as the good man brings upon himself the happiness that he has worked out for himself, and the evil man, by the same law, drags himself down to a continually lower level until he completely extinguishes the divine spark within and brings about his own annihilation. The law of Karma extends to the intellectual nature: the "Thought-forms" with which a man surrounds himself determine his disposition, inclinations, temperament and natural ability in the next succeeding stage. In this country there is a large number of people who are more or less interested in Theosophy, and the number of those who accept it as a religion or moral cult is said to be increasing.

NOTES IN ANTHROPOLOGY.

Sex and Crime.—"The effect of sex on crime is visible in the smaller proportion of female criminals than males. Among the general population of most countries the female population equals or exceeds the male population; but among the criminal population of every community, the number of males exceeds the number of females. To what influence is the smaller criminality of women to be ascribed? Some assert that it arises from a superior moral disposition, and that this superior moral disposition is a result of the altruistic feelings arising out of the duties of motherhood. Others question the belief that women excel men in moral attributes, and ascribe the inferior criminality of women to physical and social causes. Whatever may be the elevating effect of motherhood in the moral character of women, it must be admitted that this is not the only reason that women are less disposed to crime than men. It is unques-

tionable that women are incapable of committing many crimes of a certain nature, owing to the want of physical strength. Murder, burglary, housebreaking, assault—and, in fact, almost all crimes of violence—require an amount of bodily effort which women, as a rule, do not possess. It is, therefore, contended by such writers as Quetelet and Von Dettingen, that want of power has probably as much to do with the small percentage of females convicted of crimes of violence as want of will. In support of this contention, it is pointed out that the proportion of women who commit crimes of violence, which do not necessitate the exercise of physical strength, is very high indeed. In France, for instance, no less than 75 per cent. of the offenses against children are perpetrated by women, and women are also responsible for 70 per cent. of the cases of murder by poisoning. It would accordingly seem that where physical impediments do not come into opera-

tion, the contrast between males and females in the scale of criminality is apt to disappear. Social conditions also tend to reduce the present age of female offenders as compared with males. Owing to a variety of causes, women lead more secluded lives than men, and are brought less into contact and conflict with the hard realities of life. Most of their time is spent in the home, and most of their duties are connected with its internal management. The duties and cares of motherhood bind them to home by the strongest of human ties, and one of the results of this is that women who are mothers are, according to M. Bertillon, not half so criminally disposed as women who are childless. On the other hand, it is universally admitted that, where women have neither home nor family ties, and live an isolated and independent life in great industrial centres, they immediately begin to form a larger percentage of the criminal population. It would, therefore, appear that in all cases where women were subjected to the same social and economic conditions of existence as men, their criminal tendencies become more pronounced, and that the disparity of these conditions must be set down as one of the factors operating against the production of female crime. Whatever may be the causes that make women less criminal than men, the fact remains that they are so, and in England now it is five times less probable that a girl will become a criminal than a boy."—Rev. W. D. Morrison in *Mind*.

It is hardly necessary to remind our readers that the Phrenology and physical organization of the individual has much to do with any crime which he or she may commit, although the external circumstances also play a part, and may even be an important cause of the faulty phrenological or temperamental state.

The Ancient Ligurians.—Signor Arturo Dssel contributes to the *Unova Antologia* (Rome), a paper entitled "The Ancient Ligurians," in which he sums up the results of recent excavations on the Riviera. He thinks the Ligurians of Roman times were the descendants of the cave-dwellers, whose bones, flint weapons, pottery and other relics have been discovered

at Finale and Verezzi, and that the latter belonged to the brachy-cephalic race, which inhabited Europe before the Aryans entered it from the East, and of which the Basques are probably a relic. He also thinks that the race had spread into (or from) the lands south of the Mediterranean, and that traces of it might probably even now be discovered among the Hamitic peoples of North Africa, *i. e.*, the Kabyles, Tuaregs and others. The Romans (as we know from various authors), recognized the Ligurians as an entirely different race from the Celts, with whom, however, they were intermingled in some districts. They are described as short of stature, and thin, wearing long beards and hair, and for this reason known as *comati*. They clothed themselves in sheepskins, and the fur of wild animals. In fact, the neolithic skeletons found in the caves of the Riviera are all of small size. A very curious fact is the occurrence among the finds of objects, which have elsewhere been used only by the extinct Guanches of the Canary Islands, and the Indians of Mexico and Central America at the time of the Spanish Conquest. These are the so-called *pintaderas*—seals or stamps of baked clay—by means of which devices in various colors were imprinted on the skin. The analogy of the Guanches strengthens the probability of Libyan relationship, as the Canaries are supposed to have been peopled by Hamitic settlers from the African mainland. Some strange figures cut on the rocks near the Coldi Tenda have been found to resemble those attributed to the Guanches in the Canary Islands, and also others which have been discovered in the province of Sus, in Morocco. Moreover, the shapes and ornamentation of the Ligurian pottery also occur among the Berbers. The cave-dwellers buried their dead in shallow graves, or sometimes even left them lying on the surface of the ground. Slabs of stone were set up like the sides of a coffin, to guard the corpse (which was laid on its left side, with the left hand under the head, and the knees doubled up), but only at the head-end as far as the waist. Men had a stone axe buried with them, and also a pot of powdered red hematite, which appears to have been used in ornamenting the person, as some African tribes paint themselves with pow-

dered camwood. Some children's graves have been found containing colored pebbles and shells—probably what the little one had played with in life. The earth which covered the graves was found to be full of the shells of edible mollusks, and the bones of ruminants, mostly broken, and showing signs of cooking; these are the remains of the funeral feast, the fire for whose preparation was kindled on the lower end of the grave, just over the deceased's legs. The lower limbs of some of the skeletons presented a scorched appearance, which is thus accounted for. It seems certain that the Ligurian cave-dwellers were not cannibals. The uniformity observed in the construction of the graves, the choice of the implements placed in them, and the discovery of two idols are manifest proof that they professed the worship of the dead, and practised mysterious rites, probably very similar to those celebrated by modern savages—that, in short, they had risen to the idea of a future state.—*Review of Reviews.*

Modern and Aboriginal Peruvians.—According to Senor F. A. Pezet, the Aboriginal or Indian race which populated Peru, 12,000,000 souls strong when the Spaniards conquered the country, still holds its own, although it has to a great extent degenerated through the miseries which, during centuries, it endured at the hands of its conquerors. It represents to-day about fifty-seven per cent. of the entire population. In the interior of Peru, it has kept in many places quite pure, not having mixed with any of the other races that have been brought into the country. There are tribes existing to-day with the old Seneca Indian features quite distinct, and among these people there is a great and natural intellect. The other great race is the European or white imported from Spain at the time of the conquest, which has ever been on the increase since then. It represents to-day about twenty per cent. of the population, and is spread over the whole country, but particularly on the coast. As the Peruvian Indian was made to slave at the mines for his Spanish master, the Spaniards had to introduce Africans to till the ground and work on the cotton and sugar estates along the coast. No Africans have come to the

country since slavery was abolished in 1854, and the race has been confined to some of the agricultural districts, and is now rapidly dying out. In its place are the "mestizo" and "zambo" cross breeds of blacks with whites and with Indians. The cross-breeds of whites with Indians has produced the "cholo" race, which of all castes is to-day the most numerous. These mixed races represent about twenty-three per cent. of the whole population. Of some fifty thousand Chinese imported in 1854 to be agricultural laborers, the greater part have settled for good, and not a few have embraced the Christian faith, and married with Indians, cholos, zambos, mestizos, blacks and whites, thereby forming a diversity of castes.—*Popular Science Monthly.*

Old Horology in Japan.—Long before Japan was opened to foreigners, the Japanese possessed eminent astronomical knowledge and a zodiac of their own. Their year began with our first of February, and had twelve months. The day was divided in different manners; the military counted like our sailors by "watches"; the priests by "divisions," which were marked by the striking of very large bells suspended in their high temples—a custom which is still in vogue; and finally the lay element, the population reckoned by "hours." They began the day, which was divided into twelve hours, at sunrise and ended it after sunset. Since this length of the day is a constantly varying one, each month was, for simplification, calculated into a mean length, and this length of day established for the whole month. The Japanese evinced a high degree of science by these calculations. Their clocks were of two kinds—the so-called "long clock," with hand fastened to the descending weight, and marking time upon an upright dial, and the "round clock" with movable dial, and fixed hand or fixed dial and movable hand. To regulate the division of hours for the varying length of the different months, many very ingenious contrivances and constructions were used. The matter was comparatively easy with the long clock. Six dials, shortened according to the falling height of the weight on hand, were each divided into two parts, corresponding to the length of

day and night; each of these parts into twelve subdivisions, the hours. Only six such dials were necessary, since by reversion, a dial used for a summer month could be used for a winter month. At the beginning of every month the corresponding dial was inserted under the hand connected with the falling weight, and replaced by the next following, at the end. The greatest length of the day was fifteen, and the shortest, nine of our hours; and owing to the contracted space of the falling weight, it had to be wound every morning. To use the clock during the night, the dial was reversed and the weight wound up. It is singular that the Japanese, in spite of this clock, furnished with ratchet wheel, pendulum and weights, did not employ the spring as a motive power, but simply used it for striking on clock bells. The round clocks were provided with weights working upon levers. It is said that these constructions were excellent, and very reliable clocks were produced therewith.—*Jeweler's Review.*

A View of Primitive Man.—As regards the habits and manners of Quaternary man we know little that is positive, and can only gather some vague indications from the relics of caves and river drifts. These, however, are sufficient to establish with certainty, that the law of his existence has been one of continued progress. The older the remains the ruder are the implements and the fewer the traces of anything approaching to civilization. In the Molithic period, man is comparatively civilized. He has domestic animals and cultivated plants, he has clothing and ornaments, well-fashioned tools and pottery, and permanent dwellings. He lives in societies, builds villages, buries his dead, and shows his belief in a future life by placing with them food and weapons. As we ascend the stream of time, these indications of an incipient civilization disappear. The first vestige of the domestic animals is found in the dog which gnawed the bones of the Danish kitchen-middens, and of the earliest Swiss lake-dwellers. When fairly in Palæolithic times, even the dog disappears, and man has to trust to his own unaided efforts in hunting wild animals for food.

Weapons and implements become more and more rude, until in the oldest deposits, we find nothing but roughly-chipped hatchets, arrow-heads, flakes and scrapers. Implements of bone, such as barbed harpoons, borers and needles which are abundant in the middle Palæolithic or reindeer period, become ruder and disappear. Pottery, which is extremely abundant in the Molithic period, either disappears altogether or becomes so scarce that it is a moot question whether a few of the rudest fragments found in caves are really Palæolithic. If so, they clearly date from the later Palæolithic and pottery was unknown in the earlier Palæolithic times. Judging from the portraits engraved on bone during the reindeer period, Palæolithic man pursued the chase in a state of nature, though from the presence of bone needles, it is probable that the skins of animals may have been occasionally sewed together by split sinews to provide clothing. There can be no doubt that his habitual dwelling was in caves or rock-shelters. Here was his home, here he took his meals, and allowed the remains of his food to accumulate. His staple diet consisted of the contemporary wild animals, the mammoths, the rhinoceros, the cave bear, the horse, the aurochs and the reindeer. Even the great cave lion was occasionally killed and eaten, and the fox and other smaller animals were not despised, while among tribes skilled in the use of the bow and arrow, birds were a common article of food, and fish were harpooned by those who lived near rivers. Wild fruits and roots were also doubtless consumed, and from the formation of the teeth and intestines it is probable that if we could trace the diet of the earliest races of men, we should find them to have been fungivorous, like their congeners, the anthropoid ape. Among the split bones a sufficient number of human bones have been found to make it certain that Palæolithic man was occasionally at least a cannibal, and in several caves, notably that of Chaleux in Belgium, these bones including those of women and children have been found charred by fire, and in such numbers as to indicate that they had been the scene of cannibal feasts. It is a remarkable fact that cannibalism seems to have become more frequent as men ad-

vanced in civilization, and while its traces are frequent in Molithic times, they became very scarce or altogether disappear in the age of the mammoth and the reindeer. There are not more than five or six well-authenticated instances in which entire Palæolithic skeletons have been found under circumstances in which there is a fair presumption that they may have been interred after death, and these afford no clear proof of articles intended for use in a future life having been deposited with them. All we can say, therefore, is that

from the Molithic period downward, is abundant proof that man had ideas of a future state of existence similar to those of most of the savage tribes of the present day, but such proof is wanting for the immensely longer Palæolithic period, and we are left to conjecture. The only arts that can with certainty be ascribed to our earliest known ancestors are those of fire and of fashioning rude implements from stone by chipping. Everything beyond this is the product of gradual evolution.—*Modern Science and Modern Thought.*



NEW YORK,
January, 1893.

THAT DULL BOY.

"I KNOW he is discouraging, for I have seen him; but he is not a hopeless case. You get distracted over him, and overdraw your bank account of patience, but as you value his immortal soul and your own, *don't* discourage him. If you are ashamed to have him recite before company, *don't* call on him when you have visitors.

Call his attention privately to any glaring faults that can be corrected. At the same time say and do all you can to encourage him. If he can be kept in school till he has got all he can from the grammar school course, he will forever call her blessed who made school-life a pleasure to him. Many such a boy has been driven from school by the harshness and lack of sympathy on the part of teacher, and thus been compelled to live a life of drudgery in the lowest kind of work, when he might have done better with a little more education. A

greater responsibility rests on the teacher in her dealings with such pupils than with all the rest of the school."

Thus a writer in one of our educational exchanges, and every teacher who has read the lines nods the head with emphasis. The dull boy is his or her cross, and many earnest hours may be consumed in reflection on means or ways to brighten him up or make him at least tolerable. How much of mere guesswork most of the experiments made to interest and arouse such a boy are founded upon, we can not say, but are assured that in the great number of instances, teachers try this or that expedient at venture, and not with a definite expectation of success.

We note the rather general advice of the writer quoted, and that, apparently, in view of a realizing experience of the trouble given by the dull pupil. It is not advice that carries with it a cheerful vein of encouragement, but bids the teacher work hard in some way for the poor scholar in the hope that some good result may be gained.

Now, if the teacher who has such a pupil were put in possession of a key to his mental character, and thus enabled to unlock the riddle of his dullness, how easy would become the treatment of the

case. No further uncertainty or guess-work in the matter. The cause of the "glaring faults" would be known, and their correction could be made a matter of rule.

The matter resolves itself into the systematic study of mental condition, with the aid of those formularies that science provides. In the covers of this magazine the work of the teacher has been discussed to such a length that it seems unnecessary reiteration to say that the phrenological scheme covers the field of practical treatment adapted to the school-room.

Some of the most successful American teachers have testified to its efficiency in clearing up obscurities of management and in awakening the faculties of a scholar. Having learned the constitutional and associated causes of the dullness, or viciousness, in a given case, they were prepared to apply the remedy, just as the capable physician, when he has made a correct diagnosis, is prepared to advise such treatment as will be most likely to benefit the patient.

CLINICAL EVIDENCE OF THE PLURALITY OF ORGANS.

THE reader of current medical literature finds it to contain many clinical cases which go to prove (if any more proof were needed) the plurality of the mental faculties, although because of the present rather obscure state of the neurological mind and the difficulties surrounding exact observation as to lesions or pathology, it is not easy to judge to what extent the cases reported confirm (or modify) the phrenological location of the organs.

With regard to Language, for instance, neurologists and the medical

profession generally recognize such forms of aphasia as loss of memory of words; loss of power to write words, which may be absolute, or be limited to inability to write at dictation, or by copying; loss of memory of written words; word deafness, or inability to understand conversation while ability to read may be retained. These forms of speech trouble may exist singly or in different combinations. They are not necessarily evidence of a lesion at the seat of Language as located by Gall, although it is our belief that often there is some functional disturbance and perhaps a demonstrable lesion in this particular part of the brain, while the one making the autopsy finds a lesion only at some other point where he had thought it should exist.

Without discussing here the "cortical centres" assigned by physiologists and clinicians to these different speech-troubles, we will refer to a few late cases bearing on the plurality of the organs, or going at least to refute the view, held not so long ago by some whose judgment had much weight with the public, that the brain is a single organ.

Bianchi, an Italian writer, for instance, relates a case in which there was purely "word blindness," the patient being able to understand spoken language, but not print; a second patient not only could not read, but could no longer find places even near his own house; a third patient had forgotten the image of written words and also of things. Speaking of the first two cases, Bianchi makes these distinctions: (a) absolute psychic blindness; (b) psychic blindness for objects and places; (c) blindness for words.

J. B. Charcot, in describing an instrument for distinguishing between visual aphasia (word blindness) and writing aphasia, relates some interesting cases. Among them was that of a man accustomed to write who lost ability to read print (word blindness), and two years afterward when with this instrument the hands were made to go through the movements which they had been accustomed to do in writing letters and words he was greatly surprised at being able to recognize those letters and words. Their recognition was not through vision, for he did not see the imprint nor the movements of his hands, which were guided by the operator: it was through the involuntary repetition of muscular acts by which his language had been accustomed to express itself. This fact adds to the interest of the subject, and shows most strikingly how many elements enter into thought expression. Other clinical cases bearing on this subject that have been published during the past year in technical journals may be referred to in future numbers.

THE POLITICAL STATUS.

SOME of our readers are inclined to think the tone of our remarks in the December number on the late presidential election savor too much of a party bias, and interpret them as a kind of jubilation over the Democratic success. We can assure them that their inference is scarcely warranted, as a thoughtful reading "between the lines" should intimate. The lines were penned with the feeling strong within us that the country would not suffer from the revolution that the people had accom-

plished quietly at the ballot-box. The result was so marked—the majority so great—that the claim often enough heard of coercive or fraudulent means being used in certain sections to secure partisan control of apparently doubtful communities, could not lie as affecting the main result.

Contemplating the election at this distance, it is reasonable to say that the American public declared its will at the polls. The late administration had not proved satisfactory, and a change was demanded. Politicians may speak of the "Force Bill," the "Tariff," the Trust or "Combine" tendency of the day, of class legislation, etc., as causal of the popular action. Probably all of these had their influence in a varying degree on the citizen mind, even as they were made the handles of much strong talk on the platform by the orators of both parties.

With so strong expression of the popular will before us we can not despair of the Republic. The nation has experienced similar political revolutions several times in its history. Parties have been created by the upgrowth of a sentiment healthful and necessary to the public weal; they have waxed powerful and dominant, fulfilled their mission and later have been supplanted by the rise of other parties. We do not say that this will be the case with the Republican party, but if one read the signs rightly an event like the defeat of Mr. Harrison portends a material modification of the principles or methods of that party.

As to Mr. Cleveland, we think that in candor and justice it must be said that he served the country well as president

a few years ago, and as the country has now recalled him to Washington, we may fairly expect him to endeavor to meet the responsibilities of office again. Certainly the tenor of his remarks at the Villard meeting in November is not that of a demagogue or a cunning manager of the party machine. Quoting a few sentences we have :

"I should not, perhaps, introduce anything sombre on this occasion, but I know you will forgive me when I say that every feeling of jubilation and even my sense of gratitude is so tempered as to be almost entirely obscured by a realization, nearly painful, of the responsibility I have assumed in the sight of the American people. My love of country, my attachment to the principles of true Democracy, my appreciation of the obligation I have entered into with the best and most confiding people in the world, and a consciousness of my own weakness and imperfections, all conspire to fill my mind with sober and oppressing reflection.

"When I consider all that we have to do as a party charged with the control of the government, I feel that our campaign, instead of being concluded, is but just begun. What shall our performance be of the contract we have made with our countrymen, and how well shall we justify the trust they have imposed in us? If we see nothing in our victory but a license to revel in partisan spoils, we shall fail at every point. If we merely profess to enter upon our work, and if we make apparent endeavor to do it a cover for seeking partisan advantage, we shall invite contempt and disgrace. If we attempt to discharge our duty to the people without complete party harmony in patriotic action, we shall demonstrate our incompetency."

These words have the ring of sincerity, and spoken as they were in a

company of Democratic politicians, men who had contributed toward the success of their ticket, at least in New York, and who may be said to have "expectations," intimate a degree of courage and strength that augurs well for the character of the next administration.

A NEW YEAR SONG.

Hear the tuneful joy-bells ringing
For the new-born year,
While away the old year winging,
Sounds the echo clear.
Father, mother, sister, brother,
All the kindred dear,
Stranger, friend and tender lover,
All afar or near.

Thank the Great, the kind Eternal,
For his tireless care
Over all this round diurnal,
Guarding everywhere.
For the star-lamp never paling,
For the blue o'erhead ;
For the crystal fount unfailing,
For the green we tread.

For the balm and bloom of living,
Pleasure's cup so sweet,
All the comforting, forgiving,
Cheering smiles we meet ;
Every little child's caressing,
Every heart our own,
Every look and word of blessing,
Every helping tone.

Rise to Thee, our Great All-Father !
Rise our heartfelt song !
While life's sweetest joys we gather,
Make our courage strong.
May we leave all fear behind us,
Noblest hopes fulfill,
And the year unfolding find us
Doing all Thy will.

Be this year no treasured darling
Missed from our fireside,
Safe from every grief alarming
Let us all abide.
Through the hall and up the stairs,
Glad good-morn and night,
Song and sunbeam, love and prayers
Keep our hearthstone bright.

LYDIA M. MILLARD.



Our Mentorial Bureau.



To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

CONSUMPTION.—F. E. H. S.—If the case be as you state, we would advise the person to set immediately about doing for himself the best he can to check the advance of the disease. An out-of-door life in a pure atmosphere of moderate temperature, a good diet and some genial employment to engage the mental faculties, and exercise the muscles reasonably would be the most important elements of the process of cure. Read the book entitled, "Natural Cure," for suggestions of value.

"**RATHER SWEEPING.**"—S. M.—Your reference to Sir James Crichton Browne's aspersion of those who advocate phrenological views is just. Certainly, there are not a few men and women among them who belong to the best class of society, and are the opposite of the very low grade in talent and culture Sir James C. B. appears to think is their general characterization. Any good list of Gall and Spurzheim disciples will include many names with titles of distinction, earned by scholastic or scientific eminence. One of the prominent anthropologists in Europe, Dr. Benedikt, has been pursuing his famous researches into the structure of criminal's brains and

skulls along the line projected by Dr. Gall, so many years ago. It seems to us that Dr. Browne's situation with regard to the phrenologists of Britain must be somewhat similar to that of a certain editor of the EDINBURGH REVIEW some sixty odd years ago, with regard to the heads of idiots. That editor stated in the columns of his REVIEW that idiots generally have large heads. From which it was naturally inferred that he had seen very few idiots.

TREMBLING VOICE.—L. S.—An examination only would explain the trouble. You say that you are "not a bit nervous." By that you mean excitable and easily embarrassed, we suppose. There is, however, a decided vein of sensitiveness, probably, in your mental composition, if we must account for the difficulty on the mental side. If the vocal organ, the larynx, is the seat of the trouble, it may have a peculiar nervous condition, which, in the effort to sing, produces a tremulous action of the vocal chords. We would advise that you consult a laryngologist. He might advise treatment that would remove the objectionable state.

NIGHT AIR.—L. B. C.—What do we mortals breathe during the hours between sunset and sunrise? Is it not the air of night? As a composition intended for the support of human life, the atmosphere is the same in the darkness as in the light.

Don't be afraid of it, therefore. Open your window and let it come into your sleeping apartments. What is pent up in a close room becomes harmful to man or beast. Interiors require frequent or constant renewal of their air supply, day and night, and if there be a stove or other means of heating in the room, it is the more necessary that air from the great out-of-doors be admitted. Read any good treatise on physiology or hygiene and you will be informed of the importance of fresh air in all places and at all times.



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

A New Society Formed at Washington.—On the evening of the 2d of December, a goodly meeting was held at the house of Dr. T. A. Bland, in Washington, D. C., which was called to consider the question of organizing a Phrenological Society. Addresses upon the principles and practical benefits of Phrenology by Dr. Bland and Mr. J. L. McCreary were made, after which the draft of a constitution was presented by Dr. Bland. This was adopted and twenty names enrolled as members of the new society. The name of the new organization is "The American Phrenological Society of Washington, D. C." Its object is to promote the study of the science of phrenology, and the application of its principles to the development of true character in the members and in others.

December 9, a meeting was held to perfect the organization by the election of officers. After addresses and a practical demonstration of the science of phrenology by the examination of the heads of prominent persons present by Mr. McCreary, Miss M. L. Moran and Dr. T. A. Bland, the society proceeded to the election of its officers.

Dr. Bland was elected President; Mr. McCreary Vice-President, and Miss M. L. Moran Secretary and Treasurer. A number of additional names were added to the list of members. The meeting was a most enthusiastic one, and it looks now as though the society would soon be too large for Dr. Bland's ample saloon parlors, and a hall will be required. It is the determined purpose of those in charge of the movement to arouse an active interest in Phrenology at the capital of the nation. M. L. M.

PERSONAL.

CARDINAL CHARLES M. LAVIGERIE, who died recently at Algiers, aged 67 years, was one of the most striking figures in the Roman Catholic Church. He was an officer

of the French Legion of Honor, but especially distinguished for his missionary work in Africa, where he accomplished much toward restricting the slave traffic. As a statesman he had few equals among his co-religionists, and he was prominent in bringing about an understanding between the French government and the Vatican. For his services he was entitled the Primate of Africa.

DR. KRAFT-EBING, of the University of Vienna, asserts that alcohol is the cause of insanity in twenty per cent. of all cases, and is an active cause in fully thirty per cent. more, so that it plays a prominent part in the production of at least one half of all cases of this disease.

PROFESSOR BLACKIE, of Edinburgh, though eighty-three, has never worn spectacles, and for thirty years had no need of medical advice. He attributes the vitality of his old age to his custom of living by an unvarying system. It is noteworthy that Oliver Wendell Holmes, who is about the same age, told an interviewer some time ago that his own good health was due to his habit of living by rule, even to the temperature of his bath. It is interesting to know that Professor Blackie does not go to bed until the clock strikes twelve, a hygienic error we think. He rises at half-past seven, and after his mid-day meal takes an hour's nap.

WISDOM.

"Thou must be true thyself,
If thou the truth would teach."

IDLENESS, like selfishness, bringeth a slim reward. Even nature is repelled when selfishness prays. Therefore don't offend nature; she is your best friend.

POWER dwells with cheerfulness; hope puts us in a working mood, whilst despair is no muse, and untunes the active powers. A man should make life and nature happier to us, or he had better never be born.

SMALL HOPE.

I would not live alway, I ask not to stay
Where storm after storm rises dark o'er the way;
The few lurid mornings that dawn on us here,
Are enough for life's woes, full enough for its cheer.—Muhlenberg.

NATION shall not lift up sword against

nation, neither shall they learn war any more.—*Secretary Tracy.*

It were fit you knew him lest he might at some great and trusty business in a main danger fail you.—*Shakspeare.*

INTEMPERANCE and lust breed diseases which, propagated, spoil the strain of a nation.—*Tillotson.*

No sober man would put himself in danger for the applause of escaping without breaking his neck.—*Steve Brodie, J. L. Sullivan, et al.*

A CHILD runs away laughing with good smart blows of a wand on his back, who would have cried for an unkind word.—*Locke.*

MIRTH.

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

DID Fred enjoy his football game yesterday?

You just bet he did. This morning he can't see with one eye, and three of his ribs are broken.

MIKE ROBE—"Be me sowl!" exclaimed Mrs. Finnegan, "everything is blamed on the poor Oirsh nowadays. Wud yez belave it, Pat, they do be sayin' that an Oirishman gave the people in the Sout' the yaller fever—a felly be the name of Mike Robe?"

MAMMA—"Didn't I tell you not to take any more preserves out of the closet?" Johnny—"Yes'm." Mamma—"If you wanted some why didn't you ask me for some?" Johnny—"Because I wanted some."

MRS. WATTS—"Mary Ann, these balusters seem always dusty. I was at Mrs. Johnson's to-day, and her stair-rails are clean and smooth as glass." Mary Ann—"Yis'm. She has t'ree shmall boys."

The Poppy to the Larkspur said,
"What makes you look so blue?
I'd take a rope and hang myself,
If I were sad as you."

The Larkspur to the Poppy said,
"What makes you look so red?
I'd take a knife and scalp myself,
If I had such a head."

HE—"Had my photo taken at Sereno's the other day."

SHE—"Yes. I saw it."

HE—"Ethel thought it rather insipid in expression."

SHE—"I don't know. I thought it very characteristic of you."



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

"WHERE IS MY DOG?"

After the masterly and seemingly almost exhaustive writings on Phrenology by the founders of the science and their contemporaries, it must be an unusual work which can come forward and lay claim to novelty of matter and method of presentation in this field.

While the author of a little treatise bearing the above curious title puts it forth without any such pretensions, we may say that it does possess in no small degree originality of content and method of treatment.

While the author's object in writing it was to bring forward certain reasons for believing that man is not alone immortal, but that immortality pertains equally to lower animals, we presume that he would be in no small degree satisfied with the results of his labor if through its influence the suffering which poor brute creation now undergoes at the hand of man were abolished.

That the book has been written in an interesting and easily comprehensible style will be shown by the following extracts taken at random here and there from its pages. We are not prepared to say that the apparent qualities of mind in the dog, etc., attributed by the author to certain phrenological organs, are always strictly the outgrowth of those particular organs (and he does not attempt to prove his points by cranial development); but we do feel assured that the reader will not put the book down without feeling a tenderer regard for those creatures which commonly have been looked upon largely as anatomic automatons, incapable of appreciating and

undeserving of special sympathy or care on the part of man.

"There is a look of faithfulness in a dog's eye that has always powerfully appealed to me. . . . Man's heart naturally yearns for a being upon whom he can rely under all circumstances. This yearning is correlated by the dog. . . . He licks the hand that smites him, and rubs the whole length of his back upon the boot that kicks him. . . . Where are my dogs? I have been particularly unfortunate with my dogs. Where are Dennis, Tip, Curly, and Doctor, and Prince? Dead! Yes; but does death end all in the case of the dog any more than in the case of man? Man's life is so much more important. Are you sure? Who is to decide? Man, the dog, or God? . . . If you pronounce against the lower animals [for immortality] because of their faithlessness in any case, man must go, too. . . . There must be whole worlds of intelligence which come not within the sphere of man's cognizance. . . . Milton knew much which the animalcule does not, and can not, know. May it not be that the animalcule knows much which Milton could not know? . . . If we argue in favor of man's immortality from the essential element of his nature called love of life, the lower animal possessing that element as essentially and as potentially, must we not make the same argument in favor of his immortality? . . . Who can but be moved by the bellowings of the cow whose calf has been slaughtered? Notice the flutterings, and listen to the cries of the parent birds over the place where the hand of the destroyer found the nest with its birdlings. The heart of the human mother is consoled by the thought that there will be a meeting in the hereafter. And is the heart of the All-Father moved less by the grief of a sparrow than by that of a queen? . . . May it not be that robins dream of orchards in which zephyrs always play, the skies above and about which are always tinted as are those of the earth at sunset, and in which robins eternally build their nests, with none to molest nor to make them afraid?"

Thus taking up individual organs, or groups of organs one after another as found in man, the author seeks to show their existence also in the lower animals, and offers

he same pleas for their immortality that have been adduced in proof of man's. Each chapter is complete in itself, though correlated with the others, so that the reader can lay down the book and pick it up again at odd moments, and not feel that he has lost the thread of discourse. If any of your children or neighbors have carelessly fallen into the habit of maltreating their dog, horse, cat or other animal, place this little work in their hands, and we venture to say it will effect their reform.

DISEASES OF THE LUNGS, HEART AND KIDNEYS. By N. S. Davis, Jr., A. M., M.D., Prof. Principles and Practice of Medicine, Chicago Medical College, etc. 12mo, pp. 359. The F. A. Davis Co., Publishers, Philadelphia and London.

This new book constitutes No. 14 of the "Physicians' and Students' Ready-Reference Series," and is a natural following of the author's treatise on consumption, which we reviewed not long ago. In a condensed style Dr. Davis goes over the field of diseases mentioned in the title, but quite covers the detail of elaborate treatises in the practice of medicine without the employment of verbose phraseology. The aim is to be clear in the exposition of the pathology of a form of disease, and practical in furnishing its symptomatology and therapeutics. Thus a book for the use of physicians is made that in size and arrangement is certainly handy, and at the same time a valuable consultant.

Dr. Davis advises the prescription of drug medicines, but is not inclined to wholesale treatment or "shot-gun" dosage. He believes heartily in antiseptics and hygiene, and the simple, natural processes that a rational experience approves. This remark is for the lay reader; the professional will appreciate the simplicity of the advice in many cases because of its intelligent understanding of what is the clear duty of the medical attendant with reference to them.

Annual Report of the Postmaster-General of the United States for the year ending June 30, 1892. Mr. Wanamaker offers an interesting review of the business of his department, and includes many practical suggestions for the improvement of the postal service to the advantage of both the department and the public. Several excellent illustrations embellish the text.

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PORFIRIO DIAZ,
PRESIDENT OF MEXICO.

PORFIRIO DIAZ, PRESIDENT OF MEXICO.

MEXICO, for so many years the theatre of strifes, political and sectional, of cabals, disorders and revolutions, appears to have settled down to a condition of comparative harmony, her people are cultivating the arts of peace, and, as a resultant, the world is learning again of those magnificent resources stored among her majestic mountains that, centuries ago, inflamed the cupidity of Spanish adventurers. We hear of new enterprises now and then inaugurated in one or another part of that semi-tropical country for the development of its mines or vegetable productions or the extension of its commercial relations with the world. Railways are being built, new towns settled, and other intimations of rapid growth encourage the lover of his kind in thinking that the land of the Montezumas is rising toward that place among the nations that should be hers.

To speak of Mexico is to suggest the name of the man who has been progress in endeavor to promote her welfare. Porfirio Diaz properly claims a large share of the credit of converting a faction or a guerilla-divided state into a peaceful community. Skillful as a military leader he won success for his cause and party, and then at once set about organizing a body politic that should combine the better features of the old contending parties or factions, and represent the people or their better interests. Previously Mexico had been a republic in name. Diaz sought to make it a real entity and worthy of the respect of the neighboring governments. Success in arms, however attained, will always command the admiration of the average man, because the average man is drawn to the consideration of physical achievements, especially those involving competition or contest.

The people of Mexico were prompt to accord respect to Diaz as an able general and to second his attempt to found

a stable government on the ruins of the older erratic and unhealthy systems. They elected him president by a good majority, and the wisdom of his administration has thus far shown itself in the practical effects already outlined.

The student of physiognomy has little difficulty in detecting evidences of a foreign heritage in the face of President Diaz, for Spanish elements declare themselves in outline and feature, whether those elements be of immediate derivation or transmitted through generations of colonial parentage, pure or mingled with other blood. The swarthy hue of skin, the black eyes, the compact bony framework and excellent vital capacity belong to a long-lived, enduring class; to a people whose environment inspired activity of muscle and brain, and associated in every-day employments the mental faculties with hands and feet. A strong, tenacious organization then lies at the foundation of Senor Diaz mentality, and provides ample support for those dominant perceptive faculties and the full side organs. He is a natural mechanic—prompt to see the fitness or unfitness of surrounding relations, and as prompt in expedients and suggestions for the solution of difficulties. He is a keen analyst; few men have power to understand details as he can understand them and to carry them so clearly and definitely in recollection. The central region of his forehead appears to be unusually developed, giving him capacity for quick and intensive observation, and so enabling him in a brief space of time to take in a large amount of information. Had he been a newspaper reporter he would have obtained reputation for the facility with which he could store his mind with details, a sweeping glance on occasion being sufficient to furnish material for a descriptive article.

The eye shows language enough to express his thoughts in clear terms, and if necessary he can be fluent and per-

suasive. With so strong a temperament, so elevated a head at the crown and so broad in the lower third, President Diaz should be markedly energetic, positive, advanced and courageous in opinion and action. The head appears to be broad at Conscientiousness and Approbativeness, and this development should render him considerate of others and desirous of earning their substantial esteem. He is organized for control

character of the people and the nature of the life in Mexico during his youth and most of his life must be taken into account for a fair estimate of the man.

Noting the fullness of the head just above the cheek-bone and in front of the ear, it may be added that the good physical tone of the body, as evidenced by rounded contour of chin and cheek, has its analogies in the marked Almentiveness. From this it is to be inferred that



OLD METHOD OF TRANSPORTATION IN MEXICO.

and leadership; in practical lines the qualities of the brave, determined soldier are wrought into the tissue of his character. He can be severe, doubtless, in his methods, but we think it is the severity of the disciplinarian and leader whose motives relate to attaining success for the benefit of a large aggregate, or a public, that might be impaired or prejudiced by an easy tolerance of wrong-doing on the part of a few. The

President of Mexico is blessed with a good appetite, and his digestive functions are naturally efficient.

The following brief outline of his life will furnish other evidences of the character of the man that may be deemed more determinate by many perhaps than a reading of an acceptable portrait:

Porfirio Diaz was born at Oaxaco, Mexico, September 15, 1830, and con-

sequently is now sixty-two years of age. His life has been spent in the midst of the most exciting and changing political events. He was studying law when the United States invaded Mexico in 1847, but abandoned it to enter the National Guards. He joined the insurrection against Santa Anna in 1854, and was one of the leading spirits in revolts against the various governments which tried to rule Mexico until his own election as president in 1876. His ability and bravery led to his appointment as general in 1861. Much of the four years of his first term as president, commencing in 1876, was spent in the suppression of revolts. At its close, deeming his re-election unlikely, he secured the election of his secretary of war, Gen. Gonzalez, and then took charge of one of the departments. He was also appointed Chief Justice of the Supreme Court, but did not act. In 1875 he had adopted and proclaimed the plan of Tuxtepec, a very liberal political system, but made little or no attempt to carry it out, and when reprimanded for this apparent inconsistency by friends is credited with the reply that the "proclamation of Tuxtepec was nothing else but a heap of moral absurdities and material impossibilities, and that in consequence he was not able to fulfill the promises there made to the nation."

He was re-elected to the presidency in 1884, again in 1888, and for a fourth term at the recent election in 1892. It is generally admitted that his administration has, on the whole, been a successful one, for, among its results, peace has been established at home, trade has been increased, the resources of the country have been developed, railroads and telegraphs extended and education advanced. As we have already inti-

mated, for the first time in generations the Mexican people have shown a disposition to act in practical harmony, and set to work with the spirit of earnestness to build a nation that will invite the respect of the civilized world. If this attitude be in a great measure the work of Diaz he is entitled to receive credit for it, and whatever may be the comments of observers on his career as soldier, insurgent, politician and executive officer, the latter excellent consequences of his policy should impart to his motives a favorable and even patriotic color.

Our Southwestern readers may be somewhat familiar with the Mexican people, but the majority of those who have access to the PHRENOLOGICAL have had but little opportunity to learn much about the great country across the Rio Grande. Its abundant natural resources in everything that contributes to a nation's wealth, and its wonderful remains of an ancient civilization render it peculiarly interesting to the scientific and curious. Our illustration show some features of the life and scenery; the ruins of the old Aztec temples must attract attention by their suggestions of the grand in the taste and capabilities of a race long passed away—capabilities in architecture, indeed, that challenge competition in the modern Mexican.

Lately there have been symptoms of a revival of the old revolutionary spirit in certain quarters of Mexico, especially on the United States line. Some uneasy fellows, tiring of the continuance of the Diaz regime, are trying to displace it and to introduce a condition for their own personal advantage that would, if successful, be but a repetition of the old ephemeral programs, involving the nation again in disorder and disaster.

CAN WE AFFORD IT ?

CAN we afford to brood over our injuries? We should not think of putting our favorite rose bush down

cellar. We should not expect it to bear roses in that dark, chill atmosphere. The exquisite miracle of blossoming

is worked by sunshine, pure air, and the right soil for the needs of the plant. How do we go to work to produce joy, which is the blossom of the soul? This rare flower may be cultivated; but it requires that the will be turned in the right direction. To hold a grudge is to shut out the sun. To be justly angry, and by a storm of vehement words to express that righteous wrath, may clear the atmosphere. But let us do our cursing frankly and be done with it. Let us keep the fountain sweet. There is a vast, rich, mental realm allied to our mentality. There is a vast, rich, spiritual realm allied to our spirituality. To us of right belongs their wealth. Is it not worth while to find out and practice the proper means for coming into its possession?

The heir to an estate will take immense pains to prove his rights. He will spend years in hunting up documentary evidence. He will mortgage what property he possesses to pay his lawyers. He counts time, health, strength as nothing in comparison with the money he hopes to win. And yet the wealth when gained may hold for him no real value. It may only hinder him in ideal living. It is the rarest thing in the world for wealth to be spent in furthering noble aims.

The tendency to lower the standards of character; to yield to self more than its due; or, rather, to allow the lower self an undue ascendancy is naturally very great; it is vastly strengthened by the power of money.

Yet this very hazard is ardently coveted, striven for, bought at all costs.

Who toils and endures for the ascendancy of character? Who serves long years for the privileges of human nobility? Who mortgages his home that he may clear his way to the radiant sphere of joy?

Let it be granted that we perceive the right meaning of the word happiness. We understand that it means harmony, balance, soul-health; that it comes

not by the possession of certain things, but by attaining to a certain condition. We mean to strive for this condition. It is happiness, by the way, that all men and women seek, but they mistake the path to its attainment. We have learned, let us say, that in order to produce the music of life we must be harmonized. We have an intelligent idea of what we are working for. Then the very first step is to kick off past trials, injuries, grievances, like an out-worn garment, nay a filthy garment that hinders and clogs at every step.

"I cannot forgive that injury," says one.

Very well, then, take the consequences of impaired spiritual vitality. Or, comparing the soul to an instrument, allow a discord in all your life music. There is no way to rise into full, free, vital relations with the sources that make our life except by "forgetting the things that are behind." We hope all tested the truth of this over and over again in our experience. If not, let every one test it for himself. To come down to the commonest level of life—if you are doing hard physical work, your arm is weakened, your hand made unskillful to a degree, by sour, dissatisfied, hating thoughts; you are nerved with double strength by pleasant, loving thoughts. Where does the strength come from? Whence comes the strength of the oak that stands against a thousand storms? That is a question we need not try to answer only in so far as we answer it by saying that it comes through harmonious relations with its environment. But the point is, we want that strength. We want the power, the music that comes through loving. We wish to avoid the weakness, the discord, that is produced by hating.

There was never yet a precept formulated by prophet or seer that had not its roots in law. We are much readier to obey a law when we see its sequences in actual life. If, in some sacred book,

men who had never seen a harvest were commanded to sow seed, they might not bestir themselves to obey. But prove to their sight and taste the value of the commandment, show them that the law of the harvest is seed-sowing, and they go about it in the most business-like manner. So let the world once believe in the practical value of loving, and it will begin cultivating love with the enthusiasm of the gold-digger or the pearl-diver.

To come back to the question with which I began. Can we afford to disregard that law of our natures which allies us most nearly to our Master and Leader? It is in the strict fulfilment of this law of love that we find our true strength. Let us do what we will, we shall do all in a narrow, inefficient fashion so long as we are held back by belittling thoughts and feelings.

MARY F. BUTTS.

REV. DR. EDWARD MCGLYNN.

THIS is a very superior organization as regards both body and brain. Nearly all the elements necessary to produce harmony of temperament are well represented. The symmetrical frame, closely-woven fiber, and dark brown hair indicate strength, while the blue-grey eyes, the compressed lips, and a certain negativity in the middle third of the face bespeak a delicacy and refinement which no doubt are inherited from the mother. However, the nutritive system and brain predominate, as shown by the capacious torso and head, the latter measuring 23½ inches in circumference.

From a natal, and possibly also an ecclesiastical point of view, Dr. McGlynn is an American. But to the phrenological eye, he is essentially an Irishman. Still, his head is not of the dolichocephalic, or long, narrow type which, knowing his ancestry, we would expect to find, except within a limited arc near the ears. Indeed, the occiput, or back head, is as short as that of the typical German. Hence the constant presence of particular persons, or continued residence in one place, will not be necessary to his happiness. At the same time, he has such mellowness of manner and so much responsiveness and sympathy, that he will probably impress his friends as exceptionally strong in the adhesive faculty. But it is to principles rather than to persons that he gives his

heart. He loves people as a community rather than as individuals, and it is their fidelity to the cause he represents which binds him to them in the name of friendship. Besides, it should be remembered that from the nature of his duties, both sacred and secular, he is brought into a variety of intimate relations with people, and in this manner is made to appear capable of greater attachment than he really feels.

Having also but a moderate development of the cerebellum, he is not likely to find in a celibate life any occasion for disappointment or regret.

The lateral expansion of the forehead is likely to impress a casual observer with the idea that the whole head is broad—a mistake very frequently made when Ideality and Constructiveness are large. But a pressure of the hands just above the ears shows that the diameters in this region are comparatively insignificant. The cranial integuments are also lax here, and soft like a cushion, from which we may be certain that the qualities of severity, secrecy, sense of possession, and love of contention, are all very weak, and their abuses, such as malice, falsehood, avarice, and aggressive belligerency, well nigh inconceivable. He will manifest enthusiasm in the defence of his position, but his moral feelings supply the force.

He resembles Henry George in his almost utter lack of the boarding in-

stinct, and it is easy to trace in a measure the economic theories of these two men to this peculiarity. Not that all individuals feebly endowed with the sense of property are certain to agree in their philosophical views. But it follows that if the propensity to accumulate is very weak, it will be much easier for the other mental powers to oppose monopolies, or favor a more general distribution of wealth, than

many accounts, to escape from the turmoil and din of public life, for strife and antagonism are in themselves repugnant to him. But he will be unable to repress his higher emotions and the convictions associated with them, so that if they lead him into battle he will be willing to take a place in the front rank.

His head is very high and broad at Reverence and Faith, and in the most



REV. DR. EDWARD MCGLYNN.

in the opposite case. Acquisitiveness, when predominant, drives a close bargain, so to speak, with the other faculties, and often completely overpowers them. When the combination is reversed, and the moral sentiments are supreme, as in the case of certain religious orders, the opposite idea is evolved, and all claims to private ownership are renounced.

Dr. McGlynn would be glad, on

comprehensive sense of the term, he is religious. He is inclined to be obedient and loyal, but he is an idealist in religion as in philosophy. His intellect is of the subjective or introspective sort, which concerns itself but little with the facts and tangible machinery of the objective world. Hence he has more veneration for the spirit than the letter of his creed, and is more interested in his ministerial or sacra-

mental duties than in questions of ecclesiastical government.

The head slopes off at Firmness, Self-esteem and Continuity, but Conscientiousness, Cautiousness and Approbation are large. He is not pertinacious, self-willed, or obstinate, in the proper sense of these expressions, and he is still less influenced by any feeling of his own personal value or power as a factor in the world. On the contrary, he is naturally very diffident, and would probably be embarrassed before an audience if it were not for the abundant experience he has had in public speaking.

The finest development of all, however, is at Benevolence. This is so conspicuous in his frontal top head, that the most untrained eye can see it at a glance. Here we have the key to the man's whole character. Philanthropy is the dominant feeling, and, like a fragrant dew from heaven, it moistens, softens and enlivens every flower in the garden of his thought.

As to his intellectual methods, there is great capacity for abstract reasoning, as evinced by the breadth of the upper forehead. But he lacks precision and accuracy in observation. He sees the forest but not the trees; and if his attention is called to a tree, he notes the size of its shadow, but never counts the branches or the leaves. This is shown, by the depressed glabella, or space between the eyebrows, and signifies weakness in the sense of objects. Hence he will not excel in physical science, and is liable to errors in reasoning, from the tendency to neglect apparently trivial but in reality important data. Language is only moderately developed, and his eloquence is chiefly the result of his temperament and emotional faculties. His great sympathy, imagination, imitation and wit, render him well adapted to almost any of the higher educational departments, but especially in religious and philanthropic work.

E. C. B.

THE COMMUNION OF HONESTY.—At one of his dinners, Sir Isaac Newton proposed to drink, not to the health of kings and princes, but to all honest persons, to whatever country they belonged. "We are all friends," he added, "because we unanimously aim at the only object worthy of man, which is the knowledge of truth. We are also of the same religion, because leading a simple life we conform ourselves to what is right, and we endeavor sincerely to give to the Supreme Being that worship which, according to our feeble lights, we are persuaded will please Him most.

UNLOVELY CHILDREN.

A mother stood beside the bed
Where two small children lay—
They pretty looked, though both were dead,
Like children tired of play.

"I doubt me much," she softly said,
"Wherever they can go ;
For Mattie struck Tom on the head—
And Tom returned the blow."

And anywhere—no Angel feather
Would stand a chance to lie,
In pretty rows all nice together
If Mattie passed them nigh.

She'd hold an Angel by the wing
And pull the feathers out,
And Tom's loud voice would harshly ring
And make an Angel-rout.

I do not see their heaven range—
Yet they to me were sweet,
And it seems now so cold and strange,
The silence of their feet.

If they had been but good and mild
I had been more content ;
And questioned less about the child—
And where the bad ones went.

Oh ! mother, in the Father's house,
Fair mansions ready stand :
That, which could thy poor love arouse,
Was God's dear silver band,

That draws the weak and trying ones
As by baptismal fire,
Up, where they catch the Angel tones,
And lovingly aspire.

ELIZABETH OAKES SMITH.

field Benevolence and Friendship and Agreeableness strongly marked, it might at first thought seem that a railroad lawyer should have more sternness than blandness, but we think a man will succeed better in dealing with human nature to have in character a friendly, kindly spirit. A man who comes into the court house like a hedge hog bristling with quills, growling and snarling at everything that is said to him, is calculated to incur the dislike of every person in the court house from the man who opens and



CHAUNCEY M. DEPEW,

PRESIDENT N. Y. CENTRAL RAILROAD.

shuts the door to the judge on the bench. I have known some lawyers who were apparently always mellow and pliable as if they wanted to oblige everybody, and when they were compelled to dissent would do it in a kind of tender and regretful manner, and it has a wonderfully favorable influence on the jury to see a man act as if he wanted to be fair and just, and as if he were inclined to give every just phase of the subject a welcome. The lawyer from Springfield, Ill., who has been quoted in reference to Lincoln,

said a case was being tried in which Lincoln was counsel on one side, and the lawyer on the other side was trying to get a witness to answer a question, and the court objected to it because he thought the other side would object, and Lincoln sat there apparently paying no attention while the judge and opposing attorney were squabbling over it, and directly Lincoln looked around and said, "Your honor, I reckon it would be fair to let that in." The judge said, "All right; if you are willing I have no objection."

I would make the railroad lawyer a gentleman in his demeanor; it would serve to make life and litigation smoother. The railroad lawyer should have large Firmness and Self-esteem so that he can stand in the presence of well-paid, able and eager opponents and not feel small or act as if he felt small. I have seen a lawyer stand in the presence of legal and judicial learning and the eager strife of the subject, and when he got a chance to speak he would say that he regretted that his learned brother on the other side had become a little warmer on the subject than was really necessary. It reminds me of the familiar old school-book fable in which the blustering wind thought to strip a man of his cloak by force, but the harder the wind blew the tighter the man pulled his cloak about him. The sun tried to dismantle the man in a different way; he tried by pouring his calm and steady rays on the man's back, and soon caused him to take off and abandon his cloak.

THIRD.—REAL ESTATE LAWYER.

A real estate lawyer needs large Comparison, and he should have a good memory and good practical sense; it does not require much cunning, but the person should have a good development of Caution and Secretiveness, and especially large Continuity so as to give him the patience and perseverance to trace titles back perhaps a hundred or two hundred years and follow it through all

the phases of transfer and redemption of tax titles and whatever might be a cloud on the estate. In handling real estate nothing is to be taken for granted. Sometimes an estate is lost by some little technicality, by failing to have the papers verified before the proper authority; perhaps the notary did not

The late Samuel J. Tilden was a railroad lawyer and a corporation lawyer, and he made more money than almost any lawyer in the country in handling these massive financial cases. He was not an eloquent speaker; he was diminutive in altitude, not attractive in appearance, but he had a cool, clear



SAMUEL J. TILDEN.

belong to that county, and when that is the case, if the notary is not certified by the clerk of the court of his county and attached to the document, it invalidates the whole work. The real estate lawyer should have a good memory to hold the laws that belong to his own state; he ought also to have the ability to hold knowledge of the statutes of other states. Of course, if the real estate lawyer is an eloquent speaker it is all the better, but he can secure respect and success without it.

head in regard to mechanical and financial matters that belonged to the railroad business. When Mr. Tilden died he had made a bequest in his will to New York for a library, but his will was so defective that it has been seriously modified by litigation. It is sometimes said that a doctor who treats himself has a fool for a patient, and in more cases than one it has been proved that a lawyer could not manage a case for himself one half as well as he could manage a case for another. A physician who

has a wife or a child alarmingly ill generally confides the case to a man who has no particular interest in the person, lest his sympathy should warp his judgment or pervert his understanding. Chancellor Kent, the great authority on surrogate law in this country, made his own will and it was broken in court as if it had been made of pipe clay.

FOURTH.—CORPORATION LAWYER.

These need a cool, strong temperament with more of business capabilities than eloquence; it requires a legislative as well as a judicial mind. Corporations are based upon a special law or enactment in its case unless it comes under the general law. A legislator needs to have a clear sense of the force of an enactment which he is constructing. A corporation lawyer needs to see and follow that which has been enacted, and to appreciate its application to the case in point. He should be good in figures and accounts and should have a good commercial education. Some lawyers are expert in bank matters—in the examination of work of banks and corporations. They will take a set of books and find out if they have been correctly kept. In this state there is a bank expert, perhaps more than one, that stands high, and is called on by stockholders to examine their affairs. The dishonest officer of the company, who has been fraudulently using the funds of the concern, takes the hint and skips out to safer quarters when the expert is expected to come around.

FIFTH.—PLEADERS, ADVOCATES, BARRISTERS.

The function of this phase of law is to take a case which solicitors or attorneys have quarried out and prepared for trial. In this form of law a man needs the literary faculties; he needs perception and a good development of the semi-perceptive organs. He needs large Language to express his

thoughts in a clear and easy manner, and if he had a good development of Ideality to enable him to embellish his thoughts elegantly it would be all the better. He should have a Vital Mental Temperament so as to bring a glowing enthusiasm to the work in hand. He should also have a good memory of historical facts, which would enable him to state the case as if he had been there and seen it all. Daniel Webster had a way (if it were in regard to some lighter matter it might be called a trick) of handling a case before a jury in such a way as to make it seem in an eminent degree noble and fair. He would state a case before a jury as he thought his opponent would naturally state it, and would bring forth some of what were considered the strongest points of his opponent, and he would begin the argument as if he were on the other side, and occasionally he had his coat pulled by his anxious client and told that he was on the wrong side. When he had stated his opponent's side of the question pretty strongly and frankly he would say, "Now, gentlemen of the jury, that is the other side of the case as we understand it; if you will listen to me for a few moments, I will endeavor to present our side of the case," and he would march through his line of argument like an army with flying banners, and the case he had previously stated would look so slim by the side of his masterful argument that he would thus compel a verdict.

I remember two lawyers in Hartford, Conn., who were generally employed on most of the important cases. One was a clear-headed, straight forward man without eloquence or any tendency to make an effort in that direction, but he was a solid thinker and a clear-headed jurist, and when he arose to address the jury he would lean over the table and point his long, bony finger at the jury and in a confidential way tell them all about it, and it was made so perfectly plain to the jury that it

was very difficult to dislodge what he had said. He was one of the lawyers that generally had a chance to get the right side of cases. The other lawyer was a tall, handsome, jolly, funny kind of a man; his name was Charles Chapman and he generally had a full house when he was expected to speak. When Mr. Hungerford began his speech the crowd would leave the court house; everything there would be still and quiet, and for this reason what he said

laugh, and he would try to ridicule and make fun of the opposite side and of Mr. Hungerford's speech. Chapman wore a white vest, and his bushy and abundant hair was brushed back and gave him a somewhat distinguished look, and he wore a large black ribbon as a watch guard, purposely spread out over his white vest, and taking it all, he made an imposing appearance. But Hungerford generally got the verdict.



WILLIAM M. EVARTS, THE EMINENT ADVOCATE.

in his solemn, frank, honest, earnest way was impressed all the more readily upon the jury. The crowd would leave a sentinel at the window to give the signal when Mr. Hungerford had finished his presentation of the case and it was Charlie Chapman's turn to speak, and they would come rushing into the court house like sheep. Chapman would talk to the whole house, and would tell funny stories and anecdotes and have everybody in the house in a

SIXTH.—ADVISERS OR COUNSELORS.

These need large mental comprehension and experience to judge of the merits of the case; they need a cool and balanced temperament, also Caution to make them prudent. A counselor or advisor should have large Conscientiousness and should aim to get at the truth and the bottom facts in the matter. There are a good many cases settled out of court, and if one of these advisers or counselors of the right kind

gets hold of a case he will charge pretty good fees for advising and promoting a settlement, but it will be better for the community and perhaps much better for his client that the case should be settled out of court.

SEVENTH.—LAWYERS WHO DRAW LEGAL PAPERS.

These men need good scholarly talent; their minds should be well disciplined and they should have legal training and culture and literary criticism. A man who has the requisite talent and culture and is engaged in this line of the law, will draw papers that flow smoothly and cover all the points involved, and he will draw them in such a way that they will not seem offensive. Some lawyers draw papers in such a way that they bristle with indignant earnestness as if one or both of the parties were swindlers and needed a barbed wire fence on both sides of the path. It would be a good mode of practice in the instruction of law students to give out the frame of a contract and let a dozen law students see how much each one could modify it in the smoothness of its statements without losing any of its power or force. We think it would be a matter of interest and advantage to a business man who has not been trained in the law to get counsel of some clear-headed legal adviser in reference to drawing business contracts, especially if he expects to have occasion to draw any for himself. This would doubtless save a good many litigations in the business world.

A friend of mine thought he would draw his own will. He had some literary capability and training and he said in his will, "I give and bequeath my house and lot," and when he had completed the document he went to his lawyer, who was a personal friend, and submitted the paper to him for approval. The first thing the lawyer said was, "You must *devise* your real estate; 'giving and bequeathing' will convey

personal property but will not convey real estate in this state." That paid for the consultation fee.

EIGHTH.—PATENT LAW WORK.

In this line of work the lawyer needs to be admirably endowed with all the mechanical faculties to start with. In addition to that he needs literary capability, such as is required in the man who draws legal papers, because that is a part of the patent law business, but the core and backbone of his business is the mechanical capability. Some thirty years ago a patent solicitor desired rooms in our establishment, and in this way we learned a good deal about the patent business. We remember a case where a man had invented a printing press. He was not very well versed in the field he was trying to cultivate, and he brought to our office his plans and model of the press he wanted to get a patent on. He wanted to get a claim allowed for an inclined plane as a method of making the pressure in printing. The patent solicitor told him that mode of pressure in printing was in vogue in Dr. Franklin's time and that he could not patent it, and if he could patent it it would be of no use as the "elbow joint," which had taken its place, was much the best. However, the lawyer showed him something about his press that could be patented, and he got that patented and in about six months he sold his patent for \$5,000. In this case the solicitor knew more about mechanical construction and more about the history of the printing press than the inventor did. Of course a man who is a solicitor in this position ought to have a good substantial character. The temperament of the patent lawyer should be a calm one; he should have perhaps a predominance of the Vital Temperament with a little touch of the Lymphatic. He ought also to have a good share of the Motive Temperament to make him energetic, strong and persistent. He ought also to be moral, upright and just, as well as prudent and self-respecting.

THE HEAD AND FACE

AND WHAT THEY INDICATE

By NELSON SIZER.

CHAPTER II.

THE BRAIN, ITS STRUCTURE AND USES.

THE brain is the master or the central source of power, motion under the masterful control of the brain and its appendages, the nerves.

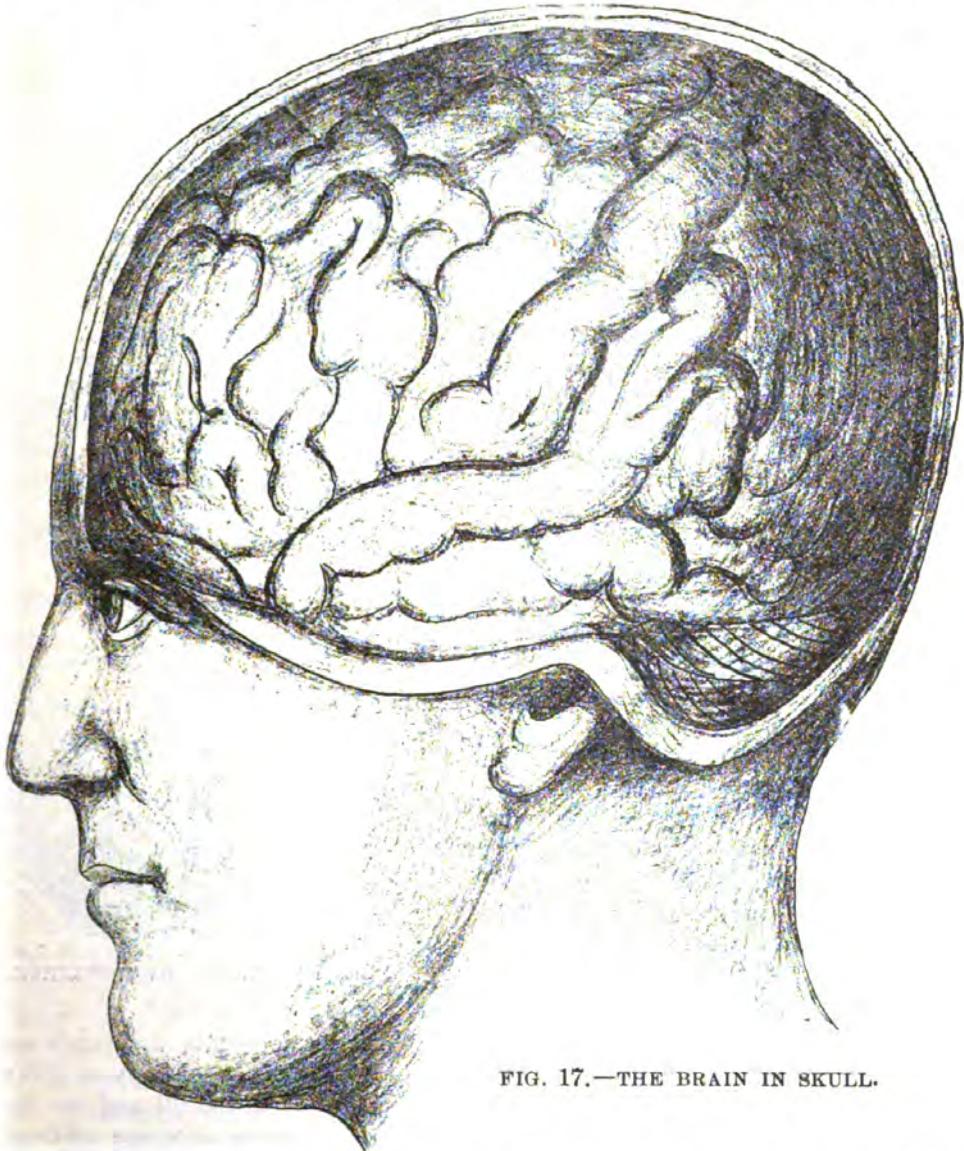


FIG. 17.—THE BRAIN IN SKULL.

and talent ; in other words, knowledge and power. Every fibre of the body is

Every quivering sensibility in the entire structure is a messenger to carry to

the brain a knowledge of joy, sorrow, secured from the outer world; and every effort of the will in the work and struggle of life receives its impulse in the brain and serves the purpose of that brain in the work and duty of life. The nerves of sensation which give pleasure and pain are so spread in minute fibres throughout the system that we can not touch with a point of a needle any part of the system without touching one of them; so that the brain, though located in the cranium, has its agencies all over the system; and the nerves of motion, actuated by the brain, produce all the force, skill and power which is manifested in life.

There is more known about brain and nerve to-day than there was half a century ago. When I commenced to lecture men who knew enough to go successfully into the avenues of skill and industry would sometimes ask, touching the forehead, if the brain was located there for they had seen some person who had received a blow on the forehead and the brain was exposed. Another would contradict it and say that he had known a person to receive a blow on the back of the head and the brain was then exposed. Another had seen a person injured on the side of the head in the region of the ears and the brain was seen to be there. And I would say to them, "Gentlemen, you are all right, the skull is completely filled with the brain from the orbits of the eyes to the back of the neck, even as an egg-shell is filled with its contents; and the skull is simply the house the brain lives in and is made to protect it, not to imprison it."

In earlier times physiologists studied everything more than the brain, and common people have, therefore, less information on that subject than on most other topics relating to the human economy. We now seek to present in a simple form for popular reading and understanding facts relating to the brain that ought to be known by all,

avoiding most of those sharp technicalities familiar to the student of medicine; and we will try to make the general outline of brain development and its characteristics plain to the popular mind.

BRAIN AS SITUATED IN THE SKULL.

Fig. 17. In this engraving is represented the head and face with one half of the skull removed and the brain exposed as it exists in life. If a line be drawn from the angle of the eye through the opening of the ear to the back head it will indicate the base of the cavity of the skull which in life is filled with brain. In this figure also will be seen the edge of the skull and the edge of the scalp. The cerebrum or great brain and also the cerebellum or little brain at the base, behind the ear, are shown.

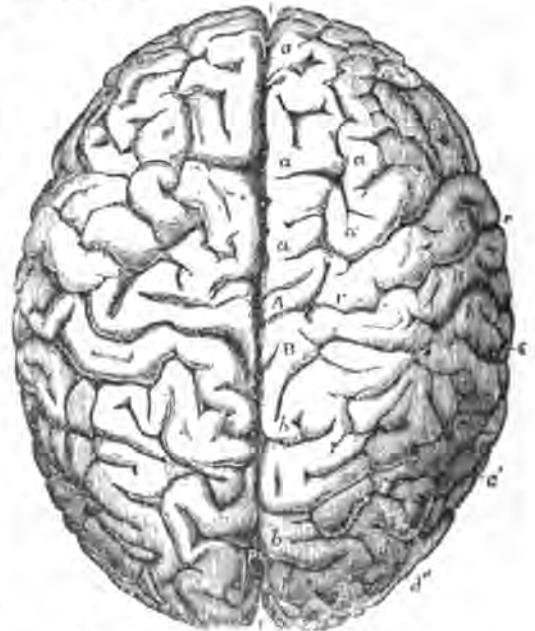


FIG. 18.—BRAIN HEMISPHERES.
TOP VIEW.

Fig. 18 represents the cerebrum or great brain as it would appear if it were taken out of the skull and we looked upon its superior or upper surface. It will be seen that there is a deep line or cleft running through the whole length, completely dividing the mass into two

equal sections or hemispheres from top to bottom. These hemispheres are united by a white fibrous membrane in the central section called the corpus



FIG. 19.—BRAIN SIDE VIEW.

C, cerebrum. D, cerebellum. M, medulla, oblongata. S, spinal cord, where it passes out of the skull.

callosum; and this connection brings the two hemispheres of the brain into connection and co-operation.

Fig. 19 is a side view of the brain which presents the left side of the cerebrum, C, and the left side of the cerebellum, D, or little brain. The medulla oblongata, M, and the spinal cord, S, which is a continuance of M, passes through an opening in the tentorium and out of the skull and proceeds to form the spinal cord, running through the whole length of the spinal column, this being sub-divided into infinitely small fibres which pervade every part of the body, giving sensation as well as motion.

There is another division recognized in discussing the brain, namely, lobes. Fig. 20 gives us the basilar aspect of the brain, the cerebrum and cerebellum when the whole mass is turned upside down. This is the bottom view of the brain. The anterior lobes of the brain (each hemisphere has its lobes) from AA to BB are regarded by phrenologists as the intellectual lobes in which the

organs of the intellectual faculties are located. The cleft at the back margin of the anterior lobe at B is called the fissure of Sylvius which divides the front and middle lobes of the brain near BB. Between BB and CC are presented the middle lobes of the brain in which phrenologists locate the organs and the selfish propensities, such as Vitativeness, Alimentiveness, Combativeness, Seeretiveness, and Acquisitiveness. From CC to DD are the posterior lobes in which are located the social or domestic organs. EE shows the hemispheres of the cerebellum or

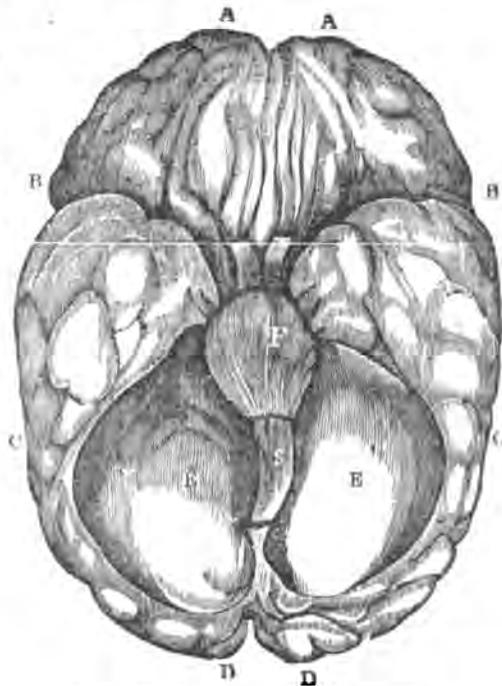


FIG. 20.—BRAIN, BOTTOM VIEW.

Anterior lobes from A, A to B, B. Middle lobes from B, B to C, C. Posterior lobes from C, C to D, D. Cerebellum, E, E. Medulla oblongata, F. Spinal cord, S, proceeding from the medulla oblongata, cut off below the skull, and laid on the cerebellum (see Brain, Side View). Fissure of Sylvius, dividing between the front and middle lobes of brain near B B.

little brain. F represent the medulla oblongata. S is the spinal cord attached to the oblongata. Thus the brain and the body through the spine have their connection and co-operation.

If we turn and look at Fig. 19 again, we will see where the fissure of Sylvius divides between the anterior and middle lobes.

Fig. 21 shows the base of the brain of a North American Indian, and the reader can not fail to observe and mark the difference between Fig. 20 and Fig. 21. How much shorter and relatively smaller the anterior lobes of the Indian brain are in Fig. 21, AA to BB, and how much larger the middle lobes of the brain are from BB to CC; and then how much broader the middle lobes of the brain are, rendering the head so much wider between the ears. This gives significance to the breadth of the head of Fig. 9, page 22, and the narrowing of Fig. 10. The middle lobe of the brain in Fig. 9 is broad, the character is severe, executive, positive and plucky. Fig. 10 shows a narrow head; it may have intelligence and morality but it lacks pluck, push and power. The Indian is not intellectual, his knowledge is narrow and meagre, and relates to physical things, but his physique and the elements of severity and cunning, in fact all the animal propensities are enormously developed, as seen in Fig. 21. It is the case in all the crania of all the war-like tribes of Indians no matter where they dwell. They are the elements that make the tiger, lion and wolf, and all the carnivora in short, fierce and intense in their severity. They are the characteristics of the wild man whose animal propensities have been chiefly developed.

If we take an Indian child and culture him in the gentle amenities and sympathies of refined civilization, it will prevent the great growth of the middle

lobe of the brain, and his children, if the mother were removed from savage life and trained in a similar way, would have an inheritance in which the middle lobe of the brain would be lessened and the anterior or intellectual lobe would be enlarged; so in the successive generations the shape of the head of the Indian would be transformed.

In civilized life where children wrangle and struggle for existence and are largely savage in habit and impulse, they will be found to have round heads, broad heads, they will be cruel and cunning. A few generations of refinement and culture would change the

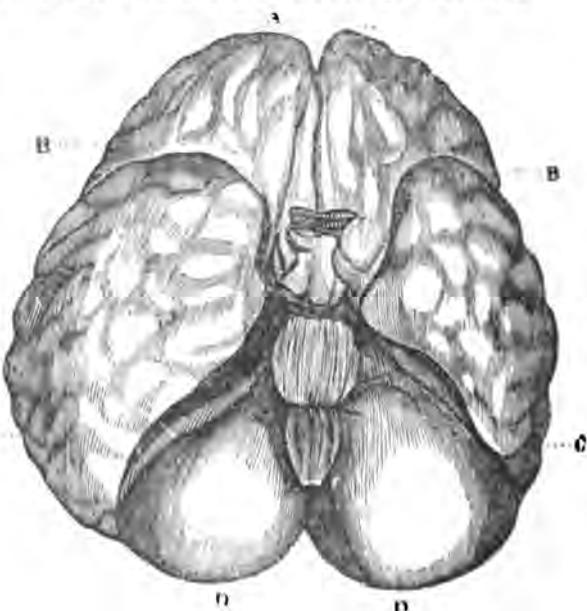


FIG. 21.—NORTH AMERICAN INDIAN.

form of the cranium as well as the disposition of the individuals.

Fig. 22. This shows the left hemisphere of the brain, and the wall that is presented above the white band, called the corpus callosum, represents the cleft between the two lobes which runs clear through in front of that arched band and behind it. This corpus callosum is a bundle of fibres which unites the two hemispheres of the brain, bringing them into connection and co-operation. In this engraving also is shown the cerebellum, which in this

case has been sliced off so as to show what is called the arbor vitæ, or tree of life. Here the gray matter and white matter are differently disposed from what they are in the cerebrum. (See Fig. 23).

substance, like the peel of an orange. It is also called cineritious, meaning ash colored or gray. The gray matter is regarded as the special agent of mentality, and the deeper the foldings the greater the talent in the fortunate

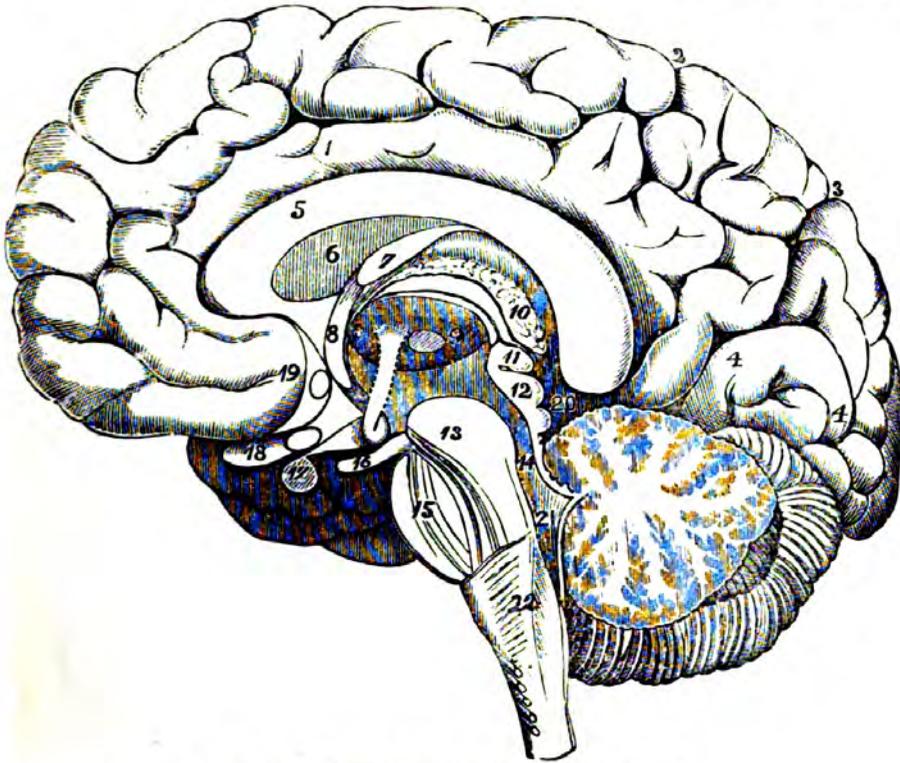


FIG. 22.—LEFT HEMISPHERE OF BRAIN.

5. Corpus callosum. 9. Optic thalamus. 11. Pineal gland. 12. Corpora quadrigemina. 13. Crus cerebri. 15. Pons varolii. 22. Medulla oblongata.

Fig. 23. This figure represents a section of the brain including both hemispheres sliced off to a level with the corpus callosum, and the white substance of that structure will be seen connecting the two hemispheres. The Medullary or the white substance of the brain is here exposed in a large way and is surrounded by the convoluted margin of gray substance.

There is another anatomical marking besides the divisions of the brain into hemispheres and lobes, namely, into convolutions, or the deep foldings of the surface. The surface of the brain is composed of gray matter, and its outer covering is called the cortical

possessor. Within this cortical substance is the white, fibrous tissue of the brain which is called medullary matter. It is of a grayish white, and is developed from the medulla oblongata in radial fibres toward the surface where the fibres unite with the cortical substance; and the length of these fibres from the brain centre to the circumference indicate the development or magnitude of the brain.

In Fig. 1 to 4, the lines running from the opening of the ear forward, upward and backward; and the back views of the same head in Figs. 5 to 8, with similar radial lines show the method of forming a large brain by the exten-

sion of these fibres; hence the Webster brain is broad, long and high; and the other heads represented, down to the idiot's, have shorter fibres and the heads are smaller; just as a small wagon wheel has short spokes and a large wheel has long spokes. So that in measuring heads and studying their formation, the phrenologist looks for

The reader now will understand why Fig. 20 differs from Fig. 21 in character. One, Fig. 20 has a modified middle lobe of the brain, the propensities and passions are restricted. In the Indian, Fig. 21, the character is developed through the middle lobe, the talents are not developed in his case through the anterior lobes very much. Another

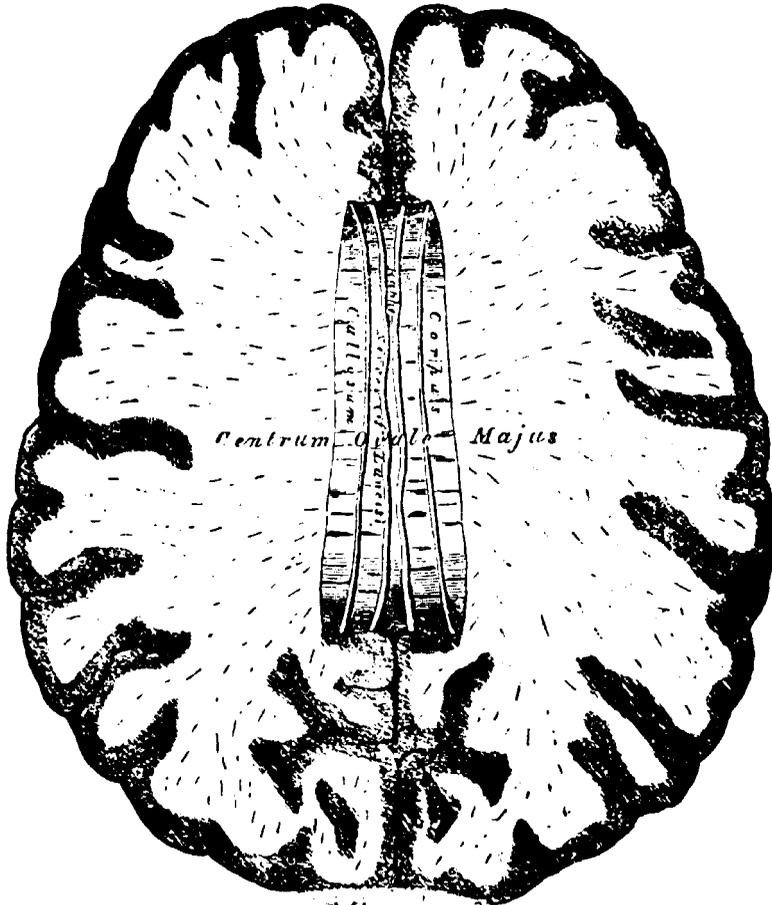


FIG. 23.—BRAIN, TRANSVERSE SECTION.

Section of brain on a level with the Corpus Callosum, showing white fibres, convolutions and gray matter.

the distance from the medulla oblongata or capital of the spinal cord to the surface of the brain. He does not look for hills and hollows, for little inequalities of surface. The Webster head has as smooth lines as any of the other heads contained within its outline. There are no more bumps on Webster's head than on the idiot's head, but there is more distance from the opening of the ear, more massiveness, more power.

look at Figs. 9 and 10 will reimpress this thought.

Fig. 9 is a man to build engines and run them, to quarry granite, to be a man of the executive sort, while Fig. 10, with the narrow head, could; keep the books, could do the intellectual part of the business and keep everything straight in the counting room.

THE BRAIN IS FIBROUS.

The question of the fibrous structure

of the brain was somewhat slow in finding a lodgment in the anatomical and medical world. Gall and Spurzheim were opposed in Germany and in Paris because they claimed that the brain was of a fibrous structure, but they demon-

strated it by dissection of the brain, and the microscope in its modern improvement has sanctioned their word.

As late as 1842, in a public lecture in Vermont, I stated that phrenologists did not estimate the mental organs, as most people persist in claiming they do, by bumps, but by radial distance from the medulla oblongata to the surface of the brain where the organs are located; that the brain is developed from that point by means of fibres toward the brain surface like the ribs of a palm leaf fan.

At this point, a young lawyer of the village who was the professor of medical jurisprudence in a small medical college in that State, rose and asked permission to address the audience for a minute. Permission being granted, he said, "My friends, with all due

respect to our young friend, the lecturer, I desire to say—and having had, as you know, some acquaintance with a subject relating to the brain and to the brain itself, I am prepared to assert—there are no fibres in the brain as there are none

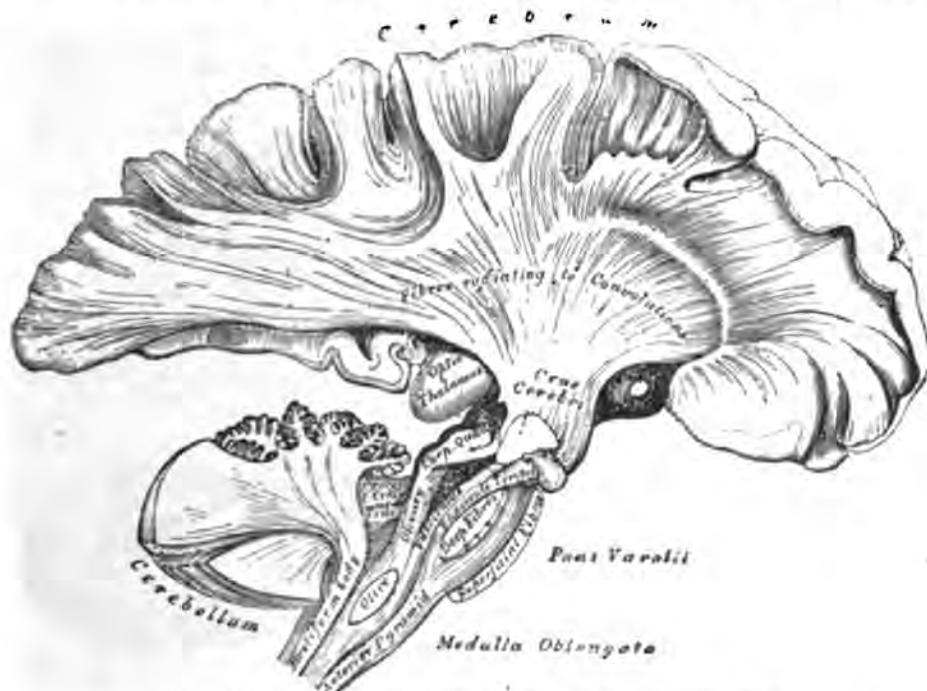


FIG. 24.—FIBRES RUDIATING TO THE CONVOLUTIONS

in a bowl of custard; it can be cut with a spoon as a custard can be. The phrenologist's theory of fibres must therefore be erroneous." That man was no slouch, he afterward, I think, became Chief Justice of the State, but whether he learned anything more about brain fibres, I am not informed.

I replied that "Dr. Gall, the founder of phrenology, was a German physician, and in Germany physicians are supposed to be well educated; and he had such a standing that he was called to be physician to the Emperor of Austria, in that city of scientific learning, Vienna; and among learned men in Germany he stood high, and he taught that the brain was fibrous, as I stated it.

Dr. Spurzheim, associate of Dr. Gall, was also an educated German physician, and the two men in their lectures de-

livered in Paris, taught the fibrous structure of the brain, and the people of that learned metropolis were convinced by their demonstrations. They were the men who taught the doctrine which I merely repeat here."

Of course this Vermont lawyer represented the state of medical science on this subject where he taught juris-

Vermont lawyer disputed this doctrine, the great work called Gray's Anatomy, was published in London, which is still, in 1893, the standard text book of anatomy in every English-speaking medical college in the world. It illustrates the point in question by an engraving which is represented in Fig. 24.

In the engraving which is here

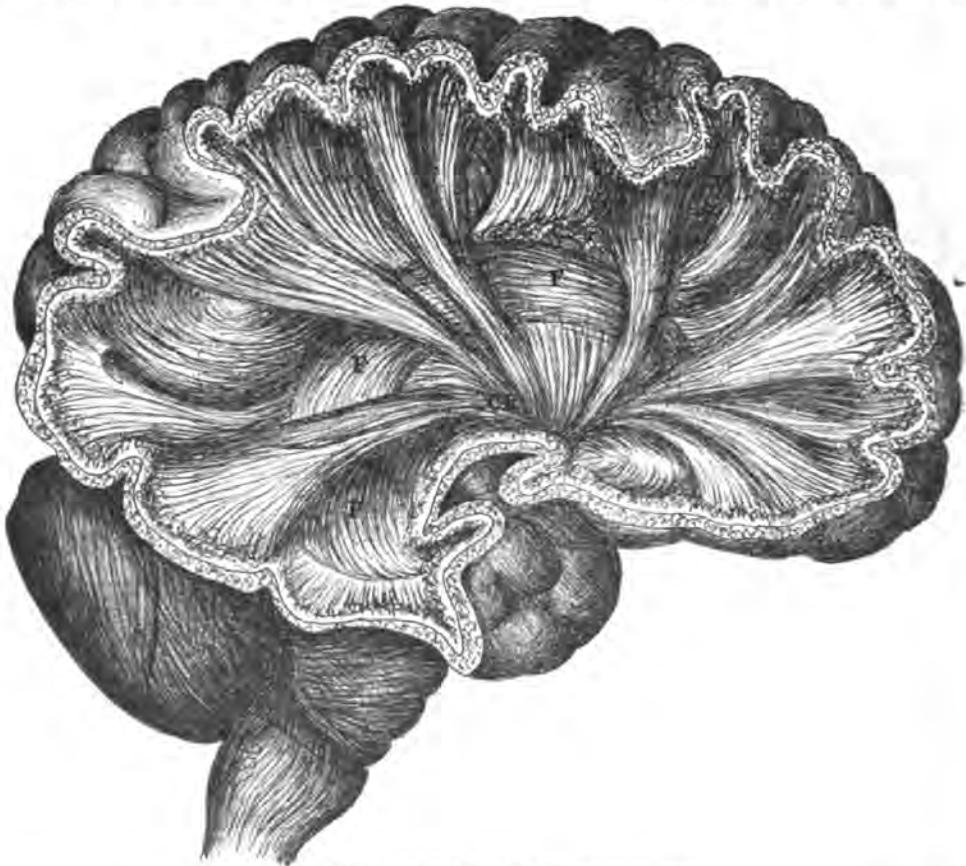


FIG. 25.—BRAIN FIBRES DISSECTED.

prudence; and he thought he was doing his neighbors a justice to disabuse them, and himself a justice in taking advantage of the opportunity to say that he knew something that the people among which he lived did not know.

Five years previous to this, however, a professor of physiology, at Washington, who was opposed to phrenology, delivered lectures which were published, in which he plainly recognized and stated the fibrous theory of the brain. Within ten years of the time when the

copied, the cerebellum has been permitted to fall away from the cerebrum. In life it lies snugly up under the cerebrum. (See Fig. 19.) It was permitted to fall away so that the parts above could be better shown for the anatomical student.

Toward the base of the cerebrum the reader will see what we choose to call a real arch, made of the words, "Fibres radiating to convolutions." We have sometimes wondered what the Vermont lawyer, the lecturer on medical juris-

prudence in a medical college, thought of this engraving the first time he saw it. Of course the medical college (to which he ministered in 1842) as soon, at least, as 1852, followed Gray and everybody else in teaching the fibrous structure of the brain. There are more fibres in the brain than there are in a bowl of custard. Yet many people still persist in talking of bumps, as if we looked for and followed them.

This engraving, fig. 24, is a section of the left hemisphere of the brain, showing the medullary or white, fibrous structure. The gray matter at the surface can be seen in certain parts, though the object of the engraving was not to show the cortical or gray matter of the brain, but the white fibres.

In Fig. 25, we have also a left hemisphere of the brain, and we are looking at that side of it which joins the right hemisphere. They are separated from each other by the falciform process of the dura mater; and in this engraving there can be plainly seen the strip of gray matter attached to the convolutions at the surface, then the bands and lines of white fibres run from below, upward and outward.

In the measurement and study of heads, as indicated and illustrated by Fig. 1 to 8, it will be understood that by drawing a line through the head at the opening of the ears, it passes through the centre of the brain at the medulla oblongata; hence we study from the opening of the ear, and know that the medulla oblongata is exactly between them; hence the organs in the side head give wideness to the head. The organs in the top head are large in proportion to the length of the fibre from the medulla oblongata. The organs in the front head are long and large in proportion to the distance from the opening of the ear forward to the external part of the head.

If one will take a palm leaf fan and hold it in his hand by the handle and see how the ribs run, to the right, to the

left and upwards, he may have a rough idea of the sections of the brain, the handle representing the spinal cord and medulla oblongata.

Some heads are an inch and a half wider above the ears than others. Some heads are an inch and a half longer from front to rear. Some are long from the ears backward. Some are long from the ears forward and short behind. An apple is large because the distance from the core is great every way; and it does not need bumps anywhere to show that it is large.

Some heads are irregular in form (See brain, Fig. 21), it differs from Fig. 20, showing a difference in the length of the fibre lines in different parts of the head. Fig. 20 shows a harmonious balance between the frontal, the middle and the posterior lobes of the brain. Such a head is developed by civilization and the laws which regulate life and character. Fig. 21 is very broad in the middle lobes. In that region Phrenology locates the propensities, the passions, the elements of severity and force, policy, prudence and appetite, and when we compare that strong, selfish propensity department of the middle lobes of this brain with its anterior lobes from AA to BB, we see that the middle lobes are twice as large as the anterior lobes, whereas in Fig. 20 they are supposed to be normal and harmonious. The middle lobe in Fig. 20 gives power and executiveness, and the anterior lobe gives knowledge and power to think, reason and plan, so as to exercise power wisely and humanely. Fig. 21, the Indian, is severe, treacherous and selfish, his intellect is cramped and narrow and relates mainly to things practical and physical. He cannot reason except upon what he sees.

One person has a wide, short head; another has a large head in the base and low in the top. (See Fig. 12 contrasted with Fig. 11.)

Where the fibres are long the functions will be strong. Where the fibres are short the functions are weaker, temperament and quality being similar.

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

DR. GODMAN.—PROF. H. H. GIRD.

Some of the strongest evidences in proof of Phrenology are derived from comparative anatomy. It was, undoubtedly, facts from this source, more than from any other, that produced conviction in the mind of the celebrated Dr. Godman.

Dr. Sewall, in his eulogy on the character of Dr. Godman, said of him: "It was his accurate knowledge of anatomy and physiology, and his uncommon power of teaching these branches of medicine, which gave him his strongest claims to our regards as a man of science. He always came to his subject as an investigator of facts; the zeal with which he sought information from this source (original observation) may be learned from a single incident, that in investigating the habits of the shrew-mole, he walked many hundred miles." A few of Dr. Godman's own words will be of interest. In an address on natural history, at the close of some interesting remarks on the brain of the elephant, he says, "The remark has often been made that the brain of the elephant is very small compared with his huge bulk; this remark may have appeared to be of more consequence, while the brain was regarded as the *source* of the nerves, than it can do now it is well ascertained that the nerves communicate with, or terminate in, the brain, instead of being emanations therefrom. Perfection of intellect has nothing to do with size of brain compared with corporeal bulk, but depends upon the *proportions* existing between different parts of the brain itself, and, as a general rule, upon the acuteness of the organs of sense. Where the proportions of the brain are comparatively excellent, as in the elephant, seal, etc., more of *mind* is displayed, although not more than one sense be remarkably good, than in animals having all the senses more acute with a less perfect ar-

range in the proportions of the anterior, middle and posterior parts of the brain. It is remarked among men, that small, *well-proportioned* heads display as a general rule, more of talent and energy than the majority of large heads, having less perfect proportions between the conformation of the anterior and posterior parts. The difference between the mind manifested by large and small heads, equally well proportioned, may be stated to consist in difference of activity; the large head being slower in operation, but capable of greater continuance of effort, while the small one is quicker and more energetic, but sooner exhausted by mental exertion." Dr. Godman also said, "It is safe to infer that the opponents of Gall and Spurzheim do not understand the exact nature of the case against which they dispute, at least, no man who ever set himself honestly to work to examine the subject fairly, has remained in opposition."

In 1839 there was a large and flourishing phrenological society at Jackson, La., where the college of that State was located. This society had been established for some years, and embraced the college president and professors. In 1838 Professor Gird delivered an address before this society, which was spoken of in high terms; its concluding paragraph follows: "For this trait, for its tendency to diffuse the noblest kind of knowledge, I am a *warm* friend to Phrenology. It shuts not itself in the scholar's cell, its sphere is not the narrow bounds of the professor's lecture room; it goes forth strongly in the consciousness of its truth and simplicity, and addresses itself to all who are willing to hear. It calls men together; it teaches them to study themselves and their fellow-men, to apply their knowledge to useful and benevolent purposes under the guidance of the Holy Spirit of Christianity. It is not extravagant, then, to apply to its authors and propagators the eulogium bestowed on Socrates. Like him, they have brought philosophy down from heaven, and caused her to dwell once more in the abodes of men."

CHARLOTTE F. WELLS.]

CHILD CULTURE.

RESPONSIBILITY OF CHILDHOOD. No. II.

Many ways in which children are abused have been named, but there is one more that I should mention. Parents are so particular concerning their social standing that should any of their children in their weakness fall, they may be turned out of their homes. Especially are young girls so treated. Better by far should such parents pray for their own weak and inconsistent selves. Yet they may ask God to keep and protect their child after having abandoned it to the wiles of the world.

A child with the powers of Secretiveness, Firmness and Individuality conspicuous, may be expected to be more or less unruly. The moral organs being deficient, he will be disposed to lying, stealing, and other immoral actions; he will be sneaking, impudent, saucy, haughty and desiring to know and trying to find out mean, low and unbecoming things. A teacher can *explain* and set an *example* of what is correct, but never can he alone so far overcome these cerebral imperfections of the child as quite to eradicate this evil tendency. They are born in the organism, and form mental traits which may be improved but never entirely eradicated.

There remains another grand division of this subject to be discussed. There are two classes of persons who consider this subject from different standpoints. One class holds that all ideas are innate and come direct from God. The other claims that the mind is a blank at birth, and all knowledge is acquired, and that man has no inward desire, save as he learns.

A close study of minds shows that we are born with a special individuality, peculiar tastes and tendencies, but training and education will modify the native disposition more or less. In many

children the aptitude for eating is very strong. They cry almost continually unless given nourishment; and when they become older we call them gluttonous if their disposition has not been properly corrected. Those with strong Friendship may be continually crying and sobbing unless in the arms of some one. When they are older, if the habit be not corrected, we call them pests, for always desiring to be on some one's lap. They make our sympathetic individuals, and take it very much to heart by disappointment in love. It is thus seen to be an established law of nature that different actions are performed by different organs, and that man has the tools, the mental powers, by which to do all things. One may have a good mechanical tool, Constructiveness, and by proper use of it be a blessing to mankind, but by improper use of it be a curse. It is by long and repeated action that organs come to produce results automatically, as it were. While man has within him certain powers or passions, yet the manifestations of these must depend to a great extent on his education and training.

Many persons will sit for hours, telling witch and ghost stories, which fill the minds of children with pictures hideous and frightful, while the little ones crouch in some corner and listen, as if the angel from the bottomless pit were in search of them. They afterward think of these things from time to time, and become such cowards that not unfrequently all the rewards in Christendom could not hire them to venture, after night, even where the most absolute assurance of safety was given.

In Appleton's second reader there is a selection concerning a child that desired

as sweet cake. When it was on its way to get the cake it heard a voice as it were, which seemed to say, "Don't do any thing naughty while I'm gone." Just what she had told dolly. She stopped and listened, "What could it be?" Her mamma, was not at home, and no one else was near. So she says, "It must be one of the angels that mamma tells me about." Is it not shameful to lead a child to believe in such things? That an angel would come down from heaven and tell a sweet, innocent little child—the only pure thing on earth—that is suffering from the pangs of hunger, it must not eat a sweet cake! but rather to leave it for some fine-haired visitor to gobble.

This is what I heard a minister say last summer during camp meeting when telling the children about Jonah in the whale: "Well, children, what do you suppose he did when he got out? Well, I suppose he ran home and got on some clean clothes." I thought if he had been in Jonah's place what a grand amount of ignorance or folly would have been swallowed.

The principles that we should teach our children are plain and simple. Inculcate an upright, moral character. Teach them their duties in all relations as far as positive knowledge will extend, and there cease. I am the friend of women and children, and if there is anything on this sphere clothed in human garb and visible to the eye that I can conceive it would be acceptable in the eyes of God for man to worship, it is a happy, peaceful and virtuous woman with her arms entwined about a sweet, dimpled and rosy child. If for protecting these sacred beings from vile teachings a man is to be called a "sapskull," crank, an enemy to the church, etc., you could not brand me with a higher title. I am of the opinion of Henry Ward Beecher, when he said: "A man who has a *good* wife need ask but little more of God until death." For truly his earthly paradise is within his reach. All he needs is a realization of his treasure, and even the angels of heaven may envy him his portion.

FRASER.

A PLEA FOR THE CHILDREN.

IN these days we hear a good deal about children having "the right to be well born," and they certainly have; but they also have the right to be *well fed*. We are well aware that for a child to be well fed, comprises a good deal. Some, who consider their children well fed, if they should pay half as much attention to the subject as they do to the feeding of their blooded stock, would realize that they come far short of giving it the weighty consideration they should.

This article is dealing strictly with facts, and is not designed to be sensational. We have seen an infant, at six weeks old, fed pork and beans. We have also seen infants of a few months old fed regularly at the table with such food as the rest of the family ate, which consisted of many rich indigestible things. Then some wonder that so

many infants die with cholera infantum when the greater wonder should be that so many survive that do. Many infants are not given water to drink, but instead tea and coffee; their unwise mothers contending they are not as liable to have colic.

We knew one mother who gave her son fifteen warm cookies while she was baking in the forenoon, and during the afternoon let him devour nearly a whole jelly-cake. When remonstrated with in regard to her son's eating so much rich food, she said: "I don't think he will live to be very old, and I do not wish to have it to think over after he is gone, that I denied him what he wanted to eat." Within three years the youth was dead. That the mother found consolation in having given all her boy desired, we have failed to learn.

At one time, being asked to care for

an infant while its mother attended the funeral of a relative, we were told: "It will not cry, for I have fed it some good whiskey sling." Yes, the poor little thing of four months old was *drunk!* The mother was a member of a Christian church and mingled in good society. These few incidents show not so much depravity as ignorance of the laws of health, and that good health is largely built up and retained through what we eat.

If a mother could know that she was fostering intemperance in her boy, and sowing the seeds of scrofula in her daughter's blood, through the food she gave them, we have not a doubt that she would strive to learn the best methods of preparing it. But some mothers are so wofully ignorant as to cling to the old time methods of preparing food, is a pity. If they should spend less time over the latest styles in dress, and more over the physical needs of their children, it would be wise. We claim that the mother holds largely within her hands the power of having her child honest, temperate and intellectual, through the care bestowed upon its stomach and body, and that the physical needs of the child lie at the base of moral and spiritual development.

That a better day is dawning is sure, through the heralding of this gospel of food. And it is wisdom for such to be indefatigable in their efforts, for in the promulgation of this doctrine lies the hope of a blessed future.

MRS. S. ROSALIE SILL.

EARLY MENTAL DEVELOPMENT.

BOTH common observation and the closest scientific study have made it plain that youth is the period of sense ascendancy. From this most important conclusions follow, which we can not ignore without paying a heavy penalty. Attention has been called to the infant in order to show that, prior to all school education, Nature asserts

herself, and points the way in which the human brain and mind develop. Any education that overlooks these facts is directly against the organization we possess, and must be more or less of a failure. How far our methods have been and are in harmony with them I shall presently attempt to show.

For the moment let me follow the child out of the stage of infancy into that of school age. The boy of five, let us suppose, is sent to school a perfect stranger to books and the usual educational equipment. Everything on the road to school attracts him to such an extent that likely enough he may arrive late. When at school the teacher may find him so restless that the question of keeping him in order so that he shall not disturb others is a matter of serious difficulty. So long as he can be kept in action things go well enough, but to keep this activity within conventional bounds is the problem.

Very often repressive measures that quite paralyze his nature are resorted to in order to adapt his organism to the environment, instead of the reverse being attempted. It is forgotten too often that if this young creature were not active, even restless, impulsive, inattentive—i. e., ever ready to secure some new impression—he could not develop after Nature's plan.—*Popular Science Monthly.*

HELEN.

A big hat,
And some tumbled curls,
That's the head of
The sweetest of girls.
A tucked frock
And an armful of posies,
Here is one of
Her favorite roses.
Two little shoes,
Without any heels,
In order to know
How the firm ground feels.
You want the picture,
I'm sure you do;
For you'd love Helen
And she'd love you!



SCIENCE AND CURE.

MANY suppose that hygienic medication or treatment is a substitute for the employment of drugs as curative agents. Others think this method of treatment is supplemental to the proper or scientific use of drugs. Still there are others who think that hygienic medication is only a better way and advise a resort to drugs when it can not be intelligently administered. These views indicate a misunderstanding or a want of knowledge of the fundamental principles of the hygienic system of the healing art. This system of medical practice not only presents a different method of Therapeutics but also a different theory of disease and the *modus operandi* of curative agencies and appliances.

The very first principles of the hygienic system are opposed to those of drug medication. The fundamental principles of these systems of medicine are antagonistic and incompatible. If drugs are not curative agents *per se* then can a true system of practice direct their employment in such capacity? If all remedial agents have normal or physiological relations to the vital organism, then drugs of every kind can not be classed as such agents. If in the relation between living and dead matter the living is active and the dead passive, then drugs do not act on the living sys-

tem but are acted upon by the vital powers. If disease is vital action in relation to things abnormal—a remedial effort, a process of purification and reparation—then it should not be destroyed and subdued by agents having pathological and destructive relations to the living system, but should be regulated and directed by true remedial agents which have normal or physiological relations to the vital organism. If all healing power is inherent in the living system and all true remedial agents are materials and processes which harmonize with the laws of living beings and can be used and appropriated by said organism in restoring it to a normal condition, then drugs as curative agents are a misnomer and are not such in fact. Drugs have a sphere in the true healing art. They are destructive agents in their relations to living beings, and in this capacity they are useful the same as the surgeon's knife. They may also be useful as anæsthetics and antiseptics in surgical cases; but their relation to the vital organism is antivital and may be termed when so employed a necessary evil.

Can any one who conscientiously believes that the first principles of the hygienic system of medication are true in fact, advocate and administer drugs and poisons to the sick and dying? Are

the writings of that great and profound author and teacher, Dr. Trall, on health and disease to be smothered and covered up by the teachings of the old dogmas of drug medication? The truth is that the few hygienic physicians scattered here and there in this country are curing patients who have been drugged and doctored by the best drug physicians in the land without relief, and even were made worse by such medication, and also are teaching the true science of health as well as demonstrating by actual practice the true method of cure. The hygienic system of healing teaches not only a rational method of medication but promulgates the true principles of health reform and the science of health. The principles of curing as formulated by the late Dr. Trall are those founded in nature and science, and are, as the years go by, finding adherents and promoters. The recent epidemic of cholera in Europe reflects the light of hygienic medication. The most successful treatment of this dreaded disease proved to be in line with hygienic principles as set forth by this school of the healing art. It consisted of copious injections of warm salt water (probably better without the salt), into the large bowel, sponging the skin frequently with warm water, and good nourishing food, no drugs administered. A Dr. Lee, of Chicago, went all the way to St. Petersburg this last summer to test this treatment. He reported twenty-six persons treated in this manner and without a single fatal result. Some of his cases were in a state of collapse when treatment was begun and they were revived and made a good recovery. All real progress in medicine has been away from drugs and upon lines of prevention and hygienic therapeutics. The popularity of the Homeopathic practice is evidence in favor of the no-drug treatment of disease. If one must take drugs when sick or diseased then the less the better is the true theory or method to adopt. It is generally be-

lieved that the Homeopathic treatment is much more successful than the old large dosing method in children's diseases and all severe cases of illness. These tendencies of the public mind and thought go much towards establishing the truths and principles of hygienic medication and its hand-maid, the true science of health.

Within the past year I have observed and directed the treatment of two adult cases of chronic skin disease. One was eczema of the scalp which had existed since childhood, the other, eczema of the body of over fifteen years standing. Both of these cases had tried various plans of drug treatment without relief. The treatment I employed was mostly dietetic. This method rejected all condiments, even common salt and all fermented foods, such as yeast, baking powder, sour milk and soda breads, vinegar, etc.; and in their stead in the bread line unleavened wheat and corn meal bread was substituted. All table beverages, as tea, coffee, milk and even water at meals was prohibited. In the main all flesh foods were discontinued, and the diet consisted of grains, fruits, and vegetables; only occasionally beef roast or steak was indulged in. A true natural diet was adopted with the exceptions mentioned. Bathing was directed for purposes of cleanliness and not as a remedial agent. After six months of this pure food treatment, the skin eruption had disappeared and the skin was normal and healthy in both cases. They were both cured by this simple but efficient treatment. All the vital functions were invigorated and both of these persons have better health in every way than formerly, or before adopting this diet, which they still continue from choice. These cases demonstrate the curative value of a scientific diet, and is evidence in favor of the principles of the hygienic system of curing as being the true and rational method of medication.

J. G. STAIR, M. D.

THERAPEUTIC USES OF THE RECTAL INJECTION.

ARTICLE II.

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IT is altogether superfluous to remind the medical reader that for many years hydro-therapeutics in fevers, especially typhoid, have received the highest commendation in Germany and France, from hospital attendants, and also from leading American physicians. The cold bath of Brand, the free potations of Debove, the drinking and injection *per rectum* of cold water as advocated by Cantani, the observations of Dr. Baruch in a well-known New York hospital, may be said to be but revivals or extensions of the method of Priessnitz and his followers.

A Chicago physician, in a contribution to the *Medical Examiner*, speaks of some of the more common expressions of intestinal disorders, not febrile, that are the effect of functional inactivity, the waste products of digestion or indigestion being blocked up in the colon, in this vein: "Absorption of the feces from the colon leads to a great many different symptoms; among others anaemia, with its sallow or yellow complexion, its chloroasmic spots, furred tongue, foul breathing, and muddy sclerotics (membranes of the eyes). Such patients have digestive fermentations to torment them, resulting in flatulent distension, which encroaches on the cavity of the chest, which in excessive cases, may cause short and rapid breathing, irregular heart action, disturbed circulation in the brain with vertigo and headache. An over-distended cæcum, or sigmoid flexure, from pressure, may produce dropsy, numbness or cramps in the right or left lower extremity. A physical examination that will determine this impaction is simplicity itself. By placing the patient on his back, with the knees well drawn up, the physician can place one hand on the abdomen, below the tenth or eleventh cartilage, with the fingers of the other hand in

the posterior hypochondriac region. The ascending or descending colon can easily be pressed forward against the hand in front of the abdomen. The hand in front should be kept firm and immovable. A little practice will enable one very readily to distinguish these accumulations. Conjoined manipulation enables one to decide the incontestible presence of impaction of the colon. Percussion sounds may be so obscured by adventitious circumstances as to render them valueless. Conjoined manipulation can be very quickly practiced, and is the most satisfactory method of examination. Its only uncertainty of detecting accumulations is in very obese patients. In them a flushing will dispel doubts."

A large percentage of that very dangerous disease known as typhlitis or appendicitis, is due to long retention of fecal matter in the ileo-cæcal pouch. Cases of abdominal distension have come under the observation of the writer, in which the pain and tenderness at the junction of ileum and colon were so marked that typhlitis was suspected. A thorough washing out however, with a long tube relieved the patient both of the pain and the possible experience of a dreaded operation.

H, a young man of 30, sent for me. He had been suffering for several months with abdominal pains, at times almost intolerable, had been treated by three or four physicians for indigestion, gastritis, colic, inflammation of the liver, enteritis, etc.; obscure pains invaded his chest, giving him an idea that he had heart trouble, etc. At the time I first saw him his abdomen was much distended and hard, and a slight but persistent diarrhoea gave much annoyance. For a day or two he had been having a succession of flushes and chills, which were rapidly exhausting

his strength, and intimated the probability of a septic complication. A careful manipulation satisfied me that the transverse colon was the seat of the trouble for the most part, it appearing to be closely packed with accumulations from right to left in spite of the powerful cathartics that he had been taking. At his request I proceeded to inject tepid water with a small proportion of borax into the colon. On account of the tenderness of the rectum it was necessary to proceed with great care, but I succeeded in introducing a soft rubber tube until about thirty-four inches had passed, and the patient felt it in the upper part of the left flexure of the colon.

Over four quarts of water were slowly injected at this first treatment, the patient bearing it well, and the relief it brought almost immediately converted his doubts regarding its expediency into grateful conviction that it was "the treatment" for his case. Repetition of this washing out administered several days in succession enabled him to sit up with comfort, to eat with some sense of appetite, stopped the diarrhoea, the fever and chills, and enabled him to sleep comfortably. Two weeks later he was out, and insisted that he was almost as well as ever.

A case worthy of reporting is that of Miss O., who had been having chills daily, a bad taste in the mouth, with vertigo, scalding urine, an eczema on the right hand and fingers. Examination revealed a loaded colon, although her bowels moved to some extent nearly every day. A daily flushing with the fountain syringe was ordered. In a week the chills ceased entirely, the vertigo had disappeared, the urine was improved. The flushings were continued for several weeks, and with her general improvement the eruption on the hand gradually disappeared.

Many of the reflex functional troubles that arise from bowel disorder disappear in the course of this treatment by

the colon douche. Skin eruptions, as noted above, nervous disorders, even epileptic attacks, headaches, neuralgias, gout, rheumatism, dropsy, catarrh of the nose or throat, nervous fever, etc., are relieved, often as if by miracle.

It is for the physician to give the colon douche by the long tube in those cases where the seat of trouble can not be reached by the ordinary use of the hard rubber tip, because one not acquainted with the anatomy of the abdomen, and inexperienced might do very serious harm in his awkward attempt to push the tube in. For the method by the long tube a bulb syringe is necessary, but for ordinary home uses a good fountain syringe is best; force enough can be obtained for the introduction of the water by graduating the height at which the holder is held. But if the case is one of long standing, and the fecal impaction is very hard and involved deeply with the folds of the intestine, only a skillful hand may succeed at all, and it would be folly for the patient to permit any other to touch him. Dr. Monroe, of Louisville, who writes enthusiastically of the treatment, says with much aptitude of phrase: "Colons that are chronically impacted, lined with indurated fecal matter are like an old stove when the ashes of many winters have formed clinkers in its sides that have to be chiseled off. These impacted colons present a small canal at the side or in the middle of the impaction through which the feces must pass, and such patients always have to liquefy their stools by drugs every time they obtain an action."

It is not at all strange that people who have such a condition of the bowel complain of persistent constipation despite the aloes, rhubarb, cascara, magnesia, etc., they may daily swallow; the retained waste matter that plasters the sides of the intestine prevents any effective action of the mucous and muscular coats, and its state is one of comparative paralysis.

A tube with a soft rubber tip similar to that of a catheter is better than the hard rubber tip in case the patient has an irritable anus, or piles that give trouble. The treatment, I can say here, has a remedial effect upon these conditions, even where they have existed for years and defied other treatment.

To get the best effect, a person when taking the douche should lie in such a manner that the shoulders are lower than the hips. What is called the "genu-pectoral" position is well adapted to secure thoroughness; the patient places himself on his knees on a level surface, and bends down until the chest touches, or one can lie on the left side, a pillow being placed under the hips to elevate them. What is known to gynecologists as the Trendelberg position, is also well adapted to effective treatment. This, or an approximation of it, is more comfortable than the genu-pectoral posture, as the person lies on the back with the body inclined from the shoulders upward. If a couch with a flat surface be used the foot may be raised fifteen inches or so, to get the proper inclination. It is manifestly quite inconvenient for the patient to give himself the treatment if he would adopt this or the genu-pectoral attitude when receiving it. The better time for the treatment is when the stomach is empty, and not soon after eating, as then severe griping may prevent the completion of the douche.

I usually give a pint or so of water first, and let the patient, if unaccustomed to the procedure, use the commode or closet. This clears the rectum and renders it less sensitive to the douche that is next administered. A little salt or borax is added to the water, in the proportion of, say two ounces to the gallon for the first few douches, in cases of severe intestinal obstruction. Later a less quantity is added, and where the person takes the douche occasionally, say once a week for its constitutional effect, the salt may be altogether omitted,

or a little good soap, castile or glycerine, only be dissolved in the water. In the treatment of infectious diseases, the germs of which have invaded the intestines, antiseptic solutions are advised, but they should be used with care, so that they shall do their work of destroying the microbes and cleansing the bowels, and not poison the patient.

As a rule hot or tepid water will be found best for the majority of people, since cold water is likely to produce severe *tormina* or griping. In their early experience of the douche some find it difficult to tolerate the griping caused by even hot water. This effect is due to the vigorous peristalsis set up by the water, and the action of the muscles being opposed or restrained by the dense deposit of waste and the inflowing current, painful sensations are felt. Each cleansing is followed by less and less discomfort, however, and if care be taken not to permit the refuse of digestion to accumulate and harden in the bowels, the treatment may be taken with ease and even comparative pleasure.

Mrs. B., a young lady who had been thought of consumptive tendencies, and not likely to live beyond 25, was persuaded to try the douche. I supplied her with a fountain syringe, which she used in a very skillful manner, and in time could take as much as four quarts of water and retain it five or six hours. Her health has improved greatly in all respects, and her prospect of mature womanhood and longevity appears to be at least equal to that of the average woman.

It is proper to say that this young lady was subject to feverish turns almost daily, and she found that by retaining so much water in the bowels the temperature of the body was reduced, and she was enabled to digest food and to sleep with a facility and comfort that had been almost unknown to her daily experience for years before adopting the treatment.

It should be remembered that water

that may indicate 105° to 110° in the basin or reservoir at the time of beginning the injection will lose eight or ten degrees in its passage through the small tube to the point of application, so that in sensitive cases which are to receive the treatment for the first time the water should be hot, not lukewarm merely. If a large open basin be used the temperature of the water will lower quite rapidly unless hot water be added at short intervals. The attendant should have a thermometer at hand to try the temperature so as to maintain it at about the same degree throughout the process. Dr. Monroe adds certain "precautions" that are appropriate as supplementing my own experience, for instance:

"The rectum should not be filled too full to start with, as it will produce urgent desire for the stool too soon, and the injection can not be completed satisfactorily. The treatment should be applied on an empty stomach, or nausea and vomiting will be apt to be induced. * * * My plan is to use about three quarts the first time, and gradually increase to the full capacity of the bowel. The first two injections may be given at intervals of three days, and about four succeeding ones at weekly intervals."

Two quarts of water are sufficient, I think, in ordinary cases of constipation, the fluid being held as long as possible for its solvent effect.

As a rule, the effect of the treatment, when indicated, is to improve the whole patient. The complexion seems to clear up, the weight increases, the intestines

recover from their previous sluggishness and exhibit normal activity. The improvement in nutrition that ensues is fundamental to the improvement of the entire organization; the new energy of the body is reflected through the mind, which becomes brighter and more efficient. Depressed spirits, melancholy, irritation, give way to a cheerful tone, and fresh hopes encourage new effort in the arena of life.

What physician of experience does not know the change of disposition that may occur after relief of a congested liver or a protracted experience of indigestion? Mental disorder to the extent of excited outburst that are interpreted as insanity is not uncommon as a result of constipation. In the *Alienist and Neurologist* cases have been reported of this nature. One of the cases was that of a man with suicidal tendencies, who had refused food for a considerable length of time. He was restored to mental soundness after being relieved of an immense quantity of accumulated feces. Another case was that of a young man who had become morose, suspicious and quarrelsome. He was treated in a similar manner and restored to health.

The good effect of the treatment is promoted in most cases by the drinking of cold or hot water, especially the latter, while the douches are being taken. A glass of hot water half an hour before breakfast is potent to clear the stomach of adherent mucus and prepare it for the receiving of food, and it may be drunk several times a day with benefit to the intestinal tract and to the blood.

H. S. D.

SURGICAL TREATMENT OF EPILEPSY; MOTOR CENTRES.

ONE of our subscribers in Kansas encloses a newspaper clipping, which states that a Philadelphia surgeon trephined a patient with epilepsy, whose spasms began in the thumb, and from there involved the rest of the body. The patient had had no attacks since the operation, which, we infer had been done

recently, since the surgeon was not yet prepared to report it more fully.

Our correspondent expresses surprise at there being "centres," which could enable the surgeon to diagnosticate the seat of the lesion, and operate for its removal.

To write a reply which shall make the

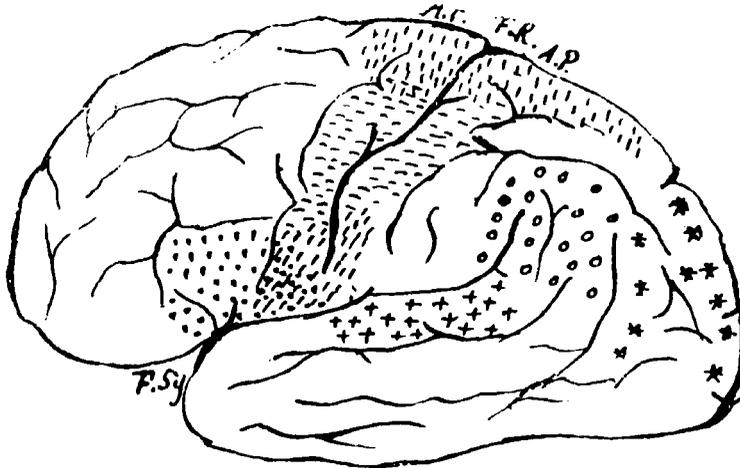
matter thoroughly intelligible to the general reader, would require more space probably than could be given in this number of the JOURNAL. But we shall endeavor to treat it at least candidly in this brief article.

Epilepsy has different divisions, according to the symptoms rather than according to any known cause. Yet "traumatic epilepsy" is so called because the origin of the convulsion is in some injury, as a fall, a blow on the head, etc.

"Idiopathic epilepsy" includes cases without known cause, and up to recent times, at least, most cases fell under this head.

Other cases have also been operated upon by trephining, and sometimes brain substance, supposed to be the centre of irritation, has been excised, but Prof. Gray and others say they have not known a permanent cure result. The attacks may cease for a time, as they may, from a change of medicine, etc., but they invariably return after some days or months. It is not unlikely the Philadelphia case was of this nature, and the surgeon very wisely refused to publish it until some time had elapsed to determine whether there would not be a recurrence of the convulsion.

Regarding the motor or psycho-motor "centres," physiologists have experi-



Motor and Sensory Centres (from Gowers.) F. Sy. fissure of Sylvius; F. R. fissure of Rolands; A. F. ascending frontal A. P. ascending parietal convolutions. Motor Centres indicated: | leg; — arm; / face; \ tongue; : motor speech centre. Sensory region: + hearing; * half-vision region; o hypothetical crossed vision region

The cases suitable *par excellence* for operation are those of traumatic origin. In them some cerebral irritation, due to projecting bone at the seat of skull-fracture or other fact, is supposed to give rise to the convulsions, and consequently, the irritating cause should, if possible, be removed. If the case is a recent one, due to some blow upon the skull, the chances of permanent relief offered by trephining are fairly good, but if the attacks have lasted a considerable time the epileptic habit may continue, although depressed bone or other abnormal condition be removed.

mented upon dogs and other animals, irritating or injuring the brain in different regions, with a view to determining the effect upon the muscles, or other bodily manifestations. Irritation of the cortex, under a portion of the parietal bone, on either side of the fissure of Rolando, causes certain muscle manifestations—in the leg, if the irritation be at the mesial line, of the arm, if somewhat down on the side and forward, of the face and head if still lower. Irritation of the same region in man, by injury or disease, sometimes produces a similar muscle manifestation, and has led in the

case of epilepsy, now and then, to trephining upon the corresponding centre.

Thus far the chief significance of these motor centres has been diagnostic, throwing little light in the manner in which they have been studied upon the psychic function of the parts.

Perhaps an exception to this statement may ere long be made in relation to the centres for the different phases of language, and those qualities, like form, color, etc., of which a knowledge is gained largely through the sense of sight.

The time seems about come when neurologists and the more advanced members of the medical profession look in every direction for truth, casting aside past jealousies and prejudice, in order to aid and keep pace with the rapid progress of cerebral sciences. They may be a little slower, however, in helping the public to a knowledge of the facts, which they are likely to think should be of interest to, or can only be fairly understood by, the profession alone.

R.

SOME DIFFERENCES BETWEEN MEN AND WOMEN.

THE following are some of the differences in physical development between men and women, that appear to have a striking application. Most of them are explicable by difference in constitution, and the others by the very apparent difference in the conventional habits of the sexes. Very few young women can lift more than 200 pounds, and very few young men more than 400.

Very few young women measure more than 22 inches around the waist and very few young men less than that. The difference in this respect between the sexes is considerable. Only a few lungs possess the capacity of a gallon. Most young men can inhale about seven eighths of a gallon, and the average young woman about three-fourths. Few young women have lungs whose capacity is a full gallon, and few young men six quarts, but the per cent. is not more than two or three. The difference in the weight of young women and young men is not as much as is generally supposed. There is a difference, but it is not more, on the average, than fifteen or twenty pounds.

Very few young men measure 40 inches around the chest, but the majority measure only 31 or 32, and in this respect the difference between the sexes is very little. Few strong young women measure less than 28 inches. These

measurements have been taken when the air is entirely expelled from the lungs.

There is a very singular fact connected with the amount of expansion of the lungs and their capacity. One young lady measured around the chest, collapsed, 26 inches, and when expanded 29½ inches, yet the capacity of her lungs was only three quarts. A young man measured respectively 30 and 33 inches, and his lung capacity was only three quarts. The amount of expansion does not indicate the capacity of the lungs, nor is their capacity an indication of their health. An individual may have small lungs but very strong ones. Their size should be in proportion to the weight or stature.

I KNOW of no real occasion for intoxicants, either as a beverage or medicine, for the use of human beings. It is impossible for alcohol to afford any real strength—simply a temporary excitement, a dangerous agitation of the whole system, to be succeeded by a corresponding debility; such an excitement, such a stimulation, being simply a determined, a vigorous effort of nature to expel a foe as promptly as possible; every organ of the body, every membrane, every tissue and nerve rebelling against the presence of such a disorganizer within the vital domain.

DR. J. H. HANAFORD.

CONTENTMENT.

" I would not if I could repeat
 A life which is still good and sweet ;
 I keep in age as in my prime,
 A not uncheerful step with time,
 And, grateful for all blessing sent,
 I go the common way, content
 To make no new experiment.
 On easy terms with law and fate,
 For what must be I calmly wait,
 And trust the path I can not see,—
 That God is good sufficeth me.
 And when at last upon life's play
 The curtain falls, I only pray
 That hope may lose itself in truth,
 And age in Heaven's immortal youth,
 And all our loves and longing prove
 The foretaste of diviner love !"—

Whittier.

APPLES CONSIDERED MEDICALLY.

CHEMICALLY the apple is composed of vegetable fiber, albumen, sugar, gum, chlorophyl, malic acid, gallic acid, lime, and much water. Furthermore, the German analysts say that the apple contains a larger percentage of phosphorus than any other fruit or vegetable. The phosphorus is admirably adapted for renewing the essential nervous matter, lecithin, of the brain and spinal chord. It is, perhaps, for the same reason, rudely understood that old Scandinavian traditions represent the apple as the food of the gods, who, when they felt themselves to be growing feeble and infirm, resorted to this fruit for renewing their powers of mind and body. Also, the acids of the apple are of signal use for men of sedentary habits, whose livers are sluggish in action, those acids serving to eliminate from the body noxious matters, which, if retained, would make the brain heavy and dull, or bring about jaundice or skin eruptions and other allied troubles. Some such an experience must have led to our custom of taking apple sauce with roast pork, rich goose, and like dishes. The malic acid of ripe apples, either raw or cooked, will neutralize any excess of chalky mat-

ter engendered by eating too much meat. It is also the fact that such fresh fruits as the apple, the pear and the plum, when taken ripe and without sugar, diminish acidity in the stomach rather than provoke it. Their vegetable sauces and juices are converted into alkaline carbonates, which tend to counteract acidity.—*Medical Age.*

FOOD AND HEALTH.

TO maintain a normal physical condition, the healthy action of all the organs of the body must be maintained. The healthy action of these in turn depends on perfect nutrition, while perfect nutrition is dependent on obedience to all of the organic laws.

The line should be drawn sharply between physiological action and pathological action ; between nutrition and stimulation ; between foods and poisons.

Vitality exerted in digestion, assimilation, and depuration, is physiological ; when exerted in resistance to foreign or morbid causes and in the repairing of damages, the action may be called pathological.

Whatever may be digested and assimilated into bone, muscle, and nerve, is food and nutritious. That which accelerates functional action, as alcoholic liquors, coffee, spices, and animal food, is, I think, stimulating and poisonous.

Man lives on air, water, and food. The lungs absorb oxygen from the air, which gives life to the blood.

Water is the only natural beverage, and whatever is added to it as flavor, is either food or poison.

Food does not act on the stomach, but the stomach acts on the food ; neither do poisons, whether in the form of drugs or otherwise, act on the stomach, unless destructively, but the stomach acts on the poisons to expel them.

This is the law of vital resistance, which is as immutable as are the laws of chemistry or astronomy.

"The blood is the life," and is made of the food we eat. The quantity and quality of the blood depend on the quantity and quality of the food.

People sometimes complain of having too much blood, and the physician performs the operation of phlebotomy or blood-letting, when a more simple method of diminishing the quantity would be to lessen the amount of food.

It has been proven, to my satisfaction at least, that fruits and farinacea are the natural food of man; that animal food, owing to the incessant disorganization and reconstruction of tissue, contains excrementitious matter, which gives it its stimulating properties and tends to the abnormal activity of the propensities.

If liquors, tobacco, and flesh food could stimulate the moral organs to activity, there would be some foundation for an argument in their favor.

Under hygienic or water treatment, those patients who abstain wholly from the use of animal food, recover more rapidly, I believe, than those who occasionally indulge in flesh foods.

The normal activity of the organs of the brain is so intimately associated with the healthy functional action of all the organs of the body, that Phrenology and Hygiene ought to move forward hand in hand, "useless each without the other."

A. IDA ADLAND,
Class 1892, A. I. P.

"POSSESSED BY A DEVIL."

THE case related below is interesting because of its bearing on the phenomena of "double consciousness," or what is called in some circles "auto-hypnotism:"

A remarkable experience was related in the chapel of the University of New York by Dr. John L. Nevins, the celebrated missionary to China. He said that during the first twenty-five years of his residence in China he heard of several cases of demoniacal possession,

but attached no importance to them, as he regarded them as merely cases of epilepsy which Chinese superstition had imputed to demoniac influence. In 1878, however, he was induced by a native Christian to visit a man said to be possessed by a devil. The man was a prosperous farmer but an ignorant man. He found him sane and rational but subject at intervals of about two weeks to curious paroxysms. He then spoke in a voice unlike his own, referred to himself not as "I" and "me" but as "he" and "him;" demanded that offerings should be made at a certain shrine, that incense be burned there, and acts of adoration performed. The man spoke with more culture than he ordinarily showed, and exhibited knowledge, especially of language, that he did not possess in his normal condition. Before these paroxysms the man was conscious that they were coming on and did his utmost to resist them. On his recovery he was unconscious of what he had said and done during the time they were upon him. He regained his own identity and consciousness with an effort, and was then very weak and bewildered for a time. Dr. Nevins was impressed with the similarity of the manifestations to the cases of demoniacal possession recorded in the New Testament, and noticed that the symptoms were not those of ordinary idiocy or epilepsy. He inquired about other cases and found them precisely like those he had observed. The man in his normal condition was convinced that the visitations were due to the possession of a demon, whose power he dreaded, but whom he was less able at every attack to resist. He was told that Christ was able to protect him and that by believing in Him he would be set free. He was afraid to trust Christ, and was sure that the only way to save himself from falling altogether under the power of the evil spirit was to do as he was bidden, and have his family appease the demon by sacrifices and in-

cense. Eventually, however, he was made to understand the cases recorded in the New Testament and to believe in Christ's power. Then he destroyed the shrine and ordered his family to refrain from the former method of appeasing the demon when he should be next attacked. When the premonitory symptoms appeared again, he gave himself up to prayer, calling on the name of Christ and beseeching him to save him from the demon. To his joy and surprise the attack passed off, and he did not lose consciousness or identity as at former times. His faith was strengthened, and from that time on, the attacks had yielded to the same means.

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GEN. BENJAMIN F. BUTLER.

THE strangely turbulent career of this remarkable man is vividly recalled by the announcement of his sudden death. His head and face were of striking width in the region of the ears. The heavy jowls, the unmistakably Roman nose, and the boldness of the eye, all proclaim the restless ambition and almost virulent belligerence which marked every stage of his eventful life.

His temperament was exceptionally favorable, being a combination of the mental and vital which insured extraordinary fertility and strength of mind. His hands and feet were small, and having more blood and lymph than muscle or bone the most natural sphere for his activity was among the people. Human nature, the loves, hatreds, hopes, desires and passions of men were the materials upon and with which he preferred to work. Thus he was early attracted to legal, political and military life, especially as he needed opportunity for the free exercise of his pugnacity.

His social feelings were ardent, especially love of the opposite sex. If attacked, he believed in the "survival of the fittest," and that he would be the fittest.

Combativeness and Destructiveness

were large, also Secretiveness. But his first impulse was to carry out his purposes by force. If craft or subterfuge could serve him, he certainly had no scruples about resorting to such means, and if the droop of the upper eyelids (which to a considerable extent was natural to both his eyes) may be considered a reliable sign, he must have been an adept in all the arts of strategy and intrigue.

He had the independence of an eagle, but his eyrie was not built upon a mountain peak. He was essentially of the earth, earthy. And though he spread his wings to the coldest and fiercest winds, he was disposed to remain near the ground. Indeed, he seems to have been dominated by the desire for material prosperity, the pleasures of sense, and the kind of social and political power which would serve him upon the commercial plane.

Firmness and Self-esteem were especially strong, also the sense of property. There was not much elevation in the moral region, and the idea suggested by the head as a whole is that of selfishness. He seems to have lived almost solely in what the theosophists call the *Kama-rupa*, or body of desire.

There are indications of great executive intellectuality. He could accumulate, retain and apply knowledge with almost equal facility. From the diameter in the temples at Constructiveness, we can understand his ability to organize and manage. And in the phenomenal prominence of the eyes, taking into account his personal magnetism, we have the explanation of his well-known oratorical power.

Benjamin Franklin Butler was born in Deerfield, N. H., November 5, 1818, and doubtless inherited his military proclivities from his father, who had been a soldier.

The number and nature of his experiences made his life dramatic and picturesque in a singular degree. He was almost constantly before the public and the principal events which made him famous are well known. He died in Washington, January 11, 1893. B.

NOTES IN ANTHROPOLOGY.

Wisconsin Mound - Builders and Their Remains.—As the result of researches among the ruins of the mound-builders at Aztalan, Wis., Rev. A. N. Somers gives in the *Popular Science Monthly* his belief that these prehistoric people were cannibals, notwithstanding the fact noted that "their social life must have been highly developed to hold them together in one village, and to create such strong defenses as its walls indicate, and to carry their industries to so high a degree of perfection as is indicated by their relics." The author also says, "The government of so large a body of primitive people would call for an elaborate mythology to invest its rulers with the necessary civil power to hold the society together and wield its combined strength against its foes from behind the walls that protected its women and children, and to till the soil and make its wares. There was probably some division of labor among them; some making pots, others tilling the fields, while still others made tools of various sorts, and still others may have followed the chase for meat supplies. There seems, however, to be no doubt about their cannibalism. The human bones found were mingled with those of beasts, birds and fishes, and had been subject to the same treatment as those of the beasts—that is, they were all either broken into short pieces or split open. Had they been slain and eaten by their enemies, their bones would not have been so mingled and evenly distributed through eight feet of accumulating soil carried from the hills by a stream that only had water in it at extremely wet and short periods of the year, when the accumulation is not over three inches in a century; since the timber has all disappeared, and the plow has turned the soil every year for about forty years. That the flesh of those bodies was eaten, there can be no doubt, for no savage would go to the trouble to mutilate the dead bodies of friend or foe to the extent of separating all the joints with a knife, chopping the bones three or four inches long, and splitting all

those and only those containing marrow. The diversity of the skeletons in texture and physiological configurations would suggest that the persons eaten were probably prisoners taken in battles, with possibly some of their own number eaten as a sacrifice in their festivals and orgies, of which they must have had many, as indicated by the temple-like structures that existed among the variety of structures built by them. Then, too, very wide differences of anatomical conformations exist between the bones in the garbage heap and those buried in the burial mound adjacent to their village. This confirms the notion that the victims eaten must have been taken by the chase or as prisoners of war. The bones indicate all ages from young children to aged men and women. There seems to have been no discrimination as to age or sex of the victim, as is generally the case when a human body is eaten in social or religious orgies. Whatever has led to cannibalism among those people, the habit seems to have been fixed so permanently in their lives that they relished human flesh. Probably hunger drove them to it at first, for they were populous, and their agriculture so primitive that returns were uncertain, as they were located where the winters were hard and long. Thus many facts seem to confirm the belief that cannibalism was practised among a people of a high order of barbarism."

Commercial Intercourse Between Europe and Asia in Prehistoric Times.—"The question of commercial intercourse between Europe and Asia in prehistoric times, is an interesting and much debated one. Among the relics of the Neolithic and Bronze Ages, we find implements of jade, a mineral which is found in China, but is not known to occur in Europe at the present time. There are also reasons for believing some of the bronze of that period to have originally come from India or China. On the other hand, it seems extremely doubtful if mankind was sufficiently advanced in

civilization at that time to have carried on a commercial system extending over so many thousand miles of territory, and necessitating the traversing of barren deserts and high mountain ranges; and many archeologists consider that the prehistoric European bronze was smelted and cast in the countries where it is found, and that the few specimens of jade were obtained from localities in Europe, at present either forgotten or exhausted, like the once noted tourmaline deposit at Paris, and Maine in this country. But until we know more of the social conditions prevailing in those early times, which might easily be more advanced than we now believe, the question must remain unsettled. In Africa, at the present time, ivory and other products of the country are brought from the interior to the coast by the uncivilized natives, over distances not much less than that between Europe and Asia. Whatever may have been the case in the Neolithic or Bronze Ages, it is certain that at a somewhat later date there was constant communication between the two continents; and a discovery recently made by M. Laponge at Gignac, in the south of France, confirms this belief. In a tomb of uncertain age, but containing Phœnician coins, he found a finely carved head of jade, the features of which are so distinctly Asiatic as to leave no doubt whatever of the country of its origin. This carving was found upon the breast of a male skeleton, interred in a grave roughly built of stone slabs. It was doubtless used as an amulet, as the marks of suspension were quite distinct. The head is that of a female of the dolichocephalic or long-headed type, and of a yellow race. The visage is distinctly of a modified Japanese type. The eyes are closed, and the expression is that of religious contemplation. There are apparently large pendants attached to the ears, but a more careful examination shows that they are the lobes of the ears themselves, enlarged and deformed after a manner common in the islands of the Pacific to this day. The hair is arranged in a complicated knot high up on the head, and apparently covered with a fine cloth. In front of this is worn a triangular object, apparently of some solid material; and the whole general

appearance of the carving testifies unmistakably to its Asiatic, and probably Japanese origin. Many different opinions as to the origin of this remarkable object have been expressed. A native Japanese scholar thinks that it was carved in Japan, a little before the Christian era, after a Hindoo model of Buddha, while others attribute it to China or India. Whatever may have been its origin, M. Laponge believes it to have been brought to Europe and worn as an amulet by a chief of the Huns or Goths, who invaded the frontiers of China, about the time of the Christian era, and considers that the collection of graves among which it was found was an ancient Visigothic cemetery. Although this date would bring the carving down almost to modern historical times, it forms an important link between the ancient and modern eras, and in connection with other discoveries yet to be made, may add greatly to our knowledge of the social and political condition of Europe in those early times, from which no direct historical records have come down to us."—*Popular Science News*.

A Glimpse of Korean Life.—

"Korean houses have walls of mud hardened like plaster. They have one story only, and are so low that the heads of the men walking in the streets reach almost to the roofs, which are thatched on peasant houses, and tiled in a quaint, crumpled way on those of the mandarins or upper classes. Those in which the poorer peasants live or exist, consist of two rooms. One is simply the ground roofed over; the other has a raised floor of brick, and is literally an oven. The fire is under it in a sort of furnace called a *khang*, heating the floor upon which all the family huddle at night, a wadded quilt serving as a bed. The man of the house takes many day-time rests there, while the wife waddles and potters around the larger inclosure cooking over a charcoal brazirr strange little cuts of meat and vegetables shredded into long thin strips, or washing the brass pans and bowls in which their food is always cooked and served.

Every house has its front wide open, with the interior exposed to the street.

The streets are narrow, unpaved, strewn and bordered with garbage. Privacy and cleanliness do not enter at all into the village peasant's scheme of existence. However, he is amiable, kind to wife, children and beasts, hospitable to strangers in acts and manner, and although he is lazy, he is majestically so, with an air of soaring far above all trammels of decency and order. He lives in no more dirt than the Chinese, and in more comfort, in that he has warmth and better food. The Koreans are fond of outdoor amusements, such as archery and kite-flying. In their markets one would see large, round shallow baskets of rice upon the ground for inspection and sale; there are vendors of vegetables, bamboo-shoots, and a sort of turnip having the first rank in the native taste.

Pheasants hang about the stalls as common as chickens in an American market.

An objection to selling anything in large quantities is one of the unique business traits of the Koreans; their wholesale are much greater than their retail prices. They seem to fear that their stock may be exhausted, and they may have to exert or hurry themselves to replenish it. Korean peasant men dress entirely in white cotton, even in midwinter, though at that season they wear many wadded layers. The gowns are flowing and graceful, but far from clean, as it is only at the new year that they are changed. At that time the population is seized with a national fit of tidiness, and the clothes then are all clean or new. The old women usually wear white, the small children red, and the girls dress in short jackets of dark silk, with long straight skirts of pale green, pink or blue, gathered up on one side into a belt. The hair is brushed back from the face into a low coil held in place by one long silver pin. The girls paint their faces with a brilliant thick enamel, and while not pretty, they look so bright and happy, they almost redeem the streets from the repulsiveness of the dirty children and the haggishness of the married women."—*Chautauquan*.

Mulatto—Inbreeding and Physical Decay.—Fifty years ago and more it was the custom of wealthy planters, as they advanced toward age, to liberate such

persons of their "estate" that bore to them filial relationship, and establish these in homes in localities where good treatment, consideration and respect due to citizens could be secured. Thus in Southern Ohio there grew up a community of mulattoes the offspring of men of wealth and position, who themselves represented the best New England stock. These pure mulattoes were tall, muscular, well-developed, complete types of physical perfection, many living to old age, sometimes to one hundred years. Proud of their parentage and light skin, they took for wives women who were also half white. Prosperity and pride held them aloof from the negroes. Their children intermarried, and their race continued until the fourth generation, when these families gradually became extinct. The offspring of the first cross were robust; those of the second, paler, more ash-like in complexion, slight in figure, evincing predisposition to and characteristics of tubercular disease; while in the second and third generations of pure mulatto intermixture all the children were girls and notably sterile. The fourth generation proved even less fertile, and presented cutaneous affections, ophthalmia, rachitis, hydrocephalus, hip and knee-joint disease and various glandular abnormalities.

These facts would seem to prove the affirmations of ethnologists that human hybridity can not be maintained without reversion or fresh supply from parent blood. Such a type can only have an ephemeral existence. In the second and third generations of pure mulatto blood, the offspring were inferior in vitality and intelligence and consequent morality. Their churches, independent school-houses, their very names in time disappeared. Some form of tuberculosis gradually undermined and extinguished them. The statement is made that when purity of race is maintained in civilized or barbarous countries, there is but little or no tuberculosis. And the dismal suggestion of ethnologists, cited by Broca, given in full, makes one pause or shudder—that the United States, where the Anglo-Saxon race is still predominant, but which is overrun by immigrants of various other races, is by that very circumstance threatened with decay, inasmuch as their continuous immigration may have the effect

of producing a hybrid race containing the germs of disease, degeneration and sterility.

Dr. W. A. Dixon, whose observations on the mulattoes are forcible remarks that it is wise as well as necessary to look beyond the

bacillus for causes resulting in tuberculosis, crime, idiocy and insanity. Purity of race is one safeguard against constitutional inferiority that brings with it lessened mental and moral vigor.—*Popular Science News.*



NEW YORK,
February, 1893.

HUMAN WELFARE A MORAL QUESTION.

A WRITER on social economics says in the *Popular Science Monthly*, at the close of a discussion of the causes of poverty :

"The attractive force that has drawn so many to study these social questions is human affection. I believe that the ground, and the only one, upon which permanent results can be built will be an ethical one. When every one is governed by his noblest impulses, in place of selfish instincts, poverty and misery will begin to disappear."

In this paragraph lies the key to social regeneration or true advancement. The economists are studying the problems of trade and of social antagonisms, endeavoring to find in material conditions, the statistics of commerce, industry, wage-earning, immigration, protection, free trade, etc., etc., the cause of those evils that vex the masses and incite so many of the poor and wretched to acts of violence and lawlessness. Theories are

promulgated one after another, based upon differential views of such statistics, and they are more or less distinguished for ingenious suggestions for the betterment of society, but as a rule, the plans submitted have a fanciful or impracticable nature that commend them neither to the class that wields the power of money and place, nor to the class that complains of weakness, suppression and poverty.

Intellectual scheming with the bias of a favorite idea, to which statistics are made to conform as far as possible, can not resolve happily for both sides the questions that divide them. The *morale* of their relations must be considered—given the first place—otherwise a fair conclusion will not be reached. The interests of one side, humanely speaking, are not greater than those of the other, so that the law of kindness must prevail in the negotiations that look to their settlement, and this involves forbearance, concession, co-operation. But how are we to expect men to exhibit this spirit unless their natures are cultivated on the moral side, and the "selfish instincts" are controlled by those other instincts, that when active, normally incline one to consider the condition of others, and to feel that his own welfare is correlated to that of theirs? That "touch of nature" that "fellow feeling" that makes us "wondrous kind," needs to be brought out if the better time in the career of human existence, for which so many long, may be expected

to come. It is not intellect, it is not self-seeking, that will ever evolve it; but, these on the other hand, render society cold, covetous, unsympathetic, harsh, oppressive, unjust and revengeful—and, with qualities such as these man can never make the progress that should be his. The struggle, warfare, turbulence they provoke conduce to human degeneration, not to its elevation and nobility.

CEREBRAL TOPOGRAPHY.

A CORRESPONDENT puts this question:

“The division of the cerebral lobes into five by the physiologists (frontal, tempero sphenoidal, parietal, occipital and central), seems to be natural; inasmuch as we have five lengths to the body, five fingers and five toes, why not five lobes? And if there be five lobes, are we not bound to classify the organs in accordance?”

In reply we have to say that the division of the brain into lobes at different times and by different authors has been based on three facts, viz.: (1) the gross anatomical or mechanical appearance; (2) supposed function of different parts; (3) bone relation.

As to the first, or difference in outline, there is only one place at which bone intervenes between two portions of the cerebral cortex of one hemisphere, and even here it is not a break but only an indentation into the gray substance or, so to speak, a growing of this (with its related white fibres), around an obstacle. Naming the cerebral parts in their relation to this division, which in the brain is called, with its continuation, the fissure of Sylvius, it has been the custom to speak of a frontal, middle and posterior lobe.

The other irregularities in the convolutional outline of the cerebral hemisphere are not due to interpositions of bony substance, or of anything which

has marked thickness, as the arachnoid and pia membranes and vessels.

In the skull the convolutions lie as closely together as the folds of a handkerchief ironed and put away. There is no break in the continuity of the gray matter covering the convolutions, for that of two which adjoin is continuous at their base.

Some of the dips or sinuses extend farther in than others, and are more uniformly present. They show plainly when the membranes have been removed and the brain is spread out. Some animals have no convolutions or irregularity of outline of the cortex, except that caused by the bone, and hence no further division into lobes based on the topography can be made. In those that have convolutions the number varies; they are much fewer in the monkey, for instance, than in man, but, comparatively speaking, those which are present in the monkey are more prominent and uniform in man than most others. Taking the principal sulci as their basis, including that of the fissure of Sylvius, divisions of the brain according to relative position have been made. But, as we have said, there is no absolute break of the cortex or organs between even the chief convolutions, and therefore, there can be no absolute division of the parts either anatomically or phrenologically, for the gray matter at the base of the convolution must have function as well as that on top. It is true, however, that in relation to certain normally constant convolutions, certain phrenological organs are anterior, posterior, superior or inferior, and may be localized in that way, just as they may be localized by taking the frontal sinus or occipital spine as the starting point. Indeed, the more such reliable starting points there are, the easier and more certain becomes phrenological localization on the exposed brain. Also, where a given organ occupies and is limited to the convexity of a particular convolution, it consti-

tutes a better landmark, not only for judging of its own development, but also for localizing its neighbors on the brain and skull. For instance, Spurzheim says of destructiveness that he could distinguish the organ in the brain removed from the skull by its peculiar form. But not all organs are limited to the convexity of a convolution, or even to a single convolution; much less is there a single convolution for each organ.

The division into regions or lobes has also been made from a physiological standpoint by phrenologists and experimentalists; but here again it has been largely relative and not absolute, and varied according to the idea which the writer wished to convey at the time. It is safe to say, for instance, that individuality is in the frontal lobe, veneration in the superior lobe, destructiveness in the middle lobe, or the perceptives are in the frontal, the moral in the coronal or superior, the social in the occipital region, while obviously it would be incorrect to speak of the perceptives as being in the temporal region, etc.

Again, lobes or regions have been spoken of with relation to the bones covering them; and while it might be proper to speak of cautiousness as being in the parietal region it would be quite improper to speak of approbateness as being in the temporo-sphenoidal lobe.

We have seen that it is impossible to make absolute divisions of lobes based on topographical outline, and it is equally impossible, where phrenological organs border on one another, to draw the exact dividing line. Nor is it necessary. As in many other things up to a certain point we can speak of the absolute, beyond which we can only speak of the relative.

PEOPLE TO LIVE WITH.

In one of our exchanges we met with a paragraph unsigned that read like this:—"When you find a man with sense

enough to ignore his own pride, to reason without getting into a passion; to contend for truth and principle, and not victory and vanity; who has patience enough to hear your side of the question as well as his own; and who has the charity to suppose that you are as sincere as himself, and have as much right and title to your opinions as he has to his, I say when you find a man of this stamp, there will be some benefit in your exchanging ideas. But to expect an impartial hearing and decision from a person wedded to a cause and his own pride, is to labor under a gigantic delusion! You will find that some men do not know the difference between ridicule and reason; between persons and principles—these will not accord you honor, and in the end their association will be to your loss."

There are such men in society as the above description details. They are few in number, but they are to be met with, and they furnish examples of the making of self, the result of a patient discipline that should be practiced by every one. We should be sorry indeed if our association with others furnished no instances of that orderly development of the faculties that signifies balance of the mental forces and power to control the instincts that tend to selfishness and passion. We should then despair of man's attaining his proper end, the full development of all his faculties and complete harmony and balance in their related action.

But there are men and women who have given time and thought to the quiet, earnest culture of their natures, and while we admire and love them for their patience, forbearance, and rational

intelligence, we little consider the trouble and discipline that culture has cost. Most of us probably think that their noble qualities are a gift of nature and beyond the acquirement of the ordinary mortal, whereas the fact is their endowments were really no better than the average, and their practical excellence is due to the fact that they early recognized their deficiencies and natural biases, and went seriously to work for their correction. It is their knowledge, through personal experience, of what in character may become offensive to self and others, that was fundamental to their upward growth. The people we like to live with are indeed a living reproach to us if we do not emulate their example and make ourselves desirable to those we call friends and associates.

A SUGGESTION TO THE CHICAGO UNIVERSITY.

THE new University of Chicago has already entered upon a career that promises to be that of prosperity. Over a thousand students are said to be enrolled so that the professors already have the encouragement of addressing fairly occupied benches. The success that has attended this educational undertaking illustrates what can be done by organization backed by a liberal cash endowment.

Chicago is enough of a city certainly to warrant the establishment within her borders of an institution upon a university foundation, and the rapid accomplishment of its organization shows how appreciative the Chicagoans are of an educational movement that will be likely to redound to their advantage in more respects than that of the financial,

which many persons would have us believe is the interest to which Chicago is devoted body and soul. We suspect that this opinion is born of a commercial jealousy on the part of those who voice or approve it.

One point in the organization of this institution that deserves notice is the establishment of a chair of Anthropology—among the many departments that the system embraces—and the calling of a gentleman to that chair whose fitness is unquestionable and whose treatment of the subject is likely to be broad. As he has but entered upon the work there is much before him in the arrangement of a system of study and observation from which his students may obtain satisfactory results. We know his design is to examine man from several points of view, the normal as well as abnormal. We are not aware, however, of an intention to include in the physiological section the study of the mental constitution as it is formulated by the system of Gall and Spurzheim. May we not hope that this youngest of the American universities, with its promise of an early and robust maturity, will signalize its claim to progress by including a course in scientific phrenology? We are sure that it would be found of great interest to a large proportion of its students, men and women, and a feature, by reason of its immediate bearing on what is fundamental to true education, of special importance to all who would give to their studies the direction of personal utility.

The simplest explanation of nature's problems is most likely to be true. This applies especially to the doctrine of Gall.

Our Mentorial Bureau.

To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

HUSKY VOICE—S. A. J.—The trouble in this case is probably due immediately to laryngeal catarrh, of a Chinese nature. Or there may be a nervous insufficiency in the action of the vocal cords, for which certain habits may be responsible. In the writer's clinical experience special local treatment has been found usually beneficial for such cases, but the treatment could only be determined by a personal examination. A throat specialist or a physician who has made of throat diseases a careful study should be consulted. Do not think the pipe would be of much service as the trouble is not pulmonary, and if a strong man the patient has lung power enough—at present.

"**ST. VITUS DANCE**"—S. A. S.—St. Vitus Dance, or as the affection is known in medicine, Chorea, is a disease of the nerves, due to want of sufficient nourishment and rest. The children who exhibit this trouble are of excitable nervous constitution, and have not received that attention which is necessary to the proper maintenance of good physical health. Over pressure at school, indiscreet habits, insufficient sleep, faults of diet, being allowed to eat candies, cakes and trash to the neglect of substantial articles,

and other things of an abnormal character, are usually at the bottom of the trouble. Consult a good physician and follow his advice. Generally the malady can be cured.

THE COMMERCIAL NOSE—M. O. C.—It is the breadth rather than the aquillinity of the nose which indicates trading talent; and this corresponds to the width of head in the typical merchant. However, the prominent bridge is a sign of aggressiveness which aids very greatly in driving a bargain.

OAT MEAL AND DYSPEPSIA—H. H. G.—We are not surprised that you find oat meal indigestible, for we have been consulted by a great many persons in regard to the same difficulty. But we have nearly always discovered that the trouble was due to imperfect cooking, or deficient insalivation. If you eat oatmeal that has been simply "warmed up" for ten or fifteen minutes, or take it "merely for the sake of the sugar and cream," as one of our lady patients admitted she did, very probably you will suffer.

FIRMNESS AND CONTINUITY—Col. T. W.—No, the office of Firmness is to keep the purpose fixed, while Continuity simply desires to fix the attention. Neither can do the work of the other, although they are naturally helpful. If Firmness be directed to a task requiring uninterrupted effort, it may compel the intellect to attend strictly to the one thing. But without Continuity, such work will be irksome, and in some cases exceedingly difficult.

LARGE AND SMALL FOREHEADS—J. Q. R.—Your observation that foreheads of very unequal size often evince equal intellectual power, is quite correct. But you seem to have lost sight of the fact that many large foreheads are expanded chiefly as a result of Mirthfulness, Ideality, Suavity and Tune, which faculties do not contribute to the intellect except in directing and adorning the thought. On the other hand, a forehead

may be comparatively small because devoted almost exclusively to the intellectual faculties, and yet manifest quite as much general intelligence as a large one of the class described above. The activity and intensity of intellectual organs depend, too, largely upon their depth.



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

Drinking at Meals.—In noticing an opinion on this subject published not very long ago, permit me to say that the great majority of people take too much fluid with their food. They either wash it down, half masticated, with water or some artificial drink, or slide it down with grease or syrup, instead of chewing it sufficiently to swallow in the natural way. The most healthful plan is not to drink at meal time; but if thirsty a small draught of cold water is not as injurious as hot drink. It is, however, just as essential to health to drink at regular intervals as it is to eat at stated periods, especially during hot weather. Drenching the stomach constantly and irregularly with cold water is a most prominent cause of diarrhœa in warm weather. The less people drink the less they will require. I have gone a whole week without drinking a particle of any liquid, and that, too, without the least inconvenience, and how much longer I might have abstained I know not. But if I should do as the world at large are constantly doing, viz: eating all manner of food calculated to create feverishness, I should doubtless be as unable to do without drink as they. My food is very mild, easy of digestion, and congenial to my nature.

Another prominent cause of the ill health of the masses is, they eat too many kinds of food at the same meal, mixing together in the stomach a heterogeneous mass of food, the chemical combination of which is incompatible and indigestible. Fruits and vegetables should not be eaten at the same meal, because the union of fruits and vegetables in the stomach and bowels produce gases which are poisonous to the system.

If we would be healthy, we should never eat more than two kinds of vegetables at the same meal. MERTHA T. NEFF, M. D.

A Cordial Subscriber.—North Danville, N. H. DEAR JOURNAL.—I send you the fare for another year's travel to see me—for '93. I need not tell you that you are ever welcome, only that I have had your monthly visits for nearly thirty years. MRS. A. B. J.

A Frank Opinion.—In the December number of the PHRENOLOGICAL JOURNAL I note what you say under heading of Suggestions Wanted. I have been a reader of your journal for several years. I suppose that suggestions are what you want, and that you will then use your own judgment as to their practicability. About all I have to say is that I can not now remember of ever seeing anything in the JOURNAL that I could not approve. I have in mind at this time particularly an article in the November number on the desirability of using no deception in allaying the curiosity of a child in the matter of its birth, etc. I heartily approve your course in this matter. Both myself and wife have reason to regret that our parents failed, as we think, in telling us or teaching us things which we ought to have known. We have tried to keep the confidence of our children, and we do not believe that they are lacking in refinement or in morals from our course in these matters. I could write you more fully, but perhaps an idea is all you care for. In my opinion it will be difficult for you to improve the JOURNAL. If you lower the standard of typography for the sake of making the price lower, I should say that it would be a mistake. Further, I am very much inclined to the belief that the size is about right. If made too large your readers might lose interest. This is a busy world, and usually each member of a progressive family has his or her publication or trade journal to read, and when the secular and religious papers are included their leisure time is pretty well occupied. L. S. L.

Belvidere, Ill.

Another Opinion on the "Easy Chair" Question.—EDITOR OF THE PHRENOLOGICAL JOURNAL: In your August JOURNAL Mrs. Homers, who has a lecture

on nursing, recommends that the sick room should contain only two chairs, "a very comfortable one for the nurse, and a very uncomfortable one for visitors who stay long."

I do not quite agree with this lady. I think the majority of nurses would forget their duties to their patient, had they a very easy chair. I have had nine years' experience, and I find little use for an easy chair.

As to visitors—I think people that require the services of a nurse are not in any condition to entertain. Yours truly,

MRS. K. M.

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PERSONAL.

It is said that Count Tolstoi has at last been persuaded to settle his estates on his wife and children. In view of the tenacity with which he has advocated the doctrine that all land should be public property, this announcement will doubtless create much surprise.

Dr. ANDREW CLARK, the celebrated physician of London, stated in a recent address that what is called "moderate drinking" is potential in exciting gout, heart-disease, Bright's disease, and liver complaints, and that medical opinion is unanimous that there should be no drinking of alcohol in any form save at meals.

But is that not "moderate drinking" too, Doctor?

OF JOHN RUSKIN the painful news comes that his mind is so much impaired that he will not be able to do any more literary work. The symptoms of brain affection have been apparent for some years. This eclipse of an intellect that has commanded the admiration of the world of art and literature for so many years will be received everywhere with deep regret, and in the estimation of some observers add another son of Aenius to the record of insanity. It remains for the physiologist to learn the true cause.

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PUBLICATIONS RECEIVED.

CIVILIZATION CIVILIZED. By Stephen Maybell.

Adds one to the growing series of psycho-sociological books of the day. Mr.

Maybell is a reformer of civil and economic methods of the most pronounced type. He opposes taxation, rent, etc., as inconsistent with a true civilization, believiag, for instance, that everything in the trading or business relations of mankind should be based upon cost, actual cost, and so "when the purchaser paid for an article he would pay every real expense attending the thing and that would be the end of it." Of course the principles he advocates are those of humanity, kindness, fraternal consideration, co-operation, mutual forbearance, etc., all of which, we agree with him, consist with a true civilization and so honor human nature. Published by Lovell, Gestefeld & Company. New York.

THE WEIGHT OF THE BODY IN ITS RELATION TO THE PATHOLOGY AND TREATMENT OF THE CLUB-FOOT. By A. E. Judson, M.D., Anthropædic Surgeon to New York Hospital. O. P. D.

This reprint discusses an important matter in the treatment of foot deformities, and properly advises the use of apparatus that will dispose of a child's weight in such a way as to prevent its influence with remedial effort. Illustrated with designs of apparatus useful to that end.

THE DEPTHS OF SATAN. A Solution of Spirit Mysteries. By William Ramsey. Edited with additions by H. L. Hastings.

SPIRIT WORKINGS IN VARIOUS LANDS AND AGES. By same author, etc.

THE MYSTERY SOLVED. Spiritual Manifestations Explained. Same author.

FAMILIAR SPIRITS. Their Workings and Teachings. Same author.

SPIRIT MANIFESTATIONS. Their Nature and Significance. Same author.

The foregoing titles represent as many pamphlets recently published by the Scriptural Tract Repository of Boston, Mass. Their "spirit" is adverse to spiritualism, characterizing that movement of the day, as one of the leading features of modern infidelity.



JAMES G. BLAINE.

THE
PHRENOLOGICAL JOURNAL
AND
SCIENCE OF HEALTH.

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MARCH, 1893.

[WHOLE No. 651.

JAMES G. BLAINE.

That Mr. Blaine was a great man, all his enemies will admit; and that he was not an incarnation of moral sublimity, will scarcely be denied by his warmest friends. In the discharge of his official duties, he displayed a high order of both power and finesse, but his strength was not manifested in sudden, volcanic bursts, to subside after passing a crisis. He never leaped into fame with a single bound. He did not dazzle and surprise as a meteor which spans the horizon in a moment's flash, but he shone with the steady light of a mighty star.

It is often enough said that he was brilliant and magnetic; but beyond the ideas expressed by these elastic terms, the popular estimates of his character seem vague and undefined. This is largely because he was not bristling with eccentricities or salient angles which revealed his purposes and methods. He was a many-sided man, and his temperament formerly included nearly all the elements of a normal constitution in harmonious proportion. However, during his last years his brain greatly predominated, and he was always extremely sensitive to petty annoyances, which doubtless wore upon his

nerves more destructively, because less frequently resisted, than the rude shocks of great calamities. Besides, there was an infusion of the melancholic or bilious condition which did much to undermine the natural buoyancy of his spirits. Under the incessant strain, his firm hold was finally loosened; the balance was lost and he was left impatient, irritable, weak, and susceptible to the internal organic lesions which ended his life.

But in his prime, he was phenomenally adaptive, the personification of pluck and push, with wonderful grasp of the immediate situation, and able to dispatch business in the most facile and practical way.

He had a large head, but it was so well proportioned that no merely casual observer would detect its real magnitude, possibilities or potencies. Indeed there was no one portion of his brain that told the whole story. But upon close inspection, or even from a study of his portrait alone—after unlocking the combination, as it were—a perfect agreement could be found between the history of the man and his cerebral developments.

There was great capacity for social en-

joyment, although his Adhesiveness was by no means the only or even the principal source of it. He had not the elements of constancy in the best sense of the term, as regards either friendship or love. But his talents were such as could find their best expression only in contact with people, or in dealing with affairs almost directly related to human nature, so that he had abundant opportunities to make himself personally agreeable, and thus to suggest a degree of attachment he did not really feel. With his Approbativeness and Suavity he loved to be polite, and, like the celebrated Duke of Marlborough, he knew how to refuse a favor with a grace of manner that gave more pleasure than other men could confer in granting a request. An added charm was due to his large Hope which, with his enthusiasm and deficient Conscientiousness, doubtless accounts for many of the promises he is said to have made and never fulfilled.

His consummate diplomacy, ability to dissolve the fiercest jealousies by a genial smile, skill in the employment of both comedy and tragedy, art of flattering by manner, which is subtler than all the necromancy of spoken words; the thrill from a clasp of his hand, and the magic of his eye—all these are explainable when we consider that ambition was his master passion, untrammelled by any strong sense of obligation to the world at large, and aided by rare gifts of physical symmetry, mental discipline, extensive information, and a rich, fascinating voice.

He had rather large Secretiveness, but not so much a propensity to burrow in a deep cave, as to shift from one bush to another so long as he was pursued. And if he was only concealed until the enemy passed by, he cared but little if the screens were flimsy or thin. In other words, he had no excessive love of secrecy for its own sake, and if there were no special reasons for covering his movements he would dash ahead openly

and boldly where other men would prefer to work entirely in the dark. In a general way he may have given some attention to the study of occultism or esoteric philosophy; but he was not likely to feel any special enthusiasm for a secret society like Freemasonry, or a system of doctrine like Theosophy, in which the element of mystery occupies such a conspicuous place. But if he needed to hide, he could lower his visor as quickly as any man. And as his vocation and innate tendencies concurred to render him non-committal and evasive, the diplomatic mask became, as it were, a part of his normal countenance, especially in his latter years. The effect of this almost habitual exercise of policy is very noticeable in the peculiar drooping of the upper eyelids at the outer angles. This appearance results from the muscular action in the involuntary effort to veil the "windows of the soul" when treason is brewing within. It is much more marked in the recent photographs of Mr. Blaine than in the likenesses taken thirty or forty years ago.

There was evidently considerable width of the head at Cautiousness, and the same quality is indicated in the length of the nose. Indeed, caution and courage, aggressiveness and apprehensiveness, were united in him in a remarkable manner. He was as brave as a lion, yet as sly as a fox, and always on the alert. He had also a good degree of firmness; and as a result of his intense ambition, he often evinced an amount of practical continuity which was in strong contrast to his natural love of change.

His head seems of only average width at acquisitiveness, hence he must have loved and sought money chiefly for the sake of the assistance it gave him in the pursuit of other things. Still, he had the intelligence to accumulate, and improved many of his numerous opportunities to do so.

In the crown of the head, there is an

expansion at Approbateness which is very pronounced. Here we have the key to the character. Though infinitely more humane than Napoleon, he was scarcely less ambitious. But in our Republic, where men reach the summit by the will of the people rather than by deeds of blood, his personality, like that of Webster, Clay, Conkling, and others, was too strongly individual to satisfy all the heterogeneous factions. He soared above the crowd. Genius is always a Pegasus, admired, but distrusted, while the inertia of mediocrity inspires confidence by suggesting kinship with the common herd. Thus the great Maine statesman, in the face of all his achievements which would have made an ordinary man dizzy with delight, died a disappointed man.

As to morals, Mr. Blaine was no doubt generous and sympathetic, devoted to his family, and disposed to render kindly service to any sufferers who were not in antagonism to his most cherished plans. But he lacked the sense of equity, and his actions were the fruit of other impulses than love of abstract truth. There was both Catholic and Protestant blood in his veins, and though his religious beliefs seem to have been among the secrets he knew so well how to keep, he certainly had reverence for the essential tenets of the Christian faith.

The frontal lobes of his brain were large, but the forehead presented no very striking special developments. However, the perceptive region was the larger of the two general divisions, and he had the feminine type of intellect. He was intuitive rather than logical, and was undisturbed by violations of consistency in his modes of thought. He sought results, and cared but little for methods. Where other men had to examine severally the links in a chain of cause and effect, and ponder over the possible outcome of a given course, his eye swept over the field with a single glance, and he was ready to act. He

had the power to observe facts, phenomena, and conditions, on an enormous scale, and the character of his processes seemed stupendous because of the magnitude of the materials with which he worked. But, after all, his mind was neither truly original nor profound. He was a consumer, rather than a creator of values; a trader in products, rather than a tiller of intellectual soil; a compiler of history, rather than a founder of an essentially new code.

He had a capacious memory, and a magazine of verbal ammunition which was practically inexhaustible, as may be inferred from the fullness of the eyes. His upper forehead shows the large Agreeableness to which he owed so much, also Comparison and Wit. He reasoned chiefly by induction. His mind was more specific than comprehensive, and better adapted to analysis, classification and immediate utilization, than to a deductive process requiring a slow evolution and a harvest in the remote future. Still he was a most wonderful character, a typical American, and none the less deserving of our admiration because he was neither the noblest nor the greatest of men. E. C. B.

James Gillespie Blaine was born at Indian Hill, Washington County Pennsylvania, January 31, 1830. His ancestors were of Irish and Scotch extraction, and of more than ordinary prominence, his great-grandfather, Ephraim Blaine, having been honorably distinguished as an officer during the revolutionary war. His early experience as a teacher, later as a journalist in Maine, and his brilliant career as a statesman, are all matters of familiar history; indeed they have been so much dwelt upon by the press for many years, and especially during the past few months, that it is unnecessary to write more than these particulars. His death occurred in Washington, January 14, 1893.

RACE STUDIES.

BY F. L. OSWALD, M. D., AUTHOR OF "NATURE'S HOUSEHOLD REMEDIES."

I.—GERMANY.

THERE is a story of an Arabian pedagogue who proved the importance of education by capturing a wolf and exhibiting him together with his near relative, the shepherd-dog; and in a similar manner the philosopher Buckley might have demonstrated the correctness of his theorem that every nation is the product of its surroundings.

Among the effeminate nobles of Sicily there are numerous families whose names betray their descent from the iron-fisted Normans, who conquered the island about the middle of the eleventh century. The sun of Spain has assimilated the Goths to the Moors; the frost of Labrador, the Anglo-Saxons to the Esquimaux; still, hereditary traits manifest the transmissions of a time when the ancestor of such immigrants stuck for ages to his eastern birthlands. The Hungarian is still an adventurous Magyar. The Polish Jew, under his grimy kaftan, still hides the poetic instincts and the religious fervor of his Semitic forefathers.

Schools, withal, assert their influence in modifying the hereditary peculiarities of their pupils, and in summing up the sources of national characteristics, it might be said that every nation is the product of three distinct factors—ancestry, locality, and education.

If it is true that loyalty and conservatism are the concomitants of agriculture, the Asiatic forefathers of the Teutonic race must have renounced their nomadic pursuits at a very early period.

We find, indeed, that the German colonists of Central Europe had fixed settlements, burghs and towns (from *zaun*, a fence, a hedge) long before the beginning of our chronological era, and Max Mueller calls attention to the suggestive fact that the Germanic terms for implements of husbandry agree with the root-words of the Aryan or Indo-Ger-



GERMAN SCHOLAR.

man race that had its primitive stronghold somewhere in Central Asia—probably on the high tableland between the Caspian and the sources of the Indus.

That love of steadiness (*stadt*, the German synonym of a fixed habitation) makes the Teutons the best colonists, and, for better or worse, the most obstinate defenders of established customs.

The Anglo-Saxons needed a large admixture of Celtic blood before they could screw up their patriotic indignation to the pitch of clipping the claws



NORTH GERMAN MERCHANT.

of King John and the head of King Charles, and a considerable percentage of New Englanders actually preferred exile to a liberty bought at the price of insurrection. The mediæval priests found it so impossible to abolish the Pagan rites of their parishioners that they had to tolerate Druid customs under the cover of a Christian name and add new holidays to sanction Easter-fires and pilgrimages to mountain tops and sacred groves. Before Martin Luther could secure the success of the Protestant Revolt he had to represent it as a return to the doctrines of primitive Christianity — in other words, as a protest against an innovation. "Those German royalists would decline Paradise if their preachers did not call it the 'Kingdom of Heaven,'" said the Swiss Republican Haller.

That loyalty manifests itself also in a valiant faithfulness to facts, very different from the French "love of truth for

the sake of its novelty." The privilege of free discussion has remained an inalienable right of a nation which, too often, submitted to rulers that recognized no other right, or cynically admitted their willingness to let people talk what they pleased, as long as they permitted their sovereign to do what he liked—at least as long as he could contrive to perpetrate his arbitrary acts under a semblance of legal forms; for it is a curious fact that lynch law is utterly unknown in the birthland of Protestantism.

"There is one story," says Heinrich Heine, "that will make me laugh on my death-bed, and Proserpina too, will smile, when I repeat it in the realms of grim Pluto,"—the story, namely of Zweibruecken, where a Congress of German Liberals convened in '48, to debate the preliminaries of a free constitution, till a learned member started a question as



NORTH GERMAN MARINER.

to the competency of the present assembly for the decision of that great political problem. After patiently listening to the legal arguments of the dissenter, the delegates agreed to *admit*

their incompetency and to dissolve the convention.

No nation on earth is more willing to recognize its own shortcomings and the merits of its neighbors, and more careful in avoiding the infringement of

honorable sense of justice—an instinct just as apt to sprout up in plain spoken candor—"giving Mephisto his due and not mincing the facts about the big feet of his foeman, the archangel," as the humorist Boerne expresses it.



DEATH MASK OF EMPEROR WILLIAM I.

vested rights, no matter how obsolete or preposterous. "When the angel Gabriel reads off the roll-call of the resurrection," said General Savary, "I hope he will not appoint any German deputies." "Why not, pray?" asked the Prussian ambassador. "Because we would never get done; your countryman would read off the passport description and titles of each graveyard tenant." That apprehension is perhaps justified, for among the current titles of the German Empire we find a "Frau reitende Oberforst meisterin," "Mrs. Riding Chief Forest Mistress" (the wife of a mounted ranger); Herr Ober Consistorial Amts Assistenz Secretair, etc., etc., and an official Gazette describes a fatherless child as a Geheime Raths Waise—"Secret Councillor's Orphan."

That approach to flunkeyism may, however, have one of its roots in an

A traveler in Westphalia and certain districts of Wuerttemberg would, indeed, be apt to modify his idea that the formality-ridden Germans are incapable of blunt speech. "I tried hard to stop swearing in my regiment," said a Prussian colonel of my acquaintance, "but I have come to the conclusion that it is a harmless habit, though an incurable one," and told me an anecdote about an army chaplain who lectured a Pomeranian sergeant on the wickedness of profanity and got his promise to moderate the emphasis of his remarks. "Well, here's my hand on it, I'll behave after this," said the sergeant, "but only one thing I should like to know, which—blanked—— blank has been telling on me again?"

The German language abounds with proverbs inculcating the advantages of deliberation and the risks of haste: "Eile mit Weile," "Morgen ist auch

noch ein Tag," with a pretty paraphrase by Goethe,

"Who can fathom things at once?
Wait till May, when the snow goes
away;"

and Napoleon the First boasted that he could generally get his plan of battle ready while his Austrian opponents prepared a diagram of their map. But Northern Germany awakened from that torpor more than a hundred years ago, or Frederick the Great could not have found adjutants capable of repairing the defenses of a demolished fort in twenty-four hours. The great king himself hated delays with a sincerity that could not be easily mistaken, and was so fond

be everlastingly damned, they have my full permission."

The victors of the last Franco-Prussian war certainly could not be accused of procrastination, and phlegm is, indeed, not a primitive characteristic of the Teuton nations, but rather a product of despotism and long-enforced inactivity. The Germanic Vandals, Goths and Longobards were the most adventurous rovers of the Eastern continent, and their kinsmen, the seafaring Normans, loved danger for its own sake, and fought like demons to gain admittance to a heaven that rewarded the elect with the privilege of daily prize-fights.



MUNICH BEER DRUDGES.

of laconisms that he often reduced the elaborate documents of his secretaries to a single line, as on the memorable occasion when a Brandenburg parish had denounced its pastor for expressing certain doubts about the doctrine of eternal punishment. Councillor Podewills drew up a lengthy rejoinder, quizzing, but, on the whole, endorsing the protest till the king looked over his shoulder: "Let me see that paper," and reduced the reply of sixteen pages to just as many words: "If my faithful subjects of Schrausenhausen desire to

energies which otherwise might be apt to explode in a politically undesirable direction.

Alcohol worship, once the privilege of the favored few, has become the passion of the masses, and is assuming proportions that can hardly be credited without a few years' residence in the centres of German industry, where the increase of wages (only partly offset by a rise of taxes) has given thousands a chance to indulge a *penchant* which the ancestors of well-to-do burghers could gratify only on holidays.

The secular and spiritual despotism of the middle ages suppressed that energy, which seems to have found an abnormal vent in the passion for alcoholic stimulants convulsing the internal organs of the system, since hands and feet are doomed to ignominious sloth. Nay, there is another reason for suspecting the motive of the paternal governments that favor the development of the liquor traffic, for eventually alcohol is a moral sedative, and enervates or torpifies

Still, there is no doubt that among the educated classes temperance has made considerable progress. In Northern Germany there are thousands of families who have banished beer and wine from their dinner table, and never permit their children to taste a drop of alcoholic liquors. Some of these voluntary abstainers may never have heard the name of a temperance society, and their sobriety is merely an incidental result of changed social conditions. They have found the alcohol habit incompatible with the chance of progress in an age of fierce intellectual competition, and they have renounced the pleasure of intoxication in favor of better enjoyment. Yet even in Bavaria and the Rhineland, American tourists have often noticed the curious fact that alcoholism has not prevented the development of an almost universal nature worship—a more and more pronounced love of country life, highland excursion, woodland sports and landscape gardening. The *beau ideal* of the plotting stock-jobber is a villa with a park and a lookout cliff (the foothills of the Alps are getting studded with such country seats); the day dream of the toiling mechanic is a suburban cottage with a flower garden or a little conservatory. Families of moderate means keep cages full of pets; boys in their teens vie in the collection of zoological curiosa and range the fields with their butterfly-catchers. Colleges often get a whole class to join in defraying the expenses of a vacation tour to the highland region, and in many communities a *fete champetre* has almost become a synonym for a holiday.

Natural selection is one, but by no

means the only explanation of that development of health worship, which at the beginning of this century resulted in the rise of the Turner Bund. "Necessity is not always the mother of invention, nor even of imitation," said President Diaz, of Mexico, to a recent visitor of his Oaxaca summer home. Up in Chihuahua I saw a tribe of Navajo Indians shivering in close proximity to a coal bank, where they could have got any desired amount of fuel for the trouble of filling their leather bags. Frost had failed to teach them the value



AN AUSTRIAN MATRON.

of coal, and summer heat has not yet taught my own people to appreciate the blessing of a shade tree. France, with all its forestry commissions, is getting balder from year to year, while in Germany woodlands still cover thirty-two per cent., or very nearly one third of the aggregate area, partly because the Government prevents forest destruction by all means in its power, but partly also because the people have inherited a passionate love of woodland rambles, and in many cases individuals have

volunteered to replant whole mountain ranges with forest trees.

The South, especially, is the home of a passion which the poet Lenau traced to a revival of Druidism," and pessimists must confess that the renunciation of this sorrowful planet has made but little progress in such countries as Alsace and the Bavarian highlands. In defining the distinctive characteristics of the two sections, it may be said that Northern Germany excels in science,

industry and that perseverance which contrives to win battles as well as the prizes of international expositions; while the natives of the Alpine borderlands yield to few nations in joviality, *inhabitiveness*, the love of beauty and music, and a certain peculiar mother-wit, which, like the defensive humor of the Scotch, can bide its chance so well that it may come to resemble an inspiration of the moment.

(To be continued.)

A PHRENOGRAPH OF CARLYLE W. HARRIS

FROM A PERSONAL EXAMINATION.

This young man is an interesting study from many points of view, but especially from the fact that the question of his guilt is still undecided in the public mind. He is now much more



CARLYLE W. HARRIS.

refined looking than he appears in the accompanying portrait, which is from a photograph taken about three years ago when he was twenty years of age.

His figure is well proportioned, his carriage graceful and his manner exceedingly agreeable and polite. His physical organization is quite harmonious, no one element being in very great excess. However, his brain is the

most influential factor at present, and his blue-gray eyes, abundant, soft brown hair, and finely chiselled features constitute a very fair illustration of the mental temperament, and betoken both sentiment and intelligence of a superior grade.

It is also interesting to note that in the length of the head and limbs in proportion to the body, the bilious element of the old classification is sufficiently indicated to account in a measure for certain manifestations of coolness or apathy which, during his trial, were the occasion of much comment. To this temperamental admixture, also, we may trace to some extent his decided predilection for medical studies, since the bilious constitution favors a certain sympathy for the pathological and morbid conditions, which a physician is constantly obliged to encounter.

The head is rather large, measuring $22\frac{1}{2}$ inches in circumference on a line with the glabella and occipital spine, and 14 inches over the top from one auditory meatus to the other. The development of the occiput or back head, while considerable, is not quite so great as it is made to appear by the bushy hair.

The cerebellum is rather voluminous, and there can be no doubt as to his capacity both to love the opposite sex

and to win affection from them in return. However, he is not likely to manifest a high order of constancy, since Conjugality is moderate, and Conscientiousness small.

On the other hand, it must be said to his credit, that he is by no means insensible to the charms of woman as an intellectual companion. He has no excess of mere "blood love," and he would naturally prefer the society of women to that of men for the sake of their superior refinement, if for nothing else.

Adhesiveness is fairly developed, but in his combination it is likely to be friendliness rather than friendship, or sociability for the many rather than tenacity of attachment for a few.

Doubtless the tenderest element in his nature is the love of young. Philoprogenitiveness is unmistakably large in his head, and it is said by persons who have known him from his infancy that he always exhibited affection not only for children, but also for dogs, horses and other domestic animals, and that he was an accomplished equestrian almost from his childhood.

The strength of this faculty is easily estimated by the length of a horizontal line drawn from the top of the ear to the most remote portion of the back head. The negroes, whose fondness for children is well known, usually have a conspicuous extension of the head in this region, and as their hair is short, the development is easily observed. It is also well to remember that the manifestations of this love of offspring, though often beautiful and tender in the highest degree, if unaccompanied by Benevolence, are not incompatible with extreme ferocity toward other creatures. Of this we have familiar illustrations in the feline species.

These animals are affectionately devoted to their kittens and whelps, but a trembling young mouse in the claws of a cat, or a bleating lamb in the jaws of a tiger would receive no more pity from their captors than from the crater of a

blazing volcano. Unfortunately there are cats in human form, who can purr as softly as Tabby; whose hands are velvety; whose steps are noiseless, and whose eyes are as gentle as moonbeams. But loyalty, duty and gratitude have no place in their hearts, and even their kisses are freighted with treachery and deceit.

Mr. Harris has very little sense of property, or desire to hoard. At the seat of this propensity, about an inch and a half above and forward of his ears, the diameter of his head is very moderate, and there can be no doubt as to his indifference to the subject of finance.

The diameters farther back, just above and posterior to the ears, are also rather below the average. This denotes aversion to strife, contention, cruelty, severity, harshness and purposeless deception, and is favorable to amiability, gentleness, patience, candor and sincerity. But in this case, comparatively feeble motives for cruelty or falsehood might find indulgence as a result of his deficient conscientiousness.

In other words, Mr. Harris might easily commit transgressions of the moral law if he were especially tempted in any way. He is certainly not restrained by a respect for justice in the abstract. This is indicated by the downward sloping of the top head on each side of the vertex, or the centre of the crown on a line with the ears. Thus, as his firmness is large, the head here assumes an angular configuration like a gable roof. If the love of justice were well developed, it would round up the top head almost like the segment of a circle, and the distance from the opening of the ear would be greater.

Self esteem, which is located just back of firmness, is rather strong. This gives him self-control, pride, independence and confidence in his ability to carry out his plans.

The diameter at Cautiousness is fair, but the combination is not favorable to

the manifestation of much fear on any score. The love of approbation is not strong enough to render him very sensitive to public opinion, and he is more likely to follow his inclinations than to court the favor of those who establish the canons of conventionality. A little forward of firmness in the centre of the top head, there is a fair degree of Veneration and also Benevolence. But Hope, Spirituality and Imitation are below the normal grade, though not more so than is usually the case with American men.

As to the intellectual powers, Mr. Harris is endowed with superior facility in acquiring knowledge, especially in the direction of science, history, statistical or any other sort of specific information. This is due to the predominant perceptive faculties, which are indicated by the distance from the ear to the lower forehead, the arch of the eyebrows, space between the eyebrows, and also a certain condition of the integuments which is not appreciable in a portrait.

His upper forehead is somewhat narrow at causality, and he will not evince much taste or talent for abstract thought. He is more of an observer than a thinker; more of a scientist than a philosopher, and better adapted to the sphere of experiment and phenomena than the subtleties of metaphysics.

The diameters at the temples and a little above, at Constructiveness and ideality, signify more than ordinary mechanical skill and love of beauty. The distance between the eyes shows a strong sense of form, but the depth of the eyes or sunken appearance in relation to the cheek bone, is an unerring sign that there is not much love of words. He will be fluent as a result of his extensive stock of ideas, and he will acquire a large vocabulary as a necessity rather than for the pleasure of talking.

To sum up the character, it would not be possible to say exactly what such a man might do unless all the circumstances were considered. If he had a positively malignant or aggressively

cruel nature, it would be easy to believe him capable of homicide. But as his worst deficiency is in the restraining element of conscientiousness, we cannot infer from such a fact alone that he is guilty of a capital crime.

This leaves the question still open as to the possibility of his violating certain laws. If he had been accused of taking a human life by extremely brutal violence and bloodshed, no intelligent phrenologist would believe him guilty. But if other forces than the direct weight of his own hand had removed a person whom he regarded as an obstacle to his happiness it would be less easy to define the extent to which he might have given aid or sanction to the deed. We regret that Mr. Harris's moral sense is so weak, but we are glad to say that he has neither the Secretiveness of the typical poisoner, nor the Destructiveness of those who prefer to kill by the use of lead or steel. E. C. B.

CULTURE OF MENTAL POISE.

IN one of her lectures, Mrs. Besant referred to the necessity of purposeful training of the mind if one desired to have its faculties act evenly and with successful effect. She said, for instance:

"Do you know how we use our minds? As a hotel-keeper uses his property, a public house where everything that has the appearance of respectability can find a lodgment for the night and in the morning bid a proper adieu and drift away never to be seen or thought of again. Learn to think! You say that it is easy. Try it! When you go home take out your watch and try to think of it for a moment, and think intensely and exclusively on that one subject. In five seconds you will find your mind wandering, and before the minute is over—and a minute is such a little time—your mind is likely to cover a vast range of subjects. Train the mind by daily practice, and in a few months you will find a noticeable improvement and eventually you will see that your mind under this useful form of drill has become a useful tool to be utilized in your daily work and capable of concentrated thought. How many men are there in this world who depend on their favorite daily paper to do their thinking for them? And what a vast number there are who are merely sounding boards and parrots, repeating the assertions of a stronger and dominant mental organization?"

MARTHA J. LAMB, HISTORIAN.

IN the death of Mrs. Lamb, American authorship has lost a writer who imparted not a little of dignity and character to historical literature. She adorned a sphere rarely attempted by women, and what she had published was not only valuable as a contribution to recorded history but warranted expectation of further accomplishments in an important field of public instruction.

Mrs. Lamb was born in Plainfield, Mass., in 1829, and was the daughter of



Martha J. Lamb

Arwin Nash and Lucinda Vinton, who united English and Huguenot descent. Through her grandmother she was related to Charles Reade. In 1852 Miss Nash was married to Charles A. Lamb, of Ohio, and for eight years after resided in Chicago. During this period she threw her energies chiefly into philanthropic work, being a prime mover in the work which led to the foundation of the Half Orphan Asylum

and the Home for the Friendless, institutions that are among the most successful charities of Chicago. In 1863 she was appointed secretary of the first sanitary fair held in that city, and her practical activity made a marked success of the undertaking.

In 1866 she came to New York City and made it her home, devoting herself industriously to literary work. In the Spring of 1883 she became the editor of the Magazine of American History, in which a fund of good material for the use of some future historian of America has appeared. Mrs. Lamb was elected to membership in twenty-six historical and other learned societies in this country and in Europe. Her most important writings are: Play School Stories (in four volumes) and Spicy, a novel, in 1874; History of the City of New York, in two volumes, in 1881; The Christmas Owl and Snow and Sunshine, in 1882; Wall Street in History, in 1883; and very many articles on historical subjects chiefly connected with the United States.

With an organization of more than ordinary force Mrs. Lamb may be said to have inclined to that line of activity which would require deliberation and steadiness. The temperament, as indicated by the portrait, has elements that must have been derived from the masculine side of her parentage. Not only is this seen in the general character of her physique, but it is decidedly shown in the contour of the forehead. The spirit of her intellect was in the main perceptive and comparative.

She loved to see, to glean, to compare, to analyze. In disposition she must have been distinguished for determination and reliance. Sensitive no doubt to the good opinions of others she was nevertheless sustained in circumstances of trial by her native dignity and power of self-centralization. Hers was a character that commanded general respect.

PRACTICAL PHRENOLOGY.

[CONDUCTED BY PROF. NELSON SIZER.]

HUMAN PURSUITS, AND HOW TO STUDY THEM PHRENOLOGICALLY.

THE LAWYER.

The practice of the legal profession in its most exacting demands requires ample bodily constitution, with a large, well nourished brain, and a harmonious temperament. To be astute as a counsellor, sharp and clear as a critic in legal procedure, and at the same time able to display masterly forensic power, a massive, enduring, susceptible and magnetic personality are essential.

The following phrenological analysis was dictated to a reporter in the ordinary course of business, May 18, 1888, with no knowledge of the person or his profession, and with no expectation of publication. The portrait, with permission to publish the same in connection with the description of character and biography, have been obtained.

HARVEY D. HADLOCK

YOU inherit largely from your mother, and by that inheritance you get a better nutritive system than you would be likely to get by inheriting from the father, because woman is better endowed with nutritive power than man, and so also are the feminine of the lower animals, because they have to manufacture nutrition for themselves and for the infant. Nature takes precious good care that there shall be no lack of nutrition where it is so much needed. The boy who inherits from the mother is likely to get better nutrition; he is likely to weigh heavier, and in his build he will show it by having a longer body from the waist downward, and shorter, stouter limbs, and smaller extremities, feet and hands, and by having smaller features for the face and head; when a man inherits from his

father, he gets an exaggeration of the bony structure.

You have a brain measuring 24 inches in circumference and 16 inches from the opening of one ear to that of the other over the top, and 14 inches from the ear openings around the brow. The proper weight for that, as we study weight and size of brain, would be 205 pounds, which is supposed to be the weight of body with which such a brain ought to have relation to give it support; you weigh 90 pounds more than that and hence can do extra work and not feel weariness.

You are known, and always have been, for intuitive knowledge or sense of truth which a boy can readily inherit from his mother; he cannot so well get it from any other source, or at least he is not likely to; while it is said "women are not logical," occasionally we find one of them that is; it is said that man is the logician, but when he inherits from his mother, he can take on intuition that precedes logic and gets the thing all framed out, the trellis up, before logic has time to verify it. The best things that an organization like yours ever reaches in matters pertaining to instant necessity, come by intuition; you know what to do without knowing where it came from; it flashes on you and it is done or decided, and time and thought will indorse it. Occasionally men are brought into imminent exigencies and they must do something instantly, and you are better in such a pinch than you are anywhere else. No matter how well you can bring up the rear in the way of logic, you can bring up these sharp turns readily. You have the power to see

quickly your surroundings and to gather in knowledge by observation, and you have also the ability to aggregate your facts and co-ordinate them, and, like welding chain links, make one composite whole of it; so that your knowledge is like a system of railroads with a center, organized and all related,

and make no long appointments ahead, because you might want to stay in a given county for reasons and take your time to get acquainted with the people and many things that might interest you. If you had your time on your hands, you would not go around the world in eighty days.



Harvey D. Hadlock

and the time tables bring everything around all right; you organize your knowledge so that it is systemized.

You remember places. Geography to you is an enjoyment and you like to travel; if you had nothing to tie you down to business and to home, and the means to do as you would, you would do a great deal of traveling, and you would not run like a message on a telegraph wire; you would take it leisurely

Your memory of facts is excellent, and your language enables you to put into words that which you know of truth, and you are capable of understanding the particulars so as to make the case seem like history. As a lawyer, you could talk to a jury as if you had been there and seen the whole thing, and they can hardly shake off the impression they get, though you do not say that you were there and saw it and

know all about it. It looks consistent the way you state it, and the argument and the supposed meaning and the testimony are all so melted together that it seems to be pretty much all testimony. They take your argument for testimony, and it is not very easy to shake a jury's opinion that you are in the right. If you have an even chance with men of equal ability with yourself, we mean logical and knowing ability only, your sympathetic temperament, your intuitive way of looking at truth and your easy and persuasive method of expressing it, will carry conviction to people without their knowing exactly how it happened. They are sure of it, but they cannot go back and explain it to another.

You read character like a book; strangers to you are translucent, if not transparent; occasionally they are the latter, and your impressions are not only quick and clear, but correct.

Your generosity helps you to carry with you an influence that is genial, and, like the light of a locomotive, it precedes you—not, perhaps, quite so far, but when you come into a room, before you speak a word most people will feel your presence and the genial influence of your magnetism; and since you understand people without introduction, if you speak to a person you bring this knowledge of him upon him in such a way that he feels he must answer to the best of his knowledge and ability; if cross-examining a witness, you have a faculty of silent, mental, magnetic affiliation which makes him feel as if he were your friend, and what he knows would be all right if he were to tell it. Men are not very long recalcitrant under you unless they are very able men on the witness stand, and the other counsel will sit like a hawk to object to your question; but you have skill enough to put the question in such a way that it will be legal and fair, and yet insidious. But your Benevolence is one of the elements that enters into that

result; your Friendship enters into the influence; your social nature has the nature of rosin when it is used as a flux to solder sheets of tin and make them one, and you carry a good deal of that element in all your ways of life. People are a good deal more willing to do what you ask them to do than if you were thin and crisp and dry and apparently exacting. You never have seemed to be that kind of a man; you sometimes ask people to please do that for you, yet you have a right to command them; you do not always command a servant, and they will run their feet off to serve you.

Your Firmness is large, but it is a more persistent element than an oppugnant element; it is more like a line to hitch to the timber-head with which a man warps himself and his boat up to the dock, than it is like a pull with a boat-hook that can both push and pull. Your Firmness pulls, it doesn't push, and one of the troubles you have is to keep men away from you.

We would give you, if we could, a little more Self-esteem; so large a brain can take it and be benefited by it.

Your Caution is an influential element, rendering you watchful; you may not appear to be as anxious as you really are, but you will read over a document to see what it says and then to see what it means and suggest modifications; you will have all the claims and the evidence, everything done that custom and law require; when you shut a door, you try to see if it is latched or locked, and you sometimes go back and see if you have inserted some thought in a letter or an argument; you do not remember whether you put it in or whether you thought to put it in, but "sure bind, sure find," would be a pretty good motto for you; and while you do not go as if you were afraid, you meditate and consider whether you have done what the conditions of things require. Caution must be gratified.

Conscience is strong; you feel bound to be just. Veneration is large enough

to make you devout in spirit and polite in manner.

You have Agreeableness, which renders you mellow in your methods; you sometimes make a soft rising inflection of voice when you are conscious that you have been laying down the statement pretty strongly, and you put a drop of oil and honey at the close of it to make it palatable, and you generally think of what you ought to say before you get to the finish.

The Musical sense is strongly marked, and therefore, as a speaker, you ought to have a pleasant voice with a great deal of modulation. You could run, if we may use the term, the whole gamut of inflection and emphasis and impressiveness and gentleness, so that in listening to you people do not get tired or sleepy. If they are not so much interested in the argument, your manner will make them feel that it is a living subject, that the cakes are warm, and therefore they would be likely to stay.

Your Constructiveness qualifies you to understand mechanism and also to combine forces and facts in a way to make your case malleable and movable. Constructiveness enables a man to weave the parts of speech into a sentence in such a way as to make it strong in one place, and smooth in another, and graceful in another, and true all the way; but a man with no Constructiveness chops logic, and everything he says and does has square corners, and he gives offence occasionally when he does not wish to, and is astonished that he has done so; and consequently, under your style of utterance and composition, you remember that men have more than one faculty; that they have sensitiveness and sympathy, and aversions and timidities, and tastes and refinements, and prejudices and preferences that have to be considered and treated; and you can do this business in such a way as to conciliate those that did not mean to like you, that felt crooked towards you, because you could speak on poli-

tics, and the man that you were opposed to would take your arm and go to dinner after you had wrestled with your oppugnant topics through the whole meeting. He would not dislike you, but he would tell everybody not to vote for you nor with you—that is partisanship, but your manhood is larger than your creed, religious or political. If you were a minister, they would ask you to come and help dedicate their churches, and help celebrate their great times outside of your own denomination.

Your affections are strong, you love devotedly and win people other than women and children to think tenderly of you. Men do not stand at a distance and shake hands with you, as it is called, as with the end of a pumhandle; they like to come right up and make it earnest, and they act as if they would say, "My regard for you is stronger than friendship; you are one of the men I like."

Ideality gives you a poetic sense, and it helps make you eloquent and polished.

Your strong Combativeness and Destructiveness, and they are none too strong, give frame-work and power to your thought and effort; while your friendship and ideality serve to smooth and polish that which is strong. Granite is very strong, but even that takes and retains its polish a good deal longer than marble does, and you have the elements of strength, but the public knows more about the sympathetic and the friendly side of your character. If you had an intelligent antagonist, and you were to plead on one side and he on the other, he would know where the iron hoop of your logic impinged him; he would feel the strength of the argument. The public, not understanding and feeling an interest so much in the case, would see the grace and the urbanity and the friendliness that would seem to be embodied in expression such as, "my excellent, learned

brother." Then you take off another piece of the hide that common people would not perceive as he would.

You have a sense of wit, and it is good-natured wit; you dislike to use the scimitar of wit in such a way as to make the subject tremble and quiver under the blow. You like to use wit in such a way that even the victim of it will laugh in spite of himself, while the rest enjoy it on their own account.

With your wonderful vital system, your large brain, nourished and sustained as it is, your ample frame, with muscle as hard as rock, you ought to be master among men, and wherever you engage in the accomplishment of duty, it should be amply, broadly and earnestly done. There is no field of thought and theory in which such an organization as yours should not take a commanding position and easily win success, hence your responsibilities are great, because you have the power to achieve great results. You need no help. With such health and development you can cut your masterful pathway to success.

BIOGRAPHICAL SKETCH.

It is but proper to state that the subject of this sketch, nearly thirty years ago, then a youth of twenty-two, though he had studied law, was inclined to enter upon a course of business, and on his way to carry out his purpose he called at the phrenological office in New York and had an examination by Nelson Sizer, and was told by all means to study and practice law. This advice prevailed and he entered upon a special branch of study connected with maritime law under eminent direction; and thus settling himself into his life labor, he has since been undivided in his purpose and work.

In 1868, at the age of forty-five, he again called as a stranger and the description was given him by the same person, which is herewith produced, with no idea who he was or what was

his pursuit. His history and work fully justify the phrenological predictions on each occasion.

Harvey D. Hadlock was born at Cranberry Isles, Me., October 7, 1843, and was the son of Edwin Hadlock, whose ancestors were among the early settlers of New England. Harvey's grandfather, Samuel Hadlock, was born in Massachusetts, purchased the most of Crauberry Island, where he engaged in shipping and acquired a large fortune.

Harvey obtained his education partly by private instruction, then in the East Maine Conference Seminary and at Dartmouth College, and was in 1865 admitted to the bar in Maine; three years later he was admitted to practice in State and Federal courts in Nebraska, and in the same year also in Boston, and opened an office in that city. In 1869, being called to New York on important litigation pending in the United States Circuit Court, he was admitted to practice in that State and in the Federal Courts. In 1871 he was called to Maine to advocate the construction of a railway from Bangor eastward by way of Bucksport, and in 1873 he settled in Bucksport, where he was engaged in important railroad cases, and remained in that town for eight years, and won a prominent position at the Maine bar. From 1881 till 1887 he resided in Portland, Me., adding to his reputation as an able advocate of important railroad, patent, and maritime, as well as criminal cases. In 1887 he returned to Boston where he now resides, holding an office also in New York, his practice extends beyond New England and New York. He devotes his wonderful powers of body and of brain to his professional work with unremitting vigor and industry, and his recuperative powers, which are of the highest order, enable him to follow case after case with unwearying effort and with most brilliant results. As a rule he works without the aid of assistants, rarely takes notes, but trusts to his unfailing memory.

Mr. Hadlock, though very large in frame and figure, is not fat. He is a rapid and easy walker; he eats but two meals a day and his food is more nitrogenous and phosphatic than carbonaceous, hence he makes bone, brain and muscle, real working power, rather than adipose, and has no waste material.

Weighing nearly 300 pounds, with a chest measuring 52 inches without clothing, and standing almost 6 feet high, with a head measuring more than 24 inches, and having an amiable and generous face, his is a commanding figure even among great men, and by the breadth and clearness of his intellect and the force of his will, his arguments have a wealth of detail and accuracy, sustained by an unfailing memory and a masterful logic. Though very large in brain and body, he is compact and elastic in fiber; he works easily, and while every faculty is alert and vigilant, his voice is rich, full and flexible, and often rises to a point of commanding eloquence, it is not strange that at an early age he has reached an acknowledged rank as one of the first of living advocates. To the Physiologist and Phrenologist his success is recognized as the natural result of one of the largest as well as one of the very best of organizations.

Without knowing his name or pursuit, our phrenological analysis, made in 1888, provides for and predicts all he has done, and we now express the belief that his manifestation of power and attainment of popularity have but just begun.

TO ASPIRANTS FOR THE BAR.

Many young men aspire to be lawyers, some of whom have the talent, others lack the power to make themselves skilful and successful. A man can be an office lawyer without a great deal of bodily vigor; if he has a good intellect, even without force of character, he may understand law and help in pre-

paring cases or in transacting legal business in an office, or assist quietly other lawyers in trying cases; but to stand up before a court where the interests of the public are at stake, a lawyer should have brain power enough to be equal to any emergency, equal to any talent that will be brought against him. He should have the studious tendency to acquire the requisite knowledge not only, but should have memory to hold his knowledge, freedom of speech, and a good oratory, that he may give justice a fair show in its struggle against fraud and unrighteousness, and so be able to vindicate the rights of the public and of individuals. A lawyer may be sound, but he should be also quick. Some are slow and wearisome in handling material, in making quotations and presenting facts to court and jury, thus wasting public time and wearying public patience. A lawyer should have good common sense, know as much as possible of every day life, and if he has wit and humor it will aid his success. A public sentiment has obtained foothold that a lawyer needs only tact, keenness, cunning, and even unscrupulousness, and by such persons the law has been perverted. A citizen acting in the capacity of an officer of the court in the practice of the law, has no more right to take half of the money which a burglar has stolen from a bank, and use that as a fee to thwart justice and law in defending the villain who committed the robbery, than he has to help the burglar take the money; yet every month there are cases in which able counsel, endowed with talent and cunning, aid confessed scoundrels to escape punishment, and divide the spoils with the villains; and public plunderers, who escape with their booty, employ men to defraud justice in their cases; and talent, with moral worth either absent or in abeyance, lends itself to such nefarious work. We advise persons of only medium talent and slender constitutions to avoid law as a profession.

TALENT AND CHARACTER

THEIR STUDY AND CULTURE

CHAPTER III.

THE SKULL AND ITS RELATIONS TO THE BRAIN.

A person who wishes to understand the living subject, the peculiarities of phrenology and study its theoretical and practical sides must, of course, take the skull anatomically considered. The reason of this is because the brain, in its

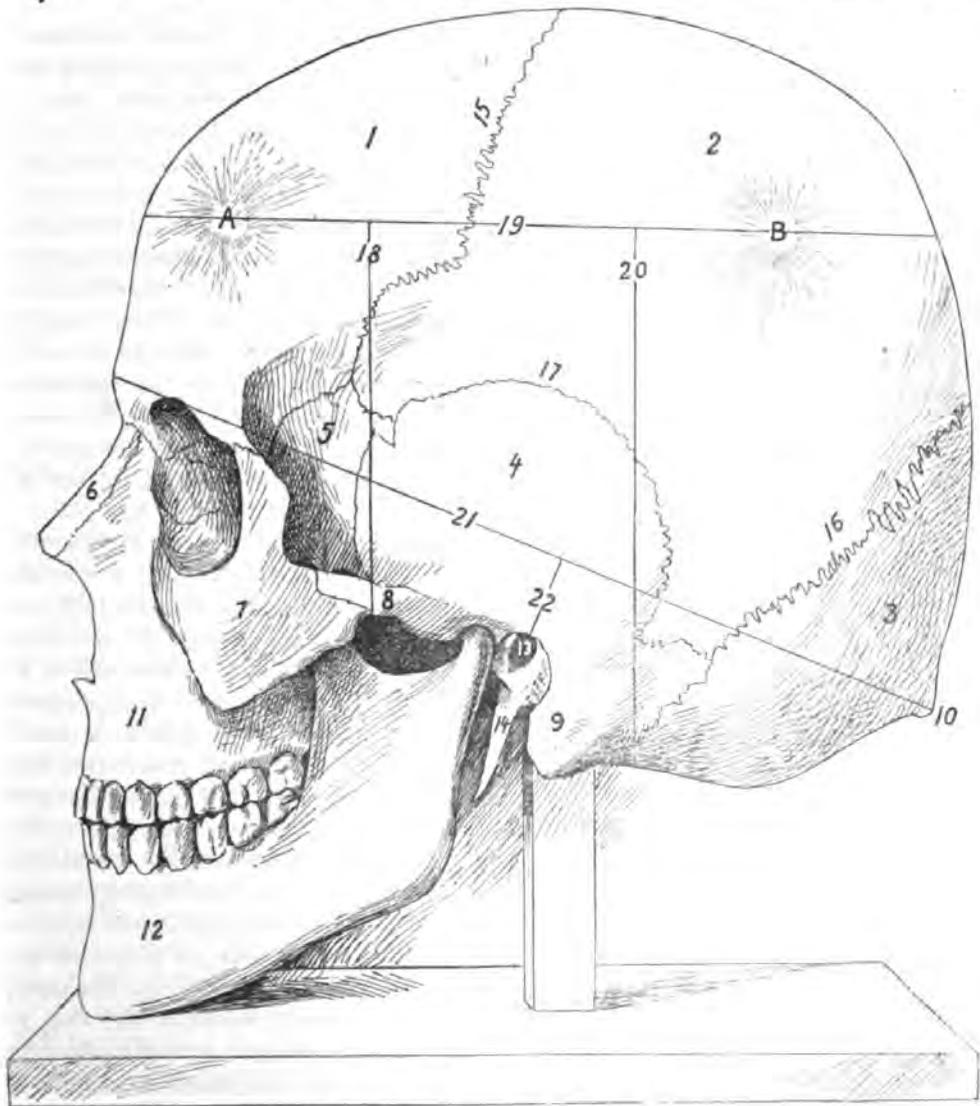


FIG. 26.—WELL BALANCED MALE BRAIN.

the head as we meet it in daily life, and he must also understand while he is examining the head, as we meet it in

different sections and anatomical lines, divisions and limitations, bears certain relations to the anatomy of the skull,

and to know where one of the lobes of the brain leaves off and where another begins, he must know what relation the dividing line between these lobes bears

certain where the posterior margin of that platform terminates, and consequently where the anterior lobes of the brain are separated from the middle lobes. To find this see engraving of the skull Fig. 26.

The malar bone or cheek bone 7, will be followed by a pressure of the finger or thumb backward towards the opening of the ear and upon the narrow bone 8, called the zygomatic arch, and under that bone there will be found a little notch from which we have drawn a perpendicular line 18. Inside the skull there is in the brain, see Fig. 20, a bottom view of the brain, what is called the fissure of Sylvius, indicated by letters B B. The anterior lobes of the brain A A are separated from the middle lobes by the ridge of Sylvius on the inside of the skull, which ridge fills the fissure of Sylvius; see Fig. 30, a bottom view of the inside of the skull.

Behind the opening of the ear and a little back of the point of the mastoid process of the temporal bone, we erect a vertical line 20, fig. 26. The petrous portion of the temporal bone lies under this line, a little back of the opening of the ears, and that ridge divides the middle lobes from the posterior lobes. An indication of that will be seen in Fig. 19 and also in Fig. 25. The position where we have drawn these lines may thus be anatomically considered and decided upon in three seconds by an expert examiner; for instance, if we stand at the left side of a patient and run the thumb along from the cheek bone backwards towards the ear, we strike a narrow bone 8, and under that bone we find a notch, from which we draw the vertical line 18; then back of the ear, the mastoid process 9, can be distinctly felt, and just at the base of that we draw the other vertical line 20, and so we get our two vertical lines



FIG. 27.—BLACK HAWK.

Indian Chief of the Sac and Fox tribe, born about 1768, on the east shore of the Mississippi, near the mouth of Rock river, died in Iowa in 1838. He was a powerful chief—see the great base of his brain—and gave no little trouble in the war of 1812, and in 1831 and in the "Black Hawk war" of 1832, when his tribe was defeated by Gen. Dodge and Gen. Atkinson. Black Hawk was captured with two of his sons and seven of his warriors, who were brought East and confined in Fortress Monroe. In 1833 they were released and joined their tribe. A cast was taken of his head, which is in our collection, and from which these engravings were made. The head was large above and about the ears. He was a man of power in body and in courageous energy. What a face, what a neck!

to certain external marks on the cranium. For instance, the anterior lobes of the brain, which fill the entire forehead, lie upon a platform which is made by the arches which cover the eyes, and constitute the roof of the eye sockets. These are called the super-orbital plates in the human skull, and the way to as-

drawn, between which the middle lobes of the brain are situated. Now some men have a very large development of the middle lobes, see portraits of Black Hawk Fig. 27 and 28. Sometimes nearly two-thirds of the head seems to be developed in that middle lobe. See Fig. 21, North American Indian, between BB and CC, and contrast the middle lobes of that brain with Fig. 29, and see how much stronger the savage brain is developed in that region. The drawing of the skull before us Fig. 26, is a pretty well balanced male skull, but we show the drawing of a skull Fig. 29, the anterior lobes of whose brain, like that of Fig. 21, were much smaller than the middle. The same is true of Black Hawk, whose anterior lobe of brain forward of line 18 is small and short and narrow compared with the middle lobes. Where the lobes of the brain are properly harmonized the character is expected to be uniform and clear; that there will be enough of intellect for the region of propensity, and enough of the social to give harmonious and vigorous affection, and enough of the top head above the horizontal line 19 to manifest moral feeling; but in Black Hawk, the middle lobes of the brain are paramount.

Now all these matters will strike an examiner in one minute. When we see a man in the pulpit or on the rostrum of a lecture hall or rising in a court room to try a case, these measurements and consideration of the proportion of different parts of the head are grasped almost as quickly as a person can take an estimate of the features. Occasionally the nose is uncommonly large for the face, or the middle lobes of the brain are enormously large for the front and rear. The base of the brain under line 19 is heavy, while that part of the brain above line 19 is low down, pinched and depressed like that of Black Hawk, and all this is done without any

thought of bumps; indeed, the subject of bumps becomes ridiculous when we consider the architectural and mathematical construction of brain development and distance from the brain centre.



FIG. 28.—BLACK HAWK.

In Fig. 21, as we have already referred, the anterior intellectual lobes of the Indian brain are comparatively small when considered in relation to



FIG. 29.—ANIMAL PROPENSITY.

the middle lobes; and in the portraits of Black Hawk, in the front and side views, Figs. 27 and 28 the same will be

noticed. The head is very wide through the sides. The Indian has much more of passion and of propensity than he has of intellectuality; the Indian has a narrow and superficial development in the intellectual departments, and is cramped in his reason and theoretical capability; he is governed chiefly by what he sees and by experience.

In figure of the skull 26 we may say that the numerals have all a meaning. 1 shows that section of the skull which is the frontal bone, 2 is the parietal bone, 3 is the occipital bone, 4 is the temporal bone, 5 is the sphenoid bone, 6 is the nasal bone, extending about half the length of the nose; 7 is the malar bone, 8 is the zygomatic arch, 9 is the mastoid process of the temporal bone, to which muscles go up the side of the neck and fasten and impart the rotary motion, or the side motion back and forth of the head; 10 is the occipital spine, 11 is the superior maxillary, upper jaw bone; 12 is the inferior maxillary, or under jaw bone; 13 is the opening of the ear, called by anatomists *meatus auditorius externus*; 14 the styloid process. The sutures or seams which unite the different bones of the head are: 15, coronal suture; 16, lambdoidal suture; 17, squamous suture; 18, the vertical line from the zygomatic arch, showing the division of the anterior from the middle lobes; 19, the horizontal line running from A to B, which is the centre of ossification, where those bones begin to form, upon the dura mater, the membrane which lines the skull and incloses the brain. As an egg is enclosed by skin first and then the shell is deposited or built upon it, so the skull is developed by fibrous radial lines of bone as seen at A and B. Ice freezes in that way and sends out spicula; and when these bone fibers or radii extend from these centres in every direction they finally meet with radii from other bone centres. At A and B these radial formations and extensions of bone are shown, and there would be another

about in the middle line of the occipital bone and in other bones, and the sutures are formed by the interlocking of these radial spicula of bone.

The line 21 which is drawn from the eyebrow to the occipital spine at 10, shows the base of the anterior and of the posterior lobes of the brain; the middle lobe of the brain hangs below that line. From the external opening of the ear 13, we erect a line 22 at right angles with 21, and that shows the depth of the middle lobe of the brain, below the anterior and posterior lobes. Where the middle lobe of the brain is large and hangs down low, and sends the ear low down, we conclude physiologically that the person has strong vitality and a strong hold upon life. This line 21 was drawn by Mr. Abram Cox of Edinburgh and referred to by Mr. Combe in his system of Phrenology in the volume published in 1825. Dr. Powell of Kentucky in 1854 announced to the world that he had discovered that the base of the brain is devoted to the existence of life, and that by measurements, which he gave, the probabilities of the length of life could be prognosticated. In our drawing Fig. 26 the line 22, drawn from the opening of the ear 13 to the line of 21, shows the depth of that middle lobe below the anterior and posterior lobes; and Dr. Powell called that line 22 the Life Line.

Dr. Powell, however, gives credit to Dr. Robert Cox, of Edinburgh, for showing how in this manner one could ascertain the depth of the middle lobes below the anterior and posterior lobes. Mr. Combe, knowing both Robert and Abram Cox, is doubtless right in attributing that measurement to Abram Cox. Mr. Combe describes the base line and also gives engravings. Dr. Powell claims to have formulated the idea that the vegeto vital power depends on the middle lobes of the brain, extending below the line which Cox draws and which we have represented. We believe that in the strength of the mid-

dle lobes of the brain resides the power of life, and that the organs which belong to the sense of appetite, sight, hearing and breathing are related to the middle lobes of the brain. We believe that the width of the head above the ears also gives the power of vitality as well as the depth. It will be seen that all narrow-headed beasts, birds and fishes have a weaker hold on life than those who have a broad head; the narrow headed ones are easily killed and they will yield to comparatively slight injuries, but the cat and the catfish have great tenacity of life; the latter will live all night after it is half cut in two with a spear, and only a little water in the bottom of the boat, while rabbits or shad, with their narrow heads, are very easily killed. The rabbit will die if smitten with the flat of the fingers on the side of the head, and a shad will die in three minutes after it is drawn from the water.

In order to make this matter decidedly clear, we insert a special drawing to represent a skull, Fig. 30, showing the proper measurements and making the measurement which indicates the depth of the middle lobes of the brain, as they project below the anterior and posterior lobes. A shows the base of the anterior lobes as they lie on the super-orbital plates. B shows the location of the occipital spine, or bony point in the back head, which also indicates the base of the posterior lobes, and the separation between the cerebrum and the cerebellum. It is not in all cases easy for a person not familiar with the matter to find this point and ascertain the exact location, but in some heads it projects three quarters of an inch. C shows the life line, drawn from the base line A B to the external opening of the ear, and the length of the line C shows the depth of the projection of the middle lobes of the brain below the anterior and posterior lobes. The greater the length of the life line C, the greater the tenacity

of life under labor and care, and especially under injury and disease. If the line be short, that is, if the middle lobe of the brain does not go much

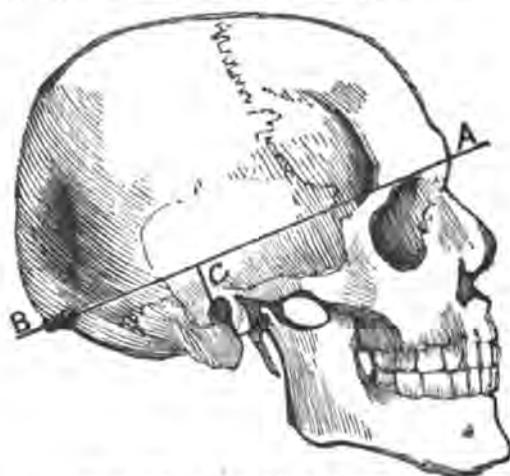


FIG. 30.—THE LIFE LINE.

below the anterior and posterior lobes of the brain, then the hold on life is feeble but if the line be long, say an inch, or an inch and a quarter, then the person will keep the lamp of life burning, accidents excepted, to extreme old age. For more than fifty years we have regarded the width of the middle section of the head as being a measure of vitality and an indication of long life. When Dr. Powell's life line was promulgated, indicating the depth of the middle lobes as showing the length of life, we accepted that as an indication of long life. We may remark that the base line as drawn on Powell's cuts are not alike on the two skulls which he presents, and another thing, they are not according to his descriptions, the artist, we presume, not getting the right idea. Our drawing corresponds anatomically to Combe's description and to Cox's method, and also to Powell's statement. It is not a difficult thing, where this bony point, the occipital spine, can be located, to place the top or other line, beginning at the brow and drawing the lines to the back of the head to the little bony point, or occipital spine, and the depth of the opening

of the ear below this line is the life line. A person who gets used to it, a practical Phrenologist for instance, can put his thumb on the occipital spine and draw the line with his eye from the brow to the point in the back head, and estimate within an eighth of an inch the distance of the line to the ear opening where it crosses above the opening of the ear. Physicians can do this without making any parade, and especially they can study the broadness of the heads as well as the depth of the middle lobes.

Dr. Lambert, an eminent lecturer on physiology and anatomy, was perhaps the first man in this country to make this point known; and he delivered public lectures, measuring the width of the head just forward of the opening of the ear, as well as the depth, and determining in that way the probable risk in matters of life insurance; and when he was president of a life insurance company in this city, he would measure the width of the head and also the depth below this line, and he would insure one who had a one and a quarter inch life line for about half the price at which he would insure one where the opening of the ear was high up and the head was narrow. Our view of the case, therefore, presents Combe's method, and also that of Cox, Powell and Lambert all at once.

When Dr. Lambert was president of a life insurance company and accepted and declined applicants on the basis of these measurements, other companies became alarmed at his method, for of course when he saw a man had a strong hold on life, he would insure him for about half what he would have to pay at the other companies, and the others he would tax higher; so Dr. Lambert would get the best ones at about half the nominal figures, and as he charged the short lived people double price, that would drive them all to the other companies, and they objected; and so Dr. Lambert's young institution

had so succumb to the combined influence and opposition of the other and more established firms. But his was the only fair way to insure, on the same principle that a brick house should not be taxed as high with insurance as a wooden house with a shingle roof; and why should not a man with eighty probable years of life before him be taxed less than one with only forty or fifty-years?

There are not a few physicians who have become familiar with this method of establishing the length of life; and when a child is born, if the middle lobe of the brain is narrow and small, and if the opening of the ear is high up, the doctor does not expect to raise that child; but if the opening of the ear is low down, when the line is drawn from the brow to the occipital spine, then the doctor expects that the child will thrive and endure all sorts of illness and injury, and live in spite of unfavorable circumstances. Hence the children of wealthy people, who can give them a fine education and surround them with all the comforts and amenities of life without any exertion on their part—these children are apt to inherit after a while a light middle lobe of the brain, while the children of the hard working poor, the people who have to smite and hammer their way to success, will have broad middle lobes of the brain; for they have to struggle and tussle and work their way way to success as best they can. They have to work for food and raiment, and they have to defend themselves against quarrelsome assaults; so the children of the poor live, not because there is merit in dirt, squalor and poverty, but because there is constitutional vigor to the middle lobe of the brain, and many of them become the master spirits of their age. They have drive, force, push and enterprise; they are like steam engines well appointed; and in this country where there is opportunity for the poor, if they have brain, numbers of men and

women have risen to distinction, and have made themselves not only masters among men, but masters of millions; and when they work their way to success in this manner, they are called self-made. Occasionally, in other countries individuals break through the bonds of poverty and ignorance and rise to distinction. Their brain power sends them up to prosperity and success, and they climb the stairs: they are not carried up by an elevator.

We have incorporated this basilar line of the brain 21 in Fig. 26, and also the life line 22, so that the one figure of the skull will carry the idea of this whole matter. In Fig. 31, the bottom of the skull, as we look down into it will be easily seen; the edge of the skull is shown where it is sawed off.

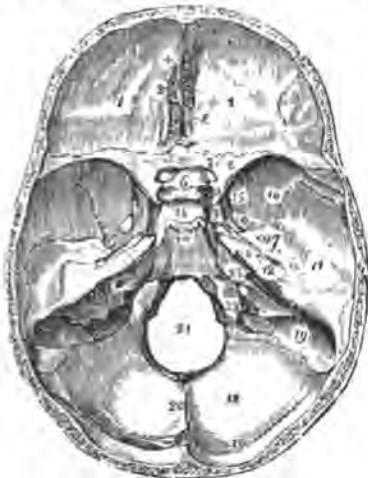


FIG. 31.—BASE OF SKULL.

In the front part are seen the seat of the anterior lobes of the brain, the back margin of that anterior lobe of the brain, and the margin of the middle lobe is shown; then the back section, the valley in which the cerebellum is located, is shown, and there is also the petrous portion of the temporal bone running in from the side towards the center just forward of the foramen magnum 21, which is the dividing line between the middle and the posterior lobes, and the depression there holds the cerebellum. See Fig. 20, and see

how nicely that would fit into the bottom of the skull that we are looking at; see Fig. 19, also D for the cerebellum.

Thus the intelligent reader will get a general idea of how the internal structure of the skull is made, and how to study the size of the brain and its different compartments. The topics herein contained have not been studied much by the general reader. They were usually counted as technicalities and slurred over, but he who would read character promptly and correctly should be informed, and apply his information to these divisions of the brain himself. One man may have a very short anterior lobe of brain; he may be weak in intellect; he is narrow headed, and yet he wears a good-sized hat, because the middle and posterior lobes are decidedly large. He has strong animal feelings; he is coarse and full of thunder and a great worker; the back head is strong, and so he is social, friendly and warm hearted; but still the top of his head may be low and small, and his front head may be deficient. He is little inclined to study and less inclined to moral ethics; he works hard and smites his way through difficulty, and he can be led and guided properly by superior brains, and thus become an interesting and important factor in the great work and struggle of life. Some men want others to plan for them and guide their power, and then they will be masters in their own field.

Every invention which saves muscle tends to widen the scope of mankind, multiplying the comforts of life and elevating those who use muscle. Where there is no machinery, hand labor makes drudges of men who have genius and deserve better things, yet strange to say, mere labor has inclined to oppose mechanical invention, just as farmers opposed railroads, which it was thought would put horses out of use and give no market for oats. Railroads have made horses widely required and a market for all the oats that could be raised.

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

JOSIAH M. GRAVES, W. H. GIBBS, HENRY B. GIBBONS.

As Messrs. Graves, Gibbs and Gibbons were at various times traveling companions and partners in lecturing and practicing Phrenology, of Prof. Nelson Sizer, he was requested to write the following sketches for THE JOURNAL.

C. F. W.

REV. JOSIAH M. GRAVES.

This gentleman was a Baptist clergyman and settled for some time in the city of Norwich, Conn. When phrenology was introduced by Dr. Spurzheim, and books were obtainable, he read on the subject and became interested, and finally resigned his pastorage and adopted phrenology as a profession. He was a good scholar, an excellent speaker and a good debater, and commanded the attention and interest of his audiences; he was an able advocate of phrenology. He began lecturing somewhere about 1837, and was mostly occupied in the New England states. He was also something of an artist in oil paintings, and made a large gallery of pictures for the illustration of his subject so that he could cover the whole side of a lecture room. He was a fine delineator of biography; he would refer to his pictures to illustrate his lectures, and then devote a whole evening to the biographical exposition of the pictures in his gallery. He lectured about ten or twelve years, and would occasionally preach on Sundays where he happened to be. He was singularly tender and affectionate, especially to children, and in his manners he was polite, cordial, friendly and acceptable. He had a light complexion and blue eyes and stood about five feet eight inches high. Mr. Graves was born about 1806 and died about 1858 or 1860.

WM. H. GIBBS.

Mr. Gibbs was born in 1819 at Blandford, Mass. He heard Mr. Graves lecture in March, 1838, which inspired him with an idea of entering the field as a

phrenologist, and in the autumn of that year he and Mr. P. L. Buell formed an association and started out together, visiting and lecturing in New Jersey, Pennsylvania, and perhaps Delaware. They separated after a few weeks and worked apart from each other, though within hailing distance. The next year, 1839, Mr. Gibbs and Mr. Sizer were associated, and they worked in New Jersey, Pennsylvania and Delaware—together part of the time but most of the time in different places not far apart. They published some charts in partnership under the name of "Gibbs & Sizer." For several years Mr. Gibbs lectured in New England and the Middle States, but having relationship in a mercantile business, usually lectured only during the autumn and winter. Later on he worked out of phrenology into real estate and bought Western lands and finally settled at Lyons, Iowa, where he now enjoys the fruits of his industry and business skill. There he occupies himself with his large library, and has sometimes written for the public press. He has been on the political stump advocating public reforms for the last thirty years, and so has kept himself alive to the interests of the country and to business. He is an attractive speaker, brim full of wit and humor; he tells a story well. He has practical judgment and an uncommon amount of financial push and business energy. There are few men who will get as much out of a given line of conditions in the way of push and prosperity as he will, and through his practical business capability he has made everything he has engaged in a success financially, and phrenology is no exception.

HENRY B. GIBBONS.

Henry B. Gibbons was born in Granville, Mass., about 1809, and had opportunities for attending public schools there. He was an intimate friend of Mr. P. L. Buell, having been born in the same town. Mr. Gibbons having read

phrenology carefully and studied it for years, resolved to enter upon its practice. He had a lame knee which made his leg crooked, and required a thick shoe to even it up. When he was a boy he had what was called a fever sore, and when he was about 65 years of age it broke out afresh, so that he died of blood poison. Henry B. Gibbons had a large head; with an enormous development of the perceptives; he remembered everything that touched him and was laden with interesting reminiscences. Everything that he had heard or had read that would bear upon the subject he was discussing was used to contribute to its interest. In the latter part of 1841 he tried lecturing and succeeded. In 1843 he traveled with Prof. Sizer for some months and took lessons in practical phrenology and started out separately in the month of July, 1843, commencing at Bridgehampton, Long Island, and

was one of the most faithful and persistent of phrenological lecturers. When he got hold of an interesting subject he would spend an hour and a half or two hours in the verbal description; with a kind of magnetic enthusiasm he would hold the interest of his customer to the end. He traveled through New England and New York; he was an excellent examiner, a good lecturer, and was as serious in his work as any man could possibly be. He married in Delhi, N. Y., and continued to travel in phrenology for about fifteen years. He finally adopted photography as a collateral line of business, and settled in Herkimer county where he died about 1875. If the world had a few thousand men as intelligent in phrenology, as faithful and accurate in delineation as Henry B. Gibbons was, it would be a mental and moral force that would command respect and richly serve the world.

THIRTY MINUTES WITH A CHILD.

UNDER this heading a writer in the *Boston Journal of Education* describes an experience with a "young one" as follows:—

"While at church recently there sat in the same pew with me a child three and a half years old. In body and mind she is quite equal to the average child a year older. Wrapped in a gray cloak heavily trimmed with white fur, wearing head dress and muff of the same material, her hair falling in flaxen ringlets over her shoulders, animated with restless activity, she strongly suggested a huge snowflake in whose interior was concealed a perpetual motion in active operation. She was not in the pew three minutes before she stood up and 'spied the land.' In the book-rack were missionary sheets, lesson leaves, and envelopes for contributions. She carefully folded the printed matter, laying edge on edge and, creasing with scrupulous nicety, enclosed them in envelopes and sealed them. One envelope was left. The filled ones were set aside by themselves

"The muff next engaged her attention. She stroked it, lifted it, swung it, then hung it by the cord to the covering of the book-rack. It did not hang horizontally, and she worked until she had the cord fastened over two projections and the outline became symmetrical. Next, her grandmother's muff was compared with her own. This too was finally suspended, but it had no cord and only one tassel could be fastened, and the result did not please her. While further handling, she discovered a kerchief in the elder's muff. Promptly she made a letter out of it and enclosed it in the remaining envelope. Then she examined the seal of all her letters, then re-balanced the muffs, then looked for more toys and coveted some treasures near by, but her chaperon restrained her from laying hands on neighbors' property."

On the basis of these data he makes the following inferences:

"1. Children are by nature active. This inherent activity brings them in contact with the external world, and gives them a certain training which Spencer says nature considered too pre-

cious to intrust to any bungling teacher, and kept it in her own charge.

"2. One object, however charming, cannot hold the attention of children long. The young lady in question changed employment after eight minutes, then after seven, then after shorter intervals.

"3. The sermon was a vigorous appeal to sinners to set their houses in order, but it never reached the child. Instruction must be adapted to the capacity of the pupil.

"4. A long list of mental processes was called into play; sensation, perception, memory, imagination, reasoning, symmetry, or sense of proportion, etc. It is wrong to keep children at stick-laying or on other kindergarten diet, when they naturally use reason and other higher functions of mind.

"5. For an hour of enjoyment, children should take their grandmas to church, where the latter must refrain from constantly checking childish activity."

These conclusions are drawn readily enough, as the conduct of the girl manifested them in the clearest manner. But there is one original element in her organization that should have impressed the observer to the extent of its mention, for the child exhibited it certainly in a very striking way. We refer to the faculty of order. Everything detailed above has relation to that faculty. Her order and central perceptive elements were associated in activity to a very uncommon degree in one so young, forming a subject of study that deserves to be kept in view as she grows up.

•••••
"YES MA'AM!!"

IN "commanding, exhorting, or entreating," as the grammar book says, the tone of the voice is far more important than the words used. Children are especially susceptible to moods, as evidenced in the voice, a fact of which parents are too ignorant, or which they carelessly do not take into account.

An incident in the life of a *real* little boy and his real mother, will very clearly illustrate this point. The parents had five children—three boys and two girls—and as they were very close in age, any mother may imagine the trying times that arose among this exceedingly lively young brood. The father was a mild, quiet spoken man, who was devoted to the little ones. The mother, equally devoted, but sharp and crisp in her method of commanding when she proposed to have instant obedience. Among the little ones was a specially mischievous young monkey of a boy about four years of age, who feared nothing—or if anything ever did frighten him, he was specially careful not to show it. There was nothing braggadocia about him—he simply went his own way quietly, and rejoiced in the success of many a comical prank. One day his mother called him to take his nap, but Harry was nowhere to be found. At last he was discovered under the bed. "Harry," said his mother decidedly, "come out from under that bed." Not a stir on the part of my young gentleman. "Harry" (more decidedly), "come out from under that bed!" Harry crawled slowly forth, and then began talking to himself, being careful that his mother heard what he said. "That's always the way," he said slowly and meditatively. "If my *papa* speaks to me he says, 'Harry, my dear, come out from under that bed;' but when my *mamma* speaks, it's 'Yes Ma'am!!' I wonder why that is?" The soft, cooing voice which he assumed to represent his father, and the sharpness for his mother's tones, were inimitable. He could think of no shorter, quicker words to represent her manner than "Yes Ma'am!" which he gave to perfection.

There was a sermon in that small youth's soliloquy, which carried some weight with it, though the mother was considerably amused, feeling assured as she did, of the thoroughly good comrade-

ship which existed between herself and her little flock, spite of the tone. Many another mother, however, with less

geniality and fun in her disposition, would have driven her little ones away from her by her "Yes Ma'am!"

ROBERT H. MILLER,

PREACHER AND DEBATER.

ELDER ROBERT H. MILLER was born in Kentucky, June 7, 1825. At the age of eleven he was taken to Indiana, where, struggling with poverty, and faithfully using his few school privileges, he soon became an active teacher, then a lawyer and political speaker of great promise.

At the age of twenty-five, Elder Miller married Miss Sarah Harshbarger, a woman of strong faith and deep piety, who became the means of his conversion.

Uniting with the German Baptist Brethren, or Tunker Church, he abandoned law and politics. He was soon chosen to the ministry, and at once was a skillful preacher. Advancing rapidly, he reached the full ministry of his Church—the Eldership—and stood abreast with the leading men of his fraternity.

The *Gospel Messenger*, a German Baptist paper of wide circulation, contains the following:

"As a preacher he possessed rare gifts, and has for years been regarded as the ablest doctrinal preacher in the brotherhood. He had not only a clear understanding of the Scriptures, but had the ability to make it clear to others. When preaching, he never lost sight of his subject. He never wandered. He always had clear, well-defined points before him, and bent all his energies to get them well-fixed in the minds of his hearers. Few men put more work on their sermons.

"It was, perhaps, as a debater that Brother Miller showed his greatest ability. He probably held no less than twelve public discussions, some of them lasting as long as eight

days. As a debater, he was always cool and always ready. He was never known to become excited or to flinch. He always entered these discussions well prepared, made but few points, and they were his very best, and he defended them to the last. As a defender of the faith, he was as bold as a lion, and yet as gentle as a lamb. He happily combined the elements of strength, firmness and goodness. As a debater, he probably never had an equal among us.

"Brother Miller was also a good writer, and has left productions that will always be prized by our people. His book, entitled 'The Doctrine of the Brethren Defended,' will always remain a standard work among us. As a defense of some of our doctrine, it is not excelled by any work written by any of our brethren. He also occupied a position on the editorial staff of the *Brethren at Work*. At the time of his death he was a member of the advisory committee of the *Messenger*. While Brother Miller was a good writer, he was never in love with the pen. He rather dreaded to write, and that is probably why he has not written more for publication. Yet his writings were always sought after. He preferred to talk rather than to write."

While at Mt. Morris College, Ill., delivering a course of theological lectures, he was taken sick, and died March 8, 1892.

A strong believer in primitive Christianity, accepting the New Testament as the only rule of faith and practice, preaching baptism by triune immersion, feet washing a Church ordinance, the Lord's Supper a full meal aside from the Eucharist, plainness of dress, the

kiss of charity, anointing the sick with oil, etc. Preaching these doctrines in a positive and powerful manner, it is readily seen how the challenges for discussions came.

With his clear, logical and forcible style, his arguments were conclusive and convincing. In the national con-

blessed. He truly stands a typical representative of his Faith.

I. N. H. BEAHM.

The following remarks on the character of Elder Miller were based on a photograph from which the engraving is taken :

The photograph of this man indicates



ROBERT H. MILLER.

ferences of his Church, Elder Miller would remain quiet on discussions till the questions were well ventilated, then in his powerful speeches sweep the delegation. Very seldom did his view fail to prevail.

Elder Miller was a good and useful man, and will long, long be remembered as one of the ablest men with whom his fraternity has ever been

mental and physical activity with a combination of fineness of quality, endurance and force. In any field of endeavor he would have been, in his way, a master. Had he been a seaman, he would have wanted half a gale of wind to sail in; he would not have been satisfied with a ten-knot breeze. Had he been engaged in railroading, he would have wanted the lightning

express. Had he held the reins of the road, he would have wanted a brisk team and a clear path. His whole constitution glows with life, vim and vigor; and while he has force that belongs to the masculine nature, the mandatory enthusiasm that seeks to master whatever opposes and needs to be conformed or reformed, he has the sensitive instincts of the feminine which make him a sharp critic, a clear-cut thinker, and a man of wonderful power to make definite the thought he wishes to impress. We judge, therefore, that the front part of his head, the intellectual, the perceptive, and the intuitive elements were inherited from his mother. He thinks as she thought, he knows as she knew, he appreciates as she head that belongs to the masculine, the father. That gives him the earnest energy and the commanding spirit which wields an influence and moves powerfully wherever these things act.

He has large Cautiousness; the head is broad at the upper back corner, upward and backward from the ears, that enables him to sound the alarm. He would have been a good pioneer; a good leader of men as a soldier; and a natural herald of truth which he deemed important. He has large Conscientiousness that gives him a sense of righteousness, a feeling of justice and judgment. He is a natural John the Baptist, whose message was: "Prepare ye the way of the Lord, make His path straight. Repent, for the kingdom of heaven is at hand."

He has large Firmness, which gives him determination; and that is seen in every feature of his face—decision and earnestness. It is seen in the organ of Firmness in the centre of the back part of his top head. His Veneration gives him a sense of the Divine right, power and worth. His Benevolence renders him sympathetic toward those he wishes to serve. He has the enthusiasm which comes from Ideality and Sublimity, hence he would be

eloquent in a cause he adopted and believed. He has discrimination and criticism, knowledge of character, power to impress his thought upon others, partly because he is in magnetic touch with other people, and because he has an instinct to understand the character of those whom he meets.

Another of the traits shown in the portrait is Order. He is systematic, critical, in earnest, and honest; and all of these conditions are fortified by courage and fear, courage to meet opposition and fear for the danger he is trying to protect himself and others against. He has a good memory, what he knows is at his command. He has fluency of speech, but its peculiarity is rather the crispness and grip which his words have, in burning where he scathes and melting where his tenderness is brought to bear. He would tell a pathetic story so as to bring tears to every eye. He would scathe rampant unrighteousness in a way to make sinners tremble. If he were prosecuting attorney in a civil court he would make a man feel what a monster of wickedness he was, as Warren Hastings said he did when Burke was scathing him in his famous trial. Hastings said the only relief he had under the scathing was the consciousness that he had not violated his conscience. If this man were a prosecuting attorney, if a man were guilty, he would make him seem as guilty as he was; he would make him feel like confessing and throwing himself on the mercy of the court. There are some mental constitutions which, when exercised upon the outward life, produce a sedative effect, the diction is smooth, the thoughts lacking in pungency, and the effect is like the polishing process in mechanics. When a constitution like this is on fire the results are as specific as the path of the glazier's diamond that makes a mark on the glass to facilitate its separation. The diamond cuts in

one place and a jar brings the pane of glass apart.

His manner may at times have in it the flavor of severity because his mind is so clear and his conclusions so sharp, backed up and pushed with such earnestness that the guilty feel guilty when he reproves and the righteous rejoice when he commends. He would

have made his mark in any field of effort. He would have been a fine mechanic; a good artist; an excellent chemist; scholar; physician; a successful teacher; and yet in his easy hours he is able to say bright, generous and gentle things that awaken toward him affection and filial respect.

8.

MIND IN CHILDREN AND ANIMALS.

THE students of comparative psychology who note the early development of mental traits in children are prone to see resemblances between their action and that of animals. Prof. Jastrow makes some notes that appear in the *Popular Science Monthly*. He says:

"We have learned to expect mental similarity only in such animals as in their adult condition surpass at least in certain respects the capabilities of the human infant at birth. Within this range we find abundant points of community of various degrees of value and familiarity. The playfulness that is characteristic of children is no less so of kittens, nor is their imitativeness more typical than that from which the word 'to ape' has been derived. Curiosity, inventiveness, dislike of ridicule, love of being fondled, craving for attention, with the resulting jealousy and anger when such attention is refused, are types of more complex emotions common to intelligent animals and children. Indeed, the terms of familiarity so often found and so easily established between children and their pets can not but be based, in part at least, upon a deep sympathy and community of emotional life. On the intellectual side correspondences are no less frequent and significant, but are difficult to describe and analyze. M. Perez, a discerning student of children, has carefully recorded the life histories and early trials of two pet kittens, and found constant occasion to draw an-

alogies between the kittens and the infants. Both show at parallel stages of development the appearance of the same faculties, often in strikingly similar forms. Just as infants learn to distinguish between men and women, between persons differently dressed, between old and young, kindred and stranger, so an intelligent dog learns to distinguish between visitors and beggars, between strangers and friends of the family, between those who will fondle him and those who will not."

"PATCH WORK."—This is the title of a game that young people and old too, can find not a little sport in playing. It is described in *Harper's Young People*:

Have ready before beginning to play, some slips of paper one and one-half inches long by five or six inches wide. The number prepared must depend, of course, on the number of players.

When all are ready to begin, each one of the company is provided with a slip of paper. They are then told to write upon each slip a sentence describing an action. The sentences, however, must be without *grammatical* subjects.

To make this plain, I will give a few specimen sentences:

— climbed up the side of the house with a ladder.

— sat down in the middle of the road and sang a song.

— went to bed with shoes and stockings on.

— wore a bright red dress and a yellow hat.

— could not eat because his teeth were all gone.

When the players have written the required sentences, they are told to fold each paper carefully, so that the sentence will be on the inside. It is better to fold it twice. The slips are then collected in a box, basket, or hat, and shaken up thoroughly. The receptacle is then passed around, and each player takes out a slip. Without unfolding it, he writes on the outside a noun, accompanying it with "a," "an," or "the,"

as he sees fit. Proper names may not be used.

After this second writing, the slips are again collected, thoroughly mixed as before, and again passed around. As each player draws a slip, he looks at the noun that has fallen to his share, then unfolds the paper, and connects the two parts of the sentence either mentally or by writing the noun and its article in the proper place. When all are ready, each player in his turn reads the completed sentence. The result of this "patch-work" will often be exceedingly funny.



SENSIBLE TREATMENT OF THE SICK.

WHILE it is claimed by some that the proper use of food, seeking the aid of nature's forces, putting the system in the best possible condition, with perfect obedience to the laws of our being, will constitute all of the medical treatment required, others may suggest still further aids. If medicines are to be used, as a necessary factor in treating the invalid, what shall be taken? Observation, experience, and science have proved that the treatment in the dark past was anything but scientific, the fashions in medical treatment changing about as readily as those in dressmaking and millinery. The theory that disease is an internal monster, an enemy of the body, instead of a friend—as the efforts of nature, in the attempt to remove the real causes of the derangement, ordinarily regarded as the real disease, instead of representing an internal con-

dition—and that such a monster must be destroyed by virulent poisons, has passed away—at least, in the estimation of the most advanced in science. "The advanced thought" is, that disease is but the absence of ease, or health, sustaining about the same relations to health, the natural state of the system, that fatigue does to rest, or the natural condition. It is believed that, if disease is caused by violations of organic laws, producing an abnormal state, a return to obedience will constitute an important means of removing disease. It is also believed that such foods as will afford the most vital energy, the most real strength, must ever be important means in combating disease, or of removing the internal causes. If medicines are taken, are regarded as absolutely necessary, what shall be their nature, and what is it supposed that

they will accomplish, and in what way? Shall they be simple, well calculated to co-operate with nature in her constant efforts to effect a cure, or shall they antagonize with nature's efforts? What can be claimed as the special mission of a violent poison, such as would prove harmful to the human system in health? If disease is an internal monster which ought to be destroyed, it may be proper to use the same poisons as are employed by those who wish to commit suicide.

I boldly take the position that no decided poison should ever be taken into the system as a remedial agent, though it may be judicious to take a poison-acid to neutralize a poison-alkali, chemically—such as would inevitably prove harmful in health.

I am equally certain that when one is in health, the vital powers in their natural condition, strong and energetic, there is a strong probability that most if not all of the harmful effects of poisonous agents may be counteracted. Then we may suppose that nature will rally her forces, throw off the poison by vomiting, or by some of the other means of elimination, befriending the victim. Indeed, this is what is called stimulation as when alcohol or any other deadly poison comes in contact with an organ, muscle, surface or fiber of the body, these, as if endowed with intelligence, rebelling, hurry the poison on from place to place, and eject it at the earliest possible moment. It is plain that such vigorous efforts, the whole system being aroused to its highest state of excitement and activity, must be followed by debility—a real loss of force. If this is true, the sick and enfeebled can ill afford to employ such supposed remedies, since *they* have no vitality to spare. While, therefore, it is unscientific to administer any drug that produces commotion and derangement of the body, it is claimed that there are certain foods which are medicinal, in the true sense, which may be given with advantage, while certain acids, natural

or otherwise, certain bitters, none of which are regarded as poison, may prove useful in sickness, yet all of which should be taken with intelligence and great caution. While the simplest essences, golden seal, or a preparation of the aperient fig, and the like, may be regarded as harmless, the oils from which simple essences are made, however, are acknowledged as poisons, and as such unfit for the human stomach. Simple foods and simple medicines are the safest, avoiding all real poisons.

J. H. HANAFORD, M. D.

ACETANALIDE ET AL.—The multitude of "remedies" that chemists have found in coal tar is marvelously great, and every day seems to add to their number. Take the derivative above named that is employed so much in treating fevers, and better known perhaps as Antifebrin. We can easily believe that the *Pharmaceutische Zeitung* states truly that a large number of antipyretics introduced during the last two or three years are more or less disguised forms of antifebrin. Thus "antikamnia" contains from 70 to 85 per cent. of antifebrin, with 15 to 20 per cent. of bicarbonate of soda and traces of tartaric acid and caffeine; "antinervin" is composed of antifebrin 50 per cent., salicylic acid 25 per cent., bromide of ammonium 25 per cent.; "exodyne," of antifebrin 90 per cent., bicarbonate of soda 5 per cent., salicylate of soda 5 per cent.; "phenolid," of antifebrin 50 per cent., bicarbonate of soda 50 per cent.; and "antikol," of antifebrin 75 per cent., bicarbonate of soda 17½ per cent., tartaric acid 7½ per cent. And these are but a small percentage of those that might be named. We are inclined to think that amid the confusion of the "new remedies" with their sesquipedal spelling, complex nature, and varying effects, it were better if physicians felt the necessity to employ drugs, to rely upon the old and better understood preparations, especially in treating seri-

ous diseases and emergencies. Our friends of the Eclectic school incline to that view of the case, and are doubtful of the efficacy of the so-called "anti" compounds. D.

THERAPEUTIC USES OF THE RECTAL INJECTION.—(CONCLUSION.)

The prevalence of cholera in Europe at this moment of writing, and its menace to the health of America, through the many channels of communication that the mercantile facilities of our era seem to furnish, suggests a word regarding the use of water in the treatment of the dreaded malady. An inquiry in this line, also warrants at least a brief consideration of the subject.

That the best skill of the physician on the side of drugs has been employed for generations in the vain attempt to discover a remedy for the Asiatic plague goes almost with saying. The man who pins his faith to his case of tinctures, or extracts, or tablets, can only hope to alleviate the suffering of the cholera victim; a cure is only among the possibilities. "There is no disease for which such a variety of remedies has been proposed, or in which all remedies so completely fail as the epidemic cholera."

A recent note on the treatment of this disease by a professor connected with the Long Island College Hospital suggests a line of procedure that differs little from what was much in vogue fifty years ago. A reference to the old Edinburgh authority, Mackintosh, who made a careful study of the disease, will show this. But water-cure, as far as it has been tried, has obtained better results than astringents, opiates, embrocations, demulcents, emetics, stimulants, rubifacients, sinapisms, etc., etc. Dr. Shew reports in his "Family Physician" that during the epidemic of 1849 in New York City, he treated about fifty cases with very trifling loss of life. He says, "It is of the greatest importance that the treatment be commenced

at the very beginning of the attack," a remark that the rapidity of the development of cholera certainly warrants. His method was a modification of that employed by Priessnitz in 1831, preferring however, to give the thirsty patient tepid or warm water rather than cold. So, too, he administered warm injections. Externally water was applied by the dripping sheet, a brisk hand rubbing upon its surface contributing to the effect of relieving spasm and keeping down excessive heat.

In *Der Naturarzt*, of Berlin, of September 1890, a parish clergyman, Pastor Wisliceny, of Holzdorf, Germany, relates an experience with cholera in 1860, which I published not long ago, but which will bear repetition because of its value in supplementing what has just been said.

The good man declares: "I had read J. H. Rausse's book, 'Wasser thut's freilich,' [water certainly does it] which is written with great experience, spirit and acuteness, and in accordance with it had already made trials of water-cure on myself. The mortality in the town became so great that I could not remain quiet. I went into many houses, and advised the use of water against the disease, and the entire disuse of medicine, as this could only operate injuriously, while water, on the contrary, brings great refreshment and separation of the products of the disease, in view of the fearful heat, and the terrible griping of the digestive apparatus. Thus I saved hundreds of persons—children and grown-up, given up and not given up by the medicine doctor. Most of them I permitted to drink water only, and they were restored in a wonderful way. Many I put in packs wrung out of pleasantly warm or tepid water, and so caused them to sweat sufficiently. In this way thirst was awakened, and fresh water, drank freely, brought again into activity the functions of the alimentary canal, whereby soon relief and restoration were obtained."

A clipping recently sent to me by a lady physician in the far Northwest, and which was taken from one of a series of personal sketches published in the *Weekly Ledger* of Tacoma, describes an experience of cholera by one of the pioneer settlers of that country. This settler, Mr. J. B. Knapp, and his family were crossing the plains with a wagon train in the Summer of 1852, when cholera invaded the little company of fortune seekers, and nearly every one taken down with it died in a short time. Mr. Knapp attributes his deliverance to a knowledge of hygienic treatment obtained through reading the old *Water-Cure Journal and Library*, and practicing its methods in his early married life. After detailing the first symptoms of his attack, he says:

"The doctors gave me up—said it was a genuine case of Asiatic cholera; that I could not live an hour, and if I had anything important to say or do, I should lose no time. I then said, as the doctors had given me up, I would prescribe for myself. I said to my wife: 'Get out one of those heavy linen sheets, have one of the men dip it in the stream, strip me entirely naked, and roll me up in the dripping sheet.' The doctors were horrified. They protested and said: 'Mrs. Knapp, he won't live a minute; it will kill him before he is fairly rolled up in it.'

"I said, 'Give it to me,' and wife said I should have my wish. Before the sheet was ready, the cramps were in my thighs. I cannot describe them any more than to say it is a fearful sensation. The sheet came as wet as water could make it, and I was soon entirely enveloped from head to foot. The sensation was instantaneous and the most delightful I ever experienced. Such instant relief! Not another cramp. The vomiting and purging continued. I called for water and the doctor objected. My wife said I should have all the water I wanted. I took a swallow of water often, and as often threw it up, but each time it gave

some relief. After about an hour the vomiting and purging began to abate, and I could retain the water a little better. * * * A gradual abatement of the symptoms continued, so that at the end of about six hours they were all gone, but left me as weak and helpless as an infant. * * *

"For the first three days I took nothing into my stomach but water, which I drank eagerly. After the first day my wife asked me often what she should fix for me to eat. After the second day she was really distressed because I did not eat, and said I must take some nourishment or I could not live. I replied that my appetite would come to me before there was any danger of starvation. At the end of the fourth day I took a spoonful of nourishment, sat upon a chair a few minutes, and next morning got on my horse and rode a mile, and the following day rode several hours, and after that was in the saddle most of the time."

The testimony may appear crude to the scientific therapist, but is none the less patent and convincing of the remedial virtue of the method Mr. Knapp wisely adopted.

As the disease affects the alimentary canal chiefly, a thorough cleansing of that to rid the body of the pathogenic germs of the pest, and their products can be secured in no easier manner than by the rectal douche. I am of opinion that warm water, which has been rendered antiseptic, given early enough, will suspend the development of the toxic germs, and so render the simple measures for the restoration of one who has been attacked more effective.

H. S. D.

YAWNING AS A REMEDY.

THIS reflex action of the jaw and throat muscles, usually considered a breach of good form if permitted to occur in company or in public, is pronounced by good German authority as a natural remedy in diseases affecting the throat and lungs. Dr. Naegeli it is

who discourses on the subject in the following persuasive manner:—

“In yawning, not only the muscles which move the lower jaw are used, but also the breathing muscles of the chest, and he who yawns to his heart’s content also raises and extends the arms. In the deepest inspiration the chest remains extended for a short time, the eyes are almost or entirely closed, the ears somewhat raised, the nostrils dilated. Inside the mouth, the tongue becomes round and arched, the palate stiffly stretched, and the uvula is raised, almost entirely closing the space between the nose and throat. At the beginning of the inspiration, a cracking noise is heard in the ears, a proof that the duct leading to the hearing also succumbs to this stretching.

“If the yawning has reached the deepest point, it will require from one to one and a half seconds for it to become noticeable to the hearing. In order to observe this, let one place himself at sufficient distance from a clock, so that its ticking will not be easily heard, and yawn deeply. During this deep breathing, the sound of the clock is not perceptible to the most careful

listening. All this simply goes to show that yawning sets a number of muscles to work, and particularly those which are not directly subject to the will.”

Thus it would appear that yawning acts like massage, and is a natural gymnastics of the throat tissues and lungs. Dr. Naegeli advises people not to concern themselves with so-called decency, but every morning and evening, and as often as possible, to exercise the lungs and all the muscles of respiration by yawning and stretching, as many chronic lung troubles may thus be prevented.

A patient troubled with too much wax in the ear, accompanied with pain, has but to yawn often and deeply, and the pain will soon disappear. In cases of nasal catarrh, inflammation of the palate, sore throat, and earache, the patient should as often as possible during each day yawn from six to ten times successively, and immediately afterward make the motions of swallowing. The result will be surprising. If one looks upon yawning as a natural message for certain organs, he will reach a satisfactory explanation of its curative properties.

NOTES IN ANTHROPOLOGY.

The Beginning of Art and Industry.—“When we catch the first glimpses of the beginnings of human art and industry, the furniture or stock in trade of Palæolithic man appears to have been as follows: He was acquainted with fire. This seems to be clearly established by the charred bones, charcoal and other traces of fire which are found in the oldest Palæolithic caves, and even in the far distant miocene period, if we can believe in the flints discovered by the Abbe Bourgeois, in the strata of Thenay, some of which appear to have been split by the action of fire. This is a remarkable fact, for a knowledge of the means of kindling fire is by no means a very simple or obvious attainment. Apes

and monkeys will sit before a fire and enjoy its warmth; but no monkey has yet developed intelligence enough even to put fresh sticks on to keep up the fire, much less to rekindle it when extinct. Primeval man must often have had experience of fire from natural causes, as from forests and prairies scorched by a tropical sun being set on fire by lightning or from volcanic eruptions; but how he learned from these to kindle fire for himself is not so obvious. Savage races, as a rule, do so by converting mechanical energy into heat, by the friction of a stick twirled round in a hole or rubbed backwards and forwards in a groove in another piece of wood; and there are old observances among civilized nations which

show that this was the mode practised by their ancestors, as when the sacred fire in the temple of Vesta was relighted in this manner by the old Romans, if it had chanced to be extinguished. It is probable, therefore, that this was the original mode of obtaining fire, but if so, it must have required a good deal of intelligence and observation, for the discovery is by no means an obvious one; nor is it easy to see any natural process that might suggest it. Neither ancient history nor the accounts of existing savage races throw much light on the question. The narratives of the discovery of fire contained in the oldest records are obviously mythical like the fable of Prometheus, which is itself a version of the older Vedic myth of the god Agini (whence the Latin ignis or fire), having been taken from a casket and given to the first man, Manon, by Pramantha, which in the old Vedic language means taking forcibly by means of friction. Of the same character are the mythical legends of savage races, of fire having been first brought by some wonderful bird or animal, and there is nowhere anything like an authentic tradition of the fact of its first introduction. There have been reports of savages who were unacquainted with fire, but they have never been well authenticated, and the nearest approach to such a state of things was probably furnished by the aborigines of Van Dieman's Land, of whom it is said, that in all their wanderings, they were particularly careful to bear in their hands the materials for kindling a fire, in the shape of a firebrand, which it was the duty of the women to carry and to keep carefully refreshed from time to time as it became dull. Traditions all point to fire having been first obtained from friction, and possibly the first may have been derived from the boughs of trees or silicious stalks of bamboo having been set on fire when rubbed together by the action of the wind. It is easier to see the origin of the remaining equipment of primitive man, viz., chipped stones, for flints splintered by frost or fire often taken naturally the forms of sharp-edged flakes and rude hatchets or hammers, and very little invention was required to improve these specimens or endeavor to imitate them by artificial chip-

pings. The rude form of the celt or *hache*, with a blunt butt and chipped roughly to a point, is found in the oldest river gravels and caves wherever they have been investigated. In the very oldest caves and river deposits the tool equipment of man seems to have been very much limited to these rude celts, used probably for smashing skulls in war and the chase, and splitting bones to get at the marrow; sharp-edged flakes for cutting; rude javelin heads; and stones chipped to a rounded edge, very like those used by the Esquimaux for scraping bones and skins."—*Modern Science*.

Racial Mental Peculiarities as Affecting Civilization.

In the *Popular Science Monthly* is the translation of an article by M. Gustav le Bon, in which he advances the principles "that the various elements, the aggregation of which constitutes a civilization—especially institutions, creeds and arts—are the expression of certain modes of thinking and feeling special to each race, and inevitably suffer transformation in passing from one race to another; that they rarely undergo a parallel development among different races." In evidence of this as regards religions the author reminds one that "the Buddhism of China is so different from the Buddhism of other countries that it is hardly recognizable as the same religion; and the Buddhism of India is different from that of Nepal, and that is far removed from the Buddhism of Ceylon." The same differences are noted in Brahmanism and Islamism, the worship though under the same name being changed according to the peoples professing it. The same rule that prevails with religions does also with institutions and languages. A striking illustration of the last is the development of the French, Spanish and Italian languages from the one root—Latin, each people changing it to suit their special mental moods and events. The author continues: "With some races, institutions—with others, literature, industry or art—prevail. One or several of these elements may remain at an inferior level in the midst of a brilliant civilization, or it may stand high in a low civilization. Of all the factors having an influence on the adoption and evolution

of the fundamental elements of a civilization, the most important is race. It holds a position much above that of political institutions, conquest or religious belief, which is powerful everywhere else. When the people of a much higher race is in contact with a people of a much lower race—as the whites with the negroes—the latter cannot immediately acquire anything useful from it. Two superior races confronting one another exert no action upon each other, when, in consequence of differences in mental structure, they have incompatible civilizations. This condition exists when a highly civilized people finds itself in contact with a people having a very ancient and very different civilization, as when modern Europeans are brought into contact with the Hindoos or the Chinese. When civilization possessing compatible elements, like those of the Mussulmans and the Hindoos, meet, they first overlay one another, and then fuse as to their compatible elements. The civilizing actions which some peoples can exercise upon others have been more profound the farther we go back in history, because the elements of civilization were less complicated in ancient times than now. The history of civilization is composed of slow adaptations of successive minute transformations. If they seem sudden and considerable to us, it is because, as in geology, we suppress the intermediate phases and regard only the extremes.”

The Tomb of Darius.—Messrs. C. Bahin and F. Houssay, of France, went to Persia to make antiquarian researches. One of the most interesting features of their work was a visit to the tomb of Darius, where they spent a number of days. The chief purpose they had in view was to ascend to the top of the tomb and photograph the inscriptions that have been translated, but had never been photographed. In the campaigns Alexander made against that ill-fated King, Darius brought from 300,000 to 1,000,000 men into the field. In comparison with these enormous forces, Alexander's army was very small, but the soldiers of the Persian monarch were vastly inferior and Darius was overtaken, during the flight of his army, and killed by a spear

thrust. When Alexander came up he covered the body with his mantle and afterward sent it to Persepolis to be buried in the tomb of the Persian kings. Darius indeed is one of the few famous ancients whose last resting place is known to this day. A little outside of the ruins of Persepolis is a chain of mountains which terminates precipitously with a solid face of rock. Out of the abrupt face of the mountain the tombs of the kings were hewn.

The first thing the French explorers did was to build a scaffold to enable them to climb to the top of the facade. Wood is very scarce in that part of Persia, and it was six days before they secured enough to build the scaffold. When they had completed the work about 1,000 Persians flocked to the tomb to see what the foreigners were doing. They told the Frenchmen that they were fools to attempt to study the tomb so curiously, and that they would pay with their lives for the sacrilege, and the crowd seemed to be much disappointed when their sinister predictions were not realized. The wooden structure, however, was very shaky, and one of the Frenchmen at the top dropped his watch, which was shattered on the rock below. The incident was accepted by the natives as a sign that something more sensational would happen.

The scaffold enabled the explorers to reach the top of the tomb, about eighty feet from the ground, and they succeeded in taking excellent photographs of the inscriptions. Like most Persian inscriptions found in southern Persia, they are in three languages. Some of the larger letters are visible from the ground, but the greater part of the inscriptions cannot be seen from below. The inscriptions tell the number of satrapies which were included in the empire of Darius, and sound his greatness and the praises of his royal line. It is believed that the dust of Darius has never been disturbed, and most of the figures cut in the stone are comparatively perfect, while some are almost obliterated.

The Buckra Ede Festival.—This celebration is one of the most important of the Mahometan year. The Buckra Ede or more correctly the Baor-i-id, the Cow Festival, is indetical with the Id ul-Azha, the

feast of sacrifice, which is held on the tenth day of Zul Hijja, and which forms the concluding scene of the Mecca pilgrimage. It is also known by several other Arabic names signifying the Great Feast. Although later commentators have identified this sacrifice with the one contemplated by Abraham in Jewish history, the origin seems to have been merely the recognition that the shedding of blood must be an essential feature of the remission of sin, and in the Mahometan rite either a cow or a sheep or a goat or a camel may be slaughtered, provided that it is without blemish. Jellaluddin Snyty is the first Mahometan commentator who declared that the festival was instituted in commemoration of Abraham's willingness to sacrifice his son Ishmael, the Isaac of the Bible. He states that when Ibrahim (the power of God be upon him!) founded Mahometanism, the Lord desired him to prepare a feast for him. Upon Ibrahim (the friend of God) requesting to know what he would have on the occasion, the Lord replied, "Offer up thy son Ismael." A more vulgar version is that Ibrahim, being a good man was called upon to make a sacrifice. He first made one of a camel, the next morning one of a horse, the next a goat, and so on for one hundred mornings. Still God said he must bring his best beloved object, when he brought his son Ishmael. At Mecca and in India, it follows the same lines. The sacrifice is performed as follows: The people assemble for prayer at the Idga as on the Id-ul-Fitz (i.e., the feast of breaking fast or the lesser festival which forms the penultimate stage of the Mecca pilgrimage). After prayers the people return to their houses. The head of the family then takes a sheep or a cow or a camel to the entrance of the house, and sacrifices it by cutting its throat, and repeating the words "In the name of the great God." The flesh of the animal is then divided, two-thirds of it being retained by the family and one-third going to the poor in the name of God. One of the most remarkable Hadis recognized by the world of Islam has special reference to this feast. It runs as follows: Man hath not done anything on the Id-ul-Azha more pleasing to God than spilling blood, for verily the animal sacrificed will come on the day of

resurrection with its horns, its hair, and its hoofs, and will make the scale of his (good) actions heavy. Verily its blood reacheth the acceptance of God before it falleth upon the ground, therefore be joyful in it." The Buckra Ede festival is celebrated throughout Mahometan India with not less fervor than by the devoted pilgrims to Mecca. A certain member of the audience or congregation have performed the pilgrimage themselves, and they set an example of religious fervor to those who have not been so fortunate. The Buckra Ede festival has an interest for Europeans in that it is the nearest resemblance in Mahometanism to the Christian doctrine of the Atonement, and bears a still more striking similitude to the sacrifices in the "Old Testament."—*From the Scientific American.*

What is Papyrus?—It is obvious enough that the word paper has something to do with it, but though the one was the writing material of the old world and the other of the new (historically speaking) the manufacture was widely different. It appears, indeed, from recent researches into the material used in the fifth century by the Christian people (Copts) in Egypt, that the actual manufacture of paper from rags was known and practiced, but this was because papyrus had grown scarce. Papyrus is a plant well known in the green houses of Europe and probably of America, with very tall stalks—perhaps, eight or ten feet high—and on the top of each a large tuft of fibre that looks like hair. It is a water plant and still survives in the marshes of the Anapus, near Syracuse, in Sicily. But in the marshes of the Delta, which were once its home, it is no longer to be found. These tall round stalks are not much more than an inch and a half in diameter, generally less, and are of a pithy substance, which admits of being sliced with a sharp knife into very thin layers, which are, nevertheless, tolerably tough. These layers, if allowed to dry, shrivel up and, from being white, turn yellow. The Egyptians laid a number of these thin shreds or layers close together, like the planks of a floor; they then covered them with a similar layer at right angles, and laid a heavy weight upon them. The moisture of the plant seems to be

viscous enough to make all the surfaces adhere closely without any foreign substance such as gum being used. So then when the double layer was thoroughly dried and pressed, it came out a smooth, fine-grained sheet admirably adapted for writing or even printing. It was made up in long rolls—yards long—and the writing was in columns side by side upon it. The reader kept unrolling toward the right and rolling up on his left, so as to get a new column before him, when he required it. All the world went to Egypt for this manufacture, as the charred rolls recovered from the ruins of Herculaneum under the lava of Vesuvius testify. It was the paper of the ancients. In Roman days Strabo tells us that the people of the Delta, who had the monopoly, prevented the spread of its cultivation, neglected it themselves presently, and so it ultimately gave way to parchment or sheepskin prepared for the purpose at Pergamus, of which name parchment is a corruption. In the climate of Egypt, and the ink on it is such that it even stands being steeped in water without being effaced. These rolls, upon which have been written priceless books as well as private accounts and records, had been preserved originally in two ways; (1) documents of importance were sealed up in earthen pots, which were the usual receptacles for valuables in a country with plenty of clay and little wood; (2) it was a habit to lay with the dead (especially in Coptic days) their favorite books. But quite apart from those orderly and safe ways of laying up valuable books, there is a very different source which has recently given curious results. When wood failed them for their coffins, they made up from scraps of old paper glued together a sort of frame for the dead, which followed the outline of the figure, and had a face and ornaments painted on the paper surface. This sort of coffin was as hard and durable as our papier mache. As the coffin makers used all kinds of waste papyrus for this purpose, much of it was covered with writing, and after washing off the thick coat of white limy mud, which was painted in various colors, you may find endless scraps of household accounts, private letters, rough entries, and here and there an official document, a will, a proclamation,

perhaps even a bit of a book of Euripides or Plato. Constantly we find both sides of the papyrus used, as the people seem to have employed every scrap for their accounts, which were endless and minute. The private letters are written in very large clear writing, which seems to have been a matter of courtesy with the people. In this respect, too, they are exceedingly polite: the kindest inquiries of sons after their fathers, of friends after friends; their details about farming and merchandise. They made their wills too, "being of sound mind and good understanding," and left their property to wife, son, daughter or even stranger, apparently without restraint. "These suggestions give some hint of the interesting knowledge to be gained from the old papyri as to the customs and manners of life and thought of those ancient peoples." — *Chautauquan*.

Burmese Traits.—HENRY CHARLES MOORE says: The frequent reports of fighting in Burmah might lead people at a distance to suppose that the Burmese are a very bloodthirsty race; they are also supposed by some to be half-naked savages, with but little intelligence. A greater mistake was never made, for, except in some parts of Upper Burmah, they are a merry and contented people, fond of gay clothes, and extremely unwilling to take the life of man or beast, an unwillingness sometimes carried to the absurd length of sparing a mad dog or a snake which has bitten their children.

Like many other estimable people, the Burmese have a very good opinion of themselves, but their independent spirit, coupled with their unbusinesslike habits, is likely, before long, to prove disastrous to them. Devoid of enterprise, and disliking exertion, they have allowed many golden opportunities to escape them, and the trade which should have been theirs, is now in the hands of Europeans, Americans, Chinamen, and Mohammedans. As clerks, or, indeed, in any commercial position, they are almost worthless, for they have a profound disregard for regulations and, at the slightest rebuke, haughtily resign. Their superstitions are very trying to European masters. One of them is that during sleep the spirit leaves the body, and flits about at will, and

that if the sleeper be suddenly awakened he will surely die, for the butterfly-spirit would be absent. The idea is certainly a very pretty one, but it is a worry to have a servant who will, on no account, wake you. You may argue with him, you may threaten him with dismissal, but you will never induce him to disturb your slumber. When he has earned a little money he immediately proceeds to spend it, for the Burmese have no ambition to be rich and never hoard; consequently there is no aristocracy, no large land-owners, and the people are as nearly as possible on an equality. With theatrical performances and dances at night-time, and boxing-matches, cock-fights, boat, pony, and foot-races during the day, the Burmese manage thoroughly to enjoy

life, and the greatest misfortune can not damp their spirits for any length of time. Their dress is most attractive, both men and women being very partial to bright colors. The women do up their black hair in a tight chignon, and adorn it with a pink, white, or yellow flower. Their skirts are always of some bright color and sometimes daintily flowered; their peculiarities of gait and movement give them a very coquettish appearance. They enjoy as perfect freedom, perhaps, as any women in the world. The *Phoongyees*, or monks, invariably carry a large fan to screen their eyes when passing a woman, lest they should be tempted to admire her and thus destroy the serenity of their souls.—*Fortnightly Review*.



NEW YORK,
March, 1893.

SYSTEMATIC MORAL EDUCATION.

TWELFTH PAPER.

THE moral nature *per se* is a distinct part of the mental constitution, and in the graduated evolution of the human being it comes into play as an active factor of conduct among the later elements. Observation of child growth on both the physical and psychological sides has demonstrated this. Especially is it notable that the development of the child brain in its normal course is progressive. First, those functional centres that relate to physical nutrition are active; next, those instincts that relate to its safety, the faculty of cautiousness

especially being marked for its early exhibition. Lord Kames, in a philosophical treatise published early in this century, speaks of fear as the first sentiment shown by the infant, causing it to shrink from strangers and to take refuge in its nurse's arms. Soon the percipient factors of intellect indicate their life by the child beginning to "take notice" of its surroundings, and to associate them with the instincts already well established.

We have but to consider the form of the infant head to note its correspondence with the mental state. The mass of the brain is in the occipital and basal parts, the frontal lobes are in the minority decidedly, and what there is of intellectual promise appears to be limited to the marginal area in which the physico-perceptive centres lie. As the perceptive faculties increase in development the growth of the brain in the middle parts is also marked, and the tendency of its increase is upward. Those selfish elements that contribute to "force of

character,"—viz.: the combative, executive, acquisitive, and later the approbative, imitative and insistent — are associated with the perceptive impressions and qualify their expression. The peculiar character of inherited faculty illustrates itself in the varying influence of these elements, and it becomes the duty of parent and teacher to note their strength and bearing. For it matters not what may be the expectation of the child's moral evolution, as predicated of the parental character, if the selfish instincts or propensities are strong there is great need of his discreet guidance lest by their over-activity they become masterful in the immature mind and seriously check the activity of the moral sentiments.

We may suppose that the Herbartian assumption, that the child has no original or inborn faculties of morality, is due to their late evolution in the mental growth. But if it were granted that Herbart's theory of the acquired nature of moral character were correct, and youthful impulses to mischief and destruction are natural, then the dependence of moral qualities upon discipline and instruction is no more marked than the certainty of these factors of education to produce the desired ethical result. If it is the culture of the will that supplements all that is orderly, decent and ennobling in conduct, then the guardians of a child are responsible for the environment and training that enter into will culture. The Herbartian consistently imposes upon parent and teacher the necessity of such government and instruction as shall build up a fabric of substantial moral character. Will-culture in the German psycholo-

gist's scheme is about synonymous with character training, and the primary object of training (*zucht*) is, or should be, the establishment of definite and certain habits of life that fitly accord with received principles of truth and right.

Asking the reader's pardon for this short variation from the line of our study, although it is seen to have its pertinency on the heredity side of character at least, let us proceed to consider those other elemental faculties that are distinctively moral in their range of influence.

Approbativeness, or the love of the good opinion of others, is a faculty that children exhibit early; girls, somewhat in advance of boys, are affected by the praise or blame of their elders and companions, and so seek to please them. The little miss, in her innocence of tact or cunning, will paint and adorn herself as best she can to invite attention and compliment, and perform many little services for her friends that they may express a good opinion of her. So, too, the little boy will wait on his elders and perform various offices, and feel highly rewarded by their notice and a kind word of obligation. Like the other faculties, approbativeness is possessed in different degrees of strength by different individuals, but it is exceedingly rare to find it deficient in any normal child. Nature appears to have designed it as a basic force in the moral constitution, and as such it is a powerful incentive toward exciting the nobler feelings and aspirations, as well as a stimulant to the intellectual faculties.

In those minds that possess it in a high

degree of activity, it may become a source of injury by inducing excesses of conduct for the sake specially of obtaining applause and distinction. Children who like to "show off" in dress, in recitations, in endeavor to outdo their associates at play, and strive to obtain open praise, are influenced by an overstrong degree of this feeling, and if their guardians foolishly minister to its exercise they are likely to fasten upon their character qualities of vanity, ambition and an inordinate love of conspicuity that in later life will be productive of much evil and unhappiness.

Dr. J. P. Brown well says that "the individual who happens to be the victim of this passion is a stranger to a true sense of mutual liberty. He can not countenance a rival. Should another outstrip him in the pursuit of fame his soul becomes the seat of envy, that most uncharitable of vices. He pines for that which he has not the capacity to accomplish, is the unhappy slave of desires which are forever flitting before his troubled imagination, but yet are as constantly eluding all his efforts to obtain their fulfilment."

What in its proper exercise is a most noble stimulant to the accomplishment of worthy ends, becomes by excess a pernicious and destructive element in the character, because it so interferes with and opposes self-mastery, which, as the key to true success, should be cultivated early in life. Because approbateness manifests itself in childhood, it is a comparatively easy task for the guardian to instruct his charge with regard to its nature. He has but to point to the child's own associates and explain how the feeling produces their

little airs and vanities; how their envies and strifes for place and praise depend upon it; and how habits and practices that his immature sense of propriety dislikes or condemns in them are fostered and established by it. Thus a clear understanding of the feeling, its nature and influence, may be impressed upon the young mind, and a tendency to its comparative study induced that will go far toward correcting errors and abuses that may exist in the child's exercise of the faculty.

The reader has observed that it is the practice of most parents to be amused by the exhibition of vanity and other expressions of the approbative function in children, and so encourage them by words and actions in what they may condemn severely in after time, when the quality has become a serious and almost uncontrollable influence.

By a careful analysis of the feeling and the adequate knowledge of its operation in mental processes that will be secured in this way only, a parent can appreciatively instruct children with regard to its nature, and provide them with a safeguard against its becoming habitually predominant in their personality.

The love of praise is a normal factor in life; its effect is best obtained in youth and early maturity. When supplying healthful and true motives for work and usefulness, it aids the individual to grow in wisdom and goodness. The youth who does not care for the good opinion of others is an abnormality. There is something wanting or deranged in his organization; he lacks what is at once an important restraint to wrong-doing, and a powerful motive

for doing well. It is right to encourage children to try to equal their associates at school or elsewhere in doing whatever is right and appropriate to their age, but at the same time they should be restrained from assuming special virtues and privileges over their fellows, and expecting to be praised or rewarded for whatever they may do. Approbativeness, rightly fostered, not only promotes the development of character in the true direction, imparting solid traits of manliness to the boy and womanliness to the girl, but it extends the field of their thinking and widens their usefulness. As one writer remarks, in speaking of the desire to excel, "If well directed it secures excellent results. Sometimes it leads to the discovery of unsuspected power, and often to the development of latent genius."

A child with a strong natural endowment of love of praise and a delicate, sensitive temperament requires very careful management; on the one hand, to avoid an excessive dependence upon encouragement or a too eager expectation of approval; and, on the other, to avoid depressing his spirit and will and depriving him of motives for earnest and persevering effort. This class of children, when on the frontier of youth, are too much censured and ridiculed by their elders—the very opposite course of the proper one in treating their condition. Scolding and jeers or any harsh discipline will not make a sensitive disposition strong and reliant, but is most likely to render it morbidly diffident and irresolute. A kind consideration for the weakness, coupled with intelligent direction of the conduct in circum-

stances that are trying to the boy or girl, should be the order of training. As intimated already, it should be a part of the teaching to instruct the child about himself; for it is as true of mental ailments as it is of physical, that "a knowledge of the disease is half its cure." The over-sensitive youth who learns the cause of his suffering is commonly glad to accept and put into use wise advice for its avoidance.

A little later in point of time the faculty of conscientiousness, or the sense of right, begins to unfold, and then the activity of approbativeness becomes so closely associated that a clear understanding of the child nature involves an analysis of the relations of the two faculties.

THE LATE MINNESOTA "MIRACLE."

THE treatment of the window "miracle" at Canton, Minn., by Archbishop Ireland deserves notice, so different was it from the course usually pursued hitherto by the clergy in regard to such inventions. It will be remembered that a "miraculous" appearance, representing an image of the Virgin and Child, in a window of the Roman Catholic Church at Canton, was given wide currency, and many people, especially those sick and decrepit, were making pilgrimages to the place in the hope of cure, when the archbishop interfered. With the practical judgment that characterizes him he gave orders that the matter should be investigated by a scientific expert whom he appointed. When the result of the investigation was made known to the archbishop a few days ago, he took the action in the case which is required by the laws of the Church,

and hereafter the "miracle window" will not be seen.

The expert found that a fraud had been perpetrated by a photographer of the place, who had subjected the pane of glass to a kind of treatment under which, by means of certain apparatus, the images were made to appear upon it. The expert also found that, though many infirm pilgrims had been drawn to the place by reports that miraculous cures were performed there, not one of them had been relieved of his infirmity. He furthermore ascertained that a number of conscienceless men in Canton were allied with the photographer, and had mercenary reasons for trying to keep up the delusion. The priest of the church was blamed by some of the pilgrims for his lack of faith in the power of the miraculous apparitions; but he had to confess that he was unable to account for them. As a contemporary says, Archbishop Ireland has rendered a service to the priest, the pilgrims, and the cause of religion by making the investigation through which this shameful fraud has been brought to light. The perpetrator of this outrage on credulity should be punished in some way, for the matter is too serious to be passed over as a mere joke.

HOW SOME BRAINS ARE INJURED.

The suggestion is applicable enough to the practice so common with blue-coated defenders of the public peace, that a law or ordinance should be generally established prohibiting blows upon the head.

The policeman knows that the quickest way to quiet a man who may resist his authority is to club him on the head—one well delivered blow being sufficient;—but the average policeman

does not realize the possible after-results of such a blow. Men have been killed by this treatment, more injured so that their usefulness in the world has been impaired, while some have been made insane for life.

Scarcely a moment's consideration is required by one who knows the relation of the brain to mind and muscle, to perceive the grave importance of this matter; and we wonder that there has not been an earnest protest, long before this, publicly made on the part of physicians, to the policeman's habit. In our opinion it was better to do away with the club altogether than to permit it to be used on the head. We have little doubt that if the facts were procurable a startling list of unfortunates in the asylum and the prison could be prepared, whose insanity or felonious crimes were due largely or entirely to blows on the head by the authorized weapon of a policeman.

"HER FAITH IN PHRENOLOGY UNBOUNDED"—Under this heading the *New York Tribune* of February 14 has the following item:

"Fowler Bros., the well-known dealers in pork, yesterday received the following letter from a young woman in Big Spring, Tenn., who evidently thought she was writing to Fowler & Wells, the phrenologists:

"Sirs: Hearing that you are great phrenologists, and believing the same, inclosed find a lock of a young man's hair whom I am thinking of marrying. Please analyze the same, and send me a general outline of the young man's life."

There are many people in this country and in Europe who entertain a like confidence in the capability of the phrenologist to advise them with regard to any emergency—and in a sense their confidence is not without good warrant. However, we do not claim that scientific phrenology is at present equal to meeting just such a demand as the zealous Big Spring girl made upon the pork dealers, but we do know that

it finds not a few indicia of character in the hair. The experienced dealer in pork may claim to be able to interpret the significance of the twist in a pig's tail, but we are not expert in that department of caudal physiognomy, and are content to leave it pretty much to

the direction of the operator in things porcine. We think, further, that the Big Spring maiden's desire to learn something of the real character of the aspirant for her hand before deciding her course of action is laudable and shows good sense.

Our Mentorial Bureau.

To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

TALENTS FOR STENOGRAPHY AND TYPE-WRITING—A. B.—The mental temperament is the first element needed, especially that phase of it that is accompanied by dark hair. This will insure taste for the intellectual nature of the work, with the necessary activity, yet without the restlessness characteristic of the light-haired, thin-skinned constitution known as the "nervous" temperament.

The larger the percepts as a group, the better, but Individuality, Form, Locality, and Weight are most important. The first of these gives a ready recognition of each specific character, letter or other detail, while the others confer dexterity in the mechanical part of the work. Language is also of advantage, but not essential.

WHAT IS IMAGINATION?—QUESTION.—I have debated this with myself for some time. Imagination is defined to be the

"making of images in the mind," therefore it must be the same as conception. Now, it is commonly asserted by phrenologists that imagination has to do with Ideality and Spirituality; and when a person has imagination, and is deficient in one of these faculties, it is complaisantly shifted upon the other. If imagination or conception is the "making of images in the mind," it is nothing more than *construction*, is it? And the construction may be ideal or commonplace, just as you will. I know that it may be said that imagination is a general attribute like memory, but it will not do to mix terms. Either Constructiveness is the source of imagination, or construction and imagination are different, and their difference should be made manifest. Will you help me out of this hole (if you will pardon this classicism for once)?

E. G. B.

ANSWER.—The word "imagination," like many others, is used in different senses, as will be seen by reference to the dictionaries. When employed by phrenologists and others the interpretation to be put upon it must be determined by the context. If E. G. B. has a definite meaning which he wishes to convey in speaking of the function of constructiveness, ideality, spirituality or other organ in a given individual, he will, if he cannot find terms expressive of just that special meaning, have to make use of other terms which are employed in different senses, and trust to the judgment of his listener to put the interpretation upon them which he would have him do.

Probably it would not be possible, even if it were desirable, to restrict the meaning of the word "imagination" to the function of some one phrenological organ or, per-

haps, group of organs. Would it not be better to search for a term already in use and more expressive of one's meaning, or else coin one to fit the place, than try to change the common usage of "imagination?"

As long as mind is not perfectly known in detail as to organs, function of separate organs and combination of organs; as long as the speaker can think faster than he can express his thoughts in words and the listener to interpret his mind expressed in general terms as well as or better than when expressed verbosely; as long as our brains are liable to become weary and produce cloudy mentality, which can but be expressed in a cloudy manner; as long as men love the mysterious, the obscure, the unknown, the misty outline of the real or imaginary; as long as language remains the creature of a creator, and, like all arts, falls short of the parents' ideal, just so long will terms capable of a poly-interpretation continue to be used and to be useful.

WISDOM.

"Thou must be true thyself
If thou the truth would teach."

CERTAINLY, seek for happiness; but remember that the land of delight is reached only by the path of duty.

No mean man has a right to wish he had never been born. Let other people do that for him.

To discover truth is the best happiness of an individual; to communicate it, the greatest blessing he can bestow upon society.—*Townsend.*

DOING is the great thing, for if, resolutely people do what is right, in time they come to like doing it.—*Ruskin.*

THE intellectual man requires a fine bait; the sots are easily amused. But everybody is drugged with his own frenzy, and the pageant marches at all hours, with music and banner and badge.—*Emerson.*

DR. STALKER says that one of the chief powers of temptation is the power to surprise. "It comes when you are not looking for it; it comes from the person and from the quarter you least suspect."

MIRTH.

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

An exchange advises: "A folded newspaper placed under the coat in the small of the back is said to be a sure preventive of pneumonia." This magazine is about the right size for the purpose and already folded. Now is the time to subscribe.

"How many hours a day do you work?" asked one of the relatives of a government clerk. "Houahs!" the young man echoed in dismay. "Gweat heavens, man, do you think I dwive a stweet car?"

"If we should become financially embarrassed," said George, "do you think your father would help me out?" "Yes, George. He said he was going to the next time you showed your face in our house."

Two Brooklyn men were speaking the other day about the theater, when one said to the other: "By the way, Briggs, do you say parkay or parket?" "Well," said Briggs, "to tell you the truth, I generally say family circle."



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

LIFE AND DEATH OF JAY GOULD, AND HOW HE MADE HIS MILLIONS. 16mo. pp. 208. J. S. Ogilvie, Publisher. New York.

Scarcely have the doors of the elegant mausoleum which he had built at Woodlawn Cemetery, closed upon the multi-millionaire when we are called to note the appearance of a biography. The author's name is not given, and a cursory glance indicates a treatment that is characterized

by a spirit that is certainly independent. Yet how much the author actually knew of the life and spirit of the great financial operator beyond what could be gleaned from the current press we may not say. It is the business career of the man that is considered mainly and that in the light of Wall street. This statement will furnish the reader a sufficient clue to the book's nature we think.

THE LOVE OF THE WORLD. A BOOK OF RELIGIOUS MEDITATION. BY MARY EMILY CASE. THE CENTURY CO., PUBLISHERS, N. Y.

The chaste appearance of this little volume is quite in keeping with the sentiments it expresses. The author disclaims all intention to argue or dogmatize, and merely presents a number of reflections which are evidently the product of a nature earnest and devout, yet free from that asceticism which ignores the healthful pleasures of this life. On the contrary, she teaches that there is a proper and legitimate love of the beautiful in our material world, which should be appreciated as suggestive of the divine beauty and power from which it emanates; and that by thus recognizing the [symbols of moral graces, we are enabled the more rapidly to acquire those qualities ourselves.

CRIMINOLOGY. BY ARTHUR MACDONALD. 12MO, CLOTH, 416 PP., WITH BIBLIOGRAPHY OF CRIME, ETC. \$2. NEW YORK, LONDON, AND TORONTO: FUNK & WAGNALLS COMPANY.

This fresh work is a compendious review of the melancholy phases of human life and character embraced under the above title. It is a digest of observations and phenomena relating to the physiology and psychology of those who render themselves habitually subject to penal law. It may be said in general that the science of crime and criminals opens up a vast field of great interests, not only to the scholar who investigates causes and sequences, classes and peculiarities, but to the ordinary thoughtful man who, recognizing the awful effects of crime, and realizing something of the vast number of criminals, desires to know of these phenomena in their relations to society. Modern enlightenment insists that while the punish-

ment of criminals is necessary for the protection of life and property, the prevention of crime is the true desideratum. To effect this, as far as possible, is the great problem of the anthropologist and humanitarian. To find and analyze the causes, and then remove them, is the only scientific solution of this problem.

Heretofore, the works upon this branch of science have been in the main such as only students would appreciate; but in this volume we have a scholarly treatment of the subject, the result of years of expert study and research, and also a popular treatment by which the subject is brought within the comprehension of those not specialists.

The array of data is very interesting. Drawn as it is from so many points of view, and including as it does comparative studies of the disposition of the lower criminals to "normal" criminal acts, signaling as it does the fundamental causes of vice and crime, this book claims the attention of all who have relation to the moral improvement of society, as by its study they will obtain clues to the manner in which effort of definite and practical sort may be organized for the early removal, at least, of those more conspicuous causes and incentives to vice and evil doing that disgrace modern civilization.

ALEXANDER CAMPBELL'S TOUR IN SCOTLAND. BY THOMAS CHALMERS, A.B.—GUIDE PRINTING AND PUBLISHING CO., LOUISVILLE. PRICE, \$1.

Alexander Campbell was a courageous, earnest, energetic man, the founder of a Christian sect known sometimes as Campbellism. His followers after him have been likewise earnest people, and, no doubt, will be greatly pleased to learn that their interesting articles, first published in the *Gulde* by Mr. Chalmers, describing Mr. Campbell's tour in Scotland, can now be purchased in book form. They have been carefully revised, and in an introductory a brief account is given of the subjects, life, and of the doctrines which he promulgated—"the return to a more 'primitive evangelical faith.'"

An excellent steel engraving of Mr. Campbell adorns the work.

Special to Correspondents.

WANTS "CHAPTER AND BOOK."—A New Jersey correspondent is very desirous that we should append to our communications in this department a reference to the "book" where the information we may have given may be found. As most of the matter of our answers is not derived from any book, but rather the deductions from personal observation or experience, it is impossible to gratify his very reasonable wish. In those cases, however, in which we are dependent upon recognized authority, we can, of course, make mention of the work from which our information is derived.

BRAIN OF IDIOT AND WISE MAN.—Question—Does the histology, or organic quality, of the brain of an idiot differ from that of a Webster? That is, can their relative coarseness or fineness be distinguished under the microscope? J. B. K.

Answer—Certainly there is a difference, otherwise there would be an effect without a cause. In the brains of idiots the organization is less complex in a general way, and the minute structures are much less sharply defined. In the highly intellectual men the cerebral convolutions are deeper, more numerous, more compactly folded and more closely woven as regards the texture.

THE NEW YORK ASSOCIATION OF GRADUATES.—The last meeting of this society, which was held February 6, was especially interesting and encouraging. The weather was indescribably disagreeable, but the hall was well filled, and the audience were certainly repaid for their trouble in coming. The lecture by the Rev. J. A. Trimmer, B.D., of Jersey City, was delightful as an entertainment and exceedingly rich in food for thought. The theme was, "Is Life Worth Living?" The speaker showed a remarkable familiarity with the great representatives of both the optimistic and pessimistic schools, and his treatment of the subject was scholarly in every sense. As a speaker, Mr. Trimmer, is clear, forcible, deeply earnest and thoroughly pleasing. He has also a very penetrating, logical mind, which should render him successful in his chosen calling. The address was followed by considerable discussion of a lively and interesting nature.

CURRENT EXCHANGES.

Le Progres Medical (Medical Progress), weekly, Paris—Late numbers have interesting clinical demonstrations in dermatography that explain some of the hitherto curious and mysterious phenomena of skin marking.

The Century for February is adorned by a frontispiece representing Tennyson in his manhood's prime, from a photograph which was preferred by the poet and his family to all his other likenesses. It accompanies a beautifully written article by Henry Van Dyke, D.D., entitled "The Voice of Tennyson." But the most interesting feature in this number is "Leaves from the Autobiography of Salvini," in which the tragedian gives charming sketches of Rachel, Ristori, and other eminent persons with whom he was associated while climbing the ladder of fame. "Life in the Malay Peninsula," "Stray Leaves from a Whaleman's Log" and "An Art Impetus in Turkey" are also attractively illustrated, especially the last named. The Rev. Dr. Gladden, Mrs. Burton Harrison and Mr. T. B. Aldrich are among the other contributors.

"From Venice to the Gross-Venediger," by the Rev. Dr. Van Dyke, is the opening contribution in *Scribner's Magazine* for February. There is another Italian paper by E. H. and E. W. Blasfield, on "The Florentine Artist," and further attention is given to Italian art by Frederic Crownshield. Mrs. Burnett, the Marquis de Chambrun, Octave Thanet, Mr. Lloyd Osbourne, and Mr. T. R. Sullivan are the other writers.

Scientific American, weekly—Illustrated. Munn & Co., New York.

Harper's Weekly—Illustrated and influential in political and social affairs. New York.

Christian Advocate, weekly—Eastern organ of the Methodist Episcopal Church. New York.

Christian Thought, bi-monthly—February number received. Treats of Man's Responsibility, The Labor Problem, Sensational Preaching, &c. New York.

In *Harper's Magazine* for February, Annie Fields writes entertainingly of Whittier, under the title "Notes of His Life and of His Friendships." Several portraits of the patriot poet are given, which will interest students of phrenology. Another contribution of similar character by John W. Chadwick, is "Recollections of George William Curtis," with portraits representing him at different periods of his life. "New Orleans, our Southern Capital," by Julia Ralph, is another leading illustrated feature, and the remaining articles include a variety of subjects.

The Cosmopolitan for February opens with an interesting illustrated account of Monte Carlo, by C. H. Farnham. But there are two biographical sketches, one of Blaine, by T. C. Crawford, and one of Lord Beaconsfield, by Adam Badeau, which are of unusual value. Mr. Badeau's grasp of the character and methods of the ambitious English politician is masterful, and his description exceedingly fascinating.

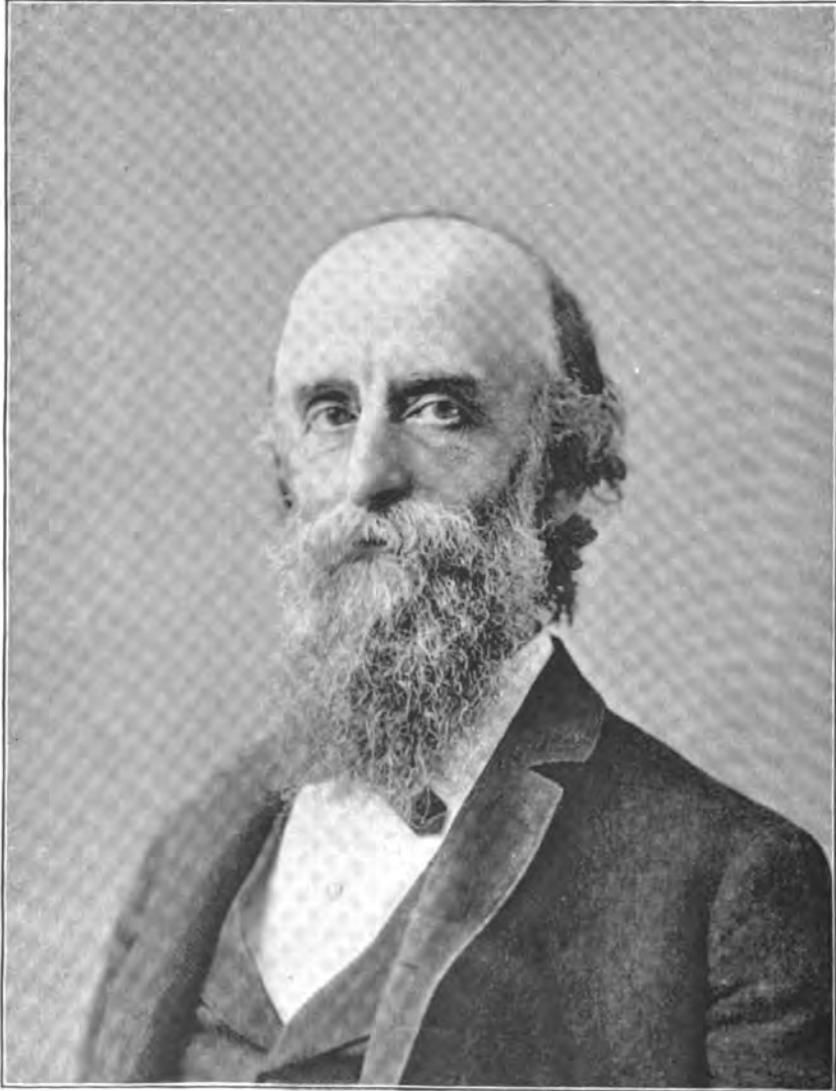
Eclectic Magazine of Foreign Literature—February. Twenty selections from current publications. New York.

Lippincott's Magazine for February contains the usual variety of prose, poetry, biography, etc.

Werner's Magazine, monthly, a journal of expression, vocal and physical. New York.

The Brooklyn Medical Journal—Drs. Raymond, Bailey, Hutchinson, Browning and Hutchins. Brooklyn.

The Popular Science Monthly for March, just received, contains an especially interesting article, entitled "The Story of a Colony for Epileptics," by Edith Sellers. Other valuable papers are by Prof. C. M. Weed, Grant Allen, Prof. Henderson, R. T. Hill, Col. A. B. Ellis, and others.



LYMAN ABBOTT, D.D.

ROCKWOOD PHOTO, N. Y.

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[WHOLE No. 652.

LYMAN ABBOTT, D.D.

PASTOR OF PLYMOUTH CHURCH.

THIS is a strong character, connected with a sensitive, intense, enduring, but not very strong bodily constitution. He is tall, thin and wiry; like an umbrella frame, strong and enduring for the amount of material of which it is composed. The brain is the most conspicuous feature of the organization. The head, which we judge to be 23 inches in circumference, rises high from the opening of the ear, and it is also lofty above the eye. Sometimes a head is high on a line drawn from one ear to that of the other over the top, and it slopes down and becomes pinched and narrow in front. Such a man will have a great deal of character, but not much talent. He will be headstrong and proud, perhaps severe, but he will lack the sympathy, the ingenuity, the imagination, the logic, the comprehensiveness of mind, and retentiveness of memory. There are heads that wear large hats, but the largeness is mainly developed in the region of the propensities, pride, prudence, policy and perversity of temper. But this head is amply rounded and massive in front, and it is not wanting in the central and posterior portions.

The word intellect expresses more of

what Dr. Abbott is than any other. That embraces perception, memory, analysis, logic and intuition, and the power of expression. He is a thinker par excellence. His large Comparison enables him to dissect a topic into fibre; and then his logic enables him to braid the fibre as we do a whip lash, and give it another form of power.

He has large Mirthfulness. He sees the incongruities and absurdities in people's reasonings or in their conduct. He must be good in repartee, not necessarily a joker, but he responds sometimes in a quiet way to the utter vanquishment of his adversary, yet the adversary will laugh.

This is a bright intellect, not merely strong like a trip hammer, and it has brilliancy, alacrity and criticism. It is more like a piano than like a bass drum.

He has large Constructiveness, which has less to do with the combination of things physical in the way of mechanism than in the combination of thoughts, statements, arguments and mental forces that minister to results. A complex intellectual problem is not mysterious and confusing to him; he comprehends it. Then he devises the

means to make abstract things practical, available and appreciable. He has a disposition to simplify truth rather than to pile it up in masses that astonish and amaze without that analytical definition that makes it understood. When we look at a brick wall half a mile off it is a great red mass, in one solid piece like the Rock of Gibraltar, but when we approach it nearer we see there are courses and tiers, and these tiers and courses are divided into sections eight inches long; so the mass is defined; the sum total is reduced to its constituent elements or factors. It seems but play to a man like this to take a great knotty subject that has puzzled thinkers and expounders for ages and disintegrate it, show its constituents, make it simple. The greatness consists in comprehending the massive subject, and the skill consists in defining and illustrating it so that the common thinker sees it in a new light. Constructiveness, Causality and Comparison are the organs that do this work, but Ideality and Spirituality enable him to appreciate the theme.

The height of the front part of the top-head shows large Benevolence. It gives a beneficent feeling, the tendency to do service that shall be lasting. He may not hand out a dole to a beggar unnecessarily as readily perhaps as his sympathetic predecessor would have done; but he has a wonderful insight into human character. He reads men like a book; those who are total strangers. If anybody gets the best of him, or the blind side of him, it is those he has learned to love and respect, and whose errors of judgment may lead them to ask more than is proper.

Spirituality being strong gives him a theoretic insight into moral topics. Sometimes theological people talk about spiritualizing subjects. He has the power to logisticize and spiritualize, to take the local framework of the truth and to see also its inner and beneficent elements as well.

Hope seems to be strong. He dares to undertake a good deal that another man with equally large Caution might hesitate to do. He is prudent; he is economical. He has a sense of value; and as a business man he would take good care of the financial side of his affairs. He has belief in financial integrity as regards business, but it is subordinate to the moral law. He would naturally think that men who were trying to square their lives with the higher equities and spiritualities of life ought to be honest and truthful in the common daily affairs. A sharp business trick by a man who professes to be amenable to the higher laws of living might be understood by him to be in accordance with a given mental make up, but, nevertheless, it would seem very incongruous. With his Acquisitiveness, he understands business principles better than many clergymen, and would appreciate the temptation that financial prospects might present to a man who sought to be true and faithful; yet with his large Conscientiousness, Veneration, Benevolence and Spirituality he would be able to raise himself above the temptation, and perhaps, at the same time, feel a spirit of leniency toward one who was not so well endowed in the moral elements. He has logic enough and reasoning power to understand that a man may be one sided in his mental makeup, possessing strong temptations to do that which is not according to rectitude, and alternately be honestly enthusiastic in his religious emotion and be true to his nature in his religious manifestations. Men can have strong passions, and sometimes yield to them. They may have strong religious emotion, and generally carry these above the lower temptations of life; but if they fall out by the way, they may cry out as one did of old: "O wretched man that I am, who shall deliver me from the body of this death!" Great natures are apt to have great defects or excesses in certain sides of the character.

A side view of this head would show the major part of the brain forward of the ears; and if a line were drawn from the centre of Causality to the centre of Cautiousness it would show an ample elevation upward, a filling out, a rounding of the top head indicative of the higher moral senses.

His legal training working with such an analytical and crisp intellect as his, gives him the ability to present his moral topics in a more clear and vigorous light than most quiet speakers and writers are able to do. He has a vivid imagination, but it does not get out of the logical harness. To him, intellect is as ballast to the ship; while the sails of imagination may be filled with heavenly breezes the ballast keeps the hull steady. Therefore intellectually he is able to sail pretty close to the wind; that is to say, work up against the wind, taking advantage of the opposition and converting it into headway.

He must be a very able debater, and the clearness and vigor of his statements will be found everywhere in his writings. He can find fault with people; at the same time he does not do it in a way to exasperate them. His opponents will accept his criticisms and smile at their own defeat because it is so fairly done, so good naturedly accomplished.

There are many other points we might bring out advantageously if we had our hands on his head. If his life and health are spared until man's allotted three score and ten, he will continue to rise, broaden and establish his claim to intellectual supremacy among his contemporaries as a teacher in the natural ethics of the higher life. If he had more body, more blood, more impulsiveness, he would be a more popular orator and meet the wishes and inspire the admiration of the middle and lower lines of human development; and yet, where he has personal contact he allies people to him very intimately and becomes an elder brother and master in that field.

NELSON SIZER.

Dr. Lyman Abbott was born in Roxbury, Mass., December 18, 1835. In 1853 he was graduated at the University of the City of New York, after which he studied law, and in 1856 entered into partnership with his brothers Benjamin V. and Austin. Finding the legal profession uncongenial, he studied theology with his uncle, the Rev. John S. C. Abbott, and in 1860 began his labors in the ministry. His first charge was at Terre Haute, Ind., where he remained until, in 1865, he was chosen secretary of the American Union (Freedmen's) Commission. This office called him to New York City, and occupied him until 1868. A year later he devoted himself especially to literary and journalistic work in connection with Harper's publications, but it was as editor of the *Christian Union* in after years that his name became familiar in religious literature. On the *Christian Union* he was associated with Henry Ward Beecher, and after that distinguished preacher's death he became chief editor, and later his successor in Plymouth Church. He is the author of several well-known religious works, and wields a very marked influence among the intellectual classes in the American church.

Dr. Abbott has given not a little attention to the study of the human mind, as his philosophical type of organization would incline him to do. Like the great man to whose place he was called after the former's death, he discusses the relations of man to his Creator in the light of his mental constitution, and employs the facts of science to illustrate his propositions. It may also be news to some of our readers to learn that he is the author of a small book devoted to the subject of human nature. An abstract of a sermon preached by Dr. Abbott a few months ago, and printed on the next page, aptly shows his familiarity with the subject, and indicates the power that such familiarity may impart to preaching.

TURNING SIN INTO RIGHTEOUSNESS.*

"The writers of the Old Testament were spiritual geniuses. They were voices through which God spoke to the world. There is danger that we shall read the Bible too literally, because danger that we shall stop at the letter, and not get behind the letter to that which was in the thought of the writer; there is still further danger that we shall not get behind the thought of the writer to that which was in the thought of God; but there is no danger that we shall ever read the Bible promises as meaning more than they appear to mean. The danger of literalism is a danger of belittling, not of enlarging; danger that we shall halt at the word of the poet and not see the mind of the poet—still less the mind of God that lies back even of the mind of the poet.

"What is a sin? Not the deed that is done, not the outward thing, but the spirit and the motive that it springs out of. It is not the prinking before the glass that is sinful; it is the vanity that makes the little girl prink before the glass that is sinful. It is not the good dinner that is sinful; it is the gluttony that is sinful. It is not the energy and assiduity and skill in acquisition that is sinful; it is the covetousness that lies back of that and inspires it and makes it mean that is sinful. It is not what I have done that is sinful. It is I myself, it is that which is within me—that is the sin. And so the question in my soul and in your soul, I am sure, is this: How shall the evil in me be made good? Is there no way? We do not ordinarily think so. We say, Oh, if I could get rid of this vanity, of this pride, of this passion, of this ambition! But God says, I have something better for you; you are not to get rid of your vanity, your pride, your passion, your ambi-

*Preached by Dr. Lyman Abbott at Plymouth Church, Brooklyn.

Text—Come now, and let us reason together, saith the Lord: Though your sins be as scarlet, they shall be as white as snow; though they be red like crimson, they shall be as wool.—Isaiah i., 18.

tion; I am going to turn them into goodness for you; your sins, the things that are in you that you hate, they themselves are to be turned about, transformed, made powers for beneficence, made powers for glorification. There is not a faculty or power in man, no matter how high and noble it is, that may not drag him down. What a God-given faculty is that power of conscience that sets a standard to a man and brings him to it and holds him there! But how cruel it has been! It built the Inquisition and lighted the fires of persecution. What a magnificent faculty is religious faith, that lifts a man up toward heaven and brings him face to face with God! But if it were not for the power of faith there never would have been superstition in the world. How it has dragged men down! What a sublime and glorious faculty is hope! How it buoys men up and carries them through the storm! And yet you business men know that there is no more common cause of bankruptcy than too great hopefulness: men making promises that they never can fulfill, and have no good reason of being able to fulfill. Hope has ruined more men in business than any other faculty, I suppose.

"It is a good thing to have a good appetite; a good thing to have an enjoyment of the animal nature. God gave the animal nature to be enjoyed. The animal nature itself can be lifted up, transformed. You remember what Fowler said of Henry Ward Beecher—'He is a splendid animal.' If that had been all that could have been said of him, it would have been a very sorry compliment; but it was a very great testimony as far as it went. A man is a better man for being a splendid animal if he has a splendid soul to match, than if he is a poor animal. Acquisitiveness! The love of money is the root of all kinds of evil. Yes, but the love of money is the root of a great many kinds of good. The love of money sharpens the edge of the assassin's knife, incites

the burglar and the thief, has produced predatory warfare and murders without end, but the love of money has set the enginery of the world in motion. It has built railroads; it has operated factories; it has carried on commerce; it has built up a great material civilization. Pluck that acquisitiveness out of the human soul and what would become of all material prosperity?

"Pride—what a wall it is! But what an armor! what a protection! The Bible does not pluck pride out of men: no, it stimulates pride; it rouses men to a larger and a higher pride. It appeals to men who are proud in a low sphere, and calls upon them to be proud in a larger and higher sphere. You are sons of God, it says; you are kings and priests unto God: walk worthy of the vocation wherewith you are called. 'You are gods,' that is the language in the Bible. You are gods—that is the appeal which the Bible makes to pride, to self-esteem, in man. It transforms him with a larger and a diviner self-esteem. If ever a man was proud, it was Paul; if ever a man was self-contained, it was Paul; if ever a man walked in the strength of his own assured confidence in himself, it was Paul; so that when that light struck on Paul, and the voice spoke to him, he stood up unawed and replied, 'What do you want of me?' When he started on his missionary tour, he says, 'I did not confer with any one. I did not ask any authority from apostle or any one else; I started off my own account. And that pride of Paul did not disappear when he was converted. Not at all. That same self-confidence remained with him, a new quality, a transformed quality. When the mob caught him in the Temple courts and beat him, and was about to destroy him, and he was rescued just as life was to have been taken from him, he stood on the tower stairs and asked leave: 'May I speak to the mob?' There was the same strong, self-contained, heroic pride of character; and yet not the same, but that

pride of character transformed and glorified.

"Courage! What is that? Analyze it and see. It is not all combativeness. It is not fighting for fighting's sake. No! No man ever yet had hero blood in him unless he had caution in him. The same thing that makes a man a coward makes him courageous. I think it was Wellington who, to one who boasted, 'I never knew fear,' replied, 'Then you never knew courage.' I remember sitting once on the porch of General Howard's house at West Point. A sham battle was being fought by the West Point cadets, and as we looked at it General Howard said, 'I can take no pleasure in that sight; I never see it that I do not shrink from it, that I do not think of the horrible scenes that I have seen on the battle field. The very thought he shrank from; and yet, when impelled by the high motives of love of country and love of liberty, he went into the battle. This it was that made him a hero. If he had no shrinking, he would not have been a hero.

"Approbativeness! a great vice and a great virtue. A man says, 'I am so weak, I care so much for the opinion of my fellow-men, I am so carried this way and that by public opinion, and change my complexion like the chameleon with every society I go into! Yes, that is a weakness; and yet that very weakness may be made an element of strength. For if a man does not care what people think, neither does he care for what they feel. The secret of sympathy is approbativeness. The secret of sympathy is the desire to be at one with others, and the sympathetic man is inspired by a great desire to be thought well of by his fellow-men. That is the starting-point; and that starting-point of approbativeness, that desire to be well thought of by others, may be so turned, so directed, so transformed, that it becomes a great power.

"And what is true of the individual character is true of past history. All a

man's past may be a motive power to aid him in his future. His blunders, his errors, his sins, as well as his successes and his victories, ought to add force to his life. Paul was educated to be a preacher of liberty because he was educated in the school of the Pharisees. Augustine was educated to be a preacher of purity because he was educated in the atmosphere of sensualism. Gough was educated to be an apostle of temperance because he was educated in the school of self-indulgence. Beecher was educated to be a preacher of the love of God because he was educated in a New England Puritan theology, which thought that God was wrath. We do not know truth until we have seen error; we do not know liberty until we have seen the prison; we do not know righteousness until we have wrestled with temptation. The whole progress of the human race has been just this; a progress up through temptation and wrestling into a higher life, into a larger life, into a virtue which is better than innocence, into strength that comes by temptation, that comes even by falling.

"This Sunday morning I urge you to give yourself to God because you have in you that which is undivine and not divine. You have no virtues to bring, you say. Well, bring your vices. You are proud. You are not proud enough! that is the trouble with you. Exalt your pride; realize that pride of circumstance and condition is a mean, low pride; that no pride is truly pride that does not lay hold on God himself and make you realize that you are his child. You care for what people think, and you wish you could get rid of approbation. You mistake. You do not care enough for what people think; nor for what the right people think. Care for what the best and noblest think! Care also for what God thinks; and when you have those two in one, you have approbation glorified. When your approbation makes you say, I want to stand well with the angels, I want

to stand well with the pure, and the high, and the noble, I want to stand well with God himself, and then say I want to stand well with my neighbors—you have a sympathy that can take hold of man with this hand, and of God with that hand, and can bring man and God together. Or you are acquisitive. You are not to get rid of your acquisitiveness. You are only to make it rational, reasonable, intelligent. You are to acquire that you may use; you are to go on with all the power of industry, only so gathering that what you have gathered may serve you and your race and the world and God. You are passionate, quick, impulsive, easily given to wrath. What shall you do with it? Tame it, conquer it, harness it. Do not rake the fire out from under the boiler; keep the steam in the boiler. you want it—all you have. *Be angry! and sin not.* There is not a weakness that cannot be made a strength; there is not a poverty that cannot be made a wealth; there is not a hindrance that cannot be made an inspiration. The sun is kept alive by the matter which is cast into the sun but not destroyed, and out of that blazing orb, that gathers into itself all the matter that comes within its reach, there issue forth the rays of light that vivify and illumine the earth. God takes our very vices and out of them makes radiance and light and warmth-giving."

It is because so few have definite goals before them that so many fail; it is because so many aim at impossibilities that so few succeed; it is because there is too much wishing for success, with so little unremitting striving after it, that so many end with wishing; it is because there is too much eagerness for speedy triumph that so many end in defeat.

"REPROACHING ourselves or others for past mistakes is a useless cruelty. Lessons for wise well-doing in the future is the 'more excellent way.'"

A PHRENOGRAPH OF FRANCIS MARION CRAWFORD.

FROM A PERSONAL EXAMINATION.

NATURE has been exceedingly kind to this gentleman in many ways. He is six feet and one inch in height, and weighs a hundred and seventy-five pounds. His flesh is as firm as that of a professional athlete, and he does not appear to carry an ounce of lymph or adipose tissue.

ing shells, but nerves the heart and hand for deeds of duty in all places and at all times.

His movements, intonations, and glances all bespeak activity, energy, and industry. There is nothing negative or passive in any of the bodily contours, and the figure would delight a



FRANCIS MARION CRAWFORD.

He has a very soldierly bearing, but not of the sort which comes merely from military exercises or familiarity with scenes of bloodshed and battle. It is rather a native grace of manly motion which needs no drill, and the expression of an innate courage which not only smiles amid whistling bullets and burst-

sculptor as a model for masculine strength. The prominent nose which is almost Roman, also suggests great force. But when we closely inspect the other facial lineaments and the configuration of the brain, we discover a remarkable amount of femininity. Indeed, on the psychical plane he has a predominance

of womanly instincts and those rapid processes of ratiocination often erroneously called intuitions, together with certain actual susceptibilities to communications which enter at the elbows, so to speak, in the possession of which the gentler sex has always stood first.

Mr. Crawford's temperament, regarded from the anatomical point of view, would be called the mental motive, since the cerebral, muscular and osseous systems are in the ascendancy. But as to the influence exerted by the fluid secretions, we may include in this instance a very strong infusion of the sanguine element, the indices of which are in the enormous chest, the ruddy complexion, the blue eyes and light brown hair.

In the general pose of the head and the cast of the features, especially in the prominence of the middle third of the face, are the marks of a superior ancestry; of progenitors who were ambitious and successful. There are no lines of fear; no traces of cunning, malice, envy, avarice, or cruelty such as are evolved from conditions of slavish toil, oppression and deprivation. This is an open countenance which seems to be a legacy from generations whose natures expanded under prosperity and who outgrew the scars acquired in the early struggle for existence.

From such a constitution we should expect reasonable enjoyment in the exercise of the feelings and sentiments, without great depth of passion or extravagance of emotion; and brilliancy, versatility, facility, practicality, and availability of talent rather than profound originality or predilection for purely abstract studies. Such a superb physical structure demands opportunities for direct and active communion with nature, while the eager intellectual powers impart a certain sympathy for sedentary pursuits and the artificialities of book lore. Thus there are here combined the elements of the traveler and the writer, in both of which capacities

Mr. Crawford has become distinguished like Bayard Taylor, Edwin Arnold, and Lew Wallace, in several countries.

The circumference of his head is 22 $\frac{3}{4}$ inches, which, considering the height of the crown, indicates about the usual volume of brain possessed by men of eminence in literature and art, and in size is second only to such intellectual giants as Bismarck, Gladstone and Beecher. As to balance, it presents no more departures from perfect symmetry than is the rule with men and women of marked ability, and his peculiarities are favorable to his special work; the deficiencies relating for the most part to the developments characteristic of the typical masculine brain.

From the top of the ear a horizontal line to the rear of the back head shows a very marked endowment of the feminine instinct to protect the young. This faculty is quite conspicuous in actors, poets, painters, and literary men as a class, the obvious reason for which is that they strongly resemble their mothers. As the courier of woman's message to the world, or her normal mental working tools, are the sympathetic, imaginative and perceptive elements of the mind, rather than the passion or philosophical, it follows that the fine arts come especially within her province, and that men who inherit their mentality chiefly from the mother, will manifest not only the distinctively maternal phases of affection, but are likely also to be attracted to the domain of art in preference to commerce, philosophy, statecraft or war.

In the color and quality of his conjugal love, Mr. Crawford will also show the delicacy and tenderness characteristic of the feminine nature. However, as to Friendship, he is constructed on a principle which favors variety rather than unity, or diversion rather than concentration, so that as the brain centre relating to adhesiveness is of only average development, we may be sure that he will not require a par-

ticular set of individuals at his side on all occasions. Still, this will not prevent him from forming enduring alliances with congenial persons on other grounds than those of personal proximity.

The diameter of the head at Combativeness is not so great as we occasionally find in men who possess even less of this quality. But here the thoracic, muscular and sanguine temperamental elements all tend to create a surplus of vital force which finds an agreeable outlet in some kind of warfare, innocent or otherwise as the tastes or circumstances may determine. A strong will, with moderate sensibilities to fear, assist also in this case in producing a spirit of enterprise, so that the character is practically very courageous.

The height of the central top-head on a line with the ears is very considerable at Firmness, and in this combination it will be persevering energy rather than contrariness or obstinacy. Destructiveness is full, but not likely to assert itself spontaneously. Just below the vertex, in the median line, there is a deflection at Continuity, so that while the active temperament and large Firmness insure great capacity for work, there will always be a dislike for monotony. Such a man will prefer speedy methods, and if his labors are frequently interrupted, he will not become confused. He will sometimes finish a task at a single sitting, however, simply in order to obtain his release the more quickly, and those who observe him may perhaps conclude that he works consecutively and patiently from first choice. Moderate Continuity renders the literary style crisp, terse, and clear, as may be observed in most French and American writers, and of which the subject of our present analysis affords a good example.

The head is much narrower a little above and forward of the ears at Acquisitiveness and Secretiveness than the temporal expansion shown in his portraits would suggest. He will seek

money only for the comforts it procures, and unless there is a strong reason for concealment, he will deal openly and under his true colors. On this account, as a novelist he should excel in brilliant narration rather than in weaving a thick, somber veil of mystery.

Caution is only fairly developed, and the crown rises to a symmetrical but not conspicuous height at Approbativeness and Self Esteem. There is also a reasonable degree of Conscientiousness, but the combination leans more toward mercy than justice.

The coronal region is well arched at Veneration and Spirituality, which, in this temperament, will aid in the development of poetic sentiment, appreciation of the weird and romantic, and in other ways will color the thought without controlling it. Benevolence, Imitation, Mirthfulness, Ideality, Suavity, and Human Nature, or the sense of character, all contribute largely to produce the elevated sincipital region, the last named being probably the strongest of the group.

The upper forehead is very full in the centre at Comparison, which denotes fine analytical, critical and didactic powers; facility in the use of metaphors and other means of illustration, also nice discrimination in selecting words. But laterally from this mesial development, Causality is somewhat retiring. He can be philosophical if stimulated by external influences, but his voluntary impulse would be to gather, classify and chronicle facts rather than to trace their remote causal relations.

In the lower frontal convolutions, however, the brain is exceedingly active. The perceptive are nearly all large, Eventuality and Locality being perhaps the most influential. The width at the temples also shows music and superior mechanical ingenuity. The projection of the eyes beyond the line of the cheek bone is very marked, and perfectly agrees with his well-known phenomenal

memory of words, and fluency in both oral and chirographic expression.

On the whole, the forehead may lack the repose which belongs to such original authors as Goethe, Ruskin, or Herbert Spencer, but to illustrate the ideal high-class journalist or novelist, it would probably be impossible to find a better type.

EDGAR C. BEALL, M. D.

Francis Marion Crawford is 38 years of age, and was born in Italy, at the Baths of Lucca. His father, who was a New Yorker by birth, and of Scotch-Irish descent, was a pupil and friend of Thorwaldsen, and a well-known sculptor. The mother of the novelist was one of the Wards of Rhode Island—an old and honored family, one of whom was Gen. Francis Marion, who was closely related to Charlotte Corday, and to whom Mr. Crawford owes his second Christian name. He is also a nephew of Julia Ward Howe.

Few men were ever educated under such a variety of circumstances. His first twelve years were spent chiefly in Rome; then he studied three years at Concord, N. H., returning to Rome to delve into mathematics. A little later he went to England and spent a year at Cambridge. Carlsruhe and German philosophy claimed his attention next, after which he returned once more to Italy to study Sanscrit. He also spent a good deal of time in India, principally as a journalist. But his career as a writer of fiction began in New York about eleven years ago.

His novels, of which Mr. Isaacs is doubtless the most popular, are published by Macmillan & Co. of this city, and are of especial value for the information they contain respecting life in foreign countries.

He is an accomplished linguist, the husband of a beautiful wife, and the father of four lovely children to whom he is much devoted. His home is in Sorrento on the bay of Naples.

NERVOUS DISEASES NOT INCREASED BY CIVILIZATION IN SCIENCE.

DR. D. G. BRINTON, of whose authority as an Anthropologist there can be no doubt, remarks on this important topic: Among the errors which have been diligently disseminated by physicians, who lacked ethnological information, is that which claims that diseases of the nervous system, especially those of an hysterical character, have greatly increased with the development of civilization, and are most common in the races of highest culture. Both assertions are erroneous. Those intelligent travelers, who give the soundest information on this subject report that in uncultivated nations violent and epidemic nervous seizures are very common. Castren describes them among the Siberia tribes: An unexpected blow on the outside of a tent will throw its occupants into spasms. The early Jesuit missionaries paint extraordinary pictures of epidemic nervous maladies among the Troquois and Hurons. The Middle Ages witnessed scenes of this kind impossible to-day. In a late number of the *Journal de Medicine*, Paris, Dr. de la Tourette points out the frequency of true hysteria and hysterical seizures in the black race, among the Hottentots and the Caffirs of East Africa, and among the natives of Abyssinia and Madagascar. They present frequent cases of classical hysterical attack, and occasional epidemics of chorea-mania, affecting both sexes. A negress of the Soudan was lately a patient in the clinic of the celebrated Dr. Charcot in Paris, and displayed the symptoms characteristic of neurosis. Civilization, so far from increasing the class of maladies, is one of the most efficient agents in reducing them in number and severity. When it is freed from certain elements not essential to it, especially religious excitement and competitive anxieties, it acts decidedly as a preventive.

TALENT AND CHARACTER

THEIR STUDY AND CULTURE

CHAPTER IV.

THE SKULL AND ITS RELATION TO THE BRAIN.

Fig. 32. This skull is a companion piece for Fig. 26. It will be observed that the bones are lighter, less massive and the bones are thinner, lighter and of finer grain. And it is not so massive in the base where Combativeness and

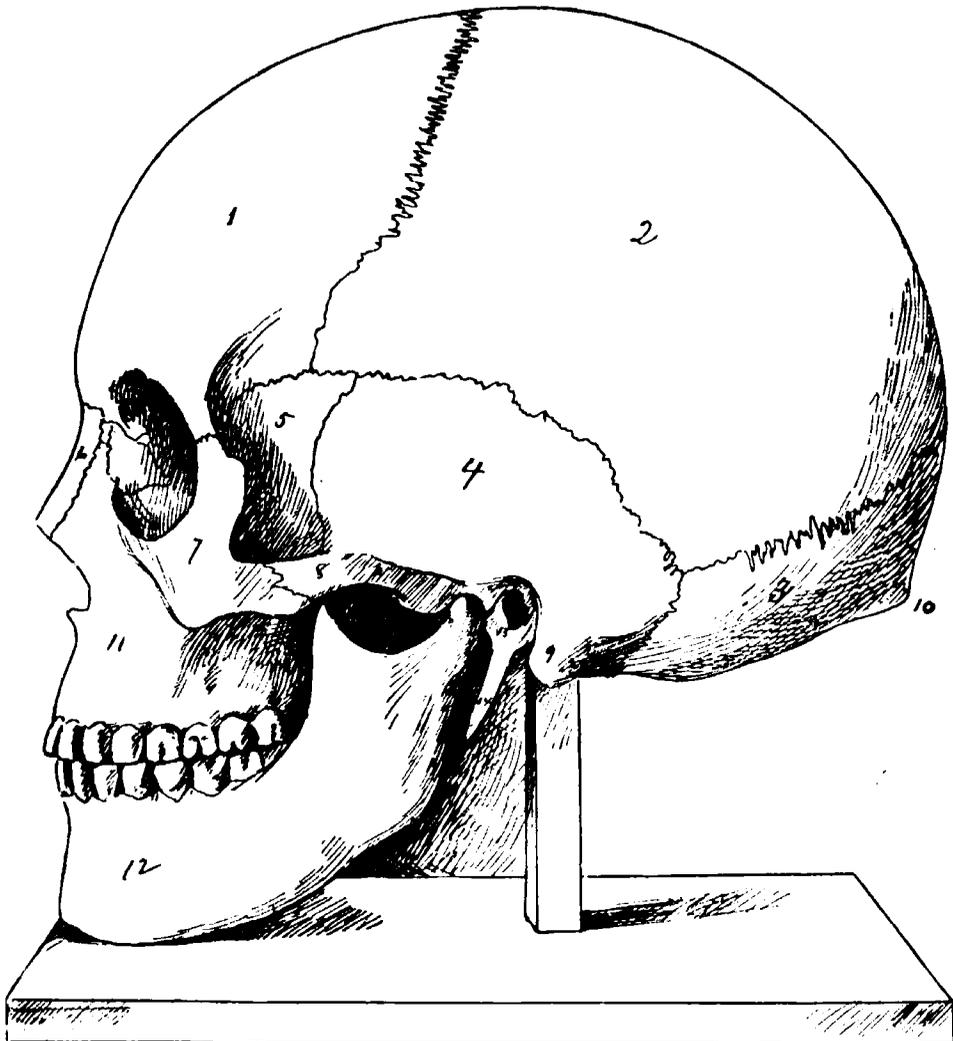


FIG. 32.—WELL BALANCED FEMALE SKULL

and strong. The nasal bone is not so high, the cheekbone, 7, is not so massive, and the mastoid, 9, is less developed, and the occipital spine, 10, is smaller,

Destructiveness and the selfish propensities are developed. Having the skulls in our possession we study them at our leisure.

It will be noticed that this head has a beautifully rounded top, the region of the religious and moral sentiments is well developed. There is not so much Self-esteem as in Fig. 26. The sutures are very smoothly united, and there is less of ruggedness in its structure, especially in the cheekbone, 7. The different bones of the skull are numbered in this the same as in Fig. 26. In describing the male skull, Fig. 26, we mentioned the principle of bone development by radial fibres or spicula, as indicated at A and B on Fig. 26 to which we referred.

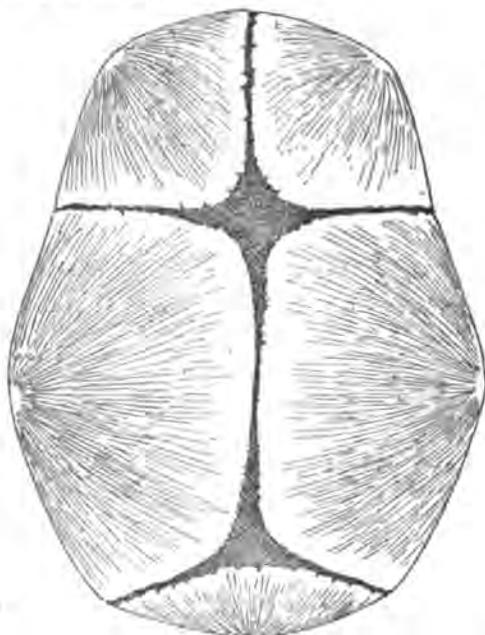


FIG. 33.—AN INFANT'S SKULL AT BIRTH.

Here the formation of the frontal, parietal and occipital bones is represented by radiating fibres. The central points where the bones commence to form are shown, which correspond to A and B in Fig. 26. The grain or fibre of the bone is seen to radiate from these centres till they reach corresponding fibres from the other bones. Between the frontal bones and also the parietal bones the sutures are distinctly seen. The edges of the bones approach but there is yet no locking together of the edges. The

sutures are also seen along the top-head but they are not yet united; in fact, none of the sutures are united in the early years of life. In the centre of the top-head there is a black place like open water in a partly frozen pond, that is called the great fontanelle or fountain, so named from the pulsations which are perceptible like the rising of the water in a fountain. Four bones approach this point and do not yet cover the space. In infancy there are always two frontal bones; in adult life they are generally united by solid ossification, though we have several specimens of skulls in the office that are not ossified, they are merely closed up like the other sutures of the skull, and show two distinct frontal bones. The occipital bone, No. 3, it will be seen has its centre of ossification, the fibres running to meet the parietal bones. All anatomists understand that the dura mater, a tough skin (which when dried is very much like a dried bladder), encloses the brain and in position and function is very like the skin which encloses the egg before its shell is formed, since the bony material of the skull is developed out of the dura mater and formed on its surface as the eggshell is developed out of its skin. The skull is formed in patches in separate and distinct parts. There is evident wisdom in that method. At birth, as we have shown in this infantile skull, the bones are separate, and pressure upon the head might throw it into almost any form without straining or breaking the bone or without serious injury to the brain. The infant's head has a soft spot, a great fontanelle which sometimes lasts for twelve months before it is closed up; and there is another opening in the back head where the sagittal suture unites with the lambdoidal suture, and this is called the little fontanelle, because it is smaller than the one in the top head. The bones of the skull not being firmly united, a blow or a fall is a little like striking or dropping a paper parcel, the force of the

blow is not so severe as it would be if the skull were more solid in its development. Another important provision in the fact of the skull being composed of parts or sections, is, that a fracture occurring in one bone from a blow usually stops at the suture and the shock to the brain and skull would thus be much less than it would be if the skull were solid.



Fig 34 represents the skull of a child with the frontal suture not yet consolidated. Perhaps one adult skull in five hundred has the frontal suture well defined and capable of being separated like the other sutures. In old age the sutures in some cases are solidly united.

Fig. 35. We here present the bones of a skull which have been separated by artificial means. If a person will fill a well formed skull with beans or corn and lay it into a vessel of water so the corn or beans will become soaked and expanded, the joints of the skull will be opened as here represented. The frontal bone, 1, the parietal bone, 2, the occipital bone, 3, the temporal bone, 4, the nasal bone, 5, the malar bone, 6, the upper jaw bone, 7, the lachrymal bone, 8, and the under jaw bone, 9, can all be numbered as we have numbered them on Fig. 26. But the numbers are mere guides, not a law. The sutures between the bones are seen wide open and

their serrated edges like saw teeth aid in constituting the firm joints represented. Now all these bones in a child's head

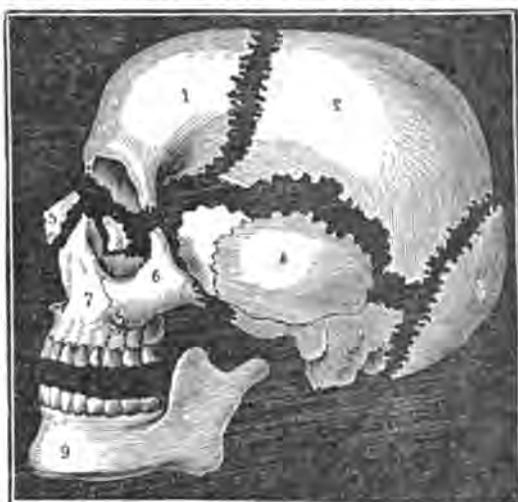


FIG. 35.—BONES OF SKULL SEPARATED.

are available to growth. An infant's jaw is not large enough to serve the processes of later life; and the first teeth are small. The jaw grows and new teeth come, and the whole business is enlarged.

Imagine then, these different bones being like the scales of an aligator with separating joints, and the bones growing as an aligator's scales grow. It is the easiest possible thing to keep the brain covered, shielded and protected. People forget that the skull is not a prison house for the brain, but a protection. Human clothes do not grow much, we have got to get new ones, but the skin, however, manages to grow as fat as the boy does; that is alive; clothing is an outward garment; but the skull and the scalp have living tissues that expand and grow as the increase of brain requires.

Fig. 36 is a front view of the skull with the bones all separated. One is the frontal, 2 is the parietal, 3 the malar, 4 the nasal, 5 the superior maxillary or upper jaw, 6, the vomer which divides the nasal cavity, and 7 the under jaw. These bones do not look as if they were intended to imprison anything, but since they are all fed by the same heart's

blood and nutrition they grow, they live and while they protect they make room for its occupant.



FIG. 36.—FRONT VIEW OF SKULL.



Fig. 37 is a bottom view of the skull also separated. 1, is the occipital bone, 2, 2, the temporal bones. 3, 3, the sphenoid bones, 4, the ethmoid bone. 5, 5, the malar bones, 6, the zygomatic arch, and

7 shows the opening in the skull called the foramen magnum, meaning the great hole through which the spinal cord emerges from the cranium. In the edges of these bones of the skull can be seen a rough serrated method of uniting the bones.

People often ask how it is that the brain can develop, being a soft delicate mass, inside of such a bony box as a skull. It is not a bony box strictly speaking. When the brain is being developed rapidly in childhood and youth the sutures are not united and the growth can take place at the sutures and easily meet the necessary expansion of the brain. But people forget that the bone is live matter, that it receives nutrition by the blood just as the muscle does. A child's thigh bone will be six inches long, later on it is 18 inches long; it is not stretched as one would stretch an elastic piece of rubber, but it is alive and grows. The finger nails grow larger every year, they are growing all the time during life. The method of the growth of the skull is supposed to be this, if the material of which it is composed is required to be removed to make room for the growing brain, the bony material is dissolved, absorbed, carried into general circulation and new bony matter is formed a little further off, so as not to press upon the brain and hinder its growth.

Has the reader ever peeled the bark off a tree in the month of May, bark half an inch thick and hard enough to crack walnuts with? Every Spring the bark of the tree increases in size, not by wedge and screw pressure, but, the sap flowing between the bark and wood the bark grows larger and leaves a space between itself and last year's growth of wood, and a delicate creamy substance is deposited between that bark and the old wood to form the new grain of timber. When a birch tree is peeled, and we know of no bark that is harder than that, inside of it there is a creamy substance of half formed timber, which

boys like to scrape off and eat as birch, it is very delicate. The ross or outer part of the bark of trees becomes cracked lengthwise, it is the outside shell, it is dead, it is a mere coating to protect it against the weather; but the inner part of the bark, the living part, grows in Spring and occupies more room and cracks the ross,

The analogy of the growth of the skull and other bone is like that of the growth of the shell of the turtle or shell fish. For instance, a clam shell is harder than the human skull and quite as thick, even thicker, and if a person will catch two clams of the same bigness, we will say that they are two inches in diameter, the shell will be a quarter of an inch thick and harder than a matured human skull. If one of these clams shall be killed, that is to say, opened and the shell put into a safe place and locked up, and the living one planted inside of sticks driven into the ground under water from which it cannot escape, if it be left there, for say, three years then taken and opened and killed, it will be found that the shell of the clam that was locked up three years ago will go right inside of his shell and shut up nicely. Now every part of that shell has been reorganized over and over; it has been solid all the time, and yet every particle of it has been dissolved absorbed and removed entirely out of its place, even the hinge has been reorganized; now it will contain the other shell bodily. But the clam did not elbow its way, it did not press against the shell, it did not force its expansion. The shell grew and made room for its occupant and was, in fact, a living part of the occupant. How does the horn of the ox increase? It is hard and thick, but it grows fast. How does the hoof of the horse become larger from a colt all the way up? It does not split, it does not stretch, but it grows as the bark of the tree grows. The rapidity with which new bone grows when it has been injured or fractured is remarkable.

A surgeon told me of a new thigh bone being formed in a very few weeks. The thigh bone became diseased and an incision was made in the thigh and the periosteum which covers the bone was opened by a slit, expanded and the diseased bony matter for a distance of eight inches was taken out; and then new bony matter was deposited by the process of nature on the inside of the periosteum, as skull matter is deposited on the surface of the dura mater. The thigh bone in six weeks was sufficiently repaired or recovered to enable the man to walk.

I had a cow that would jump anything, but the moon, in the shape of a fence, and in one of her leaps she broke a rib and the ends slipped by about three quarters of an inch; and years afterward when she was fattened and killed the piece of the carcass that enclosed this broken rib was corned, and when it was boiled I carved it and there I found the spot where this rib had been broken and slipped by; and Nature had put a band of bone right around the lapped ends of it and also a support at the end of each piece so as to make it strong; and that mended bone we kept for years as a curiosity. Nature repairs its damages when it can. Remember that in the blood there is bone material in the form of phosphate of lime in solution, and wherever bone material requires to be nourished the blood has the material with which to do it; and it is carried on silently, persistently and successfully in the skull as well as in every other bone in the skeleton.

In cases of hydrocephalus, the skull grows and makes room for the accumulating water until the skull will contain as many as ten pints of water besides the brain. If the skull bone thus retires and grows so as to cover one and a quarter gallons of water, it certainly does not imprison and compress the brain. The blood vessels of the dura mater leave channels on the inside of every skull like the beds of rivers and

their smaller branches, even the fluid blood does not permit the growing skull bone to prevent its free courses. In fact, the skull bone itself has numerous blood vessels between its two plates to supply the means of its growth and change in size and form.

If the brain requires more room in one particular part of an adult's head than in other parts the bone is rendered thinner there and more plainly develops on the outside; so one part of the skull can thus be increased in size. If a person is very much excited in respect to any faculty and not so much in respect to others, in such a case the skull has been known to become exceedingly thin over the parts exercised, and after death by putting a light into the skull at the foramen magnum to illuminate the inside of the skull this thinness of the skull is vividly seen. Persons sometimes are troubled about something, for instance, the subject of devotion, religion, or are excited in regard to property, mechanism or music, and those portions of the skull over the extra excited organs will become exceedingly thin. Sometimes a faculty may be considerably more active and vigorous and the organ larger than the external examination would reveal. When the exercise and activity are equal in all parts of the brain the development will be uniform. A physician is sometimes confronted by incidents in which development or absorption may have occurred beyond the reach of his diagnosis.

In the next chapter we shall present pictures of some skulls in our possession on which one of our students, Robt. I. Brown, experimented by lighting the interior with electricity in a dark room then photographing the illuminated skull. It was a pretty slow, fatiguing process, there was so little light to make the pictures by; but he made some very nice specimens, showing the sections of the head where the brain was most active. We could put the light into the skulls in a dark room and they showed

bright places. But photographs of skulls had probably never been taken in that way before. We often pick up skulls and describe the leading characteristics by the fact of the extra thinness of the different parts of it.

In old age the whole skull sometimes becomes very thin because the brain is active and bone making matter is not sufficiently abundant in their food to supply bone support, and the skull is partially absorbed to sustain the working bones of the system. In other old persons the brain is not active and shrinks and there being abundant bone material in the food, the skull becomes thickened to supply or fill the space caused by retirement of the brain, some children are born with poorly formed bones because the mothers have lived on fine flour, butter, sugar, which are mainly devoid of phosphate of lime, and the children are rickety, bow legged or hunchbacked, and the skull is a long time in closing the sutures and fontanelles, being delicate they are ignorantly fed on starchy pap, butter and sugar and they become permanently invalid, or die in childhood. Oatmeal, the entire wheat and milk, with an absence of butter and sugar will give bone and muscle to growing children and make them stalwart and robust. In Kentucky and Tennessee, in the "blue grass region," the soil reeks with lime and every blade of grass and every other food product of the soil is laden with bone making material, and the cattle, horses and people are bony, tall and strong. In regions where lime is wanting, or has become exhausted by cropping, the people and cattle are less tall, bony and strong; and to raise wheat all the land must be top dressed with lime to give the straw strength to stand up, but lime being a dear dressing for the soil, such economy is exercised in its use that the grain does not get lime enough to supply sufficient bone material to build up the frame work of the eater.

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

SARAH JANE HALE.

IT is to Mrs. Hale that the writer of these sketches was indebted for her start in Phrenology. In the *Ladies' Magazine and Literary Gazette*, published in Boston, which that distinguished lady edited, appeared in 1832 a succinct article from her pen on Phrenology, giving the principles of the science, the names of the organs and their definitions and functions. Mrs. Hale was a personal friend of Spurzheim and did all she could to aid him in his work in Boston, where she then resided. It was to her that Spurzheim said, "It should be woman's work to introduce Phrenology, and give it a start in America; that through her influence it should be introduced into families and schools, and thus get at a foundation that could not be reached in any other way." In a conversation with Mrs. Hale on female education, Spurzheim remarked, "Excepting Christianity, Phrenology will do more to elevate woman than any other system has ever done. It gives her a participation in the labors of mind. She must understand its principles and practice them in the nursery, and her influence it is which must mold the minds of her children, and thus improve the world. If I possess any excellence of character I owe it all to my early training. In the first place, my mother gave me a good physical education; then she cultivated my moral feelings, and she taught me to *think*. I owe everything to my mother."

Mrs. Hale was born in 1788. In 1837 she became associated with Mr. Godey in editing *Godey's Magazine*, and was identified with it and its interests for forty-one years. She was a woman of great and versatile talent, and wrote and published many books of prose and verse, which were very popular in the early days of American literature. She was in the advance in educational matters, an earnest advocate for woman's

elevation and education, and believed it was woman's duty to use the powers that the Creator had given her, and for which she would be called to give an account in the great day. She was always a warm advocate of Phrenology and a friend to its promoters. Her death (in 1879, even then at so advanced an age in literary harness) was a loss to the cause of advanced mental science.

W. O. HARDING.

About fifty years ago Mr. Harding was known as a high-minded and talented lecturer on Phrenology in the Eastern States. His lectures, delivered in an easy and fluent manner, commanded attention and respect, were well attended, and listened to with deep interest because they manifested considerable study and acquaintance with his subject.

His favorite themes were the utility or the practical uses of Phrenology, and education, as directed by, and based upon, the phrenological developments.

THE REV. B. F. HATCH.

Mr. Hatch was a minister of the Christian Gospel and also a declared phrenologist. In his time it required no little courage for a clergyman to declare his belief in phrenological doctrine and still more to preach that belief to the public, as he did in 1848. Notwithstanding bitter and unrelenting opposition from the clergy he continued his lectures, his desire being to advance true piety, to incite mankind to place a higher estimate on virtue and a virtuous life, to remove sectarian oppositions, and as far as possible to suppress discord among men.

THE REV. LUCIUS HOLMES.

In the early days of Phrenology in America, when men of prominence often employed intrigue and ridicule in their endeavors through the religious press to destroy the influence of those who were its friends, there were a few clergymen who had the courage of their convictions and who dared to speak their mind in its favor. They could see that it was

destined to be of great benefit to the world and were willing to face obloquy, ridicule and opposition rather than deny what they believed to be true.

Among these earnest men was the Rev. Lucius Holmes, who for many years has been an advocate and promoter of the science. He has preached it from the pulpit, published it through the press, taught it to his children and made disciples of it among influential men. Without fear and asking no favors he has done what he could, and should be recognized in these sketches as one of its friends, true and reliable.

Mr. Holmes was born in Thompson, Conn., November 9, 1822. When 17 years of age, he taught school in his own district and in the following year taught in the public school at Putnam, Conn. While in this town a man, who said he was of German extraction, applied for the use of the school-house in which to give a lecture on Astronomy and Phrenology, at the same time telling Mr. Holmes confidentially that the first part of the lecture was partly to secure toleration for the second part. The lecture was given in an interesting and fluent manner. He examined the head of Mr. Holmes and by the general correctness of the examination impressed him with the truth of the science. A few years later Mr. Holmes became a member of the Fruit Hill Classical Institute, near Providence, R. I., and preached once a Sabbath, to a church near the Institute. At this time his mind became agitated with doubts and queries on religious subjects, when it occurred to him that if Phrenology were true, it might aid him in settling his mind on some points. Having access to the library in the Atheneum he secured the works of Gall and Spurzheim and committed the outlines of the science to memory. He then began quietly to observe according to the teachings of Phrenology, and wherever he went carefully noted the aspects of temperament, configuration and size of cranium of

both men and animals. The result was he became convinced that phrenology was essentially true and ever afterward remained firm in that conviction. The study of this science interested and soothed him and he found he could make direct application of it to theology.

The time came, over forty years ago, when he ventured to go out and lecture on Phrenology. He obtained portraits and specimens in comparative Phrenology with which to illustrate his lectures. He received high commendation for his manner of treating the science. He possessed two important requisites for a public lecturer—a deep interest and a thorough knowledge of his subject. His phrenological developments, large Causality, Language, Ideality, Mirthfulness and moral organs, together with an active temperament, qualified him to be a superior lecturer, especially upon the moral and philanthropic department of the science. Finally more settled duties crowded upon him, and he was obliged to abandon his lecturing, but he still believes in the noble work, and wishes there were more engaged in teaching it and kindred sciences.

To do good has always been the great object of his life.

DR. HOYT.

When George Combe visited Albany in 1840 he dissected a brain in the presence of ten well-known gentlemen and in accordance with the principles of the science.

Dr. Hoyt had prepared this brain by keeping it in alcohol for some four or five months, and for the purpose of seeing for himself its true anatomical structure as first shown by Drs. Gall and Spurzheim in their new mode of dissecting the brain. This gentleman left home in severe winter weather, and traveled 150 miles to see Mr. Combe unfold the nervous tissues of the mental organs. Much praise is due to Dr. Hoyt for the pains he took in preparing a brain and going such a distance in a day when a journey of a hundred miles

was attended with little comfort or convenience to witness an examination of its structure with particular reference to its functions.

By means of a skillful manœuvre, Dr. Hoyt secured a lecture from Mr. Combe before the Phrenological Society in Syracuse. When the great Scotsman had finished his lectures in New York, Philadelphia, Boston, Baltimore and Washington in 1839 he, with his wife, took a tour through some of the Northern States, simply to see the country and to recuperate his health. He gives the following account of how he was entrapped into giving a lecture in the Presbyterian Church before the Phrenological Society of Syracuse :

"I had positively declined to deliver a lecture, or to make any public exhibition, but agreed to take a part, incidentally, in the proceedings of any

meeting of the Phrenological Society. I insisted that the public notices of the meeting should be so expressed, and they were so.

"On entering the church, which was filled, the president of the society led me at once to the pulpit, and announced that I would address the audience. I told him that he must begin with the ordinary business of the society. He then said that they had no business that evening, except to hear me. I was thus unexpectedly forced to extemporize without either a theme or a preparation. I spoke for an hour and twenty minutes. The people listened, apparently much satisfied."

Dr. Hoyt thus gratified his strong desire to hear Mr. Combe lecture in Syracuse and perhaps at the same time his organs of Mirthfulness.

CHARLOTTE FOWLER WELLS.

SOME SPECIAL TALENTS.

ILLUSTRATED.

ONE of our subscribers wishes to know what organs should be well developed in the mechanic, the mathematician, the journalist, the scientist, and the historian.

As a satisfactory answer can hardly be given on the page usually devoted to such questions, we prefer to enlarge a little upon the subject and introduce a few portraits.

In all of these five professions or vocations, the perceptives should be large, giving fullness to the lower forehead, well defined eyebrows, length of line from the ear to the root of the nose, width of the forehead through the temples, and considerable distance between the eyes and eyebrows. But the temperaments and combinations of the emotional faculties should be quite different.

Beginning with the mechanic, in addition to the general development of the perceptives, there should be especially large Constructiveness to insure pleasure in building, making, or putting

together *per se*; that is, without regard to the ultimate use of the thing constructed. The temperament should be the motive, or a combination of the motive and vital. This will be favorable to the practical cast of mind, common sense and physical strength which are usually needed by the mechanic. Besides, this constitution is not likely to be handicapped by imagination or any of the sentiments located in the superior portions of the brain which would render a matter-of-fact, monotonous pursuit uncongenial. The strong, rugged face of Roebing, the celebrated engineer and bridge builder, Fig. 1, shows the motive temperament and perceptives in a marked degree, although he had many other qualities which enabled him to use his mechanical talents on a very large scale.

In the mathematician, the organization should be cool and comparatively free from sentiment, but of a somewhat finer fibre than the mere mechanic,

with moderate *Combativeness*, *Destructiveness*, *Self Esteem*, etc. *Calculation* is the primary faculty required. It is indicated by the extent of the forehead laterally from the external angle of the eye as in the accompanying portrait of the well known astronomer, Dr. Hind, Fig. 2. In the higher branches



FIG. 1. ROEBLING.

of mathematics, however, the other percepts, together with *Comparison* and *Causality* are much more important than *Calculation*.

The journalist needs a good deal of responsiveness, activity and versatility. He must be many sided. Like a weather vane, he must answer to every breeze. He must observe and note intelligently the happenings of the whole world, hence he would be embarrassed by large *Continuity*. He must have no hobbies. He needs the mental temperament, with considerable of the sanguine and lymphatic. A sense of human nature is also very important to give a knowledge of motives, and a well rounded back head would confer sympathy with the springs of human conduct. The percepts are necessary to ferret out informa-

tion, and the temperamental combination mentioned above would produce literary taste. Large *Language* is also of value, but neither so indispensable nor frequently found among this class as one might suppose. In Henry J. Raymond, Fig. 3, who was an eminent New York journalist, the mental and vital temperaments are very pronounced.

In the typical scientist, to illustrate which we have selected Professor Agassiz, the percepts are still as prominent as in the preceding examples, but the type of organization is higher. The features betoken a loftier ambition, more definiteness of aim, more strength of purpose, and a much superior degree of precision and accuracy of judgment. To insure these qualities, the bilious phase of the mental temperament should take the place of the sanguine element required by the journalist. The basis of the talent for science is the power to observe correctly, and to discriminate coolly and without prejudice. Thus, the more logical the mind, the better



FIG. 2. DR. HIND.

will be the success attained in the acquisition and classification of knowledge.

The foregoing remarks apply especially to science considered broadly and generally. But the specific departments or branches require particular develop-



FIG. 3. RAYMOND.

ments not only of certain perceptives, but also of the affective or emotional faculties. For example, large Philoprogenitiveness is an element in the taste for entomology, or any other branch of natural history. The bilious temperament is more favorable to pathology and medical studies in general than the sanguine, while Comparison is very important to the chemist, and so on indefinitely.

In the historian, Eventuality may be said to constitute the basic or central element of talent. This is the sense of



FIG. 4. AGASSIZ.

action, or whatever is expressed by the verb. The scope and significance of its manifestation, however, will depend

upon the combination of the other mental powers. In a narrow, undeveloped mind, this faculty may be satisfied merely with the description of a fishing expedition, a tiger hunt, or the adventures of some such hero as Daniel Boone or Buffalo Bill. But in a highly cultivated man like George Bancroft, Fig. 5, the events considered will be of importance and dignity, such as the negotiations and wars of nations, or the personal achievements of celebrated individuals. On the higher plane, history thus calls for one of the noblest uses to which the perceptives can be applied.



FIG. 5. BANCROFT.

In very philosophical writers like Gibbon, the purely historical idea or narrative is almost obscured by the reflections and deductions introduced. In the face of Bancroft, a greater degree of refinement may be observed than is shown in either of the preceding portraits, also larger Language, which perfectly accords with the more purely literary and philosophical character of his work.

To recapitulate, the mechanic needs Constructiveness, Size and Weight. The mathematician should perceive proportions and relations. The journalist requires the convex forehead. The scientist should have a predominance of Individuality which produces a wide glabella, or space between the eyebrows; and the historian should possess Eventuality combined with Language and superior moral faculties. E. C. B.

PHYSIOLOGY VERSUS PHRENOLOGY.

FOR half a century or more it has been fashionable for some physiologists as well as many other persons to improve every opportunity to express an opinion adverse to phrenology. We have been assured that in science there is no "authority," but the similarity of criticisms from the young and inexperienced, as well as from older orators and writers, seems to indicate that human nature is the same with students of physiology as with those who study theology.

In the medical colleges of Philadelphia such statements as the following have been made :

1. "The phrenological description of the function of the brain is not true."—(Prof. Betts)

2. "The phrenologist has some foundation for his opinion, but, I think, when he cuts the brain up into 'organs' he is getting beyond his depth."—(Prof. A. R. Thomas.)

3. "The phrenologist thinks to discover talent from the head, but the skull does not conform to the brain, and, therefore, the form of the brain cannot be known during life."—(Med. Chirurg Coll , 1889.)

4. "The so-called discoveries of Dr. Gall may be true, but I do not think they are."—(Prof. Dunglison.)

5. "If there is any truth in Phrenology it must be a one-sided subject, for only one half of the brain can be examined."

I have considered the *pros* and *cons* of the subject for many years, and think that the discrepancies between them can easily be reconciled, except that such a remark as No. 1 being a mere assertion it is, in its nature, unanswerable. There appears to be an opinion entertained extensively, that a very minute surface of the head is taken to be significant of character by the phrenologists, whereas there must be a sufficient development, or deficiency, of brain to affect the general form of the

head. It is this misunderstanding that accounts for the erroneous statement that the head is not formed by the brain.

Perhaps the most serious misunderstanding arises from confounding the sphere of Phrenology and the character of its evidence with those of its kindred science, Physiology. They are as intimate as two cog-wheels that gear into each other, and as distinct. Phrenology is based upon the facts that the brain sustains the mental action, that various portions have different functions, and that, therefore, the form of the head will represent the natural bias.

It is not necessary to Phrenology to know what is the function of any particular convolution; nor does it matter that there are convolutions that do not approach the surface, whether they are at the base of the brain or in the longitudinal fissure. It is sufficient to know that as the brain fills the skull there can be no brain development without a corresponding enlargement of the head. As "like causes produce like effects," the development of brain on the longitudinal fissure in both hemispheres will always increase the width of the top head, or its elevation, as the case may be; and it may be an interesting question to the physiologist, or to the mathematician to discover which; while the phrenologist wishes simply to know what mental faculty is affected by width or height of head. The difficulty arising from the frontal sinus, or the temporal muscles, is not as great as some may suppose, and at any rate it would be very absurd to offer a mere *difficulty* as an *objection*.

As to the term "organ" made use of by phrenologists, it is a technical term of great convenience, and it is a cause of surprise that any intelligent man should object to it, or charge Drs. Gall, Spurzheim, Caldwell, Rush or Morton with "Getting beyond their depth" in making use of it. No phrenologist, so

far as I know, has any idea of a perceptible anatomical division to correspond thereto. It seems highly probable that the actual division of functions is far more minute than has been represented, and that in what is called an "organ" are a vast number of cells with slightly differing functions constituting a group of sufficient bulk to be observed, and exerting an influence upon character that, in well marked cases especially, can be appreciated.

What about the so-called "New Phrenology," and does it agree or conflict with phrenology? Is it destined to supersede the method and opinions of Drs. Gall and Spurzheim?

It appears to me that to call the knowledge of the brain acquired by galvanizing certain portions, and thereby producing varying muscular motions, phrenology, is degrading both to phrenology, which it has not as yet developed, and to physiology, to which it has made its contribution. But were we to institute a comparison between the work of physiologists as described by Dr. David Ferrier, there would appear to be this degree of harmony, viz: that certain muscular movements have a resemblance to the characteristic manifestations of the phrenological organs. The electrical irritation of the postero-parietal lobule produces an "advance of the opposite hind limb, as in walking." A phrenological sign of great Self-esteem, which is located very near and a little above this centre, is to carry the head well back and to walk as if marching, lifting the feet high and taking long steps.

Another centre is described as lying "on the ascending frontal convolution, at its junction with the superior frontal, gives extension forward of the opposite arm and hand, as if to reach, or touch, something in front." Perhaps, as Longfellow says of the skeleton in armor, it is "Stretched as if asking alms." This location is near the organ of Benevolence, and has a sign, not so sharply

marked, as the preceding, yet is unlike it in its strutting carriage.* Another "Situating at the inferior extremity of the ascending frontal on a level with the posterior termination of the third frontal convolution opening of the mouth, with protrusion and retraction of the tongue." These centres are very near the location of alimentiveness, and the muscular movements resemble, to an exaggerated degree, the movements in eating.

Dr. Gall's attention was first called to the study of the function of the brain by observing that his fellow students who had very prominent eyes, had superior memory of words. Some physiologists have located the centre for articulate speech near the Island of Reil, which might be expected to contract the apex of the orbit and cause the eye to protrude.

Those physiologists who hope to develop a system of Phrenology that shall attain to anything like completeness, without resorting to the methods for evidence now practiced by phrenologists must be of a very sanguine temperament, for at present there is in their experiments scarcely a reliable fact bearing directly on the mental function, and there is little or nothing that is significant through the aid of muscular motion or any other physiological manifestation. It is indeed through the aid that is derived from Phrenology that any of the modern physiological experiments have become suggestive.

Another cause for doubt concerning the truth of Phrenology is in the neces-

* We do not infer that the author regards the muscular attitude, contraction or contracture observed by the experimentalist or clinician as being always that which activity of Self-esteem or Benevolence would suggest; that, on the contrary, the muscular manifestations may be such as activity of other phrenological organs than those he has named could give rise to, or it might be of a nature really or seemingly independent of psychic influence.

sarily great complication of its evidence, which is cumulative, and rarely ever directly demonstrative.

The old maxim, "Half the truth is a whole lie," is particularly applicable to this subject. If the portions of brain called "organs" acted separately the evidence might be more direct, but the rule is in healthy brains that the activity is much extended, and "motives mix" to such an extent that only in extreme cases do we trace the individual action of an "organ."

Again, the quality of the brain varies to an infinite degree, and superiority in quality favors the higher faculties more than the propensities. Two factors form character, and only one of them is physical in its nature, and treated as belonging legitimately to Phrenology.

Such, it appears to me, are the most obvious scientific causes for any misunderstanding of so important a subject, but, besides, there are others scarcely less potent, arising from the competitive state of society, the necessity of doing that which will produce some immediate

reward, in money or fame, the degree of general elevation, the disinclination to be subjected to criticism, etc.

When a man who has had no education in science objects to Phrenology, because he has known two persons of heads of the same form—as he thinks—but with very unlike characters, it is no matter for surprise, although his objection amounts to this: "If there is any truth in Phrenology then there is nothing in education. Heredity must be everything and environments nothing." From a physiologist who has studied the composition and structure of the brain, and is aware of its infinite variety in these respects, we could not anticipate such an objection, nor should we expect a thoughtful physician who has made a study of nervous diseases, and of nervous influences in all diseases, to be hasty in pronouncing a verdict against Phrenology until he had given it a very careful study, and I have never known one person to do so after anything like the attention which the subject demands.

J. L. CAPEN, M. D.

GREAT BRITAIN'S WELCOME TO MISS WILLARD.

BY LADY HENRY SOMERSET.

EDITOR OF THE PHRENOLOGICAL
JOURNAL.

Dear Sir: Feeling assured that your patriotic desire to acquaint the readers of your magazine with the success of their distinguished country-woman in the land of her forefathers will make my letter welcome, I am sending you some account herewith of the meetings held in honor of Miss Willard's visit to England, from which great good is resulting to our common cause.

Believe me, yours sincerely,
ISABEL SOMERSET.

Eastnor Castle, Feb. 6, 1893.

REMARKABLE as has been the power of our transatlantic friends to attract immense audiences and awaken

British enthusiasm, none perhaps, John B. Gough and Dwight L. Moody not excepted, have evoked more universal interest or received a greater ovation than has Miss Frances E. Willard during her three months' stay in England. In this age of great convenings, it is not often that a single meeting marks an epoch, even though it be in the interest of a reform that has now forged its way to the front in the politics of England's regnant party, and, *mirabile dictu*, finds a place in the Queen's speech to Parliament. This is a statement noteworthy indeed, but it is true of the national welcome, for it was nothing less, accorded to America's White Ribbon leader at the recent great meeting in Exeter Hall.

There is perhaps no better gauge of the state of public sentiment towards a cause or an individual than the attitude of an Exeter Hall audience. This famous auditorium has been so long the battleground of all religious movements and

but to convene fifty distinct lines of religious, philanthropic and reformatory work is something which, so far as I know, has never before occurred in the greatest metropolis of the world.

On the huge platform were seated men



FRANCES E. WILLARD AND LADY SOMERSET.

reforms that to the accustomed eyes of its habitues the unprecedented character of that assembly was a marvel. Even in the city of London it is not difficult to rally the adherents of a single reform,

and women whose names are household words throughout the English-speaking race, members of Parliament, dignitaries of the Church, and ladies of society, side by side with the leaders of

the labor movement and the Salvation Army. A delegation appointed from the Methodist Church, the Baptist, the Congregational, the Society of Friends, elbowed Canons of the Established Church, and temperance leaders of the Catholic hierarchy; while the chief Jewish Rabbi sent a congratulatory letter and signed the address of welcome which was also attested by three hundred local Unions of the British Women's Temperance Association.

Among the many societies represented on the platform were: the World's Women's Christian Temperance Union, British Women's Temperance Association, United Kingdom Alliance, Young Abstainers' Union, Independent Order of Good Templars, Independent Order of the Rechabites, Anti Opium League, Women's Anti-Opium Emergency League, Church of England Temperance Society, Young Men's Christian Association, Band of Mercy, Salvation Army, International Christian Police Association, West London Wesleyan Mission, Peace Society, Vegetarian Society, a deputation from the Wesleyan Church, Baptist Total Abstinence Society, Congregational Total Abstinence Society, Women's Liberal Federation, National Union of Women Workers, Prison Gate Mission, Friends' Temperance Union, Presbyterian Temperance Union, Catholic Total Abstinence League of the Cross, National Temperance Federation, London Temperance Hospital Board, Railway Temperance Union, Templar and Temperance Orphanage Board, English Sunday Closing Association, East London Mission Institute, Working Women's Teetotal League, Butchers' Total Abstinence Society, Bakers' Total Abstinence Society, General Post Office Total Abstinence Society, Women's Trades Union Association.

The speakers, twelve in number, were each equal to filling Exeter Hall by the strength of individual reputation; but they gladly limited their speeches to five

minutes each, rejoicing to be among those who did honor to the distinguished guest whom the audience had assembled to greet in number so large that the tickets could have been sold twice over, and some fortunate possessors more sordid than enthusiastic, were disposing of them at three times their original value, at the entrance, where they were eagerly purchased, even for the overflow meeting which had speedily to be organized.

Nothing could exceed the enthusiasm with which the speaker of the evening was greeted. The vast audience rose with a cheer on their lips, and, waving white handkerchiefs, for several minutes the expression of their admiration seemed as if it would never subside. A thrill of pleasure comes to our hearts when one is thus recognized who has toiled so long and patiently for others' weal, for it is good indeed, to pour out the fragrance of our welcome, affection and praise, and place our tribute in the warm clasp, of *living* hands rather than lay it on the cold marble of the tomb.

After such a greeting, it was not an easy task to organize a demonstration worthy to be compared with that of Exeter Hall; but the United Kingdom Alliance, the strongest temperance society in Great Britain, proved equal to the undertaking. Five thousand persons assembled on consecutive evenings in the great Free Trade Hall in Manchester—the second city in England—and the headquarters of the Alliance. Canon Wilberforce and Sir Wilfred Lawson were the chairmen. Testimonials were presented by the Alliance, and other temperance societies, and the entire audience rose to receive Miss Willard, a greeting which was perhaps excelled only by the enthusiasm which brought them to their feet again and caused a hearty British cheer to echo through the historic hall that had witnessed the triumphs of Cobden, Bright and Gladstone, as she closed her speech.

"A wonderful address," said a veteran leader who had gauged every speaker on the temperance platform for the last forty years; "I have never heard it excelled and perhaps not equalled."

Similar demonstrations have been held in Charrington's great hall in the heart of the East end of London, in Liverpool where Miss Willard was welcomed by the Women's Liberal Federation—in Birmingham and Leeds, Nottingham and Sunderland, and in St. James's Hall, London by invitation of the indefatigable Rev. Hugh Price Hughes on Temperance Sunday.

The Methodist churches of London, not to be outdone, have already given a social reception to the most prominent figure among Methodist women of America, and on the 27th of February they are to accord her a formal public greeting in John Wesley's famous City Road Chapel.

Scotland has added her quota to the universal enthusiasm, and indeed in the judgment of some of our temperance workers has exceeded, perhaps, in demonstrating a more expressive sympathy in harmony with their well known national hospitality. St. Andrew's Hall, Glasgow, which accommodates 5,000 persons, was packed on the evening of January 29, and the great Synod Hall in Edinburgh witnessed the remarkable exhibition of the presentation of a testimonial by Dr. Blaikie, of the University, signed by the official representatives of every denomination in Scotland, together with the testimonials of each of the national temperance societies.

A more notable illustration of the result of Miss Willard's life mission could not be instanced than such a recognition from this most conservative body of Christians who have for so long resisted the work and influence of women. It is, however, no matter of wonder that the work and worth of Frances Willard should have been thus recognized in the mother country; for wherever the temperance cause has a champion, wherever

the cause of social purity has an exponent; whenever the labor movement lifts up its voice, whenever woman, with the sunlight of the glad new day upon her face, stretches forth her hands to God, there her name is loved, cherished and revered. Tried by a jury of her peers, even amid the clashing opinions of this transition age, when the old is unwilling to die and the new seems hardly ready to be born, there would still come the verdict, "She is a fair opponent, she is a kindly comrade." As Lincoln said, she has "firmness in the right, as God gives her to see the right," and moves along her chosen path "with malice toward none and charity for all." From that more august and perhaps impartial jury, beyond the circle of reform, comes the verdict, prophetic of that which history shall one day record, "She made the world wider for woman and happier for humanity." We know that America owes her greatness to the sterling worth of those intrepid Puritan pioneers, who were the best gift of the old world to the new. So Frances Willard, who has in her veins that pure New England blood, owes to her ancestry much of the strength and courage that must ever be the basis of a reformer's character. Away on a Wisconsin farm, amid the cedars sweet and fragrant and the whispering fields of Indian corn, she caught the inspiration of her life from the mother whose strong and sunny spirit made glad the solitary place, and who brought into the prairie wilderness a most intrepid intellect and a culture exceptionally rare. The brightness of her own great nature made that desolate place "blossom as the rose" for her children. On that country farm, Coleridge, Wordsworth, and Pope were household friends. That enthusiasm for humanity which characterizes Frances Willard's work was breathed into her active mind by one born and bred in the great free soil State of the North, whose delight it was to teach her little girl to read from the "Slave's

Friend." What wonder that in after years one of the greatest achievements of Frances Willard's life was her mission of reconciliation to the women of the South, while yet the scars of war throbbled in their breasts, and new-made graves stretched wide between sections that had learned the misery of hatred. It was the white ribbon taken by her tender hands that bound those wounds, and gently drew the noble-hearted women of that sunny land into the hospitable home circle of the W. C. T. U. Sacrifice is the foundation of all real success, and it was a crucial moment in Miss Willard's life when she resigned the brilliant position of Dean of the first Women's College connected with a university in America, and went out penniless, alone and unheralded, because her spirit had caught the rhythm of the women's footsteps as they bridged the distance between the home and the saloon in the Pentecostal days of the temperance crusade. She has relin-

quished that which women hold the dearest the sacred, sheltered life of home. Around her hearth no children wait to greet her. But she has lost that life only to find it again ten thousand-fold. She has understood the mystery of the wider circle of love and loyalty, and the world is her home, as truly John Wesley said it was his "parish." She has understood the diviner motherhood that claims the orphaned hearts of humanity as her heritage, and a chorus of children's voices round the world cherish and hail her name, for "organized mother love" is the best definition of the W. C. T. U. Well may we say in the words of our great poet:

"Live and take comfort, thou wilt leave behind
Powers that shall work for thee;
Earth, air and skies,
There's not a breathing of the common wind
That will forget thee, thou
Hast great allies:
Thy friends are exaltations, agonies and love,
And man's unconquerable mind."

Label Somerset.

THE TEACHER'S NEED OF PSYCHOLOGY.

IT is now generally admitted that the teacher must know the subject to be taught; that he must know what the text book says about it; that he ought to understand the best methods of imparting knowledge, and many other things now recognized in the normal schools; but it is not often admitted, or even privately believed, that he should know the child. In fact the pupil, while he is coming to the front and pleading for his rights, is still regarded by the teacher as a very insignificant factor. It is not conceded that he must be studied as a child.

Mental philosophy early attracted the attention of thinking minds, but not as applied to juvenile education. It first

originated by observing the phenomena of self consciousness, and from this point of view, it was studied. But it was regarded as one of the difficult things that only men of strong minds and much leisure might undertake. For ordinary teachers—men and women in the common schools—it was not considered practicable. So it comes about that teachers are not yet psychologists. The training schools do not yet make much of the science, because like politicians, they never lead, but only follow the people, and do only what is demanded of them.

Psychology is *soul*-ology. Perhaps this is another reason why it is not popularly studied. So many look on

the soul as a mysterious, occult something, whose hiding place and habits it would be sacrilegious to reveal. Then many think the soul a mere abstraction—without form, size or parts—a kind of homogeneous *principle* which serves to impel us to action in a mysterious and unaccountable way, but which having no eyes, ears, or common sense is incapable of being trained, of doing anything, or of having anything done to it in a rational way. The following incident will illustrate the usual conception of the human soul. The writer took occasion to remark to a Sunday-school that every teacher in that school should teach the pupils that the human soul has eyes with which to see, ears with which to hear, hands with which to do, feet on which to walk, and a brain with which to think. At this strange doctrine one of the oldest men present was so horrified that he took the speaker aside to tell him he must never teach that way again. The following conversation ensued:

The writer—"Well, brother R., if the human soul has none of these things, what has it?"

Brother R.—"Well er the soul is not a person, like you and me."

The writer.—"If it is not a person, then what is it?"

Brother R.—"Oh! it is just a principle."

The writer.—"You believe that when the body dies the soul lives on. Where does it go?"

Brother R.—"It goes to God!"

The writer.—"But what kind of looking thing is it when it gets there? What shape or characteristics has it? How does God know it is my soul?"

Brother R.—"Well er I don't know about that. God knows."

This represents about the popular idea of the soul. It is so vague that it amounts almost to *nil*.

Yet, the teacher must train this soul—all of it. We now hear a great cry against our schools because they fail to train, or educate, certain parts of the soul. But how can they train that of

which they do not know, and how can they know unless some one teaches them?

The human soul is above every other mundane thing in value. The sparkling stars shine down on us in loveliness; the majestic planets keep their steady march around the sun, and awe us by their greatness; the sun himself sits in the heavens and casts his rays of warmth and light with royal grandeur; the quiet moon holds her even way and woos us by her changing beauty. Yet, in their relations to us these are not to be compared with one single, human soul!

Carlyle said, "A healthy body is good; but a soul in right health—it is the thing beyond all others to be prayed for; the blessedest thing this earth receives of Heaven."

This "blessedest thing" is what the teacher comes in contact with. It is the thing "that makes each pupil what he is," the "thing" the teacher is to direct, develop, educate, train. Psychology, then, is the most practically useful of all the sciences—the "one thing needful" to the teacher.

G. T. HOWERTON.

"SLEEPING, I DREAMED."

Dreaming, I float on a billowy sea,
Past willowy isles and shadowy shore,
Wrapped in the fold's of life's mystery,
Spreading white sails without rudder or oar;
Beautiful forms tho' long in the grave,
Silently beckon me over the wave,
Smiling with eyes that nevermore weep—
Beautiful phantasies woven of sleep!

Upward I wing to an heavenly crest,
By mountains that lift to the azure skies,
Away to the circles of infinite rest
Where fountains of youth eternally rise ;
Friends of old days are trooping about me—
Scenes of fair childhood are dawning upon me
Faintly and sweet angel voices are blent,
Fragments of bliss to night's day that are lent!

Mother and father from over the plain,
Are chanting their joy with welcoming
strain,
Bending, their white hands are held out to
greet me,

O vision so rare! The gray morn will break
thee—
Back to earth's worry I'm wafted once more,
Back to its toilings I thought had been o'er,
Jostlings of strife and throes of life's pain
Wake me from sleep and from dreams that are
vain!

IDA BARTON HAYS.

ORANGE JUDD.

THIS widely known and esteemed leading editor of the *Orange Judd Farmer*, of Chicago, after a few days illness, died in that city on the 27th of December last. He was born July 26, 1822, near Niagara Falls, N. Y. He was graduated at Wesleyan University in 1847. Until 1850 he was a teacher, and then studied analytical and agricultural chemistry at Yale. In 1853 he became editor of *The American Agriculturist* (New York), and three years later its owner and publisher. He was also editor in his favorite department of the *New York Times* from 1855 to 1863. In 1857 he went to Europe and imported a quantity of sorghum seed, which he



ORANGE JUDD.

distributed free. He was the principal member of the firm of Orange Judd & Co., which published agricultural and scientific works, and *Hearth and Home*, and later he was president of the Orange Judd Company for some years. In 1863 he served with the Sanitary Commission at Gettysburg, and then with the Army of the Potomac from the Rapidan to Petersburg. In 1868 and 1869 he was president of the New York, Flushing and North Side Railroad, and of the New York and Flushing Railroad. In connection with

Conrad Pöppenhagen he projected the network of railroads now covering Long Island. In 1883 Mr. Judd retired from the presidency of the Orange Judd Company and was succeeded by his brother, David W. Judd. For some years previous he had been only nominally connected with the company. In July, 1883, Mr. Judd made a personal assignment. While he was in the country, recovering from the effects of a sanstroke, one of his creditors sued him on a note for \$4,000. Mr. Judd could not attend to the case and the creditor would not consent to an extension of a few days, which would have made the assignment unnecessary. Mr. Judd's financial embarrassments began in 1870, when he gave \$100,000 for the Orange Judd Hall of Natural Science at Wesleyan University and contributed largely to the building of churches and Sunday-schools and to other philanthropic enterprises. He was then largely engaged in real estate operations and railroad enterprises. Heavy depreciation of his real estate crippled him and he went into various business enterprises with the hope of realizing enough to meet obligations incurred by lavish giving in prosperous times, but in some of them he lost heavily. In 1884 he established the Orange-Judd Farmer Company in Chicago, still writing a great deal for the press, notably his own journals. In 1862 he originated a series of Sunday-school lessons for every Sunday in the year, upon which the later Berean and International lessons were modeled.

Mr. Judd was intensely interested in the practical and scientific side of life, and it is interesting to observe that his organization was remarkably well adapted to the work which he performed. His temperament was a fine illustration of the mental motive. The large brain gave him a love for intellectual pursuits, and the strong, bony frame and firm muscles imparted to his mind a

taste for the solid, the substantial and the real, rather than for the gratification of either the lower appetites or the pleasures of imagination.

His head was evidently fairly well balanced, but the upper and frontal regions were especially large. He was no doubt fond of a few friends, but he was not a club man or likely to be attracted to fashionable circles. He seems to have had a fine sense of honor, great love of approval, strong religious feelings, and unusual Benevolence.

From the general indications of narrowness in the lower face, the length of the neck, the temperament, etc., it is not probable that his Acquisitiveness

was very strong. He made money through his industry and intelligence, and to satisfy his philanthropic ambition. But he did not evince much disposition to keep his wealth, and obviously lacked the sagacity characteristic of those who hoard their property.

His intellect was well adapted to gather information covering a wide range of subjects, but especially within the sphere of mechanism. Constructiveness, Size, Weight, and Comparison were extraordinary, and he was thus eminently fitted for the editorial duties he discharged with such success.

E. C. B.

AN AFTERNOON WITH THE BLIND.

UNTIL comparatively recent years it was tacitly allowed that pauperism or beggary was, generally speaking, the only alternative for the blind poor. Some few might be able to earn a miserable pittance by basket-making or straw plaiting, but, as a rule, the only prospect for the sightless child of parents in the humbler walks of life was an existence of privation, dependence and joyless gloom, shut out as he or she must—as was then supposed—necessarily be from all the pleasures and profits of labor, and debarred from the simplest educational advantages. During the present century, however, the condition of these unfortunate ones has vastly improved, and never so marvellously as since the foundation, in 1872, of the Royal Normal College and Academy of Music for the Blind—the joint creation of the present Principal, F. J. Campbell, Esq., LL.D., and the late lamented Dr. Armitage. In these handsome buildings, so delightfully situated on the slopes of Norwood, a pleasant suburb of London, an education—technical, musical, mental and physical—is being imparted to numbers of our sightless sisters and brothers, which, though including some of the poorest among the recipients of its benefits, is thankfully sought by

many who are able to pay as much as from £80 to £100 per annum for the advantages received.

It was on a pleasant summer afternoon that we found ourselves on the velvety green lawn of the College, where, bareheaded to the gentle breeze, and seated at tables beneath the shade of rustling trees, we saw groups of young people engaged in various branches of ordinary study.

One class of girls was rapidly writing from dictation in the Braille type, which is almost exclusively used in this institution. The materials are, a wooden board—whereon a sheet of stout, parchment-like paper is held by a sort of clip—a style and a brass guide. By means of these latter, the paper is inscribed with punctured dots in an almost infinite variety of groupings, each group representing a different letter or word; the sentences, which are written from right to left, being, when the sheet is turned over, read in embossed characters from left to right. Difficult as this process of reversal may appear, it is accomplished with perfect ease by the pupils.

We found another class reading aloud from Shakespeare in the same type, rendering the words of the play with as great readiness and intelligent apprecia-

tion, while their delicate finger tips passed swiftly over the bewildering maze of raised dots, as any young folks of similar age with the printed book before them.

Yet another group, each with her hands outspread upon an embossed map, were rapidly answering questions in geography, feeling the way with directness and aptitude from London to York, or from Liverpool to Portsmouth, and accurately naming each town passed on the way.

Among the boys' classes we were most interested in one where half-a-dozen bright lads were busily solving the arithmetical problems given out to them by their teacher. This is not mental arithmetic; neither, it is needless to add, is it accompanied by the familiar "click" of slate and pencil associated in most of our minds with "doing sums;" and although figuring is quite possible with the Braille writing frame, the latter is not adapted for the use of beginners, with whom frequent errors and erasures are liable to occur. To meet this difficulty, various kinds of calculating boards have been invented, but the best is that introduced by the late Rev. W. Taylor. It consists of a shallow metal tray, the greater part being covered by a plate, in which are rows of star-shaped perforations of about the size of a pea, and having eight points each. Into these openings fit square pins, something like the types used in printing. At one end of the pin is a raised ridge, and at the other a similar ridge, divided in the middle by a deep notch. The position of this pin in the eight-angled star thus admits of sixteen variations, which may be instantaneously changed, and represent the ten Arabic numerals and six ordinary algebraic signs. The uncovered end of the tray forms a handy receptacle for the loose pins, and a safeguard against loss. By means of this ingenious contrivance, the young students can practice ciphering as expeditiously as any seeing schoolboy.

At another table, geometrical problems in embossed lines were occupying the attention of some older youths, but the flight of time compelled us to turn from these and hasten to the Kindergarten Department.

Here little sightless ones, of from four years old and upwards, were delightfully employed in various kinds of interesting work—paper plaiting, basket weaving, figure laying, and, above all, clay modeling. Who would imagine that this charming plaque, on which is arranged in high relief a bunch of buttercups, is the work of a child who has never seen a flower? Or that this knowing-looking little dog was copied from a china model by the sense of touch alone? But we see similar works of art in course of development. One boy is engaged upon a cluster of pea pods, open and closed. Patiently he moulds the shuck upon his finger, while the companion at his side is rolling in his palm the tiny balls that are to lie within. No small article comes amiss as a model to the little blind artists—a toy duck or pig, a cotton reel, a tiny shoe (with buttons complete), jars, cups, and fruit, have all been copied by them with charming fidelity, and, we are sure, the keenest delight.

In another department light carpentering on what is known as the Slojd system is taught to girls and boys alike, it being found invaluable for the technical training of those faculties of manual dexterity, which, through the kindly but too constant ministrations of friends, are often found to be dormant in the uneducated blind. The usefulness of this branch of instruction is especially felt by those pupils who subsequently enter the pianoforte tuning shop, a department wherein already over one hundred youths have been trained with such success that they are all now well established in business, not only supporting themselves, but in some cases contributing liberally towards the maintenance of widowed mothers or younger brothers and sisters.

(Conclusion in May.)



A PURSUIT AFTER VITALITY.

Is there not known to some of us a sort of life with no real delight in living? And is there not, too, a state to which we can arrive when much of our time we can feel exhilarated in spirit; when to live and to think are a positive delight? We very well know that this delight is what makes up a large proportion of what we really enjoy. It is, let us say, only a quiet view of what surrounds us, joined to some indifference to past and present and future fate, and a lively pleasure in doing something, no matter what, that fills up our happy cup—usually a small and easily filled one. To such a state, by means of the best training we can get, I think we can all approach.

Perhaps it would be tedious to relate the whole experience I have had; yet I should be prolix rather than obscure in my relation. Read, then, this sketch of a life on this way and learn by what I can tell how to come into the good region where there is a moderate joy in living.

Learn, first, that I long believed in attaining vitality from some one else. But I could not gain force by contact with another. And I venture to say that I doubt whether any one is sure that he loses any vitality from contact with another. I do not think any one can gain or lose in vitality by touching man, child or animal. To do so, I watched long and carefully. Contact

as close as I could obtain imparted no fraction of vitality to me. How provokingly vigorous seemed some of my acquaintances!—supremely selfish! like rich men who gain all and give away nothing. Nor did I get any good in following out what training they told me they had had. It can be easily seen what weariness might result to me in following out their prescriptions, for strong men do with pleasure feats which an ordinary man would break down in doing. They showed me what *they* were doing and I could see the good effect upon them. There were also numerous books describing what training, food and treatment prize fighters were given. What the books said, I tried to do, with some good result in activity. The next thing in the period when I was feeling my way, was to place myself in the hands of a trainer of men for the ring and general athletics. He knew how carefully I must be handled, and he prescribed excellent exercises suitable to my condition, which greatly cheered and aided me.

Soon I began to have some intelligible notion of what I was to do. I came, too, into pretty close contact with real athletes—boxers, runners, “all-round” men. And here I learned the well-trodden paths which for several years I have industriously followed. I have met with three such cautious and well-equipped trainers. The first, just

mentioned, counselled that I should at the start run half a mile: "Take off your coat and vest and run now, on this track: run slow, on your toes." A year afterward, when asked for advice, he said: "Walk right off, ten miles, in good weather, when the road is in good order." In a little while, by persistent exercise in the gymnasium—I frequented three one after another—I could deliberately run three miles without fatigue, and feel refreshed after the "spin." My ordinary run, when I do run, now is half-a-mile, slowly run on the toes, which is about right for almost any one, when a run is indulged in. A mile is enough for most persons who want a little longer distance, after a few days' practice.

Here interposed a singular epoch. I learned to read Hebrew. What has that to do with energy—latent vitality? Much. The Hebrew race is pre-eminently a vital race—long-lived, vigorous, sound, hardy in endurance. I learned, too, from contact with some good representatives of the race, to eat and to like black bread.

There were several ways in which I found my opportunities for exercise—swimming, running, walking, club-swinging, the use of dumb bells, alternating with occasional seasons of gymnasium work whenever the gymnasium was accessible.

So in the midst of finely wrought-well-made, even-built athletes much delight was long found, and when among these agreeable—I will write delightful—associates my life became at last more normal, less intolerable, much better in effort. Hopefulness, light, satisfaction and sweet sleep came to me. Quiet joys allured; work was more easily done; while, adding to my exercise the judicious selection of grains as a regular diet (only occasionally eating meat), the years went on easier and lighter.

Asking myself questions like what I have proposed in this paper, I began thereafter the serious study of living

healthy men, regarding growth, proportion, development and variation.

It seems to me that much is known now as to how a man can make himself stronger, and so happier and more useful; how he can become less morbidly sensitive; what high proportions he can aim to approximate; what general principles will tend, when followed out, to make him a more equable man in his make up, more quiet mentally, more active physically.

I have learned, I think, therefore, what the word vitality means, as well as how new vitality may be gained, conserved and efficiently used.

HENRY CLARK.

THE FOREIGN RATIO IN AMERICAN INSANITY.

Statistics show that where there is a large foreign population, the ratio of the insane to the sane is increased. In California for instance, though the foreigners form hardly one-third of the population, they furnish two-thirds of asylum inmates. According to the reports of the Napa asylum for the years 1880 to 1888 inclusive, of 3,612 patients admitted there were 2,139 foreigners, while only 1,473 were born in the United States. This is explained by the fact that, even conceding the brain of the average immigrant to be as stable as that of the native, the change of environment is so pronounced as to account partly for this result. It is true that the substitution of the meat for the vegetable diet, the separation from home and friends, the stronger the stimulus that is necessarily applied to both body and mind in the competition for even the necessities of life, all tend in this direction. At the same time, it does not altogether justify so great a preponderance of foreigners. Only 194 of the 1,473 natives were born in California; the others, having emigrated from other States, have also been subjected to the same conditions though not to so pronounced a degree. We find moreover,

a difference in ratio among the foreigners, which proves that nativity is a prominent factor.

It would seem that the French and Irish, do not furnish the largest ratio. On the other hand, it is the hard working Scandinavian, and the phlegmatic German who furnish the largest proportion of our asylum inmates. Much has been said about this being the dumping ground for foreign nations, but this is an assertion not easily verified. There are probably many other causes that could be properly urged as tending to this result. Certainly not the least is the intellectual status of those who emigrate, and to this should be added the habits, food and especially the intoxicants are powerful factors in the production of the insane diathesis. — *The Pacific Medical Journal*.

VEGETARIANISM AND ENDURANCE OF HEAT.

THE life of the Trappists who built a monastery at Maryshill, in South Africa, for the purpose of converting the Kaffirs, is described by their Prior, Franz, in the *Calendar* for 1890. He speaks of the necessary preparation of white people for the climate there and says :

"A more or less material and sudden change of climate by white people, from the temperate zone and Northern European regions, renders a corresponding modification of diet and habits imperative; at least, if said tourists, etc., expose themselves freely to the sun. It is advisable for the candidates to come prepared and promptly to adopt the habits of the natives and acclimated foreigners. The latter, if wise, seasonably cool the body and ærate it as a protection against heat and inordinate thirst. Heat, internal and external, from the sun and radiation may be temporarily overcome by bathing and washing, more effectually with tepid than

cool or cold water, but radically only by suitable diet.

"Persons intending to explore or to live, in Africa ought for several months before abstain from food and beverages positively producing heat, specifically the nitro-genous, the flesh of animals, eggs, butter, salt, sugar. The Trappists use none of these, of cheese very sparingly, and they are well known in Natal for the immunity from *high heats*. They came in 1880, and, with the exception of two years spent at Dunbrody (Cape Colony), have lived at Natal. The first arrivals, numbering thirty, never sickened during sixteen months, although subject to many hardships and very hard manual work.

"The majority go always bare-headed; several have a straw hat or a small cap that hardly covers the crown, on the hottest days. Yet the entire neck and forehead are fully exposed to the sun, and, besides, the head is bald the greater part of the year. Once only a member had an attack of vertigo (sun-stroke) but soon recovered, without subsequent injury. A normal temperature of body, caused by judicious diet and habits, alone enables one to become acclimated, and exempt from the dangers befalling the unwary. A strict vegetarian diet well adapted to the locality is *sine qua non*."

FAITH AND CHLORIDE OF LIME.

THERE are many persons who put faith in the place of works, and some who would put works in the place of faith; the results of the transfer always being disastrous. There are cases when persons live in such a way that they make themselves sick, and pray to be healed; when if they had taken proper care of themselves they would not have been ill, and if they had ceased to do the things that made them ill they would soon have got well of themselves.

John Habberton, tells of a preacher who visited a sick man, whose house was filled with poisonous gases from a

neglected drain. Talking of faith the preacher said to him: "You don't need to use more *faith*, but you *do* need to use some chloride of lime on that drain, if you want to get well."

We have great faith in prayer, but prayer does not clean out drains, or dissipate poisonous gases. The Lord taught His ancient people to pray, and he also taught them to be careful about their food, to keep clean, to take baths, to tear down unhealthy houses, to wear suitable clothing, and deny ungodliness and worldliness, to rest from their labors at the appointed times, to behave themselves in their homes, and to treat their wives and children as they should; and he would not accept prayer as the substitute for any of these things; indeed, He would not allow men to come into His presence, until they had attended to these necessary things; and it is probable one-half of the people who now appear in worshiping assemblies would, under the Jewish law, have been *entirely shut out from the public worship of God, as unclean*, and would have been sent home, to take a bath, wash their clothes, govern their passions, and clean up generally, before they would be allowed to enter the congregation of the Lord, or engage in public worship among his people.—*The Christian*.

HANDKERCHIEFS AND DISEASE.

IT is not fully appreciated by the public that the article we carry as an every day and necessary part of our attire may become charged with elements of infection. If it were, there would be shown much more care in the use of the handkerchiefs and of their cleansing. Especially should this be the case in families of whom any member is troubled with a cold or an influenza. One person with a catarrhal affection may impart the trouble to an entire household. This fact should make it common practice to isolate the handkerchiefs of an individual who is affected

by an "influenza." The handkerchiefs used by such a person too, should be treated in the following manner:

They should be placed under water in which a quantity of kerosene oil has been poured, and there remain for say two or three days, then the water is to be heated—by pouring on boiling water—and when this is cool enough they may be washed, soap being used of course. Another washing in oil and soap makes disinfection sure and completely removes all stain and effect of nasal appropriation. Then rinse the handkerchief carefully in warm water, and if possible hang upon a line to dry in the open air. Let them remain out on the line overnight. When handkerchiefs are treated in this manner, diseased matter is robbed of its danger, a fabric of delicate character spared the sacrifice occasioned by hard rubbing and washboard penalty, and the luxury of a soft, clean and white appliance may be had for the suffering nose, which is liable to be for a time very sensitive from effects of "blowing and excoriation." If the best quality of kerosene oil is used, and the handkerchiefs are freely rinsed after oil and soapy water has cleansed and disinfected them, there will be no odor of kerosene discoverable later in the neatly folded and ironed handkerchief. An exchange vouches for the competence of this method of treating handkerchiefs, and we willingly commend it to our fellows who are subject, at this season especially, to nasal and throat catarrhs.

HIS MOTHER'S PIE.

A dainty young wife made a "beautiful pie"
 For him who was king of her heart;
 It suited her taste, and it suited her eye,
 And was a production of art.
 She gave him a piece at the table with pride,
 And watched her dear idol partake.
 "I made it myself," said the fair, loving bride;
 "And how do you like what I bake?"
 The bridegroom gazed down at the wonderful
 pie;
 The bride sat in tremulous fear.
 At length he returned her this doubtful reply:
 "It isn't like mother's, my dear."
 Tears shone in the depths of her gentle blue
 eyes;
 How could he such language repeat?
 "No, love," he continued, "this pie is a prize
 Mother ne'er could make one fit to eat."

—*Laura Rosamond White, in Puck.*

NOTES IN ANTHROPOLOGY.

Trial by Ordeal in Africa.—In an African village the work is done chiefly by the women; they hoe the fields, sow the seed and reap the harvest. To them, too, falls all the labor of house-building, grinding corn, bringing beer, cooking, washing and caring for almost all the material interests of the community. The men tend the cattle, hunt, go to war and curiously enough, do all the sewing required on their own and the women's garments. Neater tailors than Africans it would be impossible to find anywhere. By means of an awl and tendons from the animals of the chase, they can sew small squares of skin together so as almost to defy an expert to find a seam without looking at the reverse side, nor are they mean artists as regards art and fit according to African notions. Of all central African customs, trial by ordeal, which is universal, is the most revolting to a European, brought for the first time into contact with savage life. When a man is accused of any crime—as theft, arson, murder, witchcraft or the like, evidence is brought against him in the way common throughout the whole continent. This, however, is never final. The accuser's witnesses swear to anything required of them without the slightest compunctions, and as the prosecutor must produce his evidence first, the defendant's witnesses are ready to swear, and do swear the opposite of all that has been said. Trial is invariably in open court, and nothing said by the witnesses for the prosecution can be concealed from those that are to follow. There are no affidavits, thus making contradiction at once simple and safe. If rebutting evidence were allowed the most paltry trial would be interminable. For a witness to be called a liar, is, in such a case a compliment. It proves that his evidence told and that he, by inference, is a very clever fellow. If the same man were accused of bewitching, he would regard it as a foul libel, and demand the poison bowl without an hour's delay. To remedy the defects of trial in court, that by ordeal is adopted in all kinds of cases both civil and criminal. As the

case proceeds before the council, the accused at intervals demands the *muwai*, and this demand, his friends if they believe him innocent, persistently press. The accuser resists the demand as unnecessary, knowing that should the culprit, even if caught red-handed, recover he will be placed in a difficult position. He will in that case have no claim to compensation for an injury, and may in turn be successfully sued for willfully seeking to destroy another man's reputation. The belief in the absolute certainty of trial by *muwai* is universal, and the beginning and end of reasoning is this: "If he is guilty he dies; if he does not die, should the stolen property be found on his person, he is not guilty, another put it there, or he is bewitched."—*Journal of the Anthropol. Inst.*

Race Distinctions.—In the *Popular Science Monthly* for February is a translation from the book "L'Homme dans la Nature," regarding a matter of special interest to a student of anthropology. The following is an extract. "There are, properly speaking, no races within mankind such as we find among animals—that is, constant varieties, perpetuating their likes in a certain manner. There are only historical or philological remnants of people to whom we attribute, rightly or wrongly, a certain number of common physical characteristics. In any other sense the races of anthropology are simply products of our minds, suppositions of substantial affiliations of unmixed blood, working hypotheses. There are no persons corresponding to the types we assume. These types themselves are not tangible realities, but groupings of characteristics which we suppose to have been continuing for an indefinite time through the events of history and prehistory, which, without destroying the characteristics, have not ceased to scatter them and to arrange them anew in different combinations. From particular types we rise to the notion of general types, which are likewise only probabilities, going up gradually to histori-

cal, prehistorical and quaternary types, and by inductive constitution to primitive types. Every anthropologist has his classification of types, some admitting more, some less; in the classification of our lectures and our *elements d'anthropologie generale* we enumerated nineteen, without concealing the existence of many gaps. All this is not very favorable to the unity of the human species, but whether there were originally one or many types, the results are the same. At present all men are capable of unlimited crossing, and new types are continually forming. If we would go up to the origin of things, we should have to simplify more and more. In the first stage of our synthesis, we should come to eight general types, viz.: a fundamental European blonde type, a Mediterraneo-Semitic, a brachycephalic Asiatic, a dolichocephalic Asiatic, an Americo Polynesian type, a black type with curly hair, a brachycephalic negro and a dolichocephalic negro type. But perhaps dolichocephaly and brachycephaly are only secondary differentiations that may be produced in all the types, as large and small stature may be too; the black man with curly hair may be only a cross. Nothing is easier, in fact, than to conceive in the light of anatomy and physiology that all types of mankind can be reduced to three original types — the Europo-Semitic, the Asiatico-American and the negro; or to two—the white, which is differentiated into those of flat and of sharp faces, and the negro. A further reduction would be hazardous. But if we lost ourselves in the depth of the ages, we might conceive the negro as first born and giving birth in succession to the curly-haired Australian, to one of the brown forms with straight or waving hair, and finally to the blonde European. Hence the monogenistic system (or the doctrine of the unity of type and origin) and the polygenistic system (or the doctrine of plurality of type and origin) are equally tenable. Natural history proves indisputably that man is the issue of a primate. It is opposed to the idea that we are descended from an anthropoid like those of the present time.

Musical Progress in America.

—The Americans, notwithstanding all that has been said to the contrary, are a musical

people. Their taste is still unformed, but it is naturally a good one, and is sure to grow in the right direction. But in order to grow in the right direction it must be properly cultivated. It has thus far been sufficiently developed to enable them to appreciate the superiority of the new methods in music over the old. What has already been achieved is remarkable, when one considers the disadvantages which retard the progress of music in this country. Whenever operas have been given, they have almost invariably been sung in an alien tongue. No satisfactory results can be achieved here, nor can America produce any national music, until opera is given in English. I look forward to the time when American composers will produce great operatic works of a distinctly original character, written in the vernacular, but until that time comes, I believe that such foreign works as are performed here should be translated into English.

The unsatisfactory state of our musical culture is due chiefly to the intermittent opportunities which are given here for musical education. It would be folly to expect people to form a healthy musical taste simply by hearing operas occasionally produced, and almost always in an inadequate manner. What we need is American opera given under American influence. This can be brought about only by an elaborate and well-organized system of musical education. We have plenty of good material for the making of musicians, but this material is buried beneath the army of foreign artists who annually come to our shores, and whom Americans have formed the habit of encouraging, often simply because they are foreigners.

In order to bring out this latent material, a school for opera should be established here. It would keep at home those young musicians who now go abroad to study, frequently under great disadvantages, and would encourage those to undertake a musical education who are deterred from it by the expense which they would incur by a European training. The schools should not only train singers, but also young men who are ambitious to become orchestra players and orchestra leaders. There should be in connection with it a theatre, in which operas

might be produced, thus making a practical school for opera. American composers, too, would be greatly helped, for the school should endeavor to encourage them, not by ignoring works written by foreigners, but by giving the preference to operas written by Americans. Such an institution would be of immense benefit if it only taught us to cease aping the French and Italian peculiarities, and to work on individual lines. Let us, by all means, assimilate what is best in German, French and Italian art, but we can do this without being enslaved by any one of them, and let us endeavor to express our own natures, which is, after all, the only means of attaining that highest and best of qualities—originality.

Thus Herr-Anton Seidl, in the *Forum*, to which it may be added that of efforts that are being made in New York to advance the musical interests of America we should mention the National Conservatory, which, under the patronage of Mrs. J. M. Thurber, offers special inducements to those students of music who aim at high excellence. Free scholarships are the rewards of successful examinations that indicate proficiency and special talent.

We note that the Metropolitan College of Music also offers liberal training through extended courses of lectures and class instruction. A new departure at this institution well deserving of notice is Dr. H. G. Hanchett's courses in Analysis and Criticism, and the unique addition of a course in Musical Pedagogy, for which Dr. Hanchett is individually responsible. This, by itself intimates a step in the higher domain of music study that can scarcely be paralleled in any foreign conservatory. We trust that the accomplished teacher will be sustained in his attempt to develop the philosophical principles involved in musical art.

What Prehistoric Graves Tell Us.—Burial customs in prehistoric times are worthy of study. The final resting places furnish us hints as to the architecture which prevailed. The posture chosen was after that of sleep, the body lying on its side, with the arms crossed and the knees drawn up to the chin; the whole was covered with a quantity of red powder. This custom was common among certain

hunter tribes in America, though most of the bodies which are covered with red ocher are in a recumbent attitude. The habit of unflashing the skeleton was also common in America as well as in Europe.

The palæolithic folk also buried treasures with the bones of their dead. They kept the bones within the precincts of the abode of the deceased. This was owing to their religious belief. The temporary separation of the body from its double required that the bones should be laid in the cave or dwelling in which he had lived or in a harrow or tomb built in the semblance of it. The implements, weapons and ornaments were buried with the body, sometimes broken, in order that the ghosts might be set free for the use of the ghost or spirit which always hovered near. We find traces of this belief in ghosts prevailing throughout the world. It is as common in the New as in the Old World, and was prevalent among the uncivilized races everywhere.

The use of fire was perhaps common among the cave-dwellers. In one of the Reggio caves human bones were found mixed with those of animals, and both showed traces of having been burned, though these are supposed to be neolithic. At Solutre, Mayence and Corsica large slabs of stone, laid out flat and covered with heaps of cinders, which formed the family hearth, have been seen.

The baking of pottery is proof that the use of fire was known in remote times, but pottery is generally regarded as a true sign of the neolithic civilization, and is denied as belonging to the palæolithic. Cannibalism is supposed to have prevailed in this period. The cave-dwellers have been compared to the Eskimos, as the bone carving is very similar. The "reindeer period" is illustrated by this means, but no skulls like those of the Eskimos have been found in the caves of Europe. This overthrows the theory that the Eskimos are the descendants of the cave dwellers. There was a wide gap between the palæolithic age and the neolithic which has never been filled or even bridged. All the prehistoric structures are on the neolithic, none on the palæolithic side. It seems to be largely conjecture whether man, who

contended with the extinct animals, had any home. Tombs also are confined to the neolithic age; there are no tombs in the palaeolithic age. The cultus which prevailed during neolithic times is to be learned from the caves and tombs. From these we learn the character of the earliest abodes of man; but we know nothing of his abodes in the palaeolithic age.—STEPHEN D. PRÆT in *American Antiquarian*.

The Origin and Antiquity of Man was the title of a paper read by Dr. Wm. M. McLaury before the Anthropological Society of New York at one of its recent meetings, and from it the following extracts are taken: As to the origin of man the evolution theory is adopted as most reasonable to the author's mind. That life originated by combined action of heat and moisture on cosmic dust is not improbable; but it is impossible to conjecture the vast eras of time it has taken to evolve from this source the great variety, genera and species now found in the fauna and flora of the present time. What we have to say, then, respecting the origin of our early ancestors is this, that when matter was subjected to a complicated play of forces, chief among which was solar influence, plants and animals came into life, and that when animals were subjected to an ever increasing variety of forces they became varied in their structure, and that when their structure had attained a certain measure of variety, they became conscious of their own existence, and that their nature endowed them with the faculty of preserving their lives and that of their species by their own conscious efforts. We find in the lower kingdom muscular power in its perfection, but the brain is always imperfect, always young, always growing, always capable of being developed. In writing the history of animal progress we must, therefore, concentrate our attention upon the brain, and we shall find that the development of that organ is in a great measure due to the influence of the affections.

By briefly describing what the lower animals do and what they feel, we should show that they possess in a dispersed and

elementary condition all the materials of which human nature is composed. In their communities there is sometimes a regular form of government and a division into classes. They have their monarch, their laborers and their soldiers. Some species have slaves, which they capture by means of military expeditions, attacking the villages of their victims and carrying off the prisoners in their mouths. They have domestic animals which they milk. They build houses and towns which are ingeniously constructed, and which, in proportion to the size of the architects, are greater than the pyramids as compared with man. As among savage races of men, the sickly and weakly are usually killed, though sometimes they are kept alive by alms, even the blind being fed by charitable members of their own set. All gregarious animals have a language by which they communicate with each other. Sometimes their language is that of touch, but with most animals the language is that of real sound, and the varied intonations of anger, joy or grief, may be recognized by the human ear.

The language of our progenitors consisted of vocal sounds and also movements of the hands. After dwelling quite at length upon the many similarities in the traits of men and animals, Dr. McLaury traced the progress of man from the early palaeolithic cave-dwellers, through various stages of development or evolution, to the civilization which the world has now attained.

E. M.

Decay of Turkey.—In Africa, England governs the fate of Egypt, France is in Tunis, Italy is on the Red Sea. England possesses Cyprus, Crete is under European protection, Russia holds Batoum and Kars, and the Turk is killing all prosperity in Asia Minor by his cruel taxation. The "sick man on the Bosphorus" is dying more rapidly than Europe knows; and the heir ought to be the Christian people whose fathers were dispossessed of Constantinople in 1453—not the Russian, but the native Christian. The Turk is sick and dreadfully poor, and his "friends" want his estate. The true owners may get it by the quarrels of "the friends."



NEW YORK,
April, 1893.

**THE DIFFERENTIAL INFLUENCE OF
TEMPERAMENT.**

A VERY proper question is asked by a correspondent in reference to the differential influence of the temperaments upon the mental organism. In the phrenological treatises temperament is discussed rather in the general than the particular, so that the student who is inclined to pursue an investigation regarding the action of the faculties in their relation to certain degrees of temperament must largely plow the field for himself. At the last annual meeting of the Institute Alumni one of the papers that produced lively discussion had for its topic the relation of the temperaments to the manifestation of faculty, and it was then declared that there was room for important work, and that he who would explore that field and give the results to the literature of phrenology would earn the gratitude of a large public.

What we can say in this place on the topic is scarcely more than a hint to the reader who is conversant with the principles of mental physiology: a hint that we hope will stimulate reflection and observation, and find an outcome in well formulated and practical deduc-

tions. It goes without saying that every well informed and competent phrenological observer recognizes the part played by temperament in mind and character, and in his analysis of single instances takes into account many phases of influence, the character of which is not defined "in the books," but which have been clearly recorded in the tablets of his experience. Perhaps it would be difficult to translate into words some of the effects of temperament that may appear obvious to such an observer, yet the literature and teaching of practical phrenology must ever remain incomplete if this department of the subject be not reduced to "a form of sound words." Let us consider the faculty of *Combativeness* briefly as an illustrative example of temperamental influence; bearing in mind the simple function of this mental power, which is defined as the instinctive tendency to oppose. In a low degree of activity it inspires mere resistance. When largely developed it leads to aggressive effort either physical or moral for the purpose of removing obstacles. Hence the feeling of courage is dependent mainly upon its activity. Assuming now a certain degree of power in the feeling, what effect would a predominant mental temperament have in its expression? Looking for a moment at the significance of this qualification of the physical organism we note that it promotes nervous activity, acuteness of sense impression and the intensity of feeling; but at the same time the tendency of the activity is toward refinement and delicacy of feeling and taste. This is but a natural resultant of the predominant cerebral and nervous growth that

characterizes the temperament, the convolution in the upper and anterior lobes being as a rule largely developed and the convolutions at the base of the brain being but moderately so. The effect of its influence upon Combativeness may be inferred to be that of inspiring sensitiveness and a consequent promptness of response in those circumstances that tend to arouse the sentiment of defence or opposition. Of course the color of the expression would depend much upon the coordinate influence of other faculties, but generally the character of the expression would not be that of coarseness and brutality. It would combine features of intellectual discussion and moral assertion, and so endeavor to carry its point rather on the humane than on the physical side; it would be earnest and persuasive and not inclined to rude assault. In a mood of exasperation when the feelings had been aroused by some very unusual and unwarranted offence against personal right and safety it would be likely to render the Combative expression direct and rapid, the other faculties being stimulated to forceful and sharp manifestation according to their development and training.

The motive temperament, with its physical constituents of well developed bone and muscle, firmness of tissue, strength and endurance, imparts a quality of action to the organ under consideration that is essentially different from the effect of the mental temperament. We note at the outset that the manifestation of defensiveness and courage must be of a positive, emphatic nature. There is a sturdiness in the expression of the faculty that suggests the set contracture of muscle in the attitude

of resistance to an attack. While the mental temperament inspires vivacity and resilience to the action, the motive temperament is particularly distinguished for force and strength, and in circumstances of special excitement it inspires the aggressive quality in the expression of courage. The action appears to be physical largely as compared with the stimulus imparted by the mental factor; there is less of intellect in it, and much less of moral sentiment; consequently the appeal of the organism in general appears to be more to the energies of the body than to those of the mind for accomplishment of the demand that the aroused combativeness makes upon the man. The motive temperament has, in a general sense, an executive influence, moving the faculty to decided action and meeting force by force persistent and direct.

The vital temperament in its bearing on the faculty brings the characteristics that distinguish it. We know that in those who possess it the bodily functions are performed with vigor and facility, the blood flows freely through the various tissues and all parts, being abundantly nourished, are stimulated. The brain organs work with freedom and respond promptly to impressions, and, according to their size and development, indicate ardor, versatility and impulsiveness. Elasticity rather than strength, quickness rather than persistence, enthusiasm rather than endurance, and brilliancy rather than depth and soundness, characterize the expression of organs dominated by this temperament. Liveliness and openness in the expression of the feelings tend to excitement and passion. Hence, when

there is irritation, the response of combativeness under the influence of the vital temperament is impulsive and quick. The organ acts impetuously, and intimates its full power in a single effort. The reflection and judgment shown in the effect of the mental temperament are not seen, and the force and steadiness of the motive contrast with the volatility of the vital. The defensiveness of combativeness, therefore, under such an influence, while it may exhibit spirit, impulse, *elan*, is uneven, fluctuating and intermittent; its courage indicated at first with great energy must carry its point soon, or it becomes fitful and irregular. In the conflict when there is a call for volunteers for assault or charge that must do its work in a twinkling or fail, the soldiers with the vital temperament would be efficient; but when a struggle is impending that will be stubborn and prolonged the soldiers with the motive temperament are fitter for the service.

Our article has exceeded the length that we purposed to give it, and we have done little beyond indicating those points that are fundamental to a consideration of the subject. Yet the reader, to whom it may be new, has, we trust, been convinced by the importance of the function exercised by temperament in the manifestations of mental faculty.

FRIENDS, TO YOU OUR THANKS.

IN reply to a request published a few months ago a very large number of the JOURNAL readers have sent us their opinions with regard to the matter which should have preference in our pages. The interest in the success of the JOURNAL that these opinions evi-

dence merits more than passing mention, aside from the fact that the writers naturally expect some recognition on our part of the suggestions that have been made by them. First, we should say that the solicitude of all with reference to the success of our publication is gratefully acknowledged, and is itself a strong assurance of the good faith in which their suggestions were offered.

The great majority, at least seventy-five per cent., of the letters ask especially for a larger space in the magazine for the discussion of phrenological topics. "We cannot have enough information with reference to the human mind and character," is their common sentiment. Next in number are those that ask for more matter relating to health and hygiene. We were surprised by the slight mention of the department of Child Culture, and are inclined to attribute the omission to the probable idea of most correspondents, that the consideration of that topic naturally enters into the larger subject of mind development.

In the numbers for this year more space has been given to the study and illustration of human nature than has been the practice for many years, so that we have met the demand of the seventy-five per cent. of our correspondents, almost in advance, and it would appear that our subscribers at large are pleased, as in their renewals for the current year they generally express satisfaction with the contents and appearance of the fresh numbers. This modification of the substance of the JOURNAL necessarily reduces the space heretofore appropriated for miscellaneous reading, but as it is in closer keeping with the spirit and pur-

pose of the magazine, it is what an intelligent reader would expect to find in a monthly devoted mainly, by its title, to phrenological literature.

A few correspondents think that a story department might be added with good results, and one, rather lonesome in his opinion, thinks it would be well to insert articles on *electricity*. The suggestions by perhaps half a dozen that articles on magnetism or hypnotism would be acceptable to many readers, we consider pertinent, and shall, as we have opportunity, insert gleanings from the more recent developments of that wonderful domain of psychic phenomena.

We must repeat that the practical expression on the part of so many readers of interest in the welfare of the JOURNAL receives our heartfelt thanks, and will command our respectful attention in the future management of its literature.

A MORE CHEERFUL VIEW.

THE recent volume by Dr. MacDonald on criminal phenomena which we reviewed in a recent number of this magazine, contains certain statements by its author that show the tendency of late opinion with regard to the criminal conduct of men. While the work is mainly a compendium of opinions drawn from the observation of eminent anthropologists and those who have devoted themselves to the study of vice and crime, incidentally the author expresses his own view in clear enough terms. For instance, he says in one place:

“Criminal phenomena and the manifestations of insanity bring nothing

new; they are nothing further than distorted or diseased manifestations of mental activities, which, by themselves, are present in every man; but in some they develop in one of the other direction. No one is sure that his mental soundness cannot be endangered through outer or inner troubles, or that he can escape inclinations which might lead to crime.”

This we readily accept, because it is in keeping with utterances made in these columns, and before public audiences. Sometimes by such a vowal we have incurred the caustic criticism of men and of even women who, holding the theory of an hereditary transmission of criminal instincts, like Lombroso, treat the inveterate offender against law, social and civil, as one defective constitutionally, and akin to the insane or idiotic.

A further expression in keeping with the above quotation occurs among Dr. MacDonald's general conclusions from his study of the data, viz.:

“Education, in the narrow sense of mere intellectual instruction, is not sufficient to reform children who spend one fourth of the day in school, and three-fourths on the street, or with criminal, drunken, or idle parents. There are reform schools, but they make no provision for little children. Not a few of the inmates of reformatories come there practically incorrigible, and the testimony of prison wardens is that some of the most hopeless prisoners are graduates of reform schools. The fault is not in the reform schools, but in allowing children to live the first years of their life in surroundings that almost predestine to crime. Reformatories are expected to erase the indelible criminal

impressions made upon children from birth, or before, till the age of six. Instead of deserving criticism, the wonder is that reformatories do as much as they do."

In brief this is an affirmation of the ground we have been standing upon for many years. It may be repeated, too, that the principle involved is in accordance with the phrenological doctrine that considers all men amenable to training and improvement, whatever

may be the degree of moral degeneration or perversion. This may be termed optimistic by the casuist, but it is an optimism that is rational as well as hopeful for the advancement of human nature. Dr. MacDonald must be deemed equally optimistic, for he remarks even after his careful survey of the worst phases of human degradation, "All men, no matter how old in crime, can at least be improved and benefited."



To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

OXYGEN TREATMENT.—I. C.—The best oxygen treatment consists in deep breathing of good air and eating nutritives and easily digested food. In other words a properly adapted hygiene will supply all the oxygen needed by the body. A much advertised "system" of oxygen treatment to which our attention has been called by the inquirer, lays much stress on good habits, dietetic and so on, in the circular given to those who try the treatment. This goes so far as to indicate with some particularity, the kind of food the patient

should eat and how he should dress, sleep and exercise to secure the effects derived from the use of the expensive apparatus that is furnished to those who pay for it. Thus, the whole matter is "given away," as the one who is intelligent with regard to hygiene readily perceives. The apparatus for taking the oxygen, whatever may be its name, is but an appendage to the hygiene, and really unnecessary. Lungs are constituted to take up a certain amount of air, and in breathing fully and freely is the natural way to supply the requisite quantum of oxygen to the blood, as it circulates through the lung substance. Deep breathing, without artificial aids will usually invigorate the lungs and develop a greater capacity of respiration, unless the patient has become fixed in habit and too far advanced in pulmonary disease.

CONSTITUTIONAL CATARRH.—JR.—This condition may be defined as a general disturbance of the secretory organism, especially the numerous membranes, manifested either by an excessive flow of the products of secretion or a subnormal flow (atrophy). The trouble may exhibit itself in a particular locality, and so draw the person's special attention to that locality, and he may think that it is the only thing out of order in his composition. It is usual for catarrh to indicate itself chiefly

in some special organism for the reason that such organism is weaker in function than other parts, and so more susceptible to disturbance.

SEX IN BRAIN—H.—The main difference between the brains of men and women consists in the arrangement of organic areas. The idea of a larger amount of gray matter relatively to size being in the male brain is more fanciful than true, and the statement you send, in the newspaper clipping, cannot be said to be a fact determined by sufficient investigation. Given two brains of like measurement and quality, one feminine and the other masculine, we think that the general product of close analysis would show very little difference in the amount of gray substance. Quality and temperament affect the distribution and extent of the convolutions; the deeper the folds and more complex, the more numerous the layers and the greater the quantity of that cellular tissue that is regarded the basis of ideation, thought and impulse. If the fact stands that the male brain weighs $4\frac{1}{2}$ ounces more than the feminine, then, quantity for quantity, there is more of both white and gray material in the former. As for the specific gravity counting, in the comparison, assuming that it is more in the male brain, if it has any value in the mental expression, what have we to say with regard to the anthropoid ape, the chimpanzee for instance, whose gray tissue is said to be heavier in degree than that of the human article?

THE LOWER JAW.—**QUESTION:** What is indicated by the lateral development of the lower jaw at its posterior angle where it goes up to form the joint in front of the ear? Also, how is the element of mind represented by this development affected by differences of organic quality? In all cases which have come under my observation, with one exception, where the development was strongly marked, there was less than an ordinary degree of quality. H. E. B.

ANSWER:—As the maxillary or jaw bones are related primarily to offices of nutrition, and also used as weapons of defence and offence, it is easy to see why their special development should be associated with a low grade of quality. The lower the animal, the more simple are its means of

defence, and the higher the grade of refinement, the greater will be the tendency to rely upon intelligence and artificial wea-

Indeed, the disuse of the teeth in the preparation of food for digestion has become a very serious matter to many people in our advanced civilization, since the supply of saliva is thus curtailed.

Now the hog seems to possess the most marked development of the jaw to which you refer, and he is equally remarkable for the strength of his appetite. He may also be said to represent the lowest grade of quality, so that we may find in this degraded animal perhaps the best illustration of the mental characteristics you are seeking to define. In short, then, the broad jaw means animality, and of a phase related to selfishness and greed. This is the primary point, but as a concomitant disposition the leading authors on physiognomy have recognized in such organizations the quality of contrariness. The hog, who is no doubt jealous of his life-business of eating, probably exercises the policy of constant resistance as the best adapted to favor his interests. He evidently feels that if you choose north, he would be less likely to lose by taking the south; and being dominated by selfish appetite this mental process becomes a habit.

As to the manifestations in instances of finer organic quality, the selfishness and contrariness will still be present, but expressed on a higher plane and with more refinement of manner.

PERSONAL.

OBITUARY.—It is with regret that we record the death of Marietta Meserve Morris, wife of Prof. George Morris, on December 29 last, at her home near Portland, Ore. But a little past thirty, she had given promise of a career both noble in itself and of great value to those among whom and for whom she was glad to labor. A teacher by early practice and later a phrenologist, she was in the field an exemplary and successful worker, and specially encouraging to other women who have given themselves to the public demonstration of the most humane of sciences. As a student of the Phrenological In-

stitute she honored it in her life and service, and the asterisk that must hereafter include her name among those on the list that have passed away will also signalize a loss to the world that may not be easily filled.

ONE secret of Gladstone's tireless activity and youthful vigor is suggested by the following illustration given by the great statesman not long ago: "There was once a road leading out of London on which more horses died than on any other, and inquiry revealed the fact that it was perfectly level. Consequently the animals in traveling over it used only one set of muscles." It is the variety of his life's activity that has preserved his body and mind in so wonderful a degree of vigor.

GEORGE MACDONALD, LL.D., the famous poet and novelist, is said to be a tall, impressive looking man, a little high shouldered, and not without a tendency to Scotch gauntness, with a head large, especially in the parts in front of the ears and in the upper region, and generally well shaped. His features are fine, and the whole expression noble. His hair is long and flowing to the shoulders, the beard and moustache full and, like the hair of the head, grizzled. In keeping with this description of the man, his books are striking, almost obtrusively philosophical, and not so artistic in execution as lofty in purpose.



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

BIBLE STUDIES:—Readings in the early books of the Old Testament, with Familiar Comment, given in 1878-9, by Henry Ward Beecher. Edited from stenographic notes of T. J. Collinwood by John H.

Howard. 12 mo. pp. 436, Fords; Howard & Hulbert, Publishers, New York.

OF Mr Beecher it can be said, and the application fits few men who have lived in the present century better, that "being dead he yet speaketh." Out of the great wealth of his thought comes to us now and then a volume that engages our close attention with the freshness and vigor of the sentiments and the aptness of the principles, and recalls the wonderful power of the Plymouth orator to make spiritual truths clear to the ordinary mind. These Bible studies are particularly noteworthy for their simplicity of style, although they show no small amount of learning on the side of exegetical criticism. Mr. Beecher is considered by many as much wanting in the scholarship of the seminaries, but is not the impression largely due to the very clearness and unblemished style of his utterances? He never affected profound learning, but sought to present views, when he preached on controversial subjects, that would appeal to the common sense of his auditors. A cursory glimpse at some of the titles of the readings, viz. :—"Jacob," "Joseph," "Moses," "Emancipation," "The Wilderness and Sinai," "The Sabbath," "Mosaic Institutes,"—three lectures—"Humanity," "The Household," and "Social Observances," "The Feast of Tabernacles," "In the Land of Moab," "Campaigns of Joshua," "A Time of Degradation," shows that the peculiar mind and experience of Mr. Beecher have a field in their discussion that renders his words more than commonly entertaining and impressive. We can not doubt that the volume will be warmly greeted by Church people—Bible students especially.

FAITH HEALING, CHRISTIAN SCIENCE AND KINDRED PHENOMENA. BY J. M. BUCKLEY, LL.D., 16mo. pp. 303. The Century Co. New York.

FOR many years the author of this volume has given attention to the study of the extraordinary mental phenomena included in the terms of Astrology, Divination, Witchcraft, Mind Cure, Mind Transference, Presentiments, Somnambulism, etc. His observations, marshaled in an orderly manner, and analyzed with a critical acumen that is rare enough among book

writers, form the substance of the book. From all sources of a trustworthy character Dr. Buckley has drawn his instances and so covered the field designated in his title that the treatise forms an excellent reference for the use of those who would make more than a passing inquiry into the field of psychic mystery. The keynote to his investigations is sounded at the beginning in the following:—"before endeavoring to explain how phenomena exist it is necessary to determine precisely what exists, and that so long as it is possible to find a rational explanation of what unquestionably is, there is no reason to suspect, and it is superstition to assume, the operation of supernatural causes." The good judgment generally exhibited in discussing the phenomena must, we think, command the approval of every candid reader.

HUMAN WONDERS, FREAKS AND DISEASES.

By E. B. Foote, Jr., M. D., New York.

In a pamphlet of 149 pages we have grouped many important facts of physiology, and not a little of valuable advice of the preventive and remedial kinds. The leading feature is a lecture entitled, "The Seven Wonders of the Human Body," which is illustrated in which many curious things are mingled with a description of the main elements of physical structure. Under the heading of "Antexæmia" or self-poisoned blood, the author considers improprieties of habit and living that conduce to disease and death. Dr. Foote strongly advocates hygienic procedures in the correction of unhealthful habits and in the treatment of common ailments.

PROCEEDINGS OF THE AMERICAN ASSOCIATION for the Advancement of Science for the Fortieth meeting, held at Washington, D. C., 1891.

A paper on "The Ether," by F. E. Neptrea, and an elaborate address on certain geological formations in the middle eastern section of our country, by Prof. John J. Stevenson, are among the specially notable features. Interest in Anthropological topics appears to be increasing, yet we should like to see more space devoted to matters specially human. Published by the permanent secretary, at Salem, Mass.;

PUBLICATIONS RECEIVED.

THE JOURNAL OF THE SOCIETY OF SCIENCE, LETTERS AND ART, of London, England, January 17, 1893, contains itemized notes of late proceedings and abstracts of the more important papers read at meetings, also information with regard to students, examinations and competitions, applications for membership, certificates, etc.; also illustrations. Address the Secretary Society of Science, Letters and Art, 160 Holland Road, Kensington, London.

TWENTY-FIRST ANNUAL REPORT OF THE MANHATTAN EYE AND EAR HOSPITAL, WITH THROAT AND NERVOUS DEPARTMENTS, NEW YORK.

This hospital has become one of the most important charities of the city as its large record of medical work evidences.

THE JUVENILE POEMS OF MR. INCOGNITO, Saidapet, India. 1892.

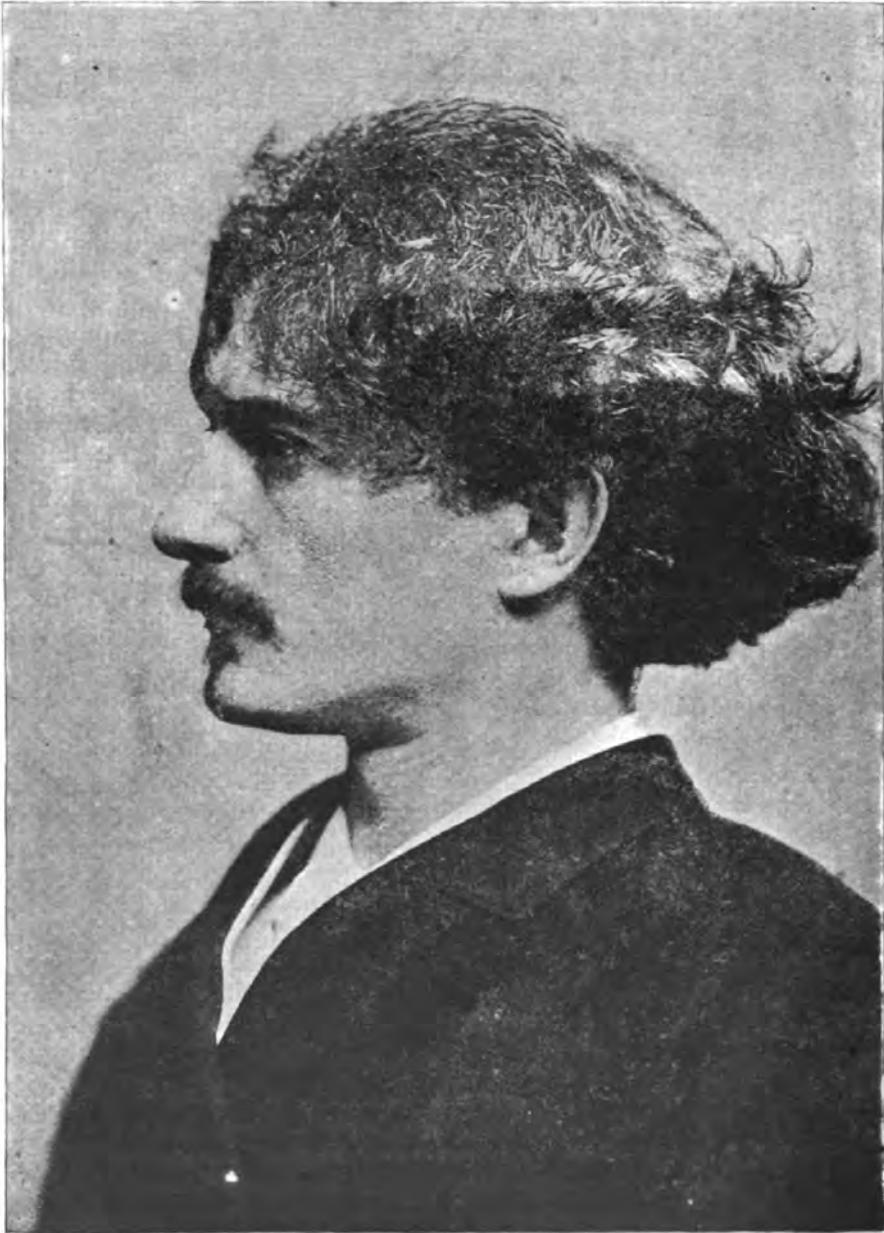
A small collection of 66 pages that may be much more kindly considered by the friends of the author than the general public. As a whole the production belongs to the extraordinary in more senses than one, especially nonsense. The term "juvenile" in the title is doubtless an affectation, for there is a serious maturity in the fun-provoking lines.

THE ATHLETE'S CONQUEST.—A Novel by B. A. McFadden, Teacher of Physical Culture, St. Louis, Mo. J. H. & C. W. Brown Publishing Co. 1892.

The purpose of this story is indicated in a general way by the words of the dedication, which are as follows:

"To all those who, though yearning for the happiness that comes with health and general bodily vigor, know not the means whereby it can be acquired, this book is respectfully dedicated."

We heartily encourage the efforts of all who contribute to the general fund of information upon subjects of such paramount importance as bodily and mental health, and it gives us pleasure to recommend this book. Being in the form of a story, it will, no doubt, be acceptable to a great many who would hardly care to receive instruction in the art of physical development, if it were conveyed through the channel of a dry, scientific treatise. Indeed, we doubt if there is any other way by which so large a number of readers can be reached.



IGNACE JAN PADEREWSKI.

THE
PHRENOLOGICAL JOURNAL
AND
SCIENCE OF HEALTH.

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[WHOLE No. 653.

A PHRENOGRAPH OF IGNACE JAN PADEREWSKI.

FROM A PERSONAL EXAMINATION.

THE musical faculty is located in the second frontal convolution of the brain, and as it has a centre in each cerebral hemisphere, a strong development of it expands the temporal region of the cranium about where the hair begins. To estimate it, we consider the diameter of the forehead, or the distance through from side to side at this point, and also the relative breadth at the external angle of the eye. However, phrenologists all agree that talent for music is one of the most difficult for an inexperienced observer to determine. For example, the forehead may be greatly developed laterally as a result of strong mechanical and mathematical abilities, or rendered narrow by a deficiency of these qualities in a way to confuse the beginner. Besides, the organ of Tune is usually located too far down; and, of course, those who share the delusion that we judge by cranial protuberances instead of diameters will always be disappointed in their search for elevations or projections in the bony case.

The temperament, or mixture of the bodily elements, in each instance must also be very carefully considered. Indeed, as the tone art is so largely a matter of feeling and suggestion, the degree of sensitiveness and responsiveness in the fibre of the individual will be only second in importance to the development of the brain. Of the temperamental conditions that affect appreciation of music, one of the most conspicuous is

the relative amount of bone in the organization. Very tall, long-limbed, prominent-featured, large-handed, knotty-fingered, and thick-skinned people, are rarely if ever very musical. This is because bony matter and density of tissue are in a certain sense slow to vibrate, unimpressionable, and hence antagonistic to both emotional feeling and imagination. Such a man, who would be classed as of the motive temperament, thinks only of the practical. By the ocean beach, with the mystic melody of countless winds and waves stealing upon his ears, and the golden glow of a sunset before his eyes, he would probably see only a clam-bed at his feet. In persons of this organization, especially in the United States, the complexion, hair and eyes, are usually dark, so that as a rule, with many exceptions, the blonde constitution may be said to be the more favorable to musical sentiment. The dark people, if small boned, plump, and with plenty of blood, may be emotional and musical or not; but the thin skinned, light or auburn haired individuals are nearly always impulsive, imaginative, poetical, and talented in the direction of art rather than science.

Of this latter class, Paderewski is an exceptionally fine illustration. He is five feet nine inches in height, and weighs 150 pounds. He is possessed of a very graceful figure and a remarkable shock of golden hair of which he is

justly proud. His eyes are blue, his skin white, his nose Greco-Roman, and his mouth and chin are as delicate as those of a girl. It is also interesting to note that his hand is small, requiring only a 7½ glove, quite firm, approaching the square type, with the finger tips spatulated. This is in perfect accord with his activity and phenomenal brilliancy as a pianist.

His head is rather large, the periphery measuring 22½ inches, and by far the greater portion of the brain is forward



IGNACE JAN PADEREWSKI.

of his ears. The occiput is not large. Lines from the opening of the ear to the different parts of the back-head show but moderate attachment to friends, home, or children. However, his extreme sensitiveness, Agreeableness, and Benevolence, will render him polite, cordial, even fascinating in manner, and keenly alive to all his social experiences. In a temperament so magnetic and susceptible, a little of anything goes a long way. This will be true of his love

of the opposite sex. He has neither a large cerebellum nor the full lips and chin which indicate profound and steady feeling in this direction. But he is intensely romantic, and he would idealize his love until earth and heaven would seem to meet—the one a wilderness of flowers, the other a fleecy maze of seven-hued clouds.

The narrow, flat opening of the eye is not the configuration usually associated with the highest order of monogamic instinct, so that it would be exceedingly important for such a man to marry only his true affinity or remain single.

The diameters at Combative-ness and Destructiveness are considerable, but the phase of their manifestation will be energy, impatience and probably irritability, rather than a venturesome courage or unnecessary severity. The line from the ear up to Continuity is short, which will add to his restlessness, and favor a habit of driving things to completion with a rush. His ambition and love for music will give him patience in this one study, but in other departments he would quickly tire of monotony.

He has not much Secretiveness or sense of economy. Self esteem, or the species of dignity and pride which is so conspicuous among the English is decidedly weak. On the other hand, his Approbativeness is enormous, in which respect he strongly resembles the French. This faculty occupies a lobule in the extreme upper and outer posterior portion of the brain, and when very large, as in this instance, it gives great breadth and fullness to the rear of the top-head. His Cautiousness is also in excess, and combines with Love of Approbation. The two together make this part of the head so wide that the outline

as shown by his hat-band is strikingly like that of a pear. A great love of distinction and applause is popularly regarded as a weakness, but in a case of genius like this, it is certainly excusable, and no one is likely to complain of it except, perhaps, some less gifted rival whose vanity is greater still.

Of the moral faculties, the largest is Benevolence. He is not much inclined to spiritual contemplation, but he is sympathetic and generous to a fault. He takes on the conditions around him with remarkable rapidity, and becomes fairly drenched with all manner of psychical waves, so that he is a creature of moods and caprices which neither he nor his friends are often able to explain. Still, he is not a mimic in the ordinary sense, and is inclined to imitate only that which he admires. There is much in the general tendency of his mind which reminds us of the English poet, Swinburne, to whom he bears a singular resemblance.

Constructiveness is large and helps to widen the temples next to music where the diameter as shown by the calipers is five inches and a half, and the upper sides of the forehead are greatly expanded by Ideality. He is full of enthusiasm for the beautiful, and his superiority as a musician is largely due to his fervid imagination and the lofty standard which his refined instincts create and impel him to attain. There is the same difference between his playing and that of other men which is apparent in their heads and faces. Thus, the great Rubinstein, weird and rugged, played as he looked. Von Buelow, with his beaver-like, mechanical forehead, was a master of technique, while Paderewski, whose face recalls the classical models of some of the great painters and sculptors, makes the piano speak all tongues, suggest all the subtle sorcery of perfume, and seemingly mirror forth all lights, shadows and exquisite forms of nature's perfect self.

As to the intellect, the perceptive and

higher reasoning faculties are well proportioned, but with a predominance of the former. He can gather knowledge upon a variety of subjects if he has occasion to do so, but his ability to philosophize is not likely to assert itself spontaneously. He cares little for positive or abstract science, and values information only as it may be applied to his personal life. Size and Weight are well developed, and shown in a sharp projection at the inner portion of the eyebrows. These faculties insure dexterity in the execution of instrumental music. The width between the eyes is also very marked, and signifies perception of form, a quality indispensable to the music reader.

Paderewski is not of a sufficiently profound nature to become pre-eminent as a composer. His place is rather within the sphere of interpretation and execution. He has a predominance of the feminine elements which nurture and apply, but do not create. However, he is a remarkable man, and one who should leave the world much better for his having lived.

Ignace Jan Paderewski, the present hero of the musical world, was born at Podalia, a province in Russian Poland, Nov. 6th, 1860. He began to play at the very early age of three years. At seven he was placed under a teacher, and learned so rapidly that after five years of instruction he started out as a public performer. At the age of eighteen he was appointed professor of music in the conservatory at Warsaw, and in 1884 he accepted a similar position at Strassburg. In 1887, after a careful preparation, he made his formal debut as a competitor for the highest pianistic honors before the critical musical circles of Vienna, and immediately became recognized as one of the greatest living players. Three years ago he took London by storm, and at present he is the undisputed lion among the music lovers of the United States.

EDGAR C. BEALL, M.D.

RACE STUDIES.

II.—SPAIN.

OLD Spain has been called the "King Lear of the Political Stage," and there is no doubt that the monarch nation of the sixteenth century owes its loss of prestige chiefly to the endowment of numerous daughters.

During the chaos of the Napoleonic era the Spanish crown lost 3,800,000 square miles of colonial possessions—a territory equal to the area of the European continent, but we should not



CERVANTES.

underrate the abilities required for the actually accomplished task of maintaining an empire of that sort for the period of nearly three hundred years. The unscrupulous greed of the Spanish-American conquerors was offset by a heroic loyalty to their sovereign, a considerable administrative talent and an almost Roman fortitude in adversity—a much rarer gift than the energy inspired by the intoxication of success. From the conquest of Mexico to the end of the seventeenth century a series of Eldorado sensations lured year after year some fifty thousand adventurers across the Atlantic, and thus inevitably drained the population of the parent country of its most enterprising elements; but the fragments of a broken shield, exhumed in the ruins of Olympia, sufficed to reveal the composition of Corinthian brass, and in the character of the poor hidalgo, tilling the field of his hereditary

estate, we may still trace the distinctive traits of the four great nations who flourished successively on the soil of Spain.

The ancient Iberians (a nation of Celtic origin) defended their country with the most stubborn valor ever opposed to the progress of Roman conquest, and the history of the world offers no parallel to the episode of Numantia, where forty thousand men, women and children preferred self-destruction to the alternative of captivity, and left their rural kinsmen no heritage but the exhortation to continue the war in forests and caves. That Iberian obstinacy has baffled the enterprise of more than one conqueror, from Charlemagne to Napoleon the Great, and is apt to assert itself privately in an unexpected manner, as when the Duke of Alveiro renounced a yearly revenue of forty thousand dollars rather than sign his name to a document which incidently described another nobleman under a title disputed by the ancestors of the Duke. At the mere mention of a popular fallacy which a Frenchman

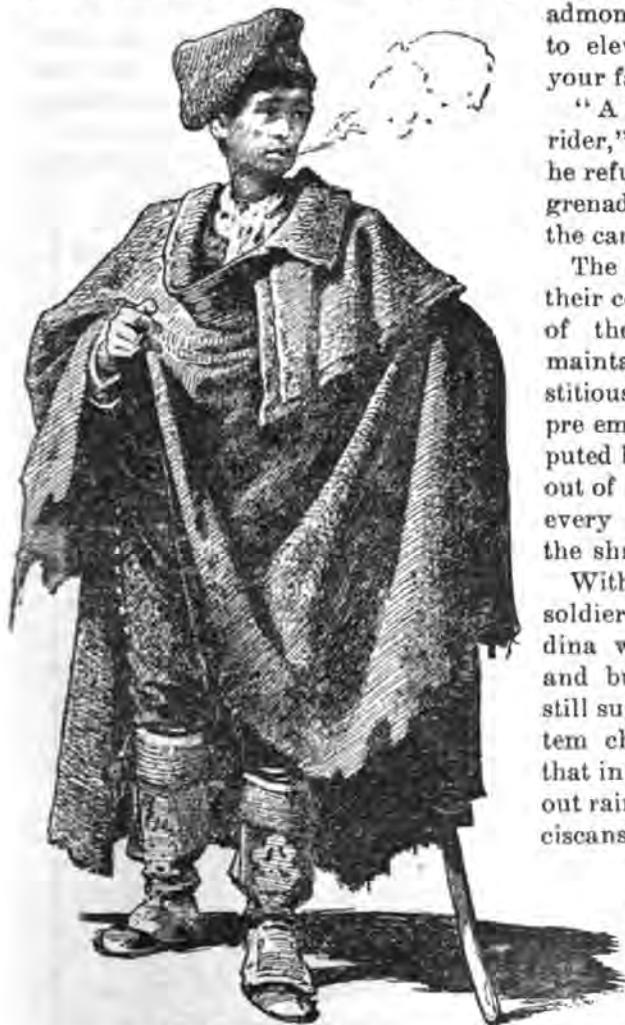


FERDINAND AND ISABELLA.

would join you in quizzing, the countryman of the Cid bristles with self-defence, and in a controversy about the origin of the somewhat international myth of the "White Lady," a Spanish patriot of my acquaintance cut short the argument

by rising with the remark that every country had "a right to its own spooks as much as to its own woodcocks."

Secretiveness and a penchant for conspiracies may likewise have been inherited from the Celtiberians, who carried on a defensive warfare for centuries



A RAGGED HIDALGO.

after their nominal annexation to the Roman Empire, but the superciliousness of the Spanish aristocrat is rather a Latin characteristic, and in some of its forms tinctures the speech and the customs of the entire peninsula. "Avaunt, ye inferior two legged entities!" cried a drunken Polack, staggering about the streets of Breslau, and with a preference for a less obstreperous mode of expres-

sion, the poorest Spaniard draws a similar inference from the recollection that his country twice formed a part of a world-empire. "He has lived but sixteen years, but he has lived in Castile," said a Spanish sergeant at the grave of his nephew; and a dying Madrid cobbler admonished his children to "always try to elevate your souls to the height of your family traditions."

"A horse should not pay toll for its rider," said a Catalan highlander, when he refused to shoot a crippled French grenadier who had lost his way during the campaign of Massena.

The dominion of the Arabs infected their countrymen with the Oriental love of the Marvellous, and Spain long maintained its rank as the most superstitious country of Europe, though that pre eminence can now perhaps be disputed by eastern Lapland, where nine out of ten natives still dread a witch in every wraith of mist hovering about the shrubs of their dreary moorlands.

With two exceptions all the earliest soldiers killed in the battle of Villamedina were found to have worn amulets, and burial in the mantle of a friar is still supposed to improve the post-mortem chances of a sinner—so much so that in Madrid the traffic in the worn-out raiment of monks—the ascetic Franciscans preferred—has become a regular branch of industry. Cervantes may have "laughed Spain's chivalry away," but the wondermania has survived his satire, and *duenderias* (hob-goblin yarns) still form the staple fireside conversation, and if the managers of public libraries would cater to popular preference, spook stories would outnumber the novels and chronicles on their shelves. Sailors' yarns about Patagonian giants, thirty feet high and able to devour a cow at a single meal, were accepted as ethnological facts not by their mess mates only, but by several Spanish historians of the eighteenth century. The first photographs were examined

with considerable mistrust as possible products of black art, and in 1809 the rustics of Estramadura discussed a plan for covering the country with wood-smoke to prevent Marshal Soult from exposing a mirror to the rays of the moon and thus transmitting his reports to the Paris secretary of war.

"Couldn't you catch a lot of spiders and turn them loose in the evening?" I once asked a Spanish guide who had in-

to tell a pretty story of an Aragon amulet vender, who had sold a recruit a twenty-five cent charm against wounds, and then urged him to buy a fifty-cent ditto to protect his sleep against the nocturnal attack of robbers. "But look here," said the recruit, "didn't you tell me that first charm would make me invulnerable, so where's the use of the other?" "What!" cried the peddler, "do you suppose we can afford to



SELLING LEMONADE.

formed me that the sight of a spider bodes bad luck in the forenoon and good luck towards sunset. "Yes, one could try that," said he, "but"—after some reflection—"some of them might be on hand the next morning."

Appeals to the Court of Commonsense are, however, getting more frequent, and Frederick Gerstaecker used

work miracles night and day for twenty five cents?"

Courtesy and the love of poetry and eloquence were redeeming features in the character of the Orientalized Spaniards, and still assert themselves in the social customs of their descendants. Ill-paid Spanish country officials submit to neglect, but will stand no insult, and

the sovereign himself cannot transgress that rule unreprieved. "They call me *grande* in my native town," said an Aragon nobleman whom Charles IV. had ventured to banter about the shortness of his stature. The most popular attorneys prefer the inuendo method to ribaldry, and a Gallician school teacher who had received no pay for six months thought it below his dignity to trouble the school commissioners with direct complaints, and only availed himself of a chance to intimate his grievance when



A BASQUE

they asked him to explain a charge of partiality. "It is hard," he said, "to expose the grammatical blunders of a boy who often treats me to a piece of bread and fresh goat cheese."

"Caballero" and "Vuestra Merced" ("your mercy") are titles which the raggedest Spanish water-carrier interchanges with peddlers and mule drivers, though a Mexican tavern keeper went still further when he posted a notice to inform his half-breed customers that "no cavalier without breeches will hereafter be admitted."

The President of the "Aragon Society for the Encouragement of Immigration" maintained all his national dignity in requesting his colleagues to postpone the session for a day or two, because his only shirt was in the wash; but the trouble is that poverty-proof pride is generally also argument-proof. "What! begging for two centabos, a stout fellow like you, who could earn a dollar a

day," said an English traveler in reproving an able-bodied mendicant. "I did not ask your advice, sir; I asked you for two centabos," replied the beggar, as he wrapped himself in his mantle with the haughty scorn of an ancient cynic.

A heritage of the Roman era is also the practical stoicism of the typical Spaniard, a quality not incompatible with a sort of pathetic humor. "Good night, gentlemen," said a one-eyed fencing master, when the stroke of a glancing foil completed the eclipse of his vision. The rapacity of the Spanish vireys is said to have added sixteen billion dollars to the circulating medium of Europe, but was, perhaps, not more than that of the Roman campaigners, who, for eleven centuries, were to the nations of the world what beasts of prey are to the rest of the animal kingdom. Even the passion for sanguinary sports may be explained, if not defended, by the traditions of a race which so long made slaughter a synonym of pastime. It must also be admitted that, compared with the horrors of the Circus Maximus cock fights and bull fights are mere trifles and have the incidental advantage of keeping idlers out of the dram shops, the sale of intoxicating liquors being strictly forbidden in most of the metropolitan arenas.

From the roving Visigoths the Spaniards have inherited that love of adventure that qualified them so admirably for the exploration of a New World. Within fifty years of the great discovery the successors of Columbus had crossed and re-crossed the two continents of the Western hemisphere in so many different directions that their maps of the two Americas were correct in all essentials, even to the net work of giant streams in the woods of the equatorial region. Before the end of the sixteenth century Spanish missionaries had visited all the principal native tribes of the vast territory united under the sceptre of Castile; but it is true that the

same spirit of enterprise has a good deal to do with the everlasting Civil wars of the Spanish-American republics. "*Que quire? es la vida de un hombre,*" "what better do you want? fighting is the life element of a true man," said a Mexican insurgent leader, when an American resident suggested the timeliness of a truce. That "guerilla instinct," as a modern traveler calls it, was first developed by the aggressions of Rome and Carthage and confirmed during the six hundred years' wars against the power of the Moors, whose adversaries had come to consider rebellion the first duty of a Spanish patriot. The countless crusades against the strongholds of the Caliph may also explain the otherwise wholly unaccountable ferocity of intolerance which threatened to depopulate the Netherlands and actually depopulated the West Indies and large areas of South and Central America. Neither religious ardor nor the innate love of cruelty would have inspired the massacre of idolatrous savages if, in the vocabulary of the conquerors, "heretic" and "enemy" had not become interchangeable terms.

The Visigoths were a Teutonic nation, akin to the valiant colonists of Sweden and Norway, and the credulity of their descendants has not wholly obliterated a substratum of strong common sense—witness the mother-wit of the peasants and their inimitable national proverbs: "Stop cursing the roads and grease your wheels," "Trust the wolf if your stable is stout," "Soldered chain and patched friendship will stand no strain," "Don't make laws to hang little thieves till your boys are grown," "Venture, to give luck a chance, but beware lest bad luck take it."

In Spanish America, too, the Altar of the Graces has votaries among the children of the poorest ranchero:

C'est du haut de son trone un Roi precipité,
Qui garde sur son front un trait de Majesté,

—"a king uncrowned, still clothed in dignity,"—though, it is true, sometimes also in the tinsel of bombast, and the most amazing compound of ignorance and fiery eloquence ever heard on this distracted planet was perhaps the speech of the swashbuckler, Cortina, at the supper-table of the American Consul. "All Republics should combine; all true Republicans should be friends, whether they worship the cross, the crescent or the stars and stripes of the United States."

The achievements of the Spanish world-conquerors have not saved their descendants from the reproach of sloth; but Montaigne already reminds us that abstemiousness should not be mistaken for indolence. In Andalusia frugality, combined with the country of a fertile soil, leaves little motive for industry, but where climatic conditions supply that motive, the natives are as thrifty as Scotch highlanders:

Los bravos Catalanes
De pedras hacen panes,

—"Catalonians turn stones into bread," has become a proverb on both sides of the Pyrenees.

Moreover, the exigencies of civilization have begun to stimulate enterprise from Burgos to Cadiz, and the multiplication of newspapers and printing-presses proves that the demand for intellectual novelties, too, has increased. Within the last forty years Spain has, indeed, advanced at a rate unprecedented in any former century of our chronological era. The spectres of the Middle Ages still lurk in the caves of the romantic old peninsula, but railways and telegraphs have broken the spell of isolation, and the summits of the Sierras gleam in the morning light of the twentieth century.

F. L. OSWALD, M.D.

[To be continued.]*

*(Chapter III: France.)

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

CHALKLEY J. HAMBLETON.

Chalkley J. Hambleton was born April 1st, 1829, in upper Oxford, Chester County, Pa., and was descended from a long line of Quaker ancestors, several of whom were preachers. While a boy he lost both his parents and was early thrown upon his own efforts and responsibilities.

Working upon the farm of an uncle with whom he lived, and attending a

assistance to him, in *inspiring* him with *confidence in his own abilities* and *directing* him in the way of *success*.

He had learned the elements of phonographic shorthand from a lecturer at a country lyceum in his native town, and then studied and practiced it a few minutes at least each day for two or three years, until he became an expert writer. In the spring of 1849 he went to New



CHALKLEY J. HAMBLETON.

country school in the winter till about 18 years of age, he then entered Whites-town Seminary near Utica, N. Y., for a course of study. He supported himself mainly by working mornings and vacations in the gardens of the village and in the harvest field, and teaching school one winter in the vicinity. In 1848 he obtained a phrenological examination by Mr. L. N. Fowler, who was then lecturing in Utica. *This proved a great*

York City, and soon obtained a position as amanuensis for Dr. Joel Shew, who was then preparing several of his works on the hydropathic treatment of diseases.

At that time there were not a dozen phonographic reporters in the country. In the fall of that year he was employed as reporter by Fowler & Wells, then in their old Nassau Street rooms, being the second phonographic reporter that

ever worked for that firm. His principal work for the first year was reporting and writing out the delineations of character of those who came to the office for examinations. He then traveled about a year with L. N. Fowler during one of his extended lecturing tours through several States.

In addition to reporting for Prof. Fowler he sold books, made arrangements for lectures, engaged halls, and attended to the business matters generally. During these two years he had read and become familiar with most of the various works on physiology, phrenology, hygiene and kindred sub-

conducted under the name of Fowler, Wells & Co.

The business of the house soon became a marked success. A large number of the works published and dealt in by the parent house, and others on similar subjects, were distributed through New England from this centre; successful classes and courses of lectures were kept up each winter at their rooms, and large numbers of persons availed themselves of the benefits of examinations.

At the close of the year 1854, Mr. Hambleton took the "Western Fever" then becoming so prevalent among young men, and determined to try his



HAMBLETON AND BUTLER.*

jects published by Fowler & Wells. His mental growth and development were marked, and his business ability and promise were appreciated by his employers, and when, in the fall of 1851, they opened their branch house in Boston, Mr. Hambleton, though one of the youngest of their employees, was selected to go on and take the business management of the new enterprise, while the professional department was conducted by Mr. David P. Butler, an able, skilful and experienced phrenologist. Both were soon taken in as partners in the new concern, which was

pluck and luck for a time in the bustle and whirl of Chicago, then a young city of 50,000 inhabitants. Mr. Butler soon afterward became the proprietor of this Boston house and assumed its entire management.

On arriving at Chicago Mr. Hambleton went into the real estate business, studied law and was admitted to the Bar in 1858. His specialty in the law has been that relating to real estate titles.

He has resided in Chicago since 1855,

* Copied from a daguerreotype taken while Mr. Butler and Mr. Hambleton were associates in the Boston house.

excepting in the years 1861-2, which were spent in the Rocky Mountains. He was a member of the Board of Education of the city of Chicago from 1869 to 1875, and was an active worker on the Committee on Finance and also on the committee that examined all teachers applying for situations in the public schools of the city.

He spent the summers of 1870 and 1873 traveling in Europe.

He was disowned by the Society of Friends in 1871 for being married by a "hireling minister" in violation of their discipline.

Of late years he has devoted himself, in a business way, to his own real estate interests, and is now a man of wealth and high business standing. His early opportunities and love of the study of human nature have made him a superior judge of character. He is seldom deceived in any one, for he is able to read persons at first sight. His favorite studies have continued to be those relating to the growth and development of the human race, including ethnology, human antiquities and genealogy. He has traced several of his ancestral lines back over 200 years and published a family genealogy.

In 1868 he married Miss Emma Lander, daughter of William H. and Harriet (Spaulding) Lander, descendants of old Cape Cod families and of Mayflower pilgrims.

In reply to a letter of inquiries the following further particulars have been received from Mr. Hambleton:

"I have always made it a rule to have some one subject on hand of a scientific or historical nature, for study and investigation, aside from business, and been quite an extensive reader. Have traveled a good deal for recreation and study—have been in every state in the union but one; to Europe three times—besides Egypt, Asia Minor, Greece and Turkey. I am specially interested in Ancient Egypt, her people and productions, etc.

"In the great Chicago fire of 1871 my office and dwelling were both destroyed the same night, with all their contents except a few clothes and personal effects which we carried in our hands as we fled from the flames. When young nearly all my relatives and elder associates were Hicksite Friends and "Radical Reformers" and embraced the principles of Anti Slavery, Temperance, Woman's Rights, Grahamism, Watercure, etc. An uncle with whom I lived kept a station on the "Underground Road," and as a boy I often carried food and water to fugitive slaves hid away in the straw mow in the barn. Thus very early in my career I became an instrument, consciously or unconsciously in a movement that was destined to bring about a great political revolution.

I became personally acquainted with many of the early reformers, as Lucretia Mott, the Burleighs, Garrison, Phillips, Fred Douglas, Theodore Parker (whose church I attended when in Boston), John Brown and others. One feature of my early life was (necessarily) *rigid economy*. When getting my education at Whitestown I boarded myself and for the first year my board averaged less than fifty cents a week. I had a record of every cent I then spent till it was burnt in the Chicago fire. The winter I taught school north of Utica I got \$12 per month and boarded round among the patrons.

"The principal feature of my real estate business has been selling lots and homes to people of moderate means on *easy* payments—and I have waited on several who were, unfortunate or improvident, over twenty years before making the final payment. The principal traits of my character are, you know, nothing brilliant or meteoric, but good natural ability, a hard worker, *indomitable perseverance*, a practical turn of mind, good common sense, great economy, love of gain, good judgment of human nature and a high sense of honesty and integrity in all transactions."

CHARLOTTE FOWLER WELLS.

CHOOSING HOUSES.

IN selecting a house, says a practical writer in *Chambers Journal*, or a site for a new one, remember that where the sun will shine on the house for some hours a day one element of good is secured, especially if the sunshine enters at the windows of the living rooms or rooms most used during the daytime. After the aspect has been found to be suitable, and that a plentiful supply of sun and air is insured, attention should be given to the general position and construction of the house. If the ground is all porous, a layer of concrete not less than six inches thick, and composed of cement or lime and broken bricks or gravel, should be spread over the whole of the ground covered by the building. This will prevent the passage of ground air up through the floors. Air will travel through the ground for some distance, and, as it invariably becomes contaminated by taking up carbonic acid gas in its passage, it is not suitable for inhaling. The house acts as a sucker on the ground; and if, unfortunately, the site is one on "made" ground—that is, composed of all the refuse of a town—the ground air becomes the medium of disease. No houses should be built without a well-ventilated air space between the earth and the ground floor, especially if the layer of concrete on the surface is omitted. The walls should be built of good hard-burnt bricks or non-porous stones set in lime or cement mortar. Common under burnt bricks or porous stones hold moisture, which evaporates with the rise in temperature, and so chills the air in the house. If the bricks or stones of the walls are suspected of holding moisture the whole of the external surfaces should be covered with cement, or tiled or slated above. The foundations of the walls should rest on thick beds of concrete bedded in the earth; and to prevent the ground damp rising up the walls a damp-proof course of slates, in cement, or a bed of asphalt, should be laid in the

full thickness or width of the wall just above the ground line. Dryness in this climate is so essential to health that any building which in its floors, walls or roof sins by admitting moisture, should be rejected as a place of residence by those who value their health. In tropical climates buildings are constructed to keep out the heat; but here we build to retain the heat and keep out the cold. Of course in this latitude it is impossible to avoid a certain amount of indoor confinement which, under the most favorable circumstances, is less conducive to health than living entirely in the open air. But from this very fact that the exigencies of our civilization pervert and corrupt our instincts until we scarcely know what is natural or normal, it becomes all the more important to be on our guard in this matter of healthful habitations. Next to the evils of alcohol, opium and tobacco, the effects of unhygienic atmospheric conditions are perhaps the worst.

 THEN.

I.

O, I wonder who will love me
 When of all youth's charms bereft,
 When the roses all have faded
 And the thorns alone are left.
 In the sunshine of life's summer
 Sweet it is to bask in smiles
 Supping Flattery's honeyed chalice
 Willing captive to her wiles.
 Every streamlet laughs and gurgles,
 Every bird note thrills with love,
 E'en the winds grow soft and tender
 Purring in the leaves above.

II.

But when down the slope of Autumn
 Where the dun clouds mask the sun,
 Sitting in the lengthening shadows
 Of a day that's nearly done,
 Clad in sere and sombre garments,
 Robbed of every subtle grace,
 Gone the golden glint of tresses,
 Vanished every charm of face,
 Then who'll share my lonely quiet,
 Watch with me the waning light,
 Hold my shriveled fingers fondly
 Through life's winter and life's night?

ALMEDA COSTELLO.

TALENT AND CHARACTER

THEIR STUDY AND CULTURE

CHAPTER V.

THE SKULL MADE THIN BY BRAIN ACTIVITY.

It has already been stated that the bone is nourished and grows and changes in its form under the physiological laws of growth the same as the skin or bark of a tree, which is designed as a covering and a friend, and it can be modified to suit the growing brain, as the shell the growing clam, the bark the growing tree, or skin the growing fruit. The walnut is first small but it has a shell, and the growth of the shell accommodates the growing fruit within and serves as a protection rather than a prison. People sometimes forget that the skull and other bones are alive and susceptible to growth and development, just as the other tissues are. This being true, if a particular part of the brain becomes specially active, the skull becomes thin by the over activity of the brain beneath it. The bony matter is absorbed and carried into the general circulation and is reconstructed on a larger pattern further out. If a portion of the brain becomes dormant, as sometimes in old age the intellect ceases to be active, the skull there becomes thickened.

We have an interesting illustration of a case, Fig. 38, representing a skull which was presented for public examination at one of my lectures. It will be seen that there are certain parts of the skull that are light and other portions that are opaque, dark. Outward from the corner of the eyebrow there is a round spot which is bright, and the lower and back sections of the skull are also light. The forehead and top head are dark. It will be observed that there is a candle inserted in the foramen magnum or opening in the base of the skull where the spinal cord unites with the

brain, and the effect of the light of that candle is to render the portions of the skull covering the active parts of the brain brilliantly lighted; the opaque and dark portions of the skull are those which covered those parts of the brain that became torpid by disease. The incident I copy from my diary, which was carefully kept at the time, and is here copied from "Forty Years in Phrenology," page 81:

"A most interesting fact occurred in South Deerfield, Mass., at one of our public lectures when Mr. Buell and I were traveling together. We had given several lectures, and the whole people seemed aroused in the interest of our subject. There was a Dr. A., who professed to be a disbeliever in Phrenology, and had announced his disbelief to all the people. We were carrying all the citizens with us, and the doctor felt that he must seem to the people to be on the losing side unless he could make a rally and break us down, or bring the science into discredit.

"I rose one evening to commence the lecture, when Dr. A. addressed me from the back part of the room, and requested permission to say that he had a skull with him which he desired to submit for public examination at the close of the lecture. He said he knew the person well during life, and had written the facts so as to compare them with the statements of the Phrenologist.

"I replied, 'We will not wait till the close of the lecture, for if we make a mistake, as the doctor evidently hopes and expects we will, the audience may not care to hear anything more on the subject, and I might not feel in the

mood to lecture. So if we are to be vanquished, I prefer to have it done while I am in full strength. Please bring forward the skull.'

each side just where the organ of Tune is located, on a space about as large as a quarter of a dollar. This was very bright from the light, and apparently



FIG. 38.—SKULL MADE THIN AND THICK IN PARTS BY ILLNESS.

“Mr. Buell and I examined the skull carefully while the audience remained in an excited, whispering state. Behind the desk, out of sight of the audience, we put a lighted candle, which we carried for such uses, into the skull, and found that the light shone through it at the sides and back part of it in the region of the passions and propensities, as if the skull were made of a few thicknesses of oiled paper. In front, in the region of the intellect, all was dark, as if the skull were very thick, except on

scarcely thicker than letter paper. Besides, the front half of the skull felt heavy, and, holding it in the center it would balance forward, with a bump. We noticed that the form of the head was like that of a female, the bones of the face were light, and the general quality of the bone was delicate and the teeth were young. Our conclusion having been thus reached, I called for a person to act as reporter, to take down all that would be said, so as to compare it with the biographical paper the doctor

had prepared. All things being ready, and the audience painfully intent to hear the statement, I commenced slowly, so that every word could be written:

"This is the skull of a female about twenty years old. She had a well balanced head and character up to about fourteen years of age, was bright and intelligent, a good scholar, and ambitious, energetic, and affectionate; but something happened about that time that spoiled her intellect with the single exception that her musical talent remained very active. Meanwhile the propensities were made unduly active, and not being regulated by the intellect or moral sentiments, she became quarrelsome, cruel, cunning, avaricious, gluttonous, and inclined to social debasement."

"I then called on the doctor to send up the biography. But he hesitated and said 'the description had in some respects corresponded with the real character, but he thought it was all guess work.'

"I replied: 'Doctor, you brought this skull and offered it as a challenge, saying you had the sketch written in your pocket; that you knew all about the person who carried the skull, and now you try to palm off an oral statement and insult us by the claim that if we have in any sense described the person it is "guess work." This course is unfair, it is unmanly, and being a medical man, it is wholly unprofessional. I demand "Caesar's will," and hope the gentleman near the door will not permit the doctor to carry it away. It is due to the audience, it is due to us, it is due to the doctor, and to truth, that we have it to compare with our statement.'

"Then the audience clamored for it, and the doctor sent it up. I then invited the venerable Deacon Graves, who occupied a front seat, to ascend the platform and read both papers. First, the doctor's, then our statement. If I remember correctly, the whispering in the audience had ceased, and there was

stillness that could be felt. The good deacon read with dignity:

"The skull presented is that of a girl who was remarkably bright in every respect, and possessed a most excellent disposition until she was about fourteen and a half years old. She was forward as a scholar, and excellent in music. She took a heavy cold, followed by brain fever, and when she recovered from it her intellect was utterly gone, except the single faculty of music, and though she lived six years as an idiot, she would sing like a nightingale. Her temper became very violent, and she was a terror to her friends, and what was worse, she became vulgar and obscene. She was a patient of mine, and I knew her entire history.'

"The audience listened to the reading of my statement, and then broke out in prolonged applause.

"The doctor then came forward to the platform and took me by the hand, saying: 'This removes the only stumbling-block I had in regard to the acceptance of Phrenology as a science. I thought a head so well shaped would deceive you, but you have not only described her, as she really was before she was ill, but as she was after sickness spoiled her, which I thought it impossible for anybody to do.'

"I put it to vote if the lecture should then be given, and I really have forgotten how the vote stood, but Dr. A., having taken a seat in front, I know he voted for the lecture. While we remained in town he did all he could to make our stay a pleasure and a profit."

Perhaps the above statement is sufficient to cover the whole subject, but we may say that if we had had the living case, we should instantly have detected the fact that she was an idiot from her appearance. If we could have laid a hand on the top of the head and could have induced the subject to speak or cough, the top head would have been destitute of a vibration which belongs to a subject that has a thin skull. If we had laid

the hands on each side of the skull, where it looks white and where, doubtless, it would have felt hot to the hand, there would have been a sense of vibration if the patient had spoken, and thus we could have determined what portions of the brain were stupid and dull and what were active and excitable.

But we are not now arguing that every skull in every case, where disease may have disturbed the normal activity of certain parts of the brain, can always be determined by an external examination. Our object now is to show that Phrenology is true, that different parts of the brain manifest different faculties, and that the skull is always thin over a very active brain, and is likely to be made thin over those parts of the brain that are specially active, and thicker over those parts which are inactive. In the case of this subject, the shape of the head indicated what the girl was at fourteen years of age; that her intellect was good, her moral sentiments were well developed, and the light being put into the skull indicated what parts of the brain had become inactive and what parts had remained active; and the character corresponded with the phrenological explanation of the case.

I was acquainted with a lady in Brooklyn, Mrs. D., who was very intelligent and well educated. She had large Veneration which gave devoutness and not very large Spirituality, which permitted doubt and disbelief. She was inclined to be an intellectual skeptic on the subject of religion, and though she would intellectually criticize the methods and beliefs and manners of religious teaching, her Veneration was so large and active that it would attract her to hear all the preachers of renown, and she would wait at the foot of the pulpit stairs until the minister came down, and cordially thank him for the interest which his discourse had awakened in her mind; and being a stately and splendid looking woman of fine appearance and conversation, she

commanded his respect, and she would ask him when he would give her an hour to converse with her on religious topics. He would politely set the day and hour, when she might visit him, and with her culture and her sharp intellectual criticism she would command his respect, and sometimes bother him with her questions and answers; and her intellectual skepticism on religious subjects was noted, and she was equally noted for the deep interest that she seemed to take in the subject of religion; she was drawn to it and could not accept it theoretically; she had the feeling, but her intellect craved an analysis and a demonstration that would remove all doubt, and she was troubled to get it. She finally had apoplexy, and the apoplexy occurred in the very point of Veneration; and they made a post-mortem examination, removed the skull cap, and the skull over a place about as large as Veneration occupies was worn so thin that it was transparent almost when they looked at the light through it.



FIG. 39.—CHILD'S SKULL ILLUMINATED.

We now present in figures 39, 40, 41, photographic illustrations of three skulls that have been subjected to experiments with the electric light by R. I. Brown.

Fig. 39 is the skull of a child; the skull was thin, as the light places show, and to human sight when it was illuminated it looked like some thin china-ware

vessel, not transparent, but was very thin and emitted light all over it; but when the process of photographing was undertaken, the room being dark, the light which was rendered through the skull was not sufficient to make a very

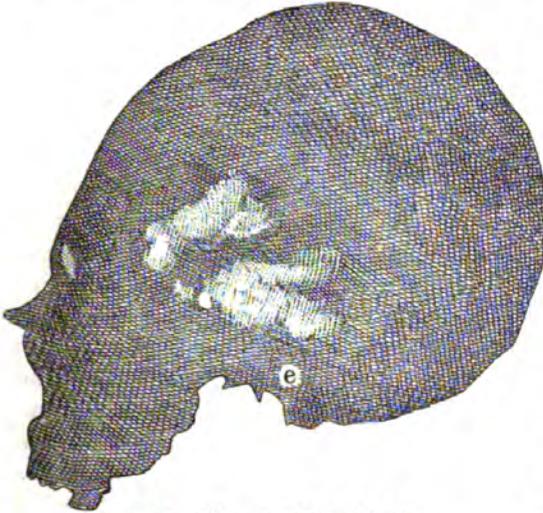


FIG. 40.—A MURDERER.

distinct photograph. It will be noticed that there is light shown in every part of the forehead, along the side head, in the back and base and along the upper side head. This experiment can be tried in a dark room with a taper or candle, and it will please the medical student to see how brilliantly the light will show itself, especially through the skulls of children.

Fig. 40 is a side view of a skull we have in our possession showing that the front part of the head was narrow, pinched and diminutive, and that the portion lying behind the line drawn vertically from E, the location of the ear, was comparatively large. The intellectual region is very weak; the moral is also weak; while the region of propensity and force was decidedly strong. This is the skull of a murderer having strong Firmness and Self-esteem, large Destructiveness, Secretiveness and

Acquisitiveness. The light spots are located as follows: The upper ones are the location of Ideality, upward and backward from the location of Tune, which is also light. The lower large section of light shows Alimentiveness, Destructiveness and Acquisitiveness. The skull itself shows these regions very prominently developed, and the light placed inside illumines the side brilliantly. See the difference between the front parts of 39 and 40; the child was extra intellectual and sympathetic, and had the mental temperament, and was probably precocious, and was relieved from the worldly struggle early. Fig. 40, the murderer, was hanged in the prime of life; he was low in his tastes and tendencies, selfish and brutal and criminal in his conduct.

Fig. 41 is an adult skull and the large patches of white show the activity in the region of Ideality, Sublimity, Cautiousness, Secretiveness, Combativeness, Acquisitiveness and Alimentiveness. That is a well proportioned skull. It is as large behind the ears as that of the murderer (Fig. 40) and very much larger in



FIG. 41.—ADULT SKULL ILLUMINATED.

the intellectual and moral regions. This man had the intellectual and moral qualities sufficiently strong to regulate the propensities and passions. Fig. 40

had the propensities and passions no stronger than 41, but he had less of the guiding and restraining traits, and probably poor culture and unfavorable circumstances, which combined to lead him in the lines of low life and despicable conduct.

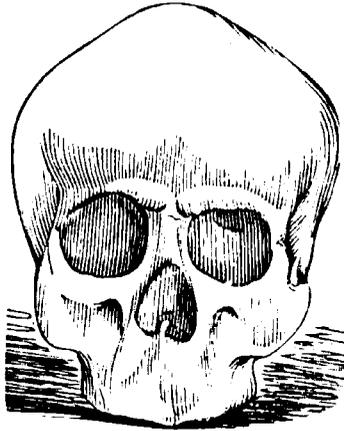


FIG 42.—DIANA WATERS, VENERATION VERY LARGE.

Figs. 42 and 43 are a front and side view of the cast of the head of Diana Waters, who was a resident of the city of Philadelphia and died there. She was regarded as a religious lunatic. She had Veneration and Cautiousness very large, Spirituality and Conscientiousness large, and Hope moderate. She

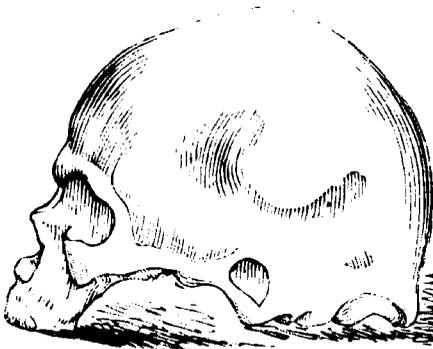


FIG. 43.—DIANA WATERS.

was remarkable for her devotional enthusiasm; when an impulse of prayer came over her, she would kneel in the street and pray. Gentlemen have told me that her prayers had an unction

which seemed to bring the very heavens down, and hundreds of men would stand with heads uncovered as they came along, and people at a distance would hasten to hear her prayer to partake of its divine inspiration. After her death her skull was examined, and over the region of Veneration it had become so thin that it was literally worn through by the superior action of that part of the brain; it had wanted room and the skull had been developed into a hill and kindly absorbed from the inside to make room. In the front view of the head the region of Veneration towers up very high, located, as it is, on the middle line of the top head. In the side view, Fig. 43, the elevation is shown. She was not remarkable for her intellect; she had very little culture; she earned her living by washing, and when she was approaching home with a basket of clothes to be washed she would set the basket down against the house on the sidewalk, and kneel down in the corner by the steps, and, as before described, would have an audience of scores or even hundreds of reverent and entranced listeners.

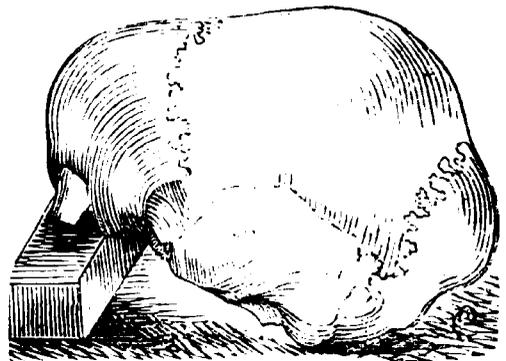


FIG. 44.—PATTY CANNON, MURDERESS.

Patty Cannon had a fine intellect, small veneration and powerful passions. She lived in Maryland, near the line of Delaware. She was at the head of a gang of desperados who stole slaves and run them south, was arrested for many murders, and committed suicide in jail about 1830.

PRACTICAL PHRENOLOGY.

HUMAN PURSUITS, AND HOW TO STUDY THEM.

LAW AND SCIENCE.

This is an age of "specialism;" it is not only one of the signs of the times, but is inevitable as things are now constituted.

Formerly, professors of Chemistry would also teach Physics, and sometimes had time enough to pay some attention to other branches; nowadays, both sciences are so large and so comprehensive that no man dare attempt to master more than one or two subdivisions of either. Organic Chemistry, or as it is now called, the "Chemistry of the Carbon Compounds," is so multiplex that a whole lifetime's work can be expended upon even one small part of the subject, as evidenced by the epoch-making work now carried on in Germany, to which we owe such invaluable medicines as "Antipyrin," "Acetanilid," "Sulphonal," and the like. In Physics, again, we have observers devoting a lifetime in settling such apparently simple things as "melting points," or "vapor densities," or the liquefaction of air and other gases; by means of such researches, nevertheless, our great men have been earning for themselves an undying name, and the applause and thankfulness of their less scientific, comparatively unskilled fellow-citizens.

The same necessity exists in Medicine and the collateral sciences, because the advance of knowledge is so fast and so extensive that no one has either the brain or the time to acquire and utilize all of it.

We thus see, by parity of reasoning, that "specialism" must also invade the legal ranks if lawyers are to be fit to handle any but the ordinary line of cases. We have, it is true, Insurance, Real Estate, Admiralty and other branches of practice, but nowhere do legal luminaries exhibit themselves to such disadvantage as in scientific cases involving technicalities.

What do lawyers know of the "Torcular Herophilii," or the membrane of "Desce-

met?" How can they distinguish between "distal" and "proximal," or know the difference between the "mesoblast" and "hypoblast?"

We see the absurdity of things when an awkward landsman wrestles with nautical lore; in Science it is less obvious to the common folk, though a still greater puzzle to the bar.

In Electricity again, what does he know about "E. M. F." and "volts," "amperes," "coulombs," or "calories," or why Ohm's formula $C \times R = E$ is true, or what it means?

Worse yet is Chemistry with its "Benzanilide," "Methylacetanilid," "Methoxychinazin," now, for short, called "Phenylmonomethyl-pyrazolon," all worse than Choctaw to the uninitiated.

No lawyer can tell what moment he may need just such special knowledge, so conspicuous by its absence in most members of the bar, a large part of whom, we fear an *increasingly* large part, have not enjoyed a liberal education, and are therefore devoid of even a smattering of the things outside their own narrow sphere.

In cases of Toxicology and Morbid Anatomy, where life and reputation hang in the balance, the tables are often turned by a correct understanding of some small detail, as in a recent New York poisoning case, truly a "cause celebre," where a conviction has been reached.

No lawyer can make people see what he himself does not understand thoroughly, and no doubt many convictions and acquittals have been reached, contrary to justice, purely through the inability of counsel to do their best in such points.

An example is a very celebrated recent English poisoning case, where, though the jury rightly convicted at last, yet it was with some hesitancy, due solely to the fact that the skillful quibbling for the defence had befogged the jury, by successfully con-

fusing the pathological appearances in Arsenical poisoning and those in some cases of non-toxic Enteritis. The medical experts of the Government noted this attempt and urgently advised calling witnesses in rebuttal, who were present in court, but the lawyers could not be made to see the point, and so nearly lost their case that the wretched culprit, an unfaithful wife as well as murderess, succeeded in getting her well-merited sentence commuted.

In the New York poison case just concluded, the defence were so obtuse as to produce affidavits in court purporting to show the "opium habit" of the unfortunate victim; not seeing that addiction to opium would make her comparatively insensitive to the drug and thus, by use of it, having experience of it, would not be at all likely to take an overdose, thus reducing the probability of their *own* contention that she accidentally took such overdose! Again, her addiction would cause her to need a much larger fatal dose if given to poison her, and as she was proven and admitted to have died by morphia, these people's affidavits only weakened their own side, and proved that the victim was given a still larger lethal dose of the drug than at first supposed, no doubt, greatly to the amusement of the prosecution's experts.

In the rapid advancement of science as connected with the development of chemistry, physiology, electricity and mechanism, it is becoming every year more important that the great profession of the law, which has to deal with every phase of human life, in its joys, hopes, hardships, property and crimes, should have such extended and minute information in connection with these great interests as shall secure speedy justice to clients and the public. When some great murder trial is occupying the court, thirty or forty days in quarreling over the technicalities of physiology and chemistry as applied to cases of injury or poisoning, other pressing public business has to wait for the tedious litigation which, were it in the hands of judges and lawyers who are competent scientific experts, could be done perhaps in a tenth part of the time, and with much more certainty of just decisions.

In this age of electrical work applied to

lighting cities and the propulsion of cars and machinery and even the instrument for the execution of criminals, what wasted time and manifestation of misinformation and ignorance have been ventilated in legislative halls and in courts of justice within the last five years on the subject of electricity! It is not enough that the parties pro and con shall bring in their chosen and possibly interested expert witnesses; they will disagree before the court. The lawyers and the court ought to know enough about the subject to handle these expert witnesses who wrangle in disagreements in their testimony as to the merits of the question.

There are no finer minds than are engaged at the bar, and those who have the talent and the general education qualifying them for high positions at the bar and on the bench should take special training in physiology, anatomy, toxicology, chemistry and electricity so that in such questions there may be some persons present besides interested witnesses who know enough of the principles involved to reach justice by a straight line and a short one. For instance, in the eight thousand lawyers of New York city, there should be at least twenty-five lawyers, men of ability and general education, who should be so thoroughly trained in those scientific fields of inquiry as to be able to talk microbes, antiseptics and anaesthetics and related topics as clearly as professors in medical colleges understand them, and such would be called on as expert lawyers; and then expert physicians, anatomists and electricians might come before them, and lawyers and court would understand what they were talking about as in common cases they understand the common and statute law. This would be a saving to clients, to the community in the time of courts, and a means of securing justice to all concerned. The thought of clearing a man by hook or crook if he is guilty, or of condemning a man because the District Attorney is ambitious to win the case, whether guilty or innocent, adulterates the court of justice to one of fraud and injustice.

A golden arch over the seat of justice in a court room should be made of these words, *Fiat Justitia, ruat cælum.*

**A PHRENOLOGIST AMONG THE AUSTRALIAN ABORIGINES—THE CUM-
MERAGUNGA MISSION STATION.**

ON the northern bank of the Murray in the Colony of New South Wales, is situated a little native station. Here has recently been solved a psychological problem in such fashion as to give a flat contradiction to the statements of many scientific writers. It was during a professional tour in the Riverine district that I became cognizant of the efforts made by the "Aborigines Protective Association," and, as many of your readers have probably heard but one side of the question, it may interest them to hear the other.

It was on a lovely June morning, just after sun-rise, that we left the little town of Nathalia behind us. The sky was cloudless, the air fresh and perfumed with the odor of the bush; thousands of birds gave an air of life to the wild, and distracted our attention from the monotony of the journey. At 1 P.M. we arrived on the southern bank of the Murray River, and were ferried across in a flat-bottomed boat by a sturdy half caste, and so reached the opposite shore and climbed the steep bank. We proceeded through the village and found that it was composed of a number of neatly built cottages surrounded by nicely laid out gardens; the fences forming the inclosures are of Murray pine, and are rather artistic productions. A number of the inhabitants, clothed in full European costume, were walking in the streets, giving an appearance of life and animation to the settlement.

Arriving at the manager's (Mr. Ferguson) abode I was introduced to him; he kindly invited us to luncheon where we met Mrs. Ferguson, the superintendent (Mr. Pridham) and the matron (Mrs. Pridham). It is mainly to the unwearied efforts of these ladies and gentlemen that the station owes its present prosperity.

After an interesting conversation we went to the chapel where the natives

were assembled for afternoon service. I felt much impressed by the quiet, self-possessed manner in which they accepted our arrival. They took their seats in a decorous fashion, and after a short prayer the choir sang the hymn "All people that on earth do dwell." The rich, male tones, blending delightfully with the sweet female voices, rendered the hymn in a manner not easily to be forgotten.

At the termination of the service I was requested to address the congregation, and then asked the privilege of making some measurements. This was granted on condition that I should publicly delineate those selected by the management. In order to give an idea of the impression this examination produced, I will quote one of the numerous press notices that appeared in the local papers (several news correspondents had accompanied us, and they reported the visit).

"Mr. Sheridan then delineated the most characteristic features of those whose heads he had examined, and to the great astonishment and amusement of the audience brought out the most salient points of each individual member of the little community. Mr. James, the teacher, Mr. Ferguson, and Mr. Pridham, who were present, informed Mr. Sheridan that, in no instance, had he missed a point in any of the delineations, and the blacks were fairly taken by surprise, and sat agape, when he told them the traits and features of their character, their likes and dislikes, their faults and virtues."—*Riverine Herald*, June 16, 1892.

A TABLE OF MEASUREMENTS OF HALF CASTE
AND PURE NATIVES.

		Cir. Over	Percep.	Reflec.	Over Ven.	Nose to Oc.
J. Cooper,	half-caste. 22in	11½	13	14½	14	
R. McDonald,	pure. 21½	11½	12	13	12½	
Susan Lewis,	pure. 22	12	12½	14	13½	
John Patten,	half-caste. 21½	11½	12½	13½	13½	
J. Atkinson,	pure. 22½	12½	13	14	13½	
Edgar Atkin-	son, pure. 22½	12	13	14½	14	
William	Cooper, 22	11½	12½	14½	14½	
half-caste,						

The foregoing table of measurements is that of the natives selected by the management from the one hundred and fifty present on the occasion referred to. As far as could be judged by the eye, they are about the average of the Station, and are not exceptionally large.

The color of the aboriginals varies considerably, according to the tribe and region of country they belong to; while those of Queensland are almost black, those farther south possess deep brown-red skins; among the younger natives who have not been exposed to the weather the color has a warm red base. The most noticeable differences between the Mission blacks and those in the wild state is the improvement in quality and excitability; also the increased development of the mental and vital temperaments, arising from an ample food supply and improved environment. The result is that they are bright and smart, active and wideawake—in fact, in the football and cricket field they beat all the white teams for one hundred miles round. They are great runners and dead shots; and in most things requiring perceptive intelligence they are quite equal if not superior to the average white.

Phrenologically they have great perceptive organs—Individuality, Size, Form, Weight, are very large; Order is large and Color full; while Number is small. Locality is extremely large and time is quite small. In the reasoning group, Comparison is large and Causality is only average, while Human Nature is large and active. The Perfective region is deficient, Ideality and Constructiveness being small to average. In the Selfish region Destructiveness is large, Secretiveness full, Cautiousness large, Acquisitiveness moderate, and Combativeness small. In the Social group, Amativeness large, Friendship large, Inhabitiveness moderate, Continuity large. Approbativeness is full and Self Esteem very large. Moral region, Firmness very large, Conscientiousness full to large,

Veneration small. This will give some idea of the average aboriginal development. The size of the organ of Order at first surprised me, as these people in their wild state are decidedly slovenly, and even in their improved condition it requires the most stringent regulations in order to make them keep their houses and persons tidy. But it occurred to me that the primitive function of Order must have been to notice deviations from the usual, and it is owing to this development that they are enabled to track so well; a blade of grass bent out of place or a twig broken is quite sufficient to attract their attention. Mr. James, the native teacher or schoolmaster, corroborated my statements with regard to their latent capacity for acquiring learning of the visual class; also as to the ease with which they could become draughtsmen, their principal difficulties being arithmetic, composition and abstract reasoning.

A. Atkinson, a girl (pure native) fourteen years of age, is a particularly good draughtswoman and a fine colorist. I was shown a pen and ink sketch by this girl, her first attempt, and it was really an excellent piece of work, exact in outline and perfect in detail. Also a sepia and a chrome water color sketch, one of the lake country and the other of the Murray River; they are the result of only five lessons. These people have a fine sense of the perpendicular and can draw one line at right angles to another with great exactness. The influential development of Self Esteem and Firmness, with their small Veneration, has caused these people to be much misunderstood; if they are approached as equals they are quite open and intelligent; if, on the other hand, you treat them as "niggers" and inferiors, they at once become sullen, and the expressionless, apathetic physiognomies they assume would lead careless observers to the conclusion that they were clods incapable of improvement.

The white youth of the colonies bear

a distinct phrenological resemblance to the black. The white boy invariably displays small Veneration, very large Self Esteem and Firmness, large Destructiveness, small Combativeness, large Amativeness, large Perceptives, very

small Time, moderate Causality and a tendency to develop the Motive Temperament. This I have observed in thousands of instances stretching from Port Cygnet in Southern Tasmania to Moama in New South Wales.

JOHN J. SHERIDAN.

CLAUDE MATTHEWS.

HON. CLAUDE MATTHEWS, the new Governor of Indiana, was born December 14th, 1845, in Bath County, Kentucky. His father was Thomas A. Matthews, who for many years was a farmer in Bath County, and later engaged in the wholesale grocery and commission business. His mother was Eliza Ann Fletcher, daughter of Gen. Jefferson Fletcher, once a member of Congress from the Bath district. His mother died when he was three months old, and from that time until the age of thirteen he lived with his uncle, James W. Thomas, at Irvingville, Kentucky. He was educated at Center College, Danville, Kentucky. He entered college in 1863 and graduated in 1867, taking the full classical course. On Jan. 1, 1868, he married Martha Renick Whitcomb. She was the only child of James Whitcomb, who was twice Governor of Indiana and afterward United States Senator. They were married in Ross County, Ohio, at the house of R. R. Seymour, an uncle of Mrs. Matthews, and with whom she had lived almost from infancy. Her father had died when she was but five years old, and her mother some time before that.

In 1868 Mr. Matthews settled on a farm in Vermillion County, Indiana, and that has ever since been his home and farming his occupation. He is a farmer on rather a large scale in comparison with the average Indiana farmers. His farm consists of 2,000 acres, all but 250 acres being cleared. Each year he raises about 500 acres of corn, 400 acres of wheat, and also some oats and rye. The remainder of his cleared

land is in meadows and pasture. He keeps none but improved breeds of stock. He has engaged in breeding both shorthorns and Jersey cattle, Southdown sheep and Berkshire hogs. He has quite a number of horses. These are of good size and well mixed with trotting blood. When he came to Indiana he brought with him a number of very fine shorthorn cattle, selected from some of the best herds in Kentucky and Ohio. This was the foundation of an



GOV. CLAUDE MATTHEWS.

excellent herd which he kept until a few years ago, when he sold them, and, for a time, quit that branch of stock breeding. While he was engaged in breeding shorthorns he took an active part in organizing the Indiana Shorthorn Breeders' Association, an organization which is in existence yet, and which has had a long and prosperous career. In 1872 he published in the *Northwestern Farmer* (now the *Indi-*

ana Farmer) a call for a convention of the shorthorn breeders of the State. This call met with a favorable response, and the convention, which was held in the city of Indianapolis, was well attended. Then and there was organized the first live stock association ever organized in the United States. Now every interest of this kind has its association, and they have resulted in great benefit. At this convention, also, Mr. Matthews introduced a resolution suggesting a call for a national convention of the Shorthorn Breeders of the United States and Canada. The resolution was adopted, and this convention was also held in Indianapolis the following Winter. A national association was formed and afterward this association assumed control of the American Shorthorn Herd Book, which had previously been in the hands of Lewis F. Allen of New York.

In politics Mr. Matthews is, and always has been, a Democrat. He was elected, in 1876, a member of the State Legislature from Vermillion County, and by a large majority, although the county was strongly Republican. He was the first and only Democratic representative ever elected from that county. In 1882 he made the race for State Senator for the district composed of Parke and Vermillion counties, which had a combined Republican majority of nearly one thousand. Mr. Matthews was defeated, but by only a little over three hundred votes. In August, 1890, he was again nominated for Senator, but two weeks later he received the nomination for Secretary of State, and was elected by nearly twenty thousand plurality. In 1893 he was nominated for Governor and was elected by a plurality of a little over seven thousand, running ahead of the rest of the Democratic State ticket and of the average vote for the electoral ticket. He was inaugurated Monday at noon, Jan. 9, 1893.

Governor Matthews is a comparative-

ly young man and a new actor in the politics of this State. He is a genial and scholarly man, and one with whom it is a pleasure to associate. He has no stiffness or formality about him, but mingles freely with the people of his acquaintance, and has the happy faculty of making everybody feel perfectly at ease in his presence. In the campaign which has just closed he spoke in over two-thirds of the counties of the State, and wherever he went was greeted by enthusiastic audiences. He proved himself a splendid campaigner and a tower of strength to his party.

His life has not been an eventful one, but has been spent in a quiet way like those of hundreds of other farmers, following steadily and industriously the occupation of his choice. His father wished him to become a lawyer, but he preferred the farm. He is proud to be called a farmer, and his sympathies and associations are with the tillers of the soil. He has a genuine love for his farm home, enjoys the quiet of country life, and is satisfied with the simple comforts that are to be found in the rural districts. He has accumulated an excellent library of about fifteen hundred volumes, selected from the best books. For twenty years he has been a subscriber to several of the leading agricultural, literary and political publications, and his evenings on the farm have generally been spent in reading, a part of the time being devoted to reading aloud to his family. As we should naturally suppose, his house is one where culture and refinement are to be found.

There are individuals who hold to the opinion that country life is not favorable to intellectual growth, and that a man of intelligence and culture cannot find room on the farm for the use of his knowledge or the expansion of his mental faculties. Fortunately for our splendid Hoosier State, there are many educated men within her borders who think differently, who realize that there is no vocation which requires more intelli-

gence in which to achieve success than farming, and who are aware of the fact that there is no pursuit which is more useful or more respectable. These men are using their talents wisely and well in helping to elevate the farmer and to ennoble his calling. They are helping to demonstrate to the world that it is not simply the occupation but the man that signifies—that it is not profession or handicraft but manhood which is to be honored. The people of Indiana are grateful to these men for the services which they are rendering, whether it is their fortune to fill great or humble stations, and we shall never cease to hold them in respect. And among all those who have been and are devoting themselves to this occupation there is no brighter example of that true manhood and sterling worth which are to be found

on the farm than Governor Claude Matthews.

The people of this great State honor and respect this farmer who has been chosen to fill an exalted station, not simply because he is their chief executive, but because he has shown himself worthy of their esteem. They are confident that the affairs of State have been placed in safe hands. His administration is not likely to be a brilliant or showy one, but will rather be marked by careful, persevering, painstaking efforts to promote the welfare of the whole people. He believes that "Public office is a public trust." Judging the future of his career by what is known of his past life, it may be quite safely concluded that he will leave behind him a record toward which his fellow-citizens will have reason to point with pride.

H. S. K. BARTHOLOMEW.

AN AFTERNOON WITH THE BLIND.—Concluded.

Music and the manipulation of musical instruments have ever been the peculiar forte of the blind. The cultivation, therefore, of the ear and musical taste is made a special feature in the College curriculum. The signs of the Braille alphabet have been adapted to musical notation, and we had the pleasure of seeing a class of students take down the various parts of an unrehearsed chant on their writing boards from the dictation of their leader, and at a given signal burst simultaneously into an expressive and harmonious rendering of the same. Between sixty and seventy successful organists and teachers of music have been trained by the College during the twenty years of its existence, and a number of others are at the present time in a fair way to the attainment of similar positions of usefulness and independence. The earnings of past pupils amounted during the year 1891 to £18,000.

But before closing this necessarily meagre description of the splendid work

being done under Dr. Campbell's able superintendence, we must devote a few words to a branch of education by no means last or least in the estimation of all true teachers, that dealing with the physical development of the young folks under their charge.

In the Armitage Gymnasium we saw several youths practising, if such a term may be used, on Dr. Sargent's remarkable American developing apparatus. This unique invention, which was brought from the United States by Dr. Campbell and his son after a course of study and investigation at the Hemenway Gymnasium, Harvard College, Massachusetts, and provided for the College by the liberality of the late Dr. Armitage, consists of no less than twenty-four different instruments specially adapted for the development of every set of muscles in the human frame. The names of a few of these, such as the head machine, the chest expander, the rowing machine and the chair leg machine, will indicate the design and

aim of the whole. In addition to these are the usual vaulting horse, parallel bars, etc., in the use of which the students are as proficient as those with the full advantage of all their faculties; while the admirable figure marching and extension exercises of the girls, and the marvelous pyramid forming of the boys, under the guidance of their gymnastic director, Mr. G. M. Campbell, would seem well nigh incredible save to one by whom these feats had been actually witnessed.

In the beautifully laid out grounds nine acres in extent attached to the College, the pupils may not only take walking exercise without fear of accident, safe-guarded by the ingenious contrivance of a slight raising of the asphalted pathway wherever a turning or obstacle of any kind demands special caution, but rowing, cycling and swinging have been amply provided for and adapted to the requirements of both sexes. In July, 1892, the neighboring mansion called Windermere House, with four and a half acres of park-like recreation ground, was thrown open for the perpetual enjoyment of pupils of the College. This was the occasion of the inauguration of the memorials to the late T. R. Armitage, Esq., M. D., "The Friend of the Blind." These took the form of a library located in Windermere House, and a turret clock and chimes. The Duke of Westminster presided, and the celebrated Bishop Phillips Brooks, of Massachusetts, was foremost among the speakers by whom His Grace was supported. To see the young people enjoying their out-of-door sports (and that they do enjoy them heartily their bright faces and merry laughter abundantly testify), it is well-nigh impossible to believe that they are every one denied the precious gift of sight; yet their bold and graceful evolutions in swimming bath and skating rink add the finishing touch to one's amazement. We leave the noble College, and its afflicted but happy inmates, with feelings of the profoundest

admiration for the zeal, patience and ingenuity which can bring about such grand results, and of thankfulness to God, whose love and care for the suffering, working through the tender sympathies of His creatures, have made these wondrous alleviations possible.

JENNIE CHAPPELL.

AT BLOSSOM-TIME.

Love led me to his realm divine
Through mead and wood at blossom-time,
And sang from morn till dewy eve
Enchanting lays in mellowest rhyme.

And still at night he left me not,
But through my dreams his magic wrought,
Until they glowed with bliss untold,
That ne'er had entered waking thought.

And Faith and Hope and radiant Joy
My hand maids were those halcyon days,
When Love and I together walked
Through flow'ret starred and scented ways.

Death came to me at blossom-time
In after years, and bore away
The one I loved, but could not take
Sweet Love, himself, for he would stay.

And Faith and Hope were still with me,
Though Joy had with my loved one fled—
Dear Faith with mien serene and strong,
Fair Hope with brave uplifted head.

And sweeter far the tender strains
Love singeth in my darkened days,
Than those he sang when blithe we passed
Through flowery meads and bosky ways.

And now he weaves into my dreams
With spell more potent than of old
Bright glimpses of a bliss too large
And pure for earth-bound souls to hold.

The bliss that somewhere waits for me
When I my well-beloved shall greet,
For know Love's fairest gardens are
Not entered by our mortal feet.

MARIE MERRICK.

FAIRVIEW, N. J.

THE DECLINE OF PATERNAL AUTHORITY.

WE hear much in these "later days" of the decline of paternal authority. It seems quite the custom to take it for granted that it has declined, and children are no longer as well governed as they were in the "good old days" when the parents' word was a law which few children dared to question openly. Of how much rebellion the young hearts cherished in secret against the austere force, which ruled their lives we can guess by noting the abandonment with which they threw themselves into the forbidden pleasures when the time came when they no longer felt themselves *obliged* to yield obedience to the household law. Too often, then, the restraining word of father or mother was but an empty sound to them.

It must be plain to any intelligent observer that there is less arbitrary force used in the government of children now than formerly, but does this imply less of true paternal authority, less respect, less obedience on the part of the children? Do we not find more and more that

"Joy is duty and love is law"

in the homes of the nation? Is it not true that the children of to-day, in a majority of cases, are receiving a training in many ways superior to that given those of a few generations ago? Is there not a comradeship, a counselling together for good among the members of the household, which is far in advance of the old way?

We make companions of our children now as few in the olden time dared to do. The child-nature is studied and the training is adapted to the individual need and disposition, being such as shall best educate or educe the best and highest of which each child is capable. The man, the woman within the child is recognized and respected by the wise parent, and he builds for the future—for eternity.

That the parents of the olden time

loved their children as dearly as we of the present day none can doubt who thinks for a moment of the hardships, the self-denial and privation they endured for them; but life to the common people was stern and hard—time and strength were nearly all given to supplying the wants of the body, and if the children hungered for love's expression, who stopped to know it? To be demonstrative was considered weak and foolish, if not sinful, and parents feared to *spoil* their children by telling them even how dearly they were beloved; yet oft-times sons and daughters wandered from the "safe, sweet shelter of the household fires" because of this very lack in their lives. They hungered and thirsted for the "living bread"—for the warm clasp of tender arms and sweet words telling how dear, how precious they were to mother, or with what fond hopes the father watched them. Home too often was but a place where they ate and slept. Life there was dull, monotonous and cold, while without the tempter's voice was heard calling them to warmth and love. How could they know this love tempted but to deceive, and that thorns grew thicker than roses along the pathway? They did not dare take counsel with their parents, and so they fell when a spoken word of true love from the right one at the right moment might, often *would*, have held them back from sin and set their feet firm and strong in the way of purity and uprightness.

We are growing wiser now. Little by little we are seeking out the better way, and our children are reaping the benefit of it all. More and more the presence of the divine in each child-soul is being revealed, and we are becoming more fully alive to the great responsibilities and eternal duties of parenthood. The soul appeals to us [as well as the body, and we see with growing vision that our duty to one cannot be

done through neglect of the other. All must be built up in harmony—a sound mind in a sound body and a pure, strong soul in and through all. And this not by force but by love—a love which “hath its seat in wisdom and is strong.” To this love the child yields a willing obedience as much superior to the obedience which is obedience only because it fears to be anything

else, as love is superior to blind force; and thus is cemented a tie between parent and child which nothing has power to sever, and the ideal relationship is established for all time. We see God's plan in the faces of our little ones and shape our lives to accord with it, and so we are “Held by something over life to power and service.”

EARNEST.

LET THEM ALONE.

THE members of two families who had long been separated met unexpectedly at a Summer resort. Two of them, who had been infants in arms at the last meeting, were in the first bloom of youth, and timidly began an acquaintance instead of renewing one like their elders. Both were gentle and refined in feeling, with a becoming reticence in their manners not found in youth of coarser inheritances. The mothers of the twain watched them over carefully, and in their concern lest they should fail in courtesy kept up that ungracious comment on every word and motion that is indulged in only by mothers. The young creatures could not act unrestrainedly or naturally under this espionage; consequently when Belle was bidden to exhibit her sketch-book Philip neither offered to fetch it for her nor to accompany her on the errand. There was an instant and open reprimand from his mother, and Belle, sympathizing with her new friend, hastened to say she would rather go and bring the book alone, thereby winning for herself a stinging rebuke. Awkwardness and restraint for the remainder of the day was the result.

In this way the period of youth which marks the transition of the girl and boy to womanhood and manhood is often one of trial. Especially is it so in the case of the well-born and well-bred whom refined associations have made sensitive to every jar. They are keenly, some-

times morbidly, alive to their standing in the minds of others. An inconsiderate or hasty criticism is long remembered with pain.

The trouble comes from the want of perception in the parents of the changed relation existing between them and their children. The boy and girl of sixteen are entitled to the consideration and delicacy that are accorded to ladies and gentlemen. As in polite society, no one hears open remarks on the speech and manners of its members, so in the home the courtesy of well-bred people should be maintained. Criticism and reproof, when necessary, should be given in the strictest privacy. Yet who does not hear the shafts of comment and description flying right and left even in the homes of cultivated people?

Let the boy and girl alone is the best advice that can be given in many cases. They cannot be either natural or graceful if aware of a watchful eye and a merciless tongue to publish what the eye observes. In a perfectly free atmosphere the youth is given to himself. He makes his own observations and applies them to his own conduct. He grows manly in the trust reposed in him; his moral strength, self reliance and judgment increase by exercise. It is often the greatest boon to a young person to be sent away from home for a time even among strangers. If his previous training has been worth a copper it can be relied upon to carry him through all social forms and all situa-

tions involving good morals. If it has been defective he will quickly see the difference, and very often he will adjust himself to the new code.

The loving pertinacity of mothers in guarding every avenue of danger, real or fancied, sometimes leads to just the results they are seeking to avoid. "I should not have thought of love," said a young girl, "if mamma had not asked me downright if I fancied I was in love with Harry. Then I began to consider, and to wonder what love is, and what are its symptoms, and finally decided that I was really in love. It took a long foolish time to show me that I knew nothing at all about it, and I am thankful that I came out of it as well I did and that Harry was not so silly as I, for now we shall always be what we have ever been, good friends."

Longfellow says: "The thoughts of youth are long, long thoughts." It is impossible that they should not often sit in judgment over those who love them best, and the struggle between their reverence for parents and their sense of their personal rights is more or less severe. The youth, for instance, who

was denied his vacation trip to the mountains because of his unintentional slight toward his girl companion, and who bore the punishment like a stoic, never once giving a sign of his disappointment through the long Summer in the city, must have had his private opinion of the justice exercised.

It is not claimed that parental care should cease, for in some cases it is imperative that it should be doubled in this transition period. Only let it be unobtrusive and like the delicate interest of friend for friend. As a people we early arrive at the point when our own individual rights become sacred not to be meddled with even by our parents.

Unchanging courtesy, gentleness blended with firmness, consideration of inherent rights and respect for the man and woman in the boy and girl, must modify our methods with half-grown children. When the home of love is a home of freedom to all it will be "the dearest spot on earth" to every one of its members, and the young people will not be eager to leave it before they are well prepared to set up similar homes for themselves.

PRACTICAL MORAL TRAINING.

On a delightful day in the month of June 150 boys and girls were enjoying themselves at various kinds of exercises in a very spacious playground of fifteen acres. A large class of the elder boys were engaged in an exciting game of football. John Watkins, a boy full of energy and pluck, about 16 years of age, had gained possession of the ball. A young fellow (John Perry) was in hot pursuit, and on coming up to Watkins Perry gave Watkins' foot, that was raised in the act of kicking the ball, a touch with his toe, and Watkins went head and heels over, and Perry went on with the ball. As soon as Watkins got on his feet he looked round, ran and picked up a stone, about the size of a goose egg, and threw it with vengeance.

Fortunately for Perry he turned his head just as Watkins was in the act of delivering the missile and jumped aside. There was a large apple tree a few yards in front, and the stone went whizzing past Perry, struck the tree and knocked off a large piece of bark. I was in another part of the field but saw it all; I blew the whistle, and after forming them into line, marched the boys into school. At 4 o'clock school was dismissed as usual, and not the slightest notice was taken of what had passed.

Next morning the exercises were commenced, and after singing, a short extempore prayer, and a Bible lesson, I selected for the occasion the 16th chapter and 32d verse of Proverbs, "He that is slow to anger is better than the

mighty, and he that ruleth his spirit than he that taketh a city." I said to them. "In this lesson the Bible speaks of those who are slow to anger. It gives me pleasure to say that I could just now select from the gallery (the lessons were all conducted according to Stow's Training System) a number of boys and girls who have such an excellent temper that it would take a great deal to make them angry. All those who have a good moral character are on their way to become mighty. You have all heard of the Duke of Wellington, the great general and conqueror? Well, those who can rule their spirit, that is, *govern their temper*, are better than he.

"A short time before I came here, I was living in London. There was a young man engaged as groom to a gentleman. On coming home for dinner one day he found his wife busy ironing. After sitting a while, he asked, how is it dinner is not ready? The answer his wife gave him did not please him, and then began a war of words. He was a very passionate man, but in every other respect a fair moral character. He was sitting at the time with his back to his wife, and as the strife grew stronger he lifted up a rolling-pin that happened to be on a chair at his side, and threw it forcibly behind him. At

that instant the unfortunate woman was stooping, rubbing her iron on a board. The end of the pin struck her on the temple and she fell dead.

"The poor, unfortunate man, when he saw what he had done was horrified. Now, instead of going to a magistrate and making a true statement of what had happened, he took a very different course. In fact, his conduct was so revolting that I cannot say anything more about it, further than that he was caught, tried and hung.

"I must now speak to you about a circumstance that occurred yesterday. A number of you saw what took place, and if the stone thrown by J. Watkins had struck John Perry he would have been knocked down as certainly as Mrs. Wood was killed by the rolling-pin. The unfortunate man Wood had no more intention of seriously injuring his wife, when he threw that fatal instrument, than I have of hurting one of you. Again look at the size of Perry, a stout, able bodied young man. Supposing he had been of a destructive, passionate disposition, and had retaliated; the consequences would have ended most disgracefully. John Watkins is passionate, and that is the worst feature in his character. I trust yesterday's experience will be a lesson for every one of you as long as you live." J. A. L.

HOME INFLUENCE.

ONCE I was stopping for a few days with a family where the parents were addicted to the peculiar habit of telling lies in fun, while the children, more sincere perhaps, habitually told lies in earnest. In consequence they sometimes received a severe flogging, especially when the lie was one considered a "whopper," told with an intention to deceive.

Yet with the older members of the family it was not always fun-making untruths that were indulged in, but exaggeration spiced with malice that mis-

represented and maligned persons toward whom they had feelings of ill-will. Especially at the midday meal, when all the children would be gathered around the table, was this sort of badinage indulged in.

Possibly from the lack of having well-stored intellects they had no source from which to draw intelligent thought and, as people must talk about something, their conversation was largely confined to personalities. Sometimes a member of the household, but as often some unfortunate acquaintance, would

be the object of attack.* It might happen to be one of the children present who was made the theme of a biting criticism, or, may be, assailed with a volley of foolish braggadocio about acts performed only in imagination; or the personal appearance or habits would be discussed until worn threadbare. The children, never allowed to forget themselves by thus having special attention called to them in so public a manner continuously, were wondrously self-conscious and self-conceited.

Yet there appeared to be considerable happiness in this home-circle; although it was of such a nature that a conscientious stranger could not readily join in their hilarious mirth.

But a reflective mind would soon begin to consider how such home-training was to affect the after lives of these children. Would not there be in their brains a jumbled mixture of right and wrong?

A keen discernment would be required to distinguish between a good lie and a bad one. These little ones, although bright enough naturally, were hardly competent to make such nice distinctions; and if they should grow to be men and women having a dulled sense of right and wrong, somewhat false in character, with a disposition given to

slander and envy, would it not be only the natural result of such everyday drill?

In molding the lives of growing children the home atmosphere is almost everything. A natural tendency in any one direction would have to be exceedingly strong, not to be greatly affected by the home training. And this unconscious training is of all influences the great power that shapes the pliable nature of a child until habits of thought, expression and manner become firmly fixed. A piece of soft putty is easily molded into any shape one chooses, but time will gradually give to the form an unchanging hardness.

So let a spirit of truth, of genuineness, and of sunny kindness, with sprinklings of intelligent thought be made to brighten, enliven and enlighten our commonplace conversation.

Children can no more grow up fine-mannered, sensible and upright in character, if truth, heart-courtesy, and a happy, high order of thought are not things of common usage, than they can become full-grown, healthy and strong, physically, if deprived of pure air and good, wholesome food.

Mind and disposition as well as body grow by what they are fed upon; and especially are the powers of assimilation strong during childhood. LISSA B.

THE POWER OF FAITH.

MILTON ANDREWS, like many men, was so sure of himself that he was often incautious, needing a woman's watching. So his wife said. She repeated her injunctions: "Now, while I am away, be very careful."

Mrs. Andrews was to make her short semi-annual sojourn among her relatives. On this occasion she felt, for some unaccountable reason, particularly solicitous; hitherto she had gone away with no forebodings.

To some persons of a certain mental bias, danger has an alluring fascination. Mr. Andrews was subject to this disease.

The nature of this peculiar malady was a love for venturing upon railroad tracks, walking long distances thereon. Once, he had been thrown down from behind, while deep in thought, and was only saved annihilation by the mere fact that he was thrown straight along the track, the train passing over him, he merely stunned. That he did not lose any members was owing to his having had his hands in his pockets when the accident occurred.

Therefore, Mrs. Andrews had said: "Keep away from the railroads."

No sooner had she been ensconced in

her sister's home than she was assailed by dreadful premonitions of impending trouble. That night she had a horrible dream. She saw her husband's headless form. The two succeeding nights she was troubled by this vision. She lost all zest in her visit, she was cheerful, and, to all appearances, happy, but behind that smile she carried an aching heart. Eventually, she told her sister of her visitations and went to her mother's, feeling down-hearted indeed.

She enjoyed her visit here no better. She prayed fervently all night and all day, that her husband's life be spared. "Father," she would cry in her anguish, "spare my husband, my only beloved. My Father, he is my all. Children have I none. Thou hast taken them; spare me him. Lord, I beseech thee. For answer, let this burden be taken from my heart and give me peace."

The inward signal was given. The anxious tumult gave way to a calm, peaceful and sweet.

In the meantime, Milton Andrews had donned his new suit, and, tiring of his own company, sauntered out Sunday afternoon. There were no down trains on Sunday so he thought: "Pshaw, there's no harm."

As fate would have it though, it happened that a train was to pass that afternoon, but Mr. Andrews did not know it. He walked along with complacent feelings over his new suit. Suddenly, without knowledge, without feeling, he was gone—whither?

Returning consciousness found him astride the cow-catcher. He calmly took in his situation, and coolly reached one foot over, then the other, and slid down from his novel steed, on one side, to the ground in a heap.

The train pulled up. The engineer had seen him around the curve but too late to slacken speed. An alarm had passed through the coaches and every passenger got out to see "the man who was run over."

Mr. Andrews was completely stunned.

He was shaken, and aroused sufficiently to utter his name. He was carried on a stretcher, bleeding, soiled, with his clothes badly torn, to the nearest house. Not having gone far from his home, he was carried to his mother's house near his, his home being empty.

Kind attention and care brought him through. A physician pronounced him whole save for a few inconsequential cuts, a slight injury on the head and a great weakness, the effect of his mental and physical shock, his whole constitution being completely unstrung.

Mrs. Andrews felt it was time to go home to attend to her husband. On her arrival at the station rumors reached her. She repaired to his side. She looked at her husband with meaning glance.

"Ah, what comes of a wife's prophecy! Man's wisdom exceeds that of woman. Milton, promise me you will never, never go near the tracks again."

A week or two of nursing in his own home brought him to his normal condition.

The above can be authenticated. Mr. Andrews showed the writer the coat, worn for the first time, stained with blood and mud and damaged beyond repair. He believes his wife's prayers in time saved him. Mrs. Andrews related to me the occurrence. Mrs. Andrews' head is large in the superior organs, and generally well developed. She has had other visitations—that of her child in angelic form previous to its death, at her bedside one night, and others: is something of a mind reader, and is guided intuitively in many things but uneducated in occult sciences.

HARRIET E. IJAMS.

THE sweetest lives are those to duty wed,
Whose deeds, both great and small,
Are close knit strands of an unbroken thread,
Where love ennobles all.
The world may sound no trumpets, ring no bells,
The book of life the shining record tells.



PRECAUTIONS AGAINST CHOLERA.

IF this contagious disease visit America the coming summer, as many authorities predict, the more careful and cleanly our people are in their habits the less likely it will be to spread. The German Imperial Bureau issued not long since certain rules for the observance of the German people in the presence of an epidemic. From these rules we draw many excellent suggestions for the benefit of our readers and the public generally, adding some points that are regarded important.

1. Keep your presence of mind no matter what the danger; avoid too great anxiety, for it clouds judgment. Only the man who thinks clearly can make proper use of precautions against danger.

Maintain cleanliness of person and surroundings. Discretion, temperance, cleanliness, are the best protection against disease.

Avoid medicines as long as you are well.

Visit the sick only when duty calls.

Avoid intercourse and close contact with persons who have come from cholera regions.

Do not leave home in order to escape disease. Consider that there may be greater danger in traveling, and living under altered conditions in a strange place, than while leading a careful, regular life at home.

2. Do not put other things besides food and drink in your mouth—*e. g.*—the

fingers in turning through a book, pen-holders, lead pencils, etc. Drink as little water as possible, and only such as you know to be above suspicion. Pure spring water is, as a rule, good. Water from deep pipe wells, and from closed pipes, and if taken from open waters, that have been subjected to a genuine filtering, is safe. (Small house filters, unless frequently changed or cleaned, are rather harmful than useful.) Water from rivers, ditches, ponds, flat, open or poorly-covered springs, and from springs which are near refuse or stable sites, is suspicious during cholera epidemics.

Suspicious water, during the prevalence of or near cholera, is only safe to use for drinking, washing the face, washing utensils used for food and drink and the like, after being boiled a few minutes. It is safest to drink boiled water, and to make that taste well, add to each glass (half a pint) as much tartaric acid as will adhere to a knife-point, or two drops of hydrochloric acid.

Tea and coffee weak, and cocoa are permitted drinks, because prepared by boiling.

Beware of ice and very cold drinks as a rule.

Mineral waters are unquestionable, if they come from natural springs or are prepared with distilled water.

Avoid drinking uncooked milk.

Eat fruit and vegetables only in a

cooked state; and as a rule eat nothing uncooked or unroasted which strange hands have touched, unless you know them to be reliable. So purchase food only from reliable, clean shops.

Avoid all excess in eating and drinking. Be especially cautious if you incline to diarrhoea. Do not eat and drink anything as wholesome which is in a sick room.

3. Keep your head cool, your body warm, your feet dry. Live and sleep in pure air; fumigations do not prevent contagion.

Wash your hands frequently during the day with water, soap and brush, especially before you touch eatables. If you have touched any dirty or suspicious objects, first wash your hands carefully with a solution of four teaspoonfuls of clear, fluid carbolic acid in a quart of water (or 1 part Listerine and 8 of water), then wash this off with clean water and soap.

In cholera regions do not bathe in rivers and ponds.

Use a public water closet only in case of necessity. The seats of those which are used by strangers should be cleaned daily with soap and water (one pound of soap to a pail of hot water). If the home closet is used by persons suspected of disease rinse the wall of the funnel with freshly slaked lime (one part quick-lime to four parts water).

4. The infectious material of cholera is contained in the excretions of the patient. It adheres to soiled linen and clothing, and can be transmitted by any thing which touches such objects or excretions, even when this occurs indirectly and not in a noticeable manner. Excretions of persons ill with or suspected with having cholera, and floors, etc., soiled with them should be infected by copious hourly use of slaked lime or chlorinated lime solution (five drachms chlorinated lime to one quart of cold water) or other good disinfectants.

Linen, clothing, bed clothing covers, and the like, also such as come to you

from cholera regions, should be sent well wrapped-up to a disinfecting place, or be soaked for twenty-four hours in soap and water (one pound washing soap to a pail of hot water), and then boiled thoroughly. Other soiled objects should be cleansed thoroughly with such soap and water, with quick lime or carbolic acid solution. If the nature of the objects does not admit of this, then place them for at least six days in an unused, airy, sunny place.

5. If one's digestion be disturbed, if he have a diarrhoea, especially with vomiting or nausea, let a physician be consulted at once, and until he comes, take a warm drink, put on a woollen bandage about his body, and let him stay in his room; if in great distress, he should go to bed. For relief of pain he may take a cup of hot tea or sip hot water. His food should be mainly of a mucilaginous character, milk toast, soup, rice, with little or no flesh stuff.

In previous numbers advice has been given with regard to treatment of disturbed stomach and bowels by injections of water. This should be employed and the rectum and colon cleansed of irritating and obstructing substance. This treatment, together with an observance of the rules detailed above, will be most likely to prevent an attack of the Asiatic visitor. D.

DUTIES OF WOMEN.

THE shelter and protection of a free government demand awakened and grateful energies. Since its welfare is involved in the virtue and intelligence of its subjects, the character and habits of every member of the human family are of importance. I imagine that I hear from some of the young and sprightly of the fair sex the inquiry, "Why need we concern ourselves in the affairs of politicians? What share have we in the destinies of our country?"

The same share that the rill has in the rivulet and the rivulet in the sea.

Should every little streamlet tarry at the fountain-head, where would be the river that dispenses the fertility—the oceans bearing commerce and wealth upon its never ending tide?

Woman possesses an agency which the ancient republics never discovered. The young fountains of the mind are given in charge to her. She can tinge them with sweetness or bitterness ere they have chosen the channels where to flow or learned to murmur their story to the time-worn pebble. Greece, that disciple and worshipper of wisdom, neglected to appreciate the value of the feebler sex, or to believe that they who had the molding of the whole mass of mind in its formation might help to infuse a principle of permanence into national existence.

Rome in her wolf-nursed greatness, in her fierce democracy, in the corruption of her imperial purple, despised the

moral strength that lay hidden under physical weakness. But our country has conceded everything, the blessings of education, the equality of companionship, the luxury of benevolence, the confidence of a culturer's office, to those young buds of being in whom is her wealth and her hope. What does she require of the fair sex in return for these courtesies? Has she not a right to expect that they give their hands to every cause of peace and truth; that they nurse the plants of temperance and purity; that they frown on every inroad of disorder and vice; that they labor in places where their lot may be cast, as a gentle teacher of wisdom and charity, and that they hold themselves, in domestic privacy, the guardians of those principles which the sage defends in the halls of legislation and the priests of Jehovah upon the walls of Zion.

GEO. BANCROFT GRIFFITH.

WHAT TO DO IN CASES OF POISONING.

As a rule it is important to act quickly in cases of poisoning. Much time may elapse before a physician can be obtained, so that every person of fair intelligence should be sufficiently informed with regard to the treatment essential to be able to do something and thus save life. The first thing usually to be done is to empty the patient's stomach. Among articles that are serviceable for this is ground mustard, two tablespoonfuls in a pint of warm water, or zinc sulphate, ten grains to pint of water, should be administered to provoke free vomiting. If the poison is of a corrosive nature, large draughts of warm milk, or water mixed with sweet oil or butter or lard, should be given.

For the following poisons:

Sulphate of Copper,
Corrosive Sublimate,
Lead Water,
Saltpetre,
Sugar of Lead,
Sulphate of Zinc,
Red Precipitate,

give emetic of mustard and salt, a table spoonful of each in a pint of warm water, and after vomiting give sweet oil, milk, the white of eggs, etc., in liberal quantity.

If the poison taken be an acid as:

Oil Vitriol (Sulphuric Acid),
Aqua Fortis (Nitric Acid),
Muriatic Acid,
Oxalic Acid,

produce vomiting as above, and give freely calcined magnesia or soap (soda preferred) dissolved in water.

For Carbolic acid, after the emetic give sweet oil, flour and water, gum arabic water, or other mucilaginous drinks.

The alkalis require opposite treatment to that for acids. For—

Caustic Soda,
Caustic Potash,
Volatile Alkali (Ammonia),

the patient's stomach should be cleared out as much as possible and acidulated

drinks, lemonade or vinegar and water should be taken.

If the unfortunate has taken —

Arsenic, say in
Fowler's Solution or
Arsenious Acid,
White Precipitate,

let the emetic of mustard and salt be followed by sweet oil, butter or milk.

For Laudanum,
Morphine,
Opium,

which are forms of the same narcotic, administer strong coffee made promptly, and follow with emetic of mustard or warm, greasy water. Keep the patient awake and moving, even if some rough treatment of him be necessary. Belladonna or atropia is antidotal to opium. Ammonia to the nostrils, and cold effusions are restorative. Artificial respiration may be necessary.

When Chloral hydrate or Chloroform is the cause of the trouble pour cold water freely on the head and face, and if there is unconsciousness or coma try to restore animation by artificial means, and by a galvanic battery if one is at hand.

For a case of :

Strychnine, or
Tinct. Nux Vomica

use an emetic of mustard or sulphate of zinc. An enema (rectal injection) of tobacco, $\frac{1}{2}$ ounce to 20 ounces of hot water is helpful to stop spasms.

In poison by Phosphorus, the emetic, solution of calcined magnesia; and a quick cathartic should be used.

Lead Salts are well treated by administering epsom salts, a liberal dose in water; then give emetic and after its effect a solution of opium in milk. Great care must be observed by those who give powerful antidotes in the absence of a physician.

Sometimes Iodine is swallowed, when the prompt emetic must be given, followed as in other cases of corrosive drugs by demulcents, as starch water or flour water, taken freely. D.

HYPNOTISM IN MEDICINE.

OF late there has been much serious discussion regarding the results of magnetic or hypnotic treatment in cases of disease. In France and England the discussion has taken the form of a controversy in which some prominent physicians have taken ground against each other. For instance Dr. Ernest Hart appears to think that the effects of hypnotism are about on a par with the so-called cures obtained by "the faith curer of the chapel and the grotto." Dr. Babinski is quoted as stating in a lecture at the Salpetriere his final conclusion that "outside of hysteria there does not exist a single affection capable of being notably modified by hypnotism, or at least that the contrary is not proved, for the observations published with that object are far from being demonstrative."

It is declared also that the cases published by Dr. Bernheim, of Nancy, do not bear the scrutiny of close analysis, and show very little that can be accepted as substantial.

Dr. L. Storr-Best publishes an article in the March number of the *New Review*, (London), with the title of "The Common Sense of Hypnotism," in which he, too, reviews the subject, and endeavors to show that "its phenomena not only harmonize with the best teachings of modern physiological psychology but are rendered by it *a priori* probable.

He says of its uses therapeutically :

"To detail minutely its multifarious applications in modern medicine would be tedious, seeing that the mere list of those diseases in which hypnotism has been found serviceable would be wearisomely long. . . . The greatest success has been achieved in the relief of pain, and in the treatment of so-called functional neuroses, maladies whose organic concomitant has not yet been discovered, such as neuralgia, chorea, writer's cramp, etc., while more courageous practitioners have not hesitated to employ 'suggestion' in the case of

genuine organic disease, and have obtained results altogether unanticipated."

After detailing somewhat minutely the physiological effects of hypnotism upon the brain and mind of a subject, he says further :

"In the first place it is patent that by means of hypnotism we can act *directly* upon morbid mental conditions, being able by reiterated suggestion to create or destroy any fixed idea or habit. Thus the dipsomaniac, thoroughly hypnotized and inoculated, so to speak, with the horror of intoxicants, positively loathes the sight of alcohol, and feels no longer the terrible craving which formerly overpowered his most determined resistance. . . . In incipient melancholia, the persistently recurring ideas of suicide may be 'suggested' away. . . . The hypnotist can directly 'minister to a mind diseased,' and break habits injurious to health. . . .

"In the case of the hypnotized patient we are enabled to turn the whole of the attention to any part of the body and bind it fast by creating there, through suggestion, a continuous sensation, of which the inevitable result will be an increased flow of blood through the arteries supplying that part. . . .

"In conclusion, does it not seem, in the light of these facts, that we should be able by means of hypnotic treatment to modify morbid processes, arrest structural degeneration, and awaken to more vigorous life the diseased part by improving its nutrition through an augmentation of its blood supply."*

*In a note the writer tells of the treatment hypnotically for enlarged glands of the neck. "The morbid condition was chronic, and had been stationary for many years, obstinately resisting every variety of medical treatment. Cure was effected (two years ago), and I am assured by the patient that no relapse has occurred. . . . It was impossible to attribute the result to a fortuitous coincidence, for on several occasions when hypnotic treatment was interrupted for a day or two an aggravation of the condition ensued."

THE AMERICAN INSTITUTE OF PHRENOLOGY, ETC.

In a recent number of the London *Illustrated News* the following notice appears :

"It is not generally known that there is a College of Phrenology in New York which has a yearly class of fifty members, most of whom come from the country, and especially the West. The official records show that 530 persons have received diplomas from the college, and of these one-seventh were women. The institution was chartered by the New York Legislature in 1866, with the power to hold real and personal estate of the value of \$100,000 for no other purpose than that of "promoting instruction in all departments of learning connected with Phrenology, and for collecting and preserving crania, busts, etc."

Other information is added that may be of interest to the readers of that widely circulated old weekly. It is in the main correct, showing that the writer had looked into the matter somewhat more carefully than the average reporter. One point that might have been included is that among the students there are usually some who hail from England or the colonies. Even Australia occasionally sends a student all the way to New York to receive the benefit of the lectures provided by this institute. In the report of the Commencement proceedings, which is published annually, a full list of the students is given, with detailed information concerning the course of lectures, requisites, etc.

A GOOD COLOR WASH.

Half a bushel of white lime, 3 pecks hydraulic cement, 10 pounds umber, 10 pounds ochre, 1 pound Venetian red, quarter pound lampblack.

Slake the lime; cut the lampblack with vinegar; mix well together; add the cement, and fill the barrel with water. Let it stand twelve hours before using, and stir frequently while putting it on.

NOTES IN ANTHROPOLOGY.

Prehensility of the Foot as a Sign of Abnormality.—“Ottolenghi and Carrara (of Lombroso's medico-legal laboratory at Turin) by their recent investigations of prehensility of the foot in the insane and criminals have burdened the alienist with a new anthropological character. Stimulated by Regnault's investigation of the prehensile foot in Indians they have examined 100 normal men, 200 criminal men, 81 epileptics, 62 normal women, 50 prostitutes, 64 criminal women and (to a more limited extent) 86 idiots; all over eighteen years of age. A drawing of the foot and the space between the two first toes was taken, the subject standing erect and the toes in repose, and then another drawing was taken after the subject had been requested to abduct the first toe to the greatest extent possible. In both conditions the space between the toes was measured both at the base and at the periphery (i.e. from the centre of the extremity of the first toe to the centre of the extremity of the other). The space was found to be smallest in normal men; a space over three millimetres (it is very commonly below this) was found to be three times more common in criminal than in normal men. The epileptics closely resembled the criminals in this respect. The proportion of normal female subjects showing a wide space was much larger than of male, but there was little difference between the normal and criminal women. The prostitutes on the other hand were much more abnormal in this respect, and ranked with the criminal men. The idiots were the most abnormal of all, although in this case it was not possible to take measurements during forcible abduction. In the course of the investigation two cases of true prehensile power were met with. One was a criminal, a gymnast and son of a clown; although he had made no previous experiments he was found to possess great skill in taking up small objects between his toes. The other was an epileptic criminaloid, who had from childhood spontaneously used his feet in the same way as his hands in dressing him-

self, picking up the most minute objects, etc. It will be seen that the results of these investigations fall harmoniously into line with the various investigations as to the anthropological degeneracy found among prostitutes, epileptics and idiots which have been made by Lombroso, Solhir, Mme. Tarnowsky, etc. In connection with these studies in criminal anthropology are given the results of the observations of Professor Gradengo of Turin, on the ears of 245 criminal women. In 138 ears he found the prima normal; in the remaining 112 cases 282 abnormalities were found (2-9 each person) The most frequent abnormalities were prolongation of scaphoid fossa into lobule, adherent lobule, and prominent antihelix. As in previous researches, he finds that imilateral anomahis are more common in the right side (40 to 22) if we except the outstanding prima (*ad ansa*) which is found eleven times in the left side for twice on the right. He concludes that criminal women show a greater number of abnormalities of the ear than women belonging to the general population, but not so many as insane women. An exception must be made of the ear *ad ansa* which is most frequent in criminal women.”—*Journal of Mental Science*.

The Chinese and Babylonian Calendars.—They are identical in structure, although the underlying principles of both is much more clearly set forth in its Chinese than in its Accadian form. The Chinese calendar is typical for all calendars, and introduces us at once to the *rationale* of the most primitive method of notating time and thought. In accordance with the vivid imagination of a period in human history when the creative far outstrips the critical instinct, Night and Day were the first parents of time. The Chinese calendar builds upon this simple antithesis to give the impetus of life to the procession of the days. The Sun and Moon, as father and mother of time, stand at the threshold of the year, and impose the law of their duality upon the hour, day, month, year and cycle. This idea is extended throughout the entire Chinese time table, which with the excep-

tion of the 60 year cycle is singularly like our own.

60	married or	120	single minutes	make	1	hour
12	"	"	24	"	hours	" 1 day
15	"	"	30 or 29	"	days	" 1 month
12	"	"	24	"	months	" 1 year
60	"	"	120	"	years	" 1 cycle.

The year begins with the first new moon after the sun enters the water sign of Aquarius and consists of twelve months of alternately 30 and 29 days, with a full moon falling in the middle of each month.

Formerly the days of the month were notated in China as in Babylon by moon-stars, fancied to be pods upon the sacred tree. According to the Tchu Shu Ki Nien, when the Emperor Gao had been on the throne seventy years, a kind of plant grew on each side of the palace stairs. On the first day of the month it produced a pod and so on every day a pod to the 15th, while on the 16th one pod fell off, and so on every day a pod to the last day of the month; and if the month was one of 29 days, one pod shriveled up without falling. The growing phase of the month, from the new to the full moon is considered the "strong" or masculine half of the month; the waning phase the "weak" or feminine half. The duality of the month is a distinction we have lost owing to the separation of the lunar and solar years in the modern calendar, although we still preserve the "marriage idea" in our day of twenty-four hours, which in reality consists of two days of twelve hours each—the day of light and the day of darkness. The intimate connection which exists in the Chinese mind between the smallest and the largest fraction of time is illustrated by a philological as well as by a mathematical process. The names of the twelve signs of the Zodiac also serve for the names of the twelve months. These same names compounded with the two terms *ch'uh* and *cheng* make the twenty-four hours and these again compounded with ten determinants produce just sixty names (and no more) for the years of the cycle. It is significant that as midnight is feminine the day begins, as of necessity, with the second or feminine term of *Taze* the sign or month of Aquarius. The duality of the year is also suggestive to the Chinese by the fact that the 12 stems or month names multiplied by the 10 branches

or numerals make 120 years. But these must be married; therefore on the theory essentially Chinese though occasionally reasserted in our midst, that man and wife are one, they become the sixty years for which by philology there are provided just sixty names. Besides the year extending from the beginning of the first to the end of the twelfth month, the Chinese, as do the Jews, recognize a year extending from the beginning of the seventh month also lasting a twelvemonth. These two years are still recognized by custom, the twenty-fourth day of the sixth month, now St. John's Day, and the twenty-fourth day of the twelfth month, Christmas Eve, being peculiarly solemn days of preparation for the incoming year. It may be said that the Chinese, like all races and individuals who are in the first stages of self-conquest, exclusively express their charity in these few days, which usher in the birth of a new year. The custom of giving presents and especially of exchanging New Year calls is essentially Chinese. The coincidence of these two rather peculiar acts of brotherly love co-existing in Holland and Scotland should give food for thought. It is a little singular, certainly, that the Chinese, who are not an over charitable or forgiving race, should enjoin the forgiving of all debts at the beginning of the new year.—*Harper's Monthly*.

A Modified View of the Criminal.—Those who have followed the French and Italian writers are aware that they have taken great pains to define the "criminal type." It has been alleged that habitual criminals have a lower average of cerebral capacity than others; that their foreheads are retreating, and their brain developed posteriorly; that their lower jaws are strongly pronounced, and their ears frequently deformed; their hair thick and coarse, but their beard scanty; and so on. Such was the "*criminal ne*" of the French, the "*norno delinquenti*" of the Italian. But at the Brussels Congress of Criminal Anthropology, held in August, all this interesting theory may be said to have been upset. Dr. Tarnovsky, of St. Petersburg, and Dr. Waecke, from a very wide collation of observations, denied any special physical peculiarities to criminals, either male or female. The tendency of all the

leading speakers was to look upon crime as the result of psychical and social, rather than physical, peculiarities. It is true that physical abnormalities are more frequent in the criminal class, but there is no constant relation between any one of them and crime. Very many criminals have an inherited tendency to some form of mental alienation; many others owe their character to purely personal and social influences of a deleterious character. Society is far more to blame for their existence than has hitherto been acknowledged; and if the tide of crime is to be stayed, we must have recourse to sounder moral instruction, more judicious systems of legal procedure, and an improved doctrine of punishment. This is the important practical lesson taught by the Brussels Congress.—**DR. D. G. BRINTON** in *Science*.

Archæology in Turkey.—In the *Century* for February is an article by John P. Peters, calling attention to the encouragement that the study of art and archæology are now receiving in Turkey. The principal credit for this is given to O. Hamdy Bey, director of the imperial museum in Stamboul. "Hamdy," Mr. Peters writes, "is a painter of no mean achievements, and practically the first that Turkey has produced. It is a phenomenon worth recording that Islam has produced such an artist, and that he has not only been tolerated, but even honored and encouraged by a reactionary and fanatical government. The whole genius of Islam, and more particularly of the Islam of the Turks has seemed to be opposed to art. Except among the Persians, the representation of the human form has been regarded as forbidden by religion, and such art as existed has been confined to architecture and floral decoration. In these the Arabs are supposed to have succeeded, and yet they were rather the paymasters than the architects and artificers, and from first to last their most beautiful work has been done by Indian, Persian, Jewish and Christian workmen. This is more distinctly the case with the so-called Turkish work, both at Bronsea and Constantinople. If the Turks imitated Byzantine architecture, or rather paid Greeks to continue to adapt it to their needs, as seem to have been the case, they rigidly banished

from their buildings painting and sculpture in their higher forms. In St. Sophia, Chora and other churches, the fine frescos and paintings were stuccoed and plastered over, and whatever statuary had survived the Latin barbarians was destroyed outright by the Turkish.

After the Turkish conquest both painting and sculpture became lost arts in Constantinople. Hence a peculiar interest attaches to the attempt of a Turk to re-introduce them with the consent and approval of his government. Hamdy Bey is even better known to the world by his archæological discoveries than by his artistic achievements. His discovery of the wonderful sarcophagi at Sidon achieved him fame. Here he found two tombs, an earlier Phœnician royal tomb at a higher, and a later Greek tomb at a lower level. When the shaft for the Greek tomb was sunk toward the end of the fourth century B.C., the existence of the Phœnician tomb had been forgotten.

In the Phœnician tomb were found the coffin and body of Tabnith, king of the Sidonians, and priest of Ashtaroth. It was an Egyptian stone coffin, and the body had been preserved in some sort of liquid, which had evaporated or otherwise diminished in quantity, leaving a little of the upper part of the face exposed. The part thus exposed is said to have been wrinkled and shriveled in appearance, while the portions still covered with the liquid were fresh and well preserved. Unfortunately this liquid was poured out upon the ground unexamined, and so the secret of an interesting and curious method of embalming is still unknown. One of the Greek sarcophagi is thought possibly from the carvings upon it to be the coffin of Alexander, the tradition of his having been buried in Alexander to the contrary notwithstanding. Hamdy certainly deserves the greatest credit for his almost single-handed efforts to foster archæology in Turkey, and needs friendly co-operation in his efforts.

Surgery Among the Mound Builders.—Within the last few years certain gentlemen in the state of Ohio have been deeply interested in the ancient, prehistoric burial places connected with the numerous mounds to be found in the river

valleys in that State. Immense numbers of bones have been exhumed, and in many instances whole skeletons, with every part intact, have been taken out, carefully measured, and have afforded splendid data for speculation as to what sort of a man, physically and mentally, the moundbuilder was. But what will probably interest medical men most is the fact that among these skeletons taken from prehistoric cemeteries not a few had sustained fractures, some of which were of the bones of the head and of the skull, others of the femur, others of the humerus, and these bones were found in all stages of repair. Some had evidently been accompanied by fatal injuries; others, however, had gone through a process of union, and the whole mass of fractured bones taken from these skeletons forms an interesting exhibit of the state of surgery of fractures prevailing at that time. A number of fractures of the femur are to be found, in which there was very little, if any, shortenings, but by far the majority of fractured femurs show much more angular deformity and a greater degree of displacement than modern surgery would tolerate. In many cases this deformity is so glaring that one cannot help but feel inclined to believe that no art was resorted to, and it is more than probable that the ancient moundbuilders of the Ohio valleys were left entirely to nature when suffering from broken bones.

Iron Working Before the Christian Era.—Dr. D. G. Brinton writes in *Science*: "With the general employment of iron a new era arose in Central Europe, one which gave birth to that high culture which has since formed there, the civilization of the world. An intense interest, therefore, surrounds this remote period. History is silent about it, and archæology alone can guide us. This wondrous science reveals to diverse civilizations in that area during the early iron age, separated probably rather by a few hundred years of time than by a few hundred miles of space. The first is represented by the remarkable cemetery of Hallstatt near Salzburg. This locality discloses a people skilled in working bronze, gold and iron, manufacturers of richly decorated and gracefully formed pottery, lovers of orna-

ments of amber, glass and agate, and accustomed to cremate their dead. We may place them 500 to 800 B. C. The late iron age is the La Tene period, one or two centuries before the Christian era, deriving its name from a station in Western Switzerland. By that time, the working of iron had reached a singular perfection; glass, gold, silver, and precious stones were frequent; the dead were buried in stone coffins, and a local coinage was for the first time issued in metallic pieces now popularly known by the name 'rainbow keys.'

'Recent studies in this period are those of Dr. Jacob Heierli, of Zurich, in the December number of the 'Proceedings' of the Vienna Anthropological Society, who describes a La Tene station in Eastern Switzerland; one by Dr. Neiderle, in the Report of the International Congress of Pre-History at Moscow, discussing the age of iron in Bohemia; and an address by Von Troitsch, before the German Anthropological Society, with reference to it in Southern Germany.'

Remains of the Cliff and Cave Dwellers.—In the San Juan cemetery (Utah) one observes two classes of ruins—the boulder dwellings and the houses of hewn stone. One might subdivide the hewn stone structures according to location, and say that they occupied caves in the canon side, prominent points upon the edge of canons, or when located in fertile mesas, took the form of large compartment houses—commonly known as pueblos. One might go still further and say that all the hewn stone ruins represented the same architecture, whether located in the caves or upon the mesa, whether comprising one or two rooms or several hundred rooms. Extending back from the Colorado river two or three miles are many small canons extending in a semi-circular amphitheatre with sides ranging from two to five hundred feet in height. Such gorges are called box canons. A small trail barely wide enough to allow one person to descend on foot leads from the mesa into the canon. Upon descending, one finds the caves literally filled with buildings of various sizes. In caverns having a dirt floor there are seldom stone buildings, but instead a most singular and unusual type of dwelling. Upon inspecting

some of the caves stone slabs four or five feet across were seen upon the surface. Perhaps the sands and dust which the winds had swept within half covered these stones. Upon removing them, openings two or more feet in diameter were disclosed, leading into a dome-shaped cavity. It is not without difficulty that a person is able to lower his body into the dark, uninviting depths of the cave. The chamber had the appearance of a bell, small at the top and large at the bottom. The rooms average six feet in depth and seven in width at the bottom. There are as many as twenty of these rooms in one cavern. Many of them penetrated through the clay and were excavated into the soft sand stone beneath. Small doors at the sides frequently led from one to another, so that a whole series of ten or fifteen rooms would be connected. Some of the smaller underground rooms were used as granaries and several were discovered filled with seeds and corn.

Skeletons were frequently found in the rooms, accompanied by textile fabrics, deer-skin garments, flint implements, etc. In no instance was pottery found in the underground rooms. The following things were obtained in almost perfect condition owing to the dryness of the canon:—beautiful feather-cloth robes and head dresses of the smallest feathers, rendered mouse color by age; pieces of spindles and cotton fabric in various processes of weaving cotton seeds and cotton cloth garments, many of which were painted in fanciful designs; buckskin robes, on the inner side of which were picture writings similar in character to the Winter courts of the Sioux; bone, obsidian and flint cutting instruments mounted in original handles; stone spears, with shafts six or eight feet in length; basket work, blankets, pottery, and hosts of other objects and implements

Ancient Ruins of Central Africa

—At a recent meeting of the Glasgow Archaeological Society, Mr. Robert M. W. Swan delivered an address on "The Ruined Temples of Central Africa," of which *The Architect* gives the following synopsis. The ruins are distributed over the country between the Zambiss and Limpopo rivers, but the most important of them are Zimbabwe.

All the buildings are rounded in form and are made of small unbewn blocks of granite about twice the size of bricks and without mortar. They are of three degrees of excellence in workmanship, the first and oldest being the best built. These have carefully leveled courses, and the walls, which are solidly built throughout, are constructed on a curious mathematical plan. Buildings of the second class have the stones forming the facing of the walls fairly well laid, but in the interior the walls are not solidly built nor are they built on any mathematical scale. The third class of buildings are such as are constructed by the Kaffirs of to-day. The buildings of the first two classes bear on their walls decorations of a geometrical kind which are oriented toward the sun, when it is either rising or setting at one of the solstices. In the first class of buildings, these decorations are most accurately oriented but in the second, much less so. Three cults had been followed in the temples, namely, the worship of the sun, the worship of the stars, and one of the grosser forms of nature worship. On Zimbabwe Hill are found temples and fortresses combined in one. There are two temples, and on a great cliff over one, is poised a huge stone which seems to have been an object of worship. The position of the great temple in the plain below has been fixed relatively to this stone, for the principal altar in that temple is placed due south of the stone with great accuracy, and the outer wall has been pierced by a doorway, so that the stone could be seen from the altar itself. The purpose of this arrangement was to enable stars to be observed from the altar over the stone at their culminations or meridian passages. The great temple is constructed on a series of circular curves, and measures about 250 feet in its greatest diameter. Its walls are about 25 feet high and 15 feet thick. The unit of measure used was the common cubit. In all the best built temples of Mashonaland, a point true north of the centre of every curve of the walls had been marked by a doorway or by an erect monolith, and the purpose of this arrangement was to enable the observation of the meridian transits of stars. Only stars of the northern hemisphere were observed, and this points to a northern origin for the

People. Stars were never observed on the horizon, but generally on the meridian, and in this the astronomical methods used at Zimbabwe differ from those of the Egyptians, Chaldeans, Phenicians and the ancient Indians, for these people always observed stars on the horizon and rarely if ever on the meridian. The only known people whose methods of astronomical observation may have resembled those used at Zimbabwe, are the early inhabitants of South Arabia, and they probably were the builders of Zimbabwe. Of their history little is known, but at a very early period, indeed, they seem to have been a highly civilized race and to have had an alphabet earlier than the Phenicians. Their power and

commerce was probably greatest and most extensive before the expedition of Queen Hatason, of the eighteenth Egyptian dynasty, who conquered them, and it was probably before her time, that Zimbabwe was built. The Minarans seem then to have been the ruling people, but later in Solomon's time, it was the Sabeans who dominated. The Phenicians may have occupied these temples about the sixth century B.C. and probably rebuilt some of the walls which are of the second period, but it is quite clear that the original walls could not have been built by the Phenicians, for the style of their workmanship is clearly distinct and they are no parallel to the Phenician remains at Hagiar Kim in Malta. E. M.



NEW YORK,

May, 1893.

THE SEX OF CRANIA.

It may seem rather strange to the readers of this magazine to be informed that the eminent Virchow stated not long since that he regarded attempts to lay down rules for distinguishing the sex of crania as of little avail. We know that this distinguished German takes high rank in biological science, but how far his knowledge of craniology extends it is not for us to say, but are well assured that observers in this country have for many years been able, as a rule, to determine the sex of the human skull by peculiarities of development. In this magazine several

articles have been published in which the organic differences between the male and female skull have been indicated, the chief feature of which is found in the posterior development, the occipital region especially being larger relatively to other divisions in the female than in the male. The superior mesial part of the forehead is generally larger also relatively to neighboring parts in the female.

Besides these particulars we have a recent point of distinction proposed by Dr. Thiem-Cottbus, who describes in an article published by the *Archiv fuer Klinische Chirurgie*, the ostympanicum which forms part of the posterior wall of the glenoid or socket of the lower jaw bone and closes in the bony meatus of the ear, as an indication by its structure of the cranial sex. This bone being related of course to the ear opening, arises perpendicularly from the petrous portion of the temporal bone posteriorly, and inclines backward in woman at about half the height of the mastoid process, but in man at a less height. In the male the bone develops a sharp edge, which divides to form

the sheath of the styloid process, but in woman this sharpened edge does not exist; the bone is rounded into a tubercular form, and the fossa is shallower and flatter. Thus, in the male this "fossa-tympanico-stylo-mastoidea" is small, and the posterior wall of the glenoid cavity extends so deep that it is not possible for the condyloid process to slip over it; in the female, it is so much more spacious that this feature alone serves, as a rule, to distinguish the crania of one sex from the other.

TOO MUCH EXCITEMENT.

Many of the physiologists of the day find in the literature and art that are affected by the masses intimations of nerve degeneration, if not of disease. This tendency is manifested by the prevailing desire for novelty and change that minister to nerve excitement. Nordau says "the spirit of the times is singularly perplexed, a mixture of feverish restlessness and an abandoned gallows humor. The predominant sentiment indicates approaching wreck, dissolution." This authority refers mainly to social conditions in France, but his statement has some pertinence to us in America, because of the disposition toward the adoption of foreign practices in dress, the drama, private entertainment, athletics, etc.

The close observer of life in our large cities is impressed by the restlessness of the people, and their interest in those forms of amusement that awaken to high tension the emotions, especially the lower or physical emotions. The sports of the turf and field as sustained by the better class are made to appeal to the sensuous feelings by abuses of dress and

unnatural strifes, and the excessive consideration accorded to successful competitors awakens a feeling of emulation in the young that is unhappy in its effect upon both mind and body. We do not wish to exaggerate the situation, and are not inclined to regard it as perilous to social welfare at present, but can we close our eyes to the possibilities of serious injury to our population through the establishment later of a chronic drift of conventional abuses which would necessarily determine in widespread mental and physical degeneration?

SYSTEMATIC MORAL EDUCATION— FIRMNESS AND SELF-ESTEEM.

THIRTEENTH PAPER.

HAVING considered the province of the love of approbation in moral conduct we might proceed at once to the study of that most important essential—the faculty of conscientiousness, or the sentiment that prompts to right action and the expression of truth. But so closely associated with its function in the complex life of civilized man are other feelings that a satisfactory analysis of any action can scarcely be made without reference to the several parts taken by those other feelings. It is well then that attention be given for a space to them.

Firmness, for instance, occupies a place in character that is far from subordinate; for while selfish propensities or kind sentiments may inspire motives that in expression appear ignoble or admirable, the achievement of permanent results in consonance with such motives depend in most cases upon persevering, steady action. It is firmness that imparts tenacity and steadfastness to purpose. Those who are endowed with it in good degree of development are distinguished by the strength of their convictions, and the disposition to

persevere in the line of their choice. This faculty is a support or buttress to the other faculties, imparting steadiness and persistence to their manifestations.

While classified in the scientific treatises usually as a selfish element, it appears to us rather to partake of the moral character, so important is it to individual stability.

We have remarked in "Brain and Mind" upon its service to the world, for the history of those men and women who have contributed to the moral and intellectual progress in any period and in any nation is marked by the expression of resolute determination and mental stability. Firmness supplemented their efforts to overcome difficulties and put aside oppositions, and accompanied them onward toward the goal of success.

This quality has its examples in national character as well as individual, and it is most interesting to note the different effects of its influence where strong and where comparatively weak. The ancient Greeks, for instance, did not possess it in as great a degree relatively to love of approbation as the Romans, hence the political vicissitudes which marked their course and divided the land. In modern times the French character has some resemblance on this side to that of the Greeks—while the English is much like the Roman.

Dr. Browne makes an interesting comparison of two peoples about equally endowed with intellectual and moral dispositions, one possessing more firmness radical than the other. In the one the conduct of government would be distinguished by a greater desire to maintain the existing order of things; in other words, the statesmen to whom the affairs of government were intrusted would pursue a policy of conservatism. In the other nation, with less of firmness, there would be shown a disposition to change the order of things, to consider new projects that were ostensi-

bly improvements in one or another respect upon the old system.

France has been distinguished by its love of approbation; and its kings, generals and political leaders who could feed the public desire for glory have, as a rule, received the enthusiastic support of the people, even when that support involved vast expenditures of blood and treasure, and even revolution.

Firmness in excess contributes to over-action of faculties that are dominant in development and influence, and hence, for the sake of harmony in the character, should itself be subject to restraint and discipline. Persistence, obstinacy, etc., indicated against the calm judgment of reason are due to its over action, so that what is intended to operate as a curb to the undue exercise or influence of the feelings and propensities may become instrumental to perversion of character in itself. By supplementing, bracing will, firmness is made contributory to the accomplishment of one's aim, whatever it may be. Hence, it is seen that this powerful auxiliary in mental life should be associated more with the exercise of those faculties that elevate and refine human nature than with the feelings that by their excess vitiate and degrade the man.

In studying the character of children it should be noted how far this faculty operates in the exhibition of feeling, propensity, selfishness, etc., and if weak, effort should be made to strengthen it, otherwise a nature that might be highly endowed intellectually and morally, by inheritance, would be likely to prove a failure in the every-day life of society because of feebleness and instability of purpose.

The child over strong in firmness early shows the influence of that faculty; he is willful, obstinate, pertinacious in feeling and caprice—a sore trial to tender and indulgent parents, and unless trained by a judicious and intelligent guide he grows up a spoiled, insubordinate, contumacious youth. The ten-

dency of an organization having strong appetites and passions with marked firmness is toward the development of a very vicious and dangerous character. This association is usually found in those unfortunates who were born in the atmosphere of poverty and vice, and whose career in childhood and youth was lacking the restraint and training of a home and intelligent friends. That they should gravitate toward crime is but a natural outcome of their constitution as subjected to the leading and control of the corrupt scenes and impressions of their childhood.

SELF-ESTEEM.

Another quality that enters into moral operation and with almost equal claim to notice as that just examined is what the French name *l'estime de soi*, and commonly known to us as self esteem. This element appears to be peculiar to the human mind. The lower animals doubtless possess love of approbation, for in some of them the excessive form of its expression as illustrated by vanity and a craving for admiration is very conspicuous. The peacock, race horse, house dog and ape show the feeling often to an amusing extravagance.

The function of self esteem is regulative; it contributes when normally active poise and equilibrium to character; not after the nature of firmness but an expression in attitude and conduct that we translate by the terms, dignity, self respect, independence and pride. The person who has it in a good degree shows evenness and calmness in almost all situations, however trying, and so is capable of meeting trials and emergencies with success. While firmness holds the faculties steadily in action, and imparts strength and tenacity to effort, self esteem appears to have for its function the imparting of ease and facility to the action of faculties and prevents confusion and friction in the mental operations. Thus the man is enabled to think to the best advantage,

and with an endowment of intellectual capability that is but average he may, because of strong self-esteem, obtain excellent results. The individual who is lacking in this faculty shows a want of confidence in his own powers, and shrinks from effort that will bring him into competition with others or make him an object of attention. He is likely to be over sensitive with regard to his place in society, and backward and hesitating in doing things that might invite criticism or involve any risk to his personal reputation.

The excessive manifestation of this faculty is rare, but the person who shows an abnormal amount of it is conspicuous for his assumption of superiority and power. He is so fixed in his resolutions and opinions that reason is usually lost upon him, and is disagreeably offensive because of his arrogant self assertion wherever he takes an active part. George Washington was largely endowed with this faculty, and happy was it for the country, since its influence sustained him in the midst of the most discouraging circumstances of the Revolution. When other men great and powerful in motive and intellect were sad and despondent because of the frequent disasters to the American cause, Washington was calm and self-poised. His demeanor inspired others with confidence. As an English writer has said: "He was always unalterably self-reliant and fixed in his resolutions, because his clear intellect and noble dispositions showed him the best mode of acting, and not because he was contemptuously self-willed and overbearing."

In the child too much self-esteem displays itself in a disregard of the opinions and feelings of others; in self will and pretense; in affectation of superiority and desire to be the leader of his companions, although in other respects he may not possess more than ordinary qualities. But the arrogant, self-willed, unruly child is not so likely

to escape some degree of appropriate discipline for the correcting of his fault of character as the child who is deficient in self esteem; and the latter is represented in society by the large majority of the young. He needs to be encouraged to be more self reliant—to set a higher value on his capacity and believe himself competent to do well whatever comes within the range of his studies and associations. He should be kindly and clearly shown the importance of standing up for himself and defending his rights and privileges, and by no means, as the common practice is, should he be ridiculed and harshly reproached because of diffidence and want of confidence. The sensitive, timid youth is most likely to be greatly injured, if not for life, by such treatment. Wanting cheerful, sympathetic encouragement, he becomes depressed and despondent, feeling that life offers no chance for his advancement. Evil associations often draw him into a course of vice and crime, although oftener he is found in some subordinate or obscure place performing a dull routine of semi-mechanical service.

We remember a little fellow who, when in short clothes, indicated so much of pretension and assurance that his relatives and friends were accustomed to point to him with pride and express with confidence that Georgie would be an honor to his family some day. He would stalk around with an air of great importance that was certainly amusing enough, and order the servants of the family to do this or that of his caprices in the style of an oriental satrap. Handsome and well-dressed his supercilious airs were not only tolerated but encouraged—because, forsooth, he was only a little boy, and then, too, it was said “when he is older his conceit will be taken out of him.” It was not realized that his conduct was due largely to self esteem and firmness and that the unconcealed admiration of his grown-up friends was encouraging the greater

development and influence of those faculties. This was the case, and in his manhood, finding that his expectations and demands could not be met, he became misanthropic, contracted intemperate habits and died before middle life. How great was the disappointment of that family! George had talents of a high order. Had they been properly cultivated and his self esteem made contributory to their service in a reasonable degree, he would have done honor, doubtless, to his family. As it was his gifts were smothered under a demeanor of arrogance and pretension and of overbearing self-assertion that rendered him in manhood an exceedingly disagreeable associate.

AN OLD FRIEND'S CONGRATULATIONS.

WE have received the following kind and encouraging words from an old friend to the cause—the Rev. Lucius Holmes:—

“It is something for hearty congratulation that there is now an Institute, where Phrenology and kindred subjects may be most advantageously studied, and where those desirous of entering the lecture field may get finish and full equipment. For a long stretch of years I have been a reader of the PHRENOLOGICAL JOURNAL and have many of its volumes bound. I have sometimes got friends to subscribe for it I have now and then sold a copy of some of the very excellent books of your publishing house; a house more kind and honorable it would be difficult to find, or where more useful, patient work has been done for so small a pecuniary consideration. The day of its outward glorification is hardly dawning, but I think it will arise. A home is now secured, the Alumni organized, and wealth may soon see where to make a gracious bestowment in the interest of that home.”

Our Mentorial Bureau.

To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

SPONGE BATH.—J. M. G.—A sponge bath in tepid water is an excellent beginning of the day. The whole body should be quickly rubbed over with the wet sponge or cloth, and followed immediately by a dry towel rub. For men who usually wear the hair too short a liberal application of the sponge to the scalp is not objectionable, as the drying off is rapid.

Figs are good for use in a moderate way. Those that are sold in our northern markets are so sugary that it is not well to eat many at any one time. The fresh fig is sweet, but has by no means so much sugar in it as the pressed fig of commerce.

RECTAL SYRINGE.—MANY INQUIRIES.—The cost of an outfit for injections according to the directions given in the articles by Dr. Drayton, published in the February and March numbers, will be, for the bulb pattern, \$1.75; for the fountain, \$2.25. If a colon tube of pure rubber is required the cost will be fifty cents more.

SUGGESTION.—ON MATRIMONY.—QUESTION.—Why not have such a thing as genuine phrenological marriage sanctioned by the laws of the States so that when a phrenologist should say "I pronounce you man and wife" all others should agree? Of course such phrenologist should be required to

produce a diploma from an institution recognized by the laws of the United States. Would it not be well, too, for the Government to grant land for settlement by said instituted families, thereby separating them from those not so constituted, and thereby prove the theories of the past by test. I feel a consciousness that such a test will hold if once tried. J. B. MoD.

The suggestion is not entirely new, as in some form it has been proposed before. We consider the matter practicable, and would have society adopt it at once, but the proposition is too far in advance of the sentiment and practice of the day. People do not marry for adaptation and that practical co-operation that are essential to happiness and the best results, but marry from caprice, selfishness and even lower motives. Keep agitating this subject, however, all you who believe in the uses of science for the elevation of the race.

THE SKULL OF DESCARTES.—J. B.—Yes, the head of this great philosopher was reported to have been small by objectors to the doctrine of Gall. But in 1879 Dr Le Bon had an opportunity to examine it, and found its capacity to be 1,700 cubic centimetres, or fully 150 cubic centimetres above the average French cranium. An examination of twenty-five crania of prominent men in the Gall collection showed one only that is much under the average size—that of Roquelaure de Bessuejouis (1365, C. C. M.). He, however, was a man of mediocre talent although Bishop of Senlis. The next larger was that of Alexinger, a now forgotten poet, that measured 1505 C. C. M. Wurmser, an Austrian general who was always defeated, showed 1510 C. C. M. Juvenal des Ursins, Chancellor to Charles V., measured 1525 C. C. Among those above the average were Boileau, 1690 C. C.; Gall, 1692; Descartes, 1700; Chenevin, an eminent chemist, 1700; De Zach, the astronomer, 1715; Jourdan, Marshall of France, 1725; David, the Mathematician, 1725; Cassaigne, eminent jurist, 1755; Abbie Gautier, the author, 1770; Volta, 1860; Spurzheim, 1950; La Fontaine, the poet, 1960.

WISDOM.

"Thou must be true thyself
If thou the truth would teach."

THE best thing we can do for others is not always to take their load or do their duty for them.—*J. R. Miller.*

BUT man is ever sighing for the eternal calm. In his soul is an ideal, a conception of sweet peace that assures him of the reality, and for this reality he is ever longing.

THOUGH we have two eyes, we are supplied with but one tongue. Draw your own moral.—*Alphonse Karr.*

TRUTH is tough. It will not break, like a bubble, at a touch; nay, you may kick it about all day, like a foot-ball, and it will be round and full at evening.—*Holmes.*

THERE is evil enough in man, God knows; but it is not the mission of every young man or woman to detail and report of it. Keep the atmosphere as pure as possible, and fragrant with gentleness and charity.—*The Rev. John Hall, D.D.*

PERSONAL.

FRANCES ANNE KEMBLE, familiarly known to our fathers as "Fanny Kemble" has been out of the American eye so many years that it will be a surprise to many to be told that she was living up to January 16 last, her death in fact occurring in London on that day. She was the daughter of Charles Kemble, the famous actor, and a niece of Mrs. Siddons, and was born in Newman street, London, November 27, 1809. Although not intended for the stage, she adopted that profession with the view of aiding her father when in great pecuniary difficulties, and made her first public appearance October 5, 1829, as Juliet, in Covent Garden Theatre, under his management. Her success was immediate, and in three years she retrieved the fortunes of her family. "Francis I." was a tragedy written by her at the age of seventeen years. In 1832 she made her first visit to America, and with her father performed with brilliant

success at the principal theatres of the United States. An account of these wanderings is given in her "Journal of a Residence in America," published in 1835. She retired from the stage on becoming the wife of Mr. Pierce Butler, a planter of South Carolina, from whom however, she obtained a divorce in 1839. Then resuming her maiden name, she retired to Lenox, Mass., where she lived, with the exception of a year spent in Italy, for nearly twenty years. During this period she was busy with literary work. Besides translations from Schiller and others, she published "The Star of Seville," 1837; a volume of "Poems," in 1843; "A Year of Consolation," in 1847; "Residence on a Georgia Plantation, in 1868. Her "Records of Girlhood," in three volumes, appeared in 1878, and her "Records of Later Life" and "Notes upon Some of Shakespeare's Plays," in 1882. She was well acquainted with George and Andrew Combe, the distinguished phrenologists, and relates some interesting features of their life and character in her reminiscences. She was a beautiful woman, and possessed striking and noble traits of character, which imparted an aroma of special attraction to the drama of her day.

AN INDIGNANT SCHOLAR.

Such a horrid jogafray lesson!
Cities and mountains and lakes,
And the longest, crookedest rivers,
Just wriggling about like snakes.
I tell you, I wish Columbus
Hadn't heard the earth was a ball,
An' I started to find new countries
That folks didn't need at all.
Now wouldn't it be too lovely
If all that you had to find out
Was just about Spain and England,
And a few other lands thereabout.
And the rest of the maps were printed
With pink and yellow, to say,
"All this is an unknown region
Where bogies and fairies stay!"
But what is the use of wishing
Since Columbus sailed over here,
And men keep hunting and 'sploring
And finding more things every year.
Now show me the Yampah River,
And tell me, where does it flow?
And how do you bound Montana?
And Utah and Mexico?



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

ATHEISM AND ARITHMETIC; OR, MATHEMATICAL LAW IN NATURE. By H. L. Hastings, editor of *The Christian*. H. L. Hastings, Pub., Boston.

Under this rather novel title Mr. Hastings discusses many leading topics, such as the being of God, the divine origin of the universe, the composition of matter, music, electricity, etc., etc. He points to the definite numeral relations that exist in the composition and function of matter whatever it may be, either chemical or vital, as manifesting an intelligent creative cause. The book is an interesting array of facts, and their application can not be said to be illogical or forced, in view of the beautiful and wonderful order that exists in nature, organic and inorganic.

STUDENT'S EXPENSES. By Frank Bolles, Secretary of Harvard University. Published by the University, at Cambridge, Mass.

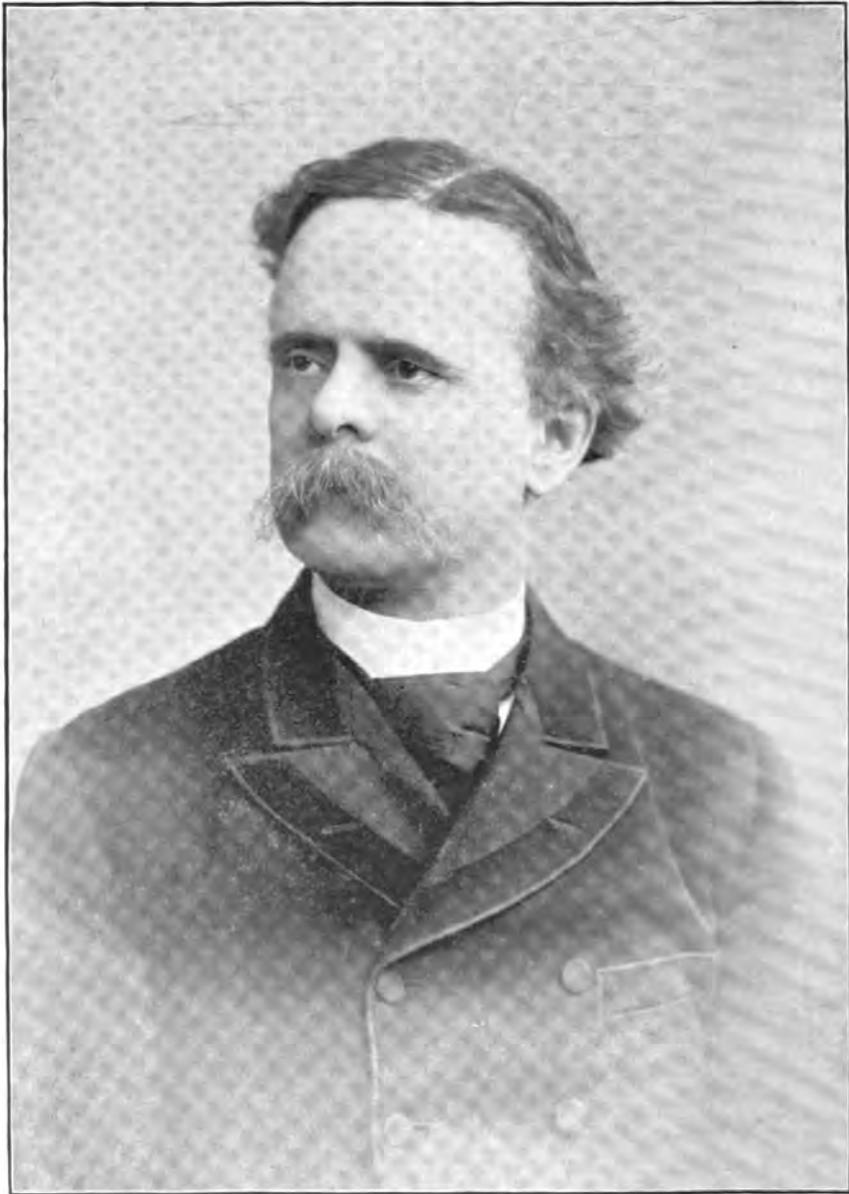
This pamphlet treats of matter of importance especially to the young man or woman who desires first class collegiate training, and has no rich father or friend to pay the expenses. The data of the book are provided by students who have been compelled to live and study on a limited allowance of money or to "work" their way through. It will be welcomed by fathers and mothers who have ambitious sons as a practical guide in the consideration of the financial side of higher education. In this relation it would be interesting to know what it costs our girls to take a course at college. Has any one written that up?

DYNAMIC BREATHING AND HARMONIOUS GYMNASTIOS. A complete system of Psychical, Aesthetic and Physical Culture. By Genevieve Stebbins, author of "The Delsarte System of Expression," etc. 12mo. pp. 155. Edgar S. Werner, New York.

The author of this volume is too well known in esthetical and Delsartan circles to require any introduction. For many years she has been a student and teacher of that harmonious system of physical culture that is credited to the French idealist—Delsarte. She has been prompted to perform her part by a rare enthusiasm, and while rendering her best homage to the artist singer of France she has been willing to sit at the feet of other teachers whose knowledge and experience command respect within different domains of instruction. The tenets of this book are illumined by a high and delicate fancy; whatever is of practical application in its course is rendered inviting by the elements of beauty, grace and symmetry that pervade the methods. The mental or psychical she claims should preside in the activities of the human being, and action should express the feeling and sympathies of the soul. "Psycho-physical culture is the perfect union of harmonic gymnastics and dynamic breathing during the formulation of noble ideals in the mind. The suggestions for breathing and exercise have nothing in them of strain or the grotesque, but are for the most part simple enough for any one to practice, and to the young especially they are commendable as a means of development, steady and substantial.

APPENDICITIS. CLINICAL LECTURE AT THE NEW YORK POST GRADUATE MEDICAL SCHOOL, FEB. 11, 1893. BY R. T. MORRIS, A.M., M.D.

This reprint discusses a matter of surgery that has become rather notable of late years. Cases of enteric inflammation, bowel obstruction, etc., formerly deemed incurable, are now known to have been due to ulceration or abscess of the vermiform appendix, for which surgical treatment at the proper time is the remedy. Dr. Morris reviews the history of the disease and illustrates its management, in an explicit and interesting manner.



Very Sincerely Yours,

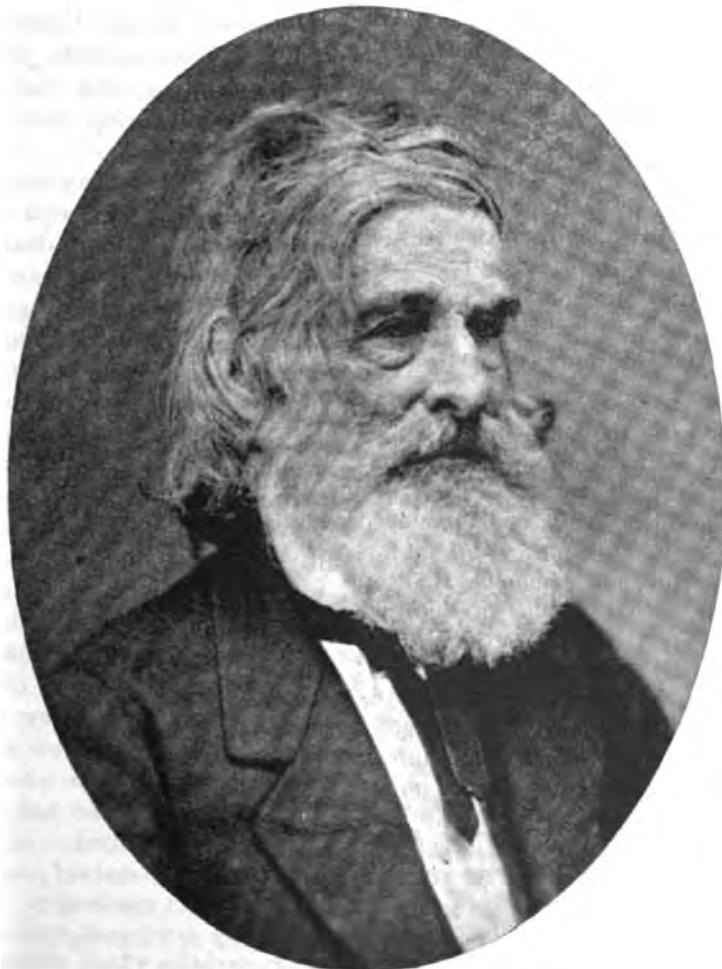
Amory H. Bradford.

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DR. SAMUEL GEORGE HOWE.

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SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

DR. SAMUEL GEORGE HOWE.

It will be possible to mention in this brief sketch only a few of the principal points of interest in the eventful life of this remarkable and gifted man, and to record his great appreciation of phrenology, and the successful application he made of it in his peculiar work.

Dr. Howe was born in Boston, Mass., Nov. 10, 1801. His father's name was Joseph Howe, and his mother's Patty Gridley. From his mother he inherited personal beauty in his youth, and from her family he also inherited his love of adventure and his courage in war. He was first sent to the Grammar school, "that his life might be rooted in the common ground with his fellow citizens." In 1812 he entered the Latin school, a peculiar Boston institution, founded in the very earliest period of her history.

The following incidents will illustrate the great amount of both physical and moral courage young Howe possessed when attending this school. It was at that time that political faction raged fiercely in the nation, and especially in Boston.

"All the boys in the Latin School at one period of his course were federalists but two or three; these were set upon one day by the tyrannical majority, and threatened with severe castigation if they did not forswear Democracy, and denounce Madison and the war of 1812. One of the persecuted minority yielded to the inquisition, but Sam Howe, though only twelve years old, held his opinions too firmly to be driven out of them, and was therefore hurried to the head of the stairs and thrown down headlong with no interference on the part of the Principal, Benjamin Apthorp Gould; of whose rough manners and discipline he always retained a vivid recollection. He used to relate that, having once caught him in some offence, the master proceeded to correct him severely with a ferule, saying that he would make him cry. The little boy at first resisted by an effort of will; then, as the pain became extreme,

his excitement and indignation were so great that the tears refused to flow, and the poor little hand was beaten almost to a jelly."

His father was a man of sense, but of whims and strange prejudices. When it was time to send one of his sons to college he decided the choice between them in an odd manner. He called up his sons and bade them each read aloud from the big family bible. The one who read best was to go to college. Samuel won the day, for he always read aloud with much feeling, and yet very simply. He entered Brown University in 1817 and graduated in 1821. He was then a mere stripling, but nature had been generous in giving him an attractive physique.

He was of middling height, slender in form, erect, agile, and elastic in his movements, with fine features, a fresh, pink complexion, a keen blue eye, full of purpose and meaning, and of mirth as well; with open, frank, and genial manners, he could not fail to win the kind regard of his youthful companions. He showed mental capabilities which would naturally fit him for fine scholarship. His mind was quick, versatile, and inventive. He was not deficient in logical power, but the severe studies did not seem to be congenial to him. In all practical matters he saw intuitively and at a glance what was the best thing to be done. In any strait or difficulty, or any sudden emergency of danger, if there was any possible way of escape, nobody need inform him what it was. Before anybody else had time to think, his plan was formed.

"He had a full share of general knowledge, without exact scholarship. His college life strikingly developed some of the mental characteristics which ultimately made him what he was. He was highly esteemed by his college associates. His presence was always welcome among them. He had a

certain indefinable magnetic power that draw them round him. They were proud of his singular success in an original and untrodden path of benevolence. No one doubted that his extraordinary mental activity and his large executive capacity would lead to distinction in some way, but in what way none could conjecture. Few, probably, anticipated that he would become an eminent philanthropist, and that his life would be nobly given to the relief and comfort of the unfortunate."

After leaving the university in 1821, Howe became a medical student with Dr. Ingalls. He learned rapidly and took his medical degree at Harvard in 1824. In a class of 17 he was the only distinguished member. He never practiced to any extent in Boston, however, but in 1824, at the age of 23, obtained his father's reluctant consent and set sail for Greece to take part in the struggle for independence against the Turks, then going on in that country. Young Howe suffered great privations and dangers during the years he was in Greece, but preserved his health, his good spirits and his good New England habits. It would be interesting did space permit to refer to his many adventures and heroic deeds connected with the Greek revolution. He returned to America in 1828 to procure aid for Greece and by his efforts and appeals raised \$60,000 for the cause and country he had so much at heart. He returned, taking flour and provisions of various kinds and clothing, and saved thousands from starvation.

Dr. Howe spent the most of six years in Greece and became surgeon-in-chief to the Greek fleet. In re-visiting Greece in after years people flocked around him and claimed him as an old friend, and this fully attested the grateful recollection in which his services were held by the people. Concerning his campaigns in Greece Dr. Howe said in 1857 :

"I liked the excitement immensely; the dangers gave zest to it, and I was as happy as youth, health, and a tolerably clean conscience could make me. I think I was

unconscious of any purpose usually called selfish. I wanted no money, and got none. I did not think about other glory than the approval of those about me. * * * My desire was to help along the cause. I cared not for what I ate, or what I wore, or whether anybody knew me; and therefore the people and soldiers rather took to me. I had many friends in humble life, God help them! I can say sincerely that I found the Greeks kindly affectioned, trustful, grateful, and, as far as my intercourse with them went, honest people. They always treated me as well as I wished to be treated."

He left Greece in 1830, with the satisfaction of knowing the country was free. He traveled through Italy, Switzerland, France, Belgium, and in 1831 returned to the United States and cast about what to do, for he did not like to enter on the practice of medicine. He said: "I had then a good deal of nonsense about me, and I did not like the notion of charging money for medical services." He became interested, through his friend Dr. Fisher, in the project for teaching the blind in Boston, and visited France, Germany and England to get the necessary information. While in pursuit of this information he became interested in the troubles and struggles of Poland, and thereby incurred the annoyance of the Prussian government, by whose orders he was secretly arrested and imprisoned for six weeks in Berlin. He regained his liberty, but not until he had made a journey of six hundred miles in a carriage with two gendarmes, who released him just outside the Prussian frontier, with an admonition never to pass it again.

He returned home in 1832 when he put the Institution for the Blind into operation, beginning by teaching six children in his father's house, in Pleasant street, for the institute was then too poor for other quarters. After a few months instruction he gave an exhibition of his class, in order to interest people and get money sufficient to carry on the work upon a larger scale. This and other ex-

hibitions created great enthusiasm, so much so that Col. Perkins, of Boston, offered his fine estate on Pearl street, a large house and grounds, for the use and benefit of the blind, provided the sum of \$50,000 could be raised to carry on the work. This was obtained by subscriptions, and by holding a fancy fair, the first ever held in Boston. In six weeks the whole sum was raised, and the fine house, stables and quarter acre of land in Pearl street, passed into the possession of Dr. Howe's trustees, one of whom was Dr. Fisher, and another Horace Mann. The whole system of improved education for the blind and idiotic in the United States grew out of these enthusiastic labors.

Dr. Howe was eminently a man of resources; he had a suggestive mind, was in reality a "ways and means" committee of himself. If he desired to accomplish an object and found an obstacle in his way, his mind at once suggested a means of overcoming it, and if one effort was not successful, he would try another. His inventive faculty or intuition was always ready to come to his aid in the accomplishment of his object. It was in connection with his work on behalf of the blind and also of idiots that Dr. Howe applied his phrenological knowledge. The following incident will illustrate his ingenious way of turning a boy's mischievous energy into a useful channel. This boy possessed such an active, energetic and forcible character as would almost have conquered anyone else, but in this instance Dr. Howe's knowledge of phrenology came to his aid. The boy was in the habit of cutting benches, chairs, or anything he could get hold of. He would be destroying something all the time.

Dr. Howe knew it was the outgrowth of the youthful energy the boy had never been taught to curb, so he undertook to remodel him. He sent him to the wood-pile to cut wood and let him expend his energy in that way, and made

it a rule that the boy must work with his hands a certain number of hours every day. After a while he became docile, teachable, friendly, in fact, quite a different boy.

The remarkable case of Laura Bridgeman is known throughout the world. By the aid of phrenology, Dr. Howe was enabled to "penetrate the three-barred gate of her soul."

In George Combes "Tour of the United States," in 1839, he says:

"Much as we found to interest us in the Perkins Institute for the blind, the most attractive of all the pupils is the girl Laura Bridgeman, now about nine years of age. She has from early childhood been deaf, dumb and blind, and is also destitute of the sense of smell. She has grown considerably in stature since last year, and I observed a distinct increase in the size of her brain. The coronal or moral region, in particular, has become larger, not only absolutely, but also in proportion to the animal region. Her temperament is nervous with a little sanguine. The head altogether is of full size and well formed. The organs of the domestic affections are amply developed; self-esteem, love of approbation, cautiousness, firmness and conscientiousness are all large. The anterior lobe of the brain also is large, and both the knowing and reflective departments are well developed. The organ of order is large, and she shows great tidiness in all her arrangements.

"Phrenology leads us to understand that in this child the moral and intellectual powers exist in great vigor and activity, and that all that is wanting to her successful education is the means of conveying knowledge to them. *Dr. Howe and his assistants, guided by this science, have succeeded wonderfully in the work of educating her.*"

In the spring of 1842, Charles Dickens who was then on a visit to America, spent a month in Boston, and several times visited Dr. Howe and his institution, which was then legally entitled "The Perkins Institution and Massachusetts Asylum for the Blind," and had by this time been removed to South Boston where it occupied a fine situation on Dorchester Heights.

The case of Laura Bridgeman particularly interested him. He says of her in his "American Notes": "I sat down in another room before a girl, blind, deaf, and dumb, destitute of smell, and nearly so of taste; before a fair young creature (She was then twelve) with every human faculty and hope and power of goodness and affection, inclosed within her delicate frame; and but one outward sense—the sense of touch. There she was before me, built up, as it were, in a marble cell, impervious to any ray of light or particle of sound, with her poor white hand, peeping through a chink in the wall, beckoning to some good man for help, that an immortal soul might be awakened. Long before I looked upon her, the help had come. The name of her great benefactor and friend is Dr. Howe.

"There are not many persons, who, after reading the story of that child, can ever hear that name with indifference. Well may that gentleman call that a delightful moment, in which some distant promise of her present state first dawned upon the darkened mind of Laura Bridgeman. Throughout his life the recollection of that moment will be to him a source of pure, unfading happiness; nor will it shine less brightly on the evening of his days of noble usefulness."

The story of her progress from year to year is too well known to need repeating here. Dr. Howe openly acknowledged that he owed whatever success had attended his exertions in improving the education of the blind entirely to the light derived from phrenological views of mental philosophy. He said:

"Before I knew phrenology I was groping my way in the dark as blind as my pupils; I derived very little satisfaction from my labors, and fear that I gave but little to others. Our upper classes are all instructed in the general principles of intellectual philosophy, and we explain to them both the old and the new systems; but I never knew one of them who did not prefer the latter, while I have known many who have taken a deep interest in the philosophy of phrenology, and heard them avow that they were made happier and better by understanding its principles. Some of our

teachers are persons of considerable intellectual attainments, and all of them have adopted the new philosophy since they joined the institution, not because they were induced to do so by any request of mine or on any consideration of advantage to themselves, but solely because their duties led them to examine all the theories of mental philosophy, and the new system recommended itself most forcibly to their understandings and appeared most susceptible of practical application."

On Dec. 31st, 1832, on the 57th anniversary of Spurzheim's birth, at its formation, Dr. Howe was chosen secretary of the Boston Phrenological Society and was active in carrying on its work from that time till his death, which occurred January, 1876; and which left a gap in the philanthropic world almost impossible to fill. At his funeral he was called the "Massachusetts Philanthropist." This name was deserved, for he took an active interest in the blind, insane, in prisons, in temperance work, in the freedom of the slave, in the welfare of seamen, and he abolished the flogging of children in schools. It was to Dr. Howe more than to any other one man that Massachusetts then owed and still owes what is best in her charitable system. Horace Mann said in 1841: "I would rather have built up the blind asylum than have written Hamlet, and one day everybody will think so."

Dr. Howe's long and useful career was ended on the 9th of January, 1876, when he breathed his last. The news of his death was received by the whole community with sincere sorrow. The Governor of Massachusetts communicated it to the Legislature, then in session, which passed appropriate votes commemorating his services to the State; and the same Chief Magistrate (Governor Rice) presided at the memorial meeting in his honor, held at the Music Hall in Boston, February 8, 1876. A former Governor (A. H. Bullock), in an address at this meeting well describes

Dr. Howe's public character in these words :

"It would be an omission in my memory of an official connection with him extending over three years, if I were not to bear testimony to his almost ubiquitous attendance on his work. He was at South Boston, he was at his office in town, he was at the rooms of the Board of Charities, he was at the Executive Chamber, he was sometimes at his own house, he was always where duty called. He seemed capable to drive all the reforms and charities abreast; and yet he was seldom on a strain; always having an air we liked of a man of business, of a man of the world, what Carlyle would call "a good, broad, buffeting way of procedure;" of dauntless force of character, of firmness that was impassive, of modesty that was unfeigned; a little mutinous whenever governors attempted to interfere with his methods, but that was of no consequence since he was mutinous to revolt whenever he saw the image of God oppressed or wronged or neglected."

He was born to benefit others and by choice he selected for his benefactions those who could least repay his service with their own—the blind, the deaf, the insane, the idiot. He was by no means a faultless character, he had the strength and also the weakness of an active temperament, he was hasty and sometimes harsh or exacting, as well as tender and generous. He could be capricious and persistent. He loved power, though he seldom sought it; and was often unjust to his opponents, of whom, first and last he had a great many. To his intimates he was the most charming of companions; he was then full of good humor, appreciative, affable; but sometimes, and to some persons he was anything but charming. He inspired respect, however, where he did not win affection; and though he was sometimes as Carlyle said of himself, "gey ill to deal wi," he was easily forgiven for the temperamental and surface faults of a nature essentially superior, noble, and winning. In aspect as well as in character, he was in his prime a true type of the educated

American—lithe, impetuous, an Arab in figure and in horsemanship; dark in eye and hair, but with a glowing color and a manner that spoke energy tempered by inward courtsey.

There grew up in Boston and its neighborhood, in Dr. Howe's early and middle life, a group of remarkable persons, to whom others not of that neighborhood were attracted by congeniality of aspiration or tastes. Such were Channing, Emerson, Daniel Webster, Everett, Allston, The Danas, Alcott, Hawthorne, Longfellow, Lowell, Margaret Fuller, Garrison, Theodore Parker, Horace Mann, Sumner, Agassiz, Choate, Andrew, Wendell Phillips and James Freeman Clarke. Each of these men and women was capable of some excellent part in the work of life, and no one of them iterated or greatly imitated the task of any other. Among all these, and others whom I have not named, Dr. Howe stood forth, as individual and almost as conspicuous as any. He was neither saint, nor poet, nor orator, nor matchless prose writer; neither great lawyer nor man of unquestioned eminence in science, nor artist, nor seer, nor persistent champion of a single great cause; but his own work, such as it was, drew the attention of all. He was known and welcomed in all these groups, and he reflected as much luster on his native city as most of those enumerated. He was, for half a century, one of those few persons who could not be omitted when Boston was described.

He gained distinction without seeking it, valued it but little, was more deeply interested in ideas than institutions, and was impatient of the common worldly success of fame, and the mere sound of titles. New England will see many illustrious men hereafter, but hardly any like him; so peculiar was Dr. Howe in his talents, in the circumstances of his career, and in the far reaching results of his philanthropic activity,

In April, 1843, Dr. Howe married Julia Ward, one of the gifted daughters

of Mr. Ward, banker, of New York. This lady survives her husband, and her name is known throughout the world in connection with all philanthropic, reformatory and literary labors. The daughters of Dr. and Mrs. Howe are following in the footsteps of their father and mother, and are all engaged in philanthropic or literary work. The oldest daughter is the wife of Dr. Michael Anagnos, a Greek from Epirus,

and Dr. Howe's successor as director of the asylum. Dr. Anagnos has carried the work forward to even greater success than attended it in the days of Dr. Howe.

For many extracts, and much biographical information in this sketch we are indebted to F. B. Sanborn, the biographer of Dr. Howe, who succeeded the latter as chairman of the board of Charities in Massachusetts.

CHARLOTTE FOWLER WELLS.

MEASURING THE PERCEPTIVES.

Some who have disabused their minds of that old prejudice engendered "bump" theory, and fully understand the true phrenological principle of estimating brain development, still find it difficult to estimate very exactly the size of the smaller organs of the frontal lobe. It is comparatively easy for the "tactile sense" to distinguish the degree of development in the parietal, occipital or temporal lobes, and the fingers of a trained examiner will give him a sense of their relative size as readily as the wool-sorter distinguishes the grades of wool. These organs have considerable surface area. They have easily distinguishable forms or swells when largely developed, and there is but little danger of mistaking their location. But how is it possible to discuss the minuter shades of development in organs so small that half a dozen are crowded in the line of the brow from the *nasal eminence* (over Individuality) to the external angle of the brow?

To students, both professional and lay, this question is of some importance, since an eminent American examiner frankly avows before a meeting of phrenologists that "it is difficult to ascertain the exact size of the individual organs" located along the brow. If the difficulty is insuperable we must learn caution in our estimates. However, if proper principles are applied we think an estimate of the perceptives can be

made as easy as the *descensus averni* whose *facility* is proverbial.

We must bear in mind the anatomy and physical development of the brain and the principles of its structure and growth. The gray cells form a cortical layer externally, folded into lobes and convolutions; they also form the basilar ganglia. The white tubuli or fibers are found internally, connecting the cortex with the medulla and spinal axis, joining the cerebrum and cerebellum, uniting the two hemispheres through the two great commissure, and connecting convolution with convolution.

The function of the gray cells is the elaboration and expenditure of nerve-force. They are genetic. Mind force and activity, whether sensation, consciousness, perception, reason, emotion, aspiration, or volition originate in them. The function of the tubuli is simply conductive. They carry *impressions* from peripheral nerve loops to cortical or ganglionic seat of sensation, and *impulses* from cortical motor areas to peripheral terminations in muscle. They co-ordinate the related organs of the two hemispheres and connect the convolutions of the same side, that when one organ is intensely active and has exhausted the force generated within itself it may draw new supplies of nerve force which have been elaborated in the cells of contiguous organs. This is the

dictum of the physiologists, and at present is above dispute.

Then, a "phrenological organ" must be defined as a "mass of gray matter with all its fibrous connections," which exerts a single group of related functions. This is merely translating into current physiological terms the exact idea of Gall and Spurzheim.

Every organ consists of two parts, the genetic mass of gray cells and the connective fibers. Both are essential to a perfect organ; but, so far as the genesis of mind power—thought, purpose, volition, all that makes up character and talent—is concerned, the "gray mass" is the essential part. Mind faculty originates in gray cells or is expressed by means of them.

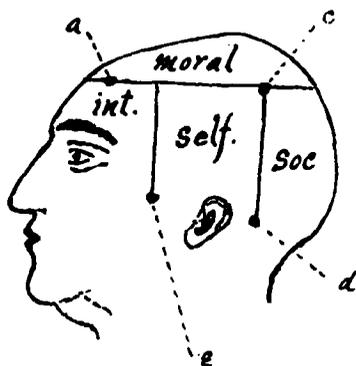


FIG. 1.

Growth of organs by exercise, a well known fact, means technically an increase of the mass of gray cells, attended by an increase of the connecting fibers. Decrease of organs by disuse means decrease of the mass of gray cells, attended by a decrease of their fibrous connections. Increase or decrease in the gray mass is primary, while increase or decrease of the fibers is attendant and secondary.

This increase or decrease of organs is expressed in cranial forms according to this principle. Whenever an organ consisting of gray matter and its white fibrous connections with the *medulla oblongata* increases in volume the cranium must enlarge for its accommodation; and, in fact, a cranial enlargement, by a well known law of tissue growth, does occur

in the immediate region of brain growth. When an organ decreases by disuse the volume is diminished, and there is an attendant recession of the skull in that region. Such is the relation of the skull and brain that by a common law of growth they change in form together. Since increase is primarily in the cortical layers, it is expressed *first* by *increased amplitude of surface development*, or area, and perhaps increased depth of convolution. Since the cranial enlargement is necessarily outward always increase is expressed, secondly, by an *attendant increase of distance from the medulla*, or increased "length of fiber." In estimating the size of any organ it therefore seems necessary to observe both the distance from the center

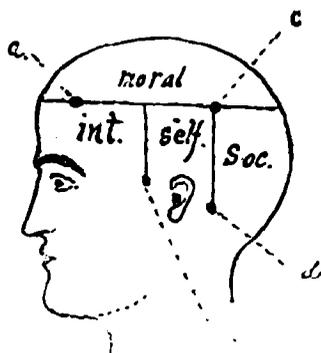


FIG. 2.

of the brain, or "length of fiber" and the amplitude of surface development as shown by the area of cranium occupied.

This seems to have been the view held by the older phrenologists, who rather emphasized "number and depths of convolutions" as a general measure of mind power, and spoke less of "length of fiber." The "length of fiber" doctrine is legitimate and true as we have seen above, but is not the whole truth. It has been popularized by the labors of Prof. Sizer and other eminent examiners but we must not confound "measure of power" with "source of power," or forget that *extent of surface* is also a measure of power; for Prof. Sizer, in his Institute lectures, fully recognizes and emphasizes the necessity of observing the *area*

of each group, as well as its "length of fiber."

This necessity is readily shown by the contrasted figures, with the Social, Selfish, Moral and Intellectual groups mapped according to standard authority on cerebral and cranial geography. In Fig. 1 the Selfish group is very large not only from great width of head, but from very great surface area, also, while the Moral and Intellectual groups, though forced to some distance from the *medulla*, by the monstrous middle lobes, are very narrow and contracted in surface. In Fig. 2, the head may be of fair width, but the Selfish group is contracted in area, while the Moral and Intellectual groups are magnificently developed, the surface being large and ample, as shown by its swelling upward and forward beyond their boundary lines.

The plain interpretation of these facts is this: Wherever a much greater surface of gray matter is appropriated to a given number of organs, each individual organ must have a much greater surface and therefore greater power; thus, the organs of the Moral and Intellectual groups of Fig. 2, (being equal in number in all heads) must have much greater surface of gray matter than the same organs in Fig. 1. The difference between the two heads in these groups is not so much in the length of fiber as in the extremely wide difference of volume of gray matter appropriated to each group as shown by the wide difference of area. In general, however, where heads are harmoniously developed we find great length of fiber, or radial distance from the *medulla* in connection with this surface amplitude. It could not well be otherwise for if you increase the surface of a regular ovoid, like the cranium, you necessarily increase its radii. But, in rare cases, when some group is very small

and others large, or where a single faculty is strong in idiots, or idiotic in men with large brains, there is no strict relation between their strength and their distance from the *medulla*.

All this relates to the brain as a whole, and applies to all the groups. These are the general principles of estimating regional brain development. We will now pass from the general to the special.

In estimating the size of the Perceptives attention must first be given to the group as a whole. There are three indices of size to be noted: (1) distance forward from the ear; (2) breadth of brow



JOHN RUSKIN.

from angle to angle; and (3) vertical depth of the Perceptive region.

Forward extension is admirably represented by the portrait of Ruskin, the art critic, philosopher, and *litterateur*. Few men are found with such immense perceptives. They are also shown very large in all profile portraits of Garfield, the late President, of Dickens and Lord Tennyson. Width of brow at this group is well shown by Agassiz. Gladstone is another example of remarkable width of brow.

Vertical depth is not so easily illustrated or so easily described, but after some observation it is readily apprecia-

ble. The outline profiles (Figs. 3 and 4) will give a fair conception of the appearance of the brow in deep and shallow perceptive tracts. The distance from

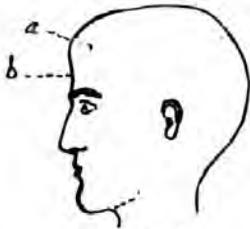


FIG. 3.



FIG. 4.

the point "b" down to the margin represents the depth. We must note the position of the *frontal eminence*, a light, rounded swell on the Frontal bone, "a" behind which Causality of the reflectives is located. If the forehead swells out below this point, and has its line of greatest development along the brow, as in the case of Ruskin, the whole perceptive and literary range of organs have great depth and volume. This is still more admirably shown in William Gilmore Simms, the Southern novelist. It is also seen in all portraits of Thomas Sterry Hunt, Agassiz, Gladstone, and Sir Morel Mackenzie, the late throat specialist. If this eminence falls comparatively low, or the reflective region forms the most prominent centre of development and the whole frontal region seems to develop upward around it, the perceptive have much less depth. This is hard to represent in portraits of eminent men, for large perceptive, giving an ample and ready command of facts, seems to be a requisite of great-



FIG. 5.

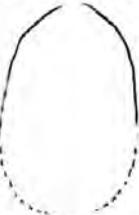


FIG. 6.

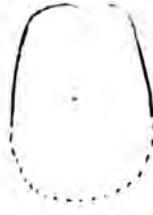
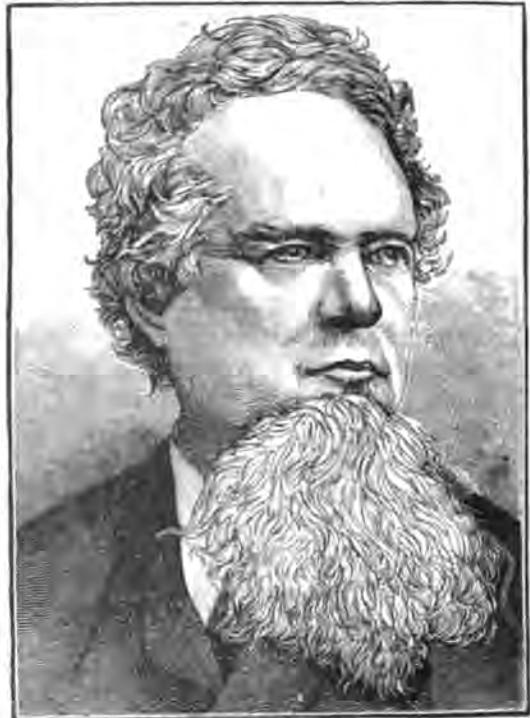


FIG.

ness, but approaches to it may be found in Edward Bellamy, Emmanuel Kant and Henry Drummond, in whom the reflective element is so much stronger than

the perceptive that their very speculations are sometimes ill-grounded, because unsupported by facts.

Having determined the size of the Perceptive group as a whole next proceed to consider the individual organs. Precautions must be taken not to locate the organs too low, as some do mistakenly. There is no brain at all under the bony arch which forms the margin of the eye-sockets, or under the bony prominence at the angles of the orbits. Do not place the thumb or fingers under-



WILLIAM G. SIMMS.

neath the margin of the brow, for the organs do not manifest themselves by downward projection in those parts. Measure high enough and dispense with hands altogether if possible. Eyesight is better. Make proper allowance for frontal sinus and superciliary ridges, a task not now considered very difficult.

The profile of the brow, as seen from above, should be noted, for this will be the key to the relative development of the several organs. If this profile is a regular curve, like Fig. 5, all the

organs in the line will be of equal development. If its form is like Fig. 6, the centre projecting and the sides rapidly retreating, the organs of Individuality, Size, etc., will be prominent, while Color, Order and Number will be less than normal. If its form is like Fig. 7, very prominent outwardly, but depressed centrally, the organs will be strong about the angles, but weak centrally. A variety of forms, slightly differing from each other, will be found in life, but the principle, once understood, the application will be easy.

All the perceptive organs in their

common variations can be examined in this manner, except Form. This, however, is shown by width between the eyes—not width caused merely by wide Ethmoid bones which are wide in sympathy with large nasal passages, but width caused by downward and lateral projection of the super-orbital places at the superior, internal angle of the orbits.

Violent irregularities of development, as in color-blindness, are generally discoverable by a manifest deformity of deficiency at the seat of the organ wanting.

JOHN W. SHULL.

PSYCHOMETRY.

“IS there such a thing as Psychometry? and if so what is it?” asks a correspondent. A good deal of vague speculation seems to be current with regard to this matter, and some persons emphatically deny any credibility in it. Recently an article in the *Boston Arena*, from a respectable source, gave what appears to be a reasonable explanation of the subject, and some incidents, that, to say the least, are very interesting. Perhaps the relation of some of these incidents will best eliminate the nature of psychometry. Suppose that it is a lady who exercises the power so called. She will take in her hand a letter, and, without reading a word of it or even looking at it, feels that she receives from it certain impressions, which she describes. Sometimes she may go into such detail as to the contents of the letter and the character and personality of the writer as appears to be utterly impossible on any theory of guess work. These phenomena of psychometry seem to constitute a class by themselves. At times it is not a letter that the lady holds in her hands, but any article whatever. But the article so held appears to give impressions of so peculiar a nature that the psychic reads the story of its past, calls up distant persons and scenes—distant both in space and in time. In

presence of such things, one finds himself wondering if even inanimate nature—if any part of nature is inanimate—does not carry with it a record or memory of all that ever concerned it.

The writer referred to says:

“On a certain morning I visited a ‘psychometrist.’ Several experiments were made. I will relate only one, a good specimen of what has occurred in my presence more than once. The lady was not entranced or, so far as I could see, in any other than her normal condition. I handed her a letter which I had recently received. She took it, and held it in her right hand, pressing it close, so as to come into as vital contact with it as possible. I had taken it out of its envelope, so that she might touch it more effectively, but it was not unfolded even so much as to give her an opportunity to see even the name. It was written by a man whom she had never seen, and of whom she had never heard. After holding it a moment, she said, ‘This man is either a minister or a lawyer, I can not tell which. He is a man of a good deal more than usual intellectual power. And yet, he has never met with any such success in life as one would have expected, considering his natural ability. Something has happened to thwart him and interfere

with his success. At the present time he is suffering with severe illness and mental depression. He has pain here (putting her hand to the back of her head, at the base of the brain.)'

"She said much more, describing the man as well as I could have done, it myself. But I will quote no more, for I wish to let a few salient points stand in clear outline. These points I will number, for the sake of clearness :

"1. She tells me he is a man, though she has not even glanced at the letter.

"2. She says he is either a minister or a lawyer; she can not tell which. No wonder, for he was both; that is, he had preached for some years, then had left the pulpit, studied law, and at this time was not actively engaged in either profession.

"3. She speaks of his great natural ability. This was true in a most marked degree.

"4. But he had not succeeded as one would have expected. This again was strikingly true. Certain things had happened—which I do not feel at liberty to publish—which had broken off his career in the middle and made his short life seem abortive.

"5. She says he is ill as he writes. At this very time he was at the house of a friend, suffering from a malarial attack, his business broken up, and his mind depressed by the thought of his life failure.

"Now this lady did not know I had any such friend; and of all these different facts about him, of course, she knew absolutely nothing. She did not read a word of the letter. But (note this carefully) even though she had read it all, it would have told her only the one fact that, as he wrote, he was not well. It contained not the slightest allusion to any of the others.

"This case can not be explained by clairvoyance, for the lady did not claim to possess the power. Was it guess work? One case might be so explained. But one does not guess this fashion very often. So, as I put this case alongside

the many others which I know, the guess-theory becomes too improbable for one moment's serious consideration."

There are readers of this magazine, doubtless, who could add much to the above in the way of other illustrations of the manifestation of this singular power.

"NOT IF IT WAS MY BOY!"

Some years ago the late Horace Mann, the eminent educator, delivered an address at the opening of some reformatory institution for boys, during which he remarked that if only *one boy* was saved from ruin, it would pay for all the cost, and care, and labor of establishing such an institution as that. After the exercises had closed, in private conversation, a gentleman rallied Mr. Mann upon his statement, and said to him :

"Did you not color that a little, when you said that all that expense and labor would be repaid if it only saved *one boy*?"

"*Not if it was my boy,*" was the solemn and convincing reply.

Ah! there is a wonderful value about "My boy." Other boys may be rude and rough; other boys may be reckless and wild; other boys may seem to require more pains and labor than they ever will repay; other boys may be left to drift uncared for to the ruin which is so near at hand; but "My boy"—it were worth the toil of a lifetime and the lavish wealth of a world to save *him* from temporal and eternal ruin. We would go the world around to save him from peril, and would bless every hand that was stretched out to give him help or welcome. And yet every poor wandering, outcast, homeless man, is one whom some fond mother called, "*My boy.*" Every lost woman, sunken in the depths of sin, was somebody's daughter, in her days of childish innocence. Shall we shrink from labor, shall we hesitate at cost when the work before us is *the salvation of a soul*? Not if it is "*My boy;*" not if we have the love of Him who gave His life to save the lost.

—*The Common People.*

TALENT AND CHARACTER

THEIR STUDY AND CULTURE

CHAPTER VI.

THE FACIAL ANGLE; ITS INDICATIONS.

EVERY one whose thoughts are turned toward the study of the mind eagerly seeks some method of estimating mental capacity. It is not strange, therefore, that any system of measurement which promises to give a rule for determining the grade of intelligence or the relative rank of intellect in men and animals should awaken interest and invite investigation.

Prior to the publication of the discoveries of Drs. Gall and Spurzheim, men studied faces, measured the angles of the face and the proportion existing between the weight of the brain and body, but nothing which would serve as a rule and stand the test of criticism was found.

In the latter part of the eighteenth century, just before Dr. Gall promulgated his discoveries, on which for many years he had been engaged in study and observation, Professor Camper, of Berlin, proposed a new method of measuring the skull which soon attained great popularity. He claimed that the basis of comparison between nations may be found in the angle formed by a line passing from the opening of the ear to the base of the nose, and another line drawn from the most advanced part of the upper jawbone to the forehead above the root of the nose. The annexed cuts, Figs. 45 and 46, will illustrate the point.

It will readily be seen that if more brain were developed in the forehead of the Indian it would elevate the line in front of the face and give a much better angle. It is not that the face is larger but that the forehead is shorter, that makes the difference in the facial angle in this case.

It will be understood that the facial angle, as measured and estimated by Camper, is merely a

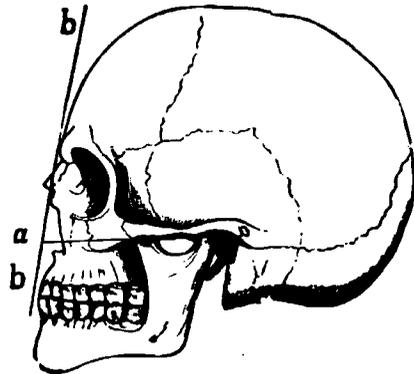


FIG 45.—CAUCASIAN.

measure of the relative projection of the forehead and of the upper jaw, and does not measure the capacity of the cranium nor the size of the brain.

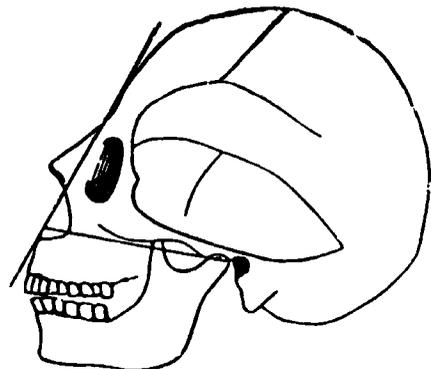


FIG 46 —INDIAN.

If the jaw be long it will diminish the angle. A prominence of the lower part of the forehead will increase the angle, though the head be neither high nor broad. The angle may differ greatly between persons of the same size of brain and similar mental capacity.

In the lower classes of men, both in civilized and savage countries, the middle lobes of the brain, in which are located the animal propensities, are larger than in the better developed of mankind. This tends to depress the opening of the ear, thereby enlarging the facial angle by carrying down the outer end of the lower arm of the angle. If the reader will look at the engraving of the Caucasian skull (Fig. 45) he will see that the opening of the ear is much higher at the end of the line D, than is the front end of the line at A. A glance at the engraving of the Indian skull, Fig. 46, will show that the opening of the ear is so low that the base line rises as it approaches the perpendicular line at the base of the nose. This fact makes the facial angle of the Indian much better or larger than it would be if his ear was as high up as the Caucasian.

When these angles are exhibited separately from the cranium, Fig. 47, the solid line representing the Caucasian and the dotted line the Indian, the contrast is marked. If the opening of the ear of the Caucasian were as low as that of the Indian and the line of the face as it now is, it would enlarge the angle and make it greater than a right angle. Or, if the Indian's ear were raised as high as that of the Caucasian he would show a very acute angle. The relation of the ear to the face and the development of the intellectual part of the brain is the true point of study and the basis of value to the facial angle.

Camper's facial angle is thus seen to be defective, and quite unreliable and at best valueless.

More attention has been paid by naturalists to the contrast between the forehead and face than to the actual measurement of either; they talk learnedly of facial angles and of the form of the

jaws and teeth, neglecting to estimate the length of the anterior lobes of the brain and the size of the entire brain.

They measure everything but the brain, some of them avoiding that, lest they should be supposed thereby to indorse Phrenology.

A NEW FACIAL ANGLE

FIRST DESCRIBED BY NELSON SIZER.

We now propose to present a new method of measuring the facial angle, with an explanation which lies at the foundation of all the significance and value there possibly can be in a facial angle.

About the year 1857, on the occasion of the first exhibition of Du Chaillu's collection of Gorilla crania to a large company of thinkers and men of science, invited by Cyrus W. Field, for that purpose, to his house in New York, I was requested to explain to the company the rank occupied by the Gorilla in the scale of being, as indicated by the cranial development. This request was made quite unexpectedly to me after the company was assembled; for I was expecting like the rest, to hear from the great Gorilla-hunter himself. Thus confronted by an exigency I hastily sent to our Phrenological collection for specimens of skulls, ranging all the way from the snake and turtle to the highest type of humanity. On that occasion, and with such ample means of illustration, I elucidated the fact—the first time, as I believe, that it had been done in that manner, or on that principle—that the face of the snake, the fish and the turtle is on a line with the back or spine; that as the brain is increased in size at the spinal axis, and an animal is thus raised in the scale of intelligence and mentality, the face is necessarily pushed, by this increased development of the brain, forward and downward out of line with the spine, and thus the faces made to form an angle with the spine. I illustrated this thought before the dis

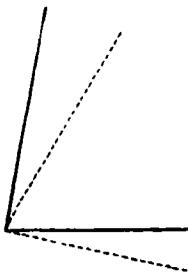
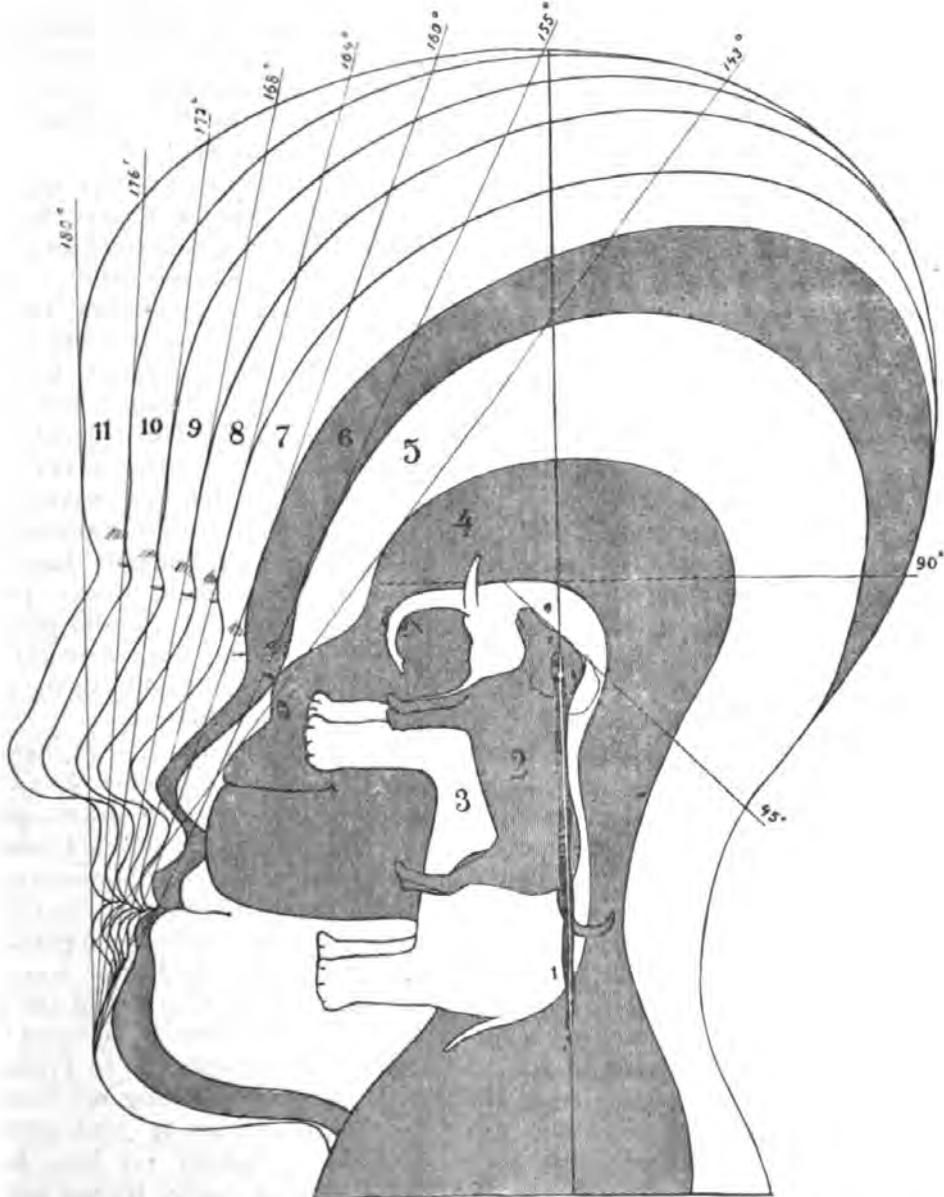


FIG. 47 ANGLES OF 45 AND 46.

tinguished audience, including Dr. Francis, Rev. Dr. Bethune, Rev. Dr. Ferris, Chancellor of the University, Hon. Geo. Bancroft, the historian, and

spinal column was projected straight backward—that the animal's face was on his back. Then taking the skull of a dog and placing a pencil in the *foramen*



FIGS. 48 TO 58.—NEW FACIAL ANGLE, COMPOSITE.

Fig. 1—THE SNAKE
2—DOG
3—ELEPHANT

Fig. 4—APE
5—HUMAN IDIOT
6—BUSHMAN

Fig. 7—UNCULTIVATED
8—IMPROVED
9—CIVILIZED

Fig. 10—ENLIGHTENED
11—CAUCASIAN—Highest type.

nearly a hundred others, by holding in my hand the skull of a turtle, a snake or a fish and showing that the opening of the skull, the *foramen Magnum*, was at the rear end of the skull and that the

Magnum to represent the spine, the face formed an angle with the line of the spine of about 45 degrees. Then the ape family, including the Gorilla, with more brain at the spinal axis turned the face

still more away from the line of the spine and caused the face to make a still larger angle, and so on through the tribes of mankind.

We introduce an engraving, of a composite nature, Fig. 48, to illustrate the subject, containing eleven figures, ranging from the snake to the highest form of human development.

The spine of the snake, Fig. 1, in the group, occupies the place of the spine of each of all the other figures in the engraving. In the snake, Fig. 1, the face forms *no* angle with the spine. In the dog, Fig. 2, the brain pushes the face out of line with the spine about 45° . In the elephant, Fig. 3, the face is at right angles with the line of the spine and therefore makes an angle of 90° with the spine. In the ape, Fig. 4, the face is turned beyond a right angle with the spine, and lacks only about 37° of being parallel with the spine and on a line with the front of the body. It has departed from the snake quite 143° . The idiot, Fig. 5, shows that the line of the face is raised to 155° . In the Bushman, Fig. 6, the brain being more enlarged, it pushes the face still farther toward the perpendicular, lacking only 20° of the Caucasian, and finally running through several grades of human development, Figs. 7, 8, 9, 10 to the highest, Fig. 11, the face, instead of being on the back, as in the snake, and on a line with the spine, it has performed half of a complete revolution and is now directly opposite of the back on a line with the abdominal surface and parallel with the spine; the body is erect, the spine and face being perpendicular, the face having been carried around through 180° , solely by the development of the brain at the top of the spinal column. All the value of any facial angle as an index of the rank of the animal or the man is explained by this mode of development. At the conclusion of this exposition Mr. Bancroft took my hand in both of his, and shaking it cordially said: "I thank you for this explanation,

it seems quite new, and I feel instructed, sir, I feel instructed."

Since the promulgation of this idea in 1857, to the present time, every year I have sketched this illustration on blackboards, and explained it before public audiences and private classes, and have had sets of drawings made for use in our public lectures and for our students to use in the lecture field.

In 1874, Dr. Dexter, of Chicago, published in the *Popular Science Monthly* in connection with a labored article, an illustration under the title, "Facial Angle." In his illustration, the fish, snake, crocodile, eagle, dog, baboon and men appear. He recognizes, however, only one half the change which really takes place in the development of the natural facial angle. Instead of keeping the spine of his fish and snake on the line of the spine of the dog and man, as we do, he projects it directly back from the head of his man, whose face is raised only at right angles with the spine of the snake, when it ought to be pushed away from the line of the spine, not 90° only, but 180° .

A student of ours in 1872, mark the date, C. A. Beverly obtained of us a set of separate and combined drawings representing this mode of brain measurement, to serve him in public lectures and carried them with him to the Chicago Medical College, where he graduated, and, we believe, Dr. Dexter was a professor; and during his stay at the Medical College Mr. Beverly lectured to the students and probably to Professors, showing and explaining my drawings. Dr. Dexter's drawing was evidently intended to embody my idea, but he failed to do it justice by just one-half. In self-defense I had an engraving made similar to the present, and published, with my discovery and its history, in the *Phrenological Journal* for July, 1874.

We commend to our readers a careful study of our illustration. It shows that the snake Fig. 1, and his face, like that

of fishes and reptiles generally, is level with the line of the spinal column. Between the Bushman, Fig. 6, and the highest type of the Caucasian, Fig. 11, there are really very many grades of development, far too numerous to be represented. From the snake to the top of the scale, the opening of the ear is represented in the same place, and all the changes in the portraits, shapes of head, and position of face are due to growth of development of brain from that common center at the top of the spinal cord, called medulla oblongata. Thus the scale of development is complete from the reptile to man.

Figs. 59-60. In this double picture we represent the head of the Caucasian, with his vertical face and ample development of the forehead. We lay over it, bringing the opening of the ears together, the head and face of the native African, who, by some, would be said to have a projecting muzzle, or prognathous jaws. The face does not protrude from the opening of the ear any farther forward, except at the lips—that is, the bony part of the jaw does not advance any farther from the opening of the ear than in the Caucasian head, but the frontal lobes of the brain being smaller than those of the Caucasian, permit the face to fall back at a considerable angle. If by culture that intellectual region of the African head could be developed, the face would not be protrusive. The form of the posterior part of the Caucasian head, which lies behind that of the African, is indicated by the dotted lines.

In the white man's skull we sometimes find the distance from the opening of the ear to the centre of the forehead an inch longer than from the opening of the ear to the occiput, while in the Negro's head it is frequently half an inch or an inch longer in the rear than in the front; then if we add the strong, uncivilized features to this setting of the brain backward by decreasing the size of the head in front of the ear, and increas-

ing it behind the ear, the notion of the muzzle and prognathous jaws becomes absurd by understanding that it is the deficiency of frontal head, not an excess of face.

Those who investigate skulls should always begin at the opening of the ear, which corresponds to the capital of the spinal cord, from which the brain is developed in every direction, as we study a wheel by starting from the hub, or an



FIGS. 59-60.—A DOUBLE PICTURE.

apple by starting at the core. Some apples have one side much larger than the other, and it would not be fair to center that apple anywhere but at the core, and let the deficient side take the responsibility of its own deficiency. Hence we match the heads in this picture at the opening of the ear, and let the projection of the development manifest itself from that center. If the intellectual portion of the negro's head were better developed, the face and forehead would cover the white man's head, and, like his, be perpendicular.

This contrast also intensifies the significance of the new facial angle and teaches a new and better way of studying different heads and faces from the snake to the Websterian type,

PRACTICAL PHRENOLOGY.

HUMAN PURSUITS, AND HOW TO STUDY THEM.

THE CLERGYMAN.

A MINISTER of religion must treat the human race as he finds it. Few men approximate perfection, and therefore the ministers are likely to follow in their type of talent and character the drift and scope of average manhood, and if a man who would be a minister is not "perfect, thoroughly furnished unto every good work," he will not be able to approach everybody so acceptably as would be desirable. A man who lacks courage and force of character cannot understand and properly deal with brave, earnest characters. The rough element of life would be out of his reach. And those who listen to the preacher will be affected very differently by different men. A minister who is full of facts, who describes vividly everything that is seen in nature, will find those of similar mental development following him with interest and pleasure. The one who has a high, square forehead and is inclined to be logical will find but few who will be able to swallow the whole corn that he will give; it will need to be ground into meal before the birds can swallow it. In a mechanical town where everybody has large Constructiveness and the other mechanical qualities, the minister will be much more useful and popular who is ingenious and understands every mechanical law and readily takes in all the methods that are connected with the various mechanical interests of the place. Dr. Chalmers was

wonderful in his development of the mechanical talent, and he had large Sublimity and Ideality and Reverence, and he often delighted his hearers, especially the learned, in illustrating



FIG. 1.—REV. RICHARD S. STORRS, D.D.

Born in Massachusetts in 1821, graduated at Amherst College in 1839, and at Andover Seminary in 1845. Settled in Brooklyn, N. Y., as minister of the Church of the Pilgrim in 1846. He is an accomplished scholar and orator. His sermons, delivered without notes, are finished productions, and deserve to be classed with the most able and polished of pulpit efforts. His learning, eloquence, great talents and high character have given him an enviable position among the foremost religious teachers of his time. He has a powerful body and a large head, with all the moral and religious organs amply developed.

Divine power and truth by the great mechanical laws of the universe, which

carry on the functions and affairs of the planetary world. A minister who is very devout will lead those who are devotional; a man who is very sympathetic will have in his following those who are of the same type; if he is firm and staunch and lays down the law as if he were "the end of the law," he will have clustering around him those of similarly formed heads and similar dispositions. A minister with lordly Self esteem will have the friendly support of proud and high minded people; those who have dignity and strength and great aspirations will form a body guard around such a man; they will feel that he wields the truth of God as a mighty man; but those having a less development will feel that he is arbitrary and too full of authority. A minister who has Approbativeness, Friendship and Benevolence, and large practical organs will invite and lead the weak and the unlearned, and do them a world of good. A minister who is not social will not be able to meet the claims of those who have sociability; there are ministers who go to a funeral and they will talk in such a dry, hard way, and teach the people that they must yield to the Divine will and bow in humble submission to the authority of the Lord Jehovah because He "doeth what He will with His own." But a minister with large social organs will speak of the tenderness of the Master among the poor and the afflicted, how He raised the widow's son and the daughter of Jairus. "He went about doing good, binding up the broken hearted," and when, at the tomb of Lazarus, Jesus wept, the people instantly caught the spirit and said, "Behold how He loved him!"

As all these different degrees of development and character, socially, executively, morally, intellectually and mechanically in the community must be taught by one who can take into account the peculiarities of the people, the one who is very highly developed

in all the departments of mental character, could, on the right hand and on the left, "rightly divide the word of truth," so that each should have a portion in due season; like a master musician he could touch every string of the human harp.

But who, then, could preach? Where could we find a man who in all respects is perfect and able to take in the conditions of all men? Therefore in looking among a class of theological students preparing for the ministry, it is interesting to study the different types of development. I had the opportunity of delivering a course of lectures on Phrenology to a class of theological students in the city of New York. A certain number of the students of the Seminary desired to know what Phrenology could do or say that might be of service to them as preachers of the gospel; and I would arrange a few of them and show them to the class, and tell how this one, with a heavy, square forehead, would preach the logical phases of truth; another, with a prominent brow, the historical and the practical; another, with high frontal top-head, would teach the sympathetic; another, with the broad temples, the aesthetical; another, with a full backhead the social; another, broad above and about the ears, would be a Boanerges and stand forth like Peter and Martin Luther and show his power; and it seemed to awaken in them wonderful interest. They recognized that the descriptions of the persons under criticism were just.

But a man of pretty well balanced mental constitution can do fairly well in all the departments of mental development which fall within the circuit of an ordinary community of well ordered citizens, ranging from the top of the scale of culture and education down to the man of the merest rudiments of the common school. A genius becomes a specialist in theology, as do those who lead in science and mechanism.

It will be noted, perhaps with pleasure,

as it has been by me, that the Episcopal service seems to have been adapted to the learned and the unlearned. The prayer-book has been accused of tautology, but it may be explained and commended on the principle that it was written to meet the expectations of the learned and the needs or wants of the unlearned. For instance, "The Scripture moveth us in sundry places to *acknowledge* and *confess* our manifold *sins* and *wickedness*, and that we should not *dissemble* nor *cloak* them before the face of Almighty God our Heavenly Father, but confess them with a *humble, lowly, penitent* and *obedient* heart; * * and although we ought at all times humbly to acknowledge our sins before God, yet ought we chiefly so to do when we *assemble* and *meet together*, * * * and to ask those things which are *requisite* and *necessary* as well for the body as for the soul. Wherefore, I pray and beseech you as many as are *here present*, etc."

In selecting pursuits for persons who are under our hands if we find one with rather strong moral and religious qualities then we study to see whether he has the intellect to acquire the learning necessary for the ministry, the memory to retain it, the language to express it and teach it, or the power of reason to argue it and enforce it. We study to see whether a man has mechanical faculties, Constructiveness, Acquisitiveness, Secretiveness and the faculties of executiveness. A minister with these faculties will go into a poor parish that has got behind in its finances and arrange to have a sinking fund established and the debts paid, and thus he will build up the parish by having secular wisdom and business skill. We like to see a preacher who has a strong side head, courage to meet and master, and power to argue and discuss, and ability to enforce what he thinks is true and show to people of energetic dispositions that he is a man of God who has courage and fortitude and is not afraid of

of the "face or clay." Strong men have respect for one who is equally strong.

A Catholic priest was under my hands for an examination. His dress indicated his profession. I said to him: "If you had been educated in architecture you would have been distinguished as a builder." He replied, "My Bishop calls me the architect of the diocese, and sends a priest to relieve me of my parish work and I go wherever in the diocese a church or other structure is to be built. I make the plans and superintend the work until it is completed, and then, perhaps after a year's absence, go back to my parish." The men engaged on the work of constructing those buildings would entertain an enhanced respect for the priest who knew their business better than they did themselves, and also for that which belonged to his sacred office.

If a man is tender, gentle and patient in leading people to think of religion, he will do well enough for such as he, but for us who have to struggle with the robust obstacles of life, who have to fight the rough sides and the stern facts of life, who are hedged about with manifold difficulties and dangers—this gentleness may do for men who are nicely housed and are pursuing the gentler and more refined professions and pursuits of life, but we who build railroads and quarry marble and granite, who fell the forest trees and make it into lumber and raft it down the roaring streams, and get it ready for use in civilized life; ours is a rough life; the lumberman and the miner need something besides gentleness.

I suppose if a man were to go into the lumber regions as a minister and missionary, and could take an axe and fell a tree without stopping or missing a blow, he would command the respect of the men who wield the axe. They would say: "He is a brother; he knows what hard work is; he has been in our foot-prints and knows our woes and work and want."

REV. A. H. BRADFORD.

[DICTATED VERBATIM BY N. SIZER WITHOUT KNOWING THE NAME OR THE PROFESSION OF THE MAN FOR PORTRAIT SEE FRONTISPIECE.]

IF you had frame enough to turn the scales at 180 pounds without being too fat you would give to your brain the requisite sustenance. Your head measures twenty three and one-quarter inches in circumference and fifteen and one quarter inches from ear to ear over the top. As we study heads and bodies we think such a head ought to have about one hundred and eighty instead of one hundred and sixty pounds of weight connected with it, at your age; otherwise the boiler is not supposed to be quite strong enough for the machinery it has to operate. I had a man under my hands one day whose head measured twenty-four inches and he weighed 125 pounds. I asked him what his business was and he said: "I am an accountant," "I see, other men go down into the arena and make the transactions and you keep tally." "That is it exactly." An hour later a man came in who had a twenty-four and one half inch head and he weighed three hundred pounds. I told him he had power enough to do all the work that might be imposed upon him, and he would do it with a vigor and enthusiasm that would be relishful, and he would never be likely to break down or know what it was to be tired. People sometimes are puzz'ed when we talk to them about bodily proportions as compared with brain, and that we have need of vital power and muscular energy to enable the brain to work to the best of its ability.

We think you resemble your mother more than your father; you sit tall and stand short. You have a long body, and in that length of body you have the vitality; therefore your weight is more available than it would be if it were in bone and tallness. You ought to be known as an intuitive man grasping truth without following it in detail,

grasping it in toto. The eagle, if she wants to go from one mountain top to another, spreads her wings and in three minutes she is over there. Her fleet-footed friend, the deer, wants to make the same journey, but he has to climb carefully down the mountain and cross the stream between that and the foot of the next mountain, and about day after to-morrow he will be at the top of the mountain where the eagle is who has been waiting for him for a long time. Intuition is a little like the eagle's wings: it sees the objective point and reaches it without the labor of detail. You have a good deal of that in a moral point of view.

You read strangers as well as almost anybody we meet with, but you read them in the higher aspects, in the realm of motives, philosophy and purposes. There are men who have little meannesses of daily life that you do not know much about, therefore they are like mice gnawing at the root underground somewhere, while you are cultivating the vine and fruit forgetting that the insect may be spoiling the tree or vine by its gnawing. You do not look for that kind of people. You can understand a manly argument, a manly motive, you can appreciate the best there is in men.

You have large Causality hence you are a philosophical thinker. You can follow a line of conduct and appreciate the reason why, and when you come to a spot where there is no track your reason will take you through all right. Your large Comparison makes you a critic of things, of motives, of thoughts, of sentiments. You compare one thing with another, one thought with another. If you were a lawyer you would follow a witness by your examination where he would be likely to go, keeping a safe position; you would know what was coming next naturally, and you

might forestall him and ask him about it; and it would astonish him to know that you knew so well what was coming next; then the witness would think he might as well make a clean breast of it and tell the whole story. If you were questioned as to how you knew you might not be able to tell, but it would be a logical sequence of what had been done and said. Your impression of a stranger is clear. You know what men are when you meet them. If you had to take somebody in the seat with you in the train riding a hundred miles, and the people commenced to crowd in at a certain station, you would begin to feel anxious as to who would take the seat, and when you saw a face you liked you would catch the person's eye and he would understand it and you would make room for him; and you would find perhaps that he was the most delightful man that you would meet in a month; and you had chosen him from among a crowd of men who were hurrying along.

If you were doing business or anything else among strangers you would be skillful in selecting your assistants and in managing such as you selected. If you were at a window as paying teller in a bank you would read the faces, you would study the men before you looked at their paper, and if you liked a man you would look at the paper and make up your mind it was all right.

The power of your mental makeup finds its centre in the Reasoning intellect, in grasping truth in the bulk, in making yourself master of the forms which belong to the sphere in which you move. You can invite, invoke and educe; then mould and master public sentiment. You are a good talker, but you do not waste many words. There is a sort of persistency and crispness in your conversation which satisfies people who are listening to you. In conversation with half a dozen men you will very easily become the leader in it.

You have large Constructiveness that gives you a knowledge of how to use forces that are within your reach, how to utilize opportunities; to do this as an introduction to that, that as a stepping stone to something else; so by a spiral circuitous route you reach altitude without a steep grade. Sometimes if you want to act on a particular man you will say to yourself, "I have not sufficient acquaintance with him to warrant my approaching him. I know him well enough but he does not know me." Then you will start with somebody you do know who knows somebody who is an intimate friend of his, and in that way you get an introduction which will place you in right relation with the man you have occasion to deal with. You seldom do things in such an abrupt way as to foil your purpose through mismanagement or unskillfulness. That is where the constructive element comes in: not to build a barrel, but to manage a committee, manage a party, manage a jury. If you were foreman of a jury you would know men well enough when you went into your jury room to make a little speech and say: "Now let us vote in silence." You would pass around blank pieces of paper and ask the gentlemen to vote as to whether the plaintiff or defendant had won the case, by marking the initial letter of the word plaintiff or defendant on the paper. If ten were one way and two the other you would say, "Now that gives me a chance to change my vote if I want to. Let us vote again." You would get unanimity next time. Then as to the question of damages, you would ask each man to put down the amount on his ballot; and by voting three times you would get near enough to unanimity so that an average would approximate to justice. You would keep them from arguing and let them vote silently, and they would gradually work toward each other till you got unanimity.

You have the faculty of Agreeableness, you can make yourself and the subject

you have in hand acceptable to people who need to be led and conciliated. Instead of saying, "This is the way, walk ye therein," and being mandatory about it, you would say, "Well, my friends, how shall we manage this matter? We all want to do right. Now, what is your wish, will and purpose?" "Well, we would rather hear you give yours." "Ah, you want my opinion! Well, if I were alone in the matter I should do it this way; I think, perhaps, that is the best way; it is the way it strikes me as being best." You might bring them all right into it. But if you undertook to domineer and dogmatize them, they might think, "Who put you as a ruler over us?" You lead men by that agreeableness we speak of; there is a certain sort of tact in it also. Cloth rubs smoother one way than another as well as fur; and human disposition likes to go with the grain instead of against it. You will speak to men in such a way as to make them say, "You tell it, my friend; you are chairman of the committee, and we will have your opinion about it if you please." The point is, you talk in such a way that it does not sound as if you were trying to coerce them. Then you say, "If I were alone in the matter I would do it so and so." That perhaps is the best argument a man could use. "That is what my best judgment would lead me to do; if I am not right I am willing to be corrected."

Your Benevolence is large, you feel sorry for the human race and try to help those who are needy, not so much by handing out money, but by giving good advice to those who will take it. We can give a man a loaf of bread and it is soon consumed, and he is as hungry in a little while as he was before. Your idea of charity would be to show a man how he could earn three loaves every day honestly; then he would not need to come begging for a loaf. It is like starting an engine with a start bar, when we get it started it will operate its own cut-off, let on or off steam automatically. You

would work charities in the same way.

You ought to be known for musical sense; you have real relish for the harmony of sweet sounds. You like to hear a speaker whose voice is mellow, pliable and pleasant. You envy people a fine voice, or congratulate them at least. You have a sense of economy, the ability to manage matters in such a way as to make everything that is valuable available to the best advantage. There are men who will go into a parish church that is all snarled up with debt, and they will study into it, find out just how it is, perhaps induce some brother to lend money enough to clear the church of debt, then establish a sinking fund to pay it, and so much a month would be put into the sinking fund. You would be able to see how financial soundness and honesty could be established. You have a certain financial integrity about you; you not only want to be able to pay your debts, but to pay them in such a way as to make it seem that you are good, that you value your promise. If you promised to pay a debt, and as the time approached you doubted as to whether you could pay it at such a time, you would see the man and ask him if he could let it lie over for a few days. He would say, "I will let it lie over for a month if it suits you. You have always kept your credit good and paid your debts." If you bought goods on time, if you were a merchant, if you could pay earlier than you agreed to you would think it good policy to do so. If you lived in a place where you had to depend on the crops to get your money from people, that is, if you were selling goods, you would buy goods at six months. If the man you bought of said, "We generally sell at three months," you would say, "Well, I cannot buy of you; my people cannot pay in that time. If I buy goods of you, you must give me credit for six months;" and he would do it. But you would try to pay in three months if you possibly could, or you

would try to work off half in three months and the whole in five. And the man would think you were the best customer he had because you had paid earlier than you agreed to. That is where the credit comes in; it is not the man who pays earliest, but it is the man who pays earlier than he promised to; he is the one who deserves credit.

Your Firmness is large; that gives you stability of purpose. Your Conscientiousness is strong; that makes you earnest and upright in your feelings and purposes. Caution leads you to be prudent, painstaking and guarded. Secretiveness enables you to conceal that which is not best to tell, to tell the truth in such a way as not to have it seem overt and offensive. You can mingle freely with men of opposite opinions in religion and politics and manage in such a way as not to antagonize them. If a man has certain strong views you cannot quite accept, you say, "Those are your views; you are all right; but we are talking about another matter now; men must work according to their own conscience, seek truth as they can appreciate it, and live up to it for themselves; but this other matter is not based on whether you are high church or low church." You make people feel that you are not antagonizing them. You do not hunt for differences or for opportunities for argument. That comes from Caution, Kindness, Secretiveness and Agreeableness, and, we may add, Friendship.

You are known for strong sociability. You have ardent love and constancy of affection. We think you are constitutionally loyal in spirit in regard to matrimonial law and life, and anything that is contrary to the highest ethics in that respect would perhaps be as offensive to you as anything that belongs to the category of wrong doing. There is a faculty, we think, which seeks to choose the one precious mate for life, bidding adieu to all others; and to you, that loyalty is the cream of human character.

Your love for children is uncommonly strong. Wherever you are called to associate with people the little folks, the little children, will learn to look for you and will appreciate you when you come. As a physician, as a teacher, as a merchant, as a minister, you would be welcome to the children, popular with the young. You get that, we think, from your mother. There is a great development of adhesiveness or Friendship, that gives loyalty to friends, to human attachments. Damon and Pythias, David and Jonathan, loved phenomenally, and history has embalmed them.

You are ambitious of distinction, you enjoy approval, and it hurts you to have anything doubt you. If you were making a call and the dog grumbled when you came on the step and walked around you as much as to say, "What are you here for? I do not know you," and if the girl who opens the door looks sour, you fancy the one you are calling on may not be pleased to see you. But if the dog welcomes you and the girl who answers the bell looks pleasant you think everything is all right. If you were to whip your horse, give him two or three sharp cuts with the whip, and found out afterward that he was not to blame, that his reins were tangled in some way, you would not feel satisfied till you had got out of the carriage and fixed his harness and patted him, made it up with him, apologized to him. You would want your horse to feel that you were not a hard master; that you believe in his service and are kind to him when he deserves it.

You have a large brain and a fine quality of organization. You are capable of doing a good many things, and of doing well in many ways. You ought to have had a good education. You could be a public speaker. You could be a writer. You could be a manager of affairs. You could do well in a large insurance business. You could do well in commercial business,

in banking business. You could do well in matters pertaining to construction, art and refinement. You would make a fine classical scholar and scientist as well; and you would want to carry yourself in such a way as to have the moral side of life uppermost and regnant.

BIOGRAPHY.

Rev. Amory H. Bradford was born in Oswego County, New York, and passed all his earlier years in Central and Western New York. He prepared for college at the academy at Penn Yan and graduated at Hamilton College in the class of 1867. He studied one year at Auburn Theological Seminary, and then spent the remainder of his course at Andover, where he graduated in theology. He has since studied at Oxford University, in England, giving special attention to metaphysics, ethics and biblical criticism. While in Europe he was a careful student of social questions, both in England and on the Continent.

In 1870 he accepted a call to the new church in Montclair, N. J., and preached in it the first Sunday after its organization. It is an interesting fact that his life as a minister and the life of the church are exactly coeval, it never having had another candidate, and he beginning his work there. When he came to the church, the services were held in a little hall that would seat barely two hundred people. The church has grown until now there is a membership of seven hundred and fifty. The church edifice is believed to be the largest in the State of New Jersey. The church property is valued at not far from \$200,000 including the parsonage.

To indicate his popularity abroad, it may be mentioned that in 1891 he was invited by Principal Fairbairn to give the Commencement Sermon at the close of the term at Mansfield College, Oxford, the first American, and, indeed, up to this time, the only American who has

been invited to such a service. He was a delegate to the international Congregational Council in London, and has spoken before many of the colleges and in most of the prominent Independent churches in England. He is now Southworth lecturer on Ecclesiastical Polity at Andover Theological Seminary; was the first secretary of the American Institute of Christian Philosophy, and has been a frequent lecturer in its courses, being engaged to give a lecture during the present Summer on "Body and Will."

He has been invited to leave Montclair for positions in New York, Brooklyn, Boston, San Francisco and Portland, Oregon, and has also been urged to accept a pastorate in London.

He has been invited by Dr. Abbott to join the editorial staff of "The Christian Union" and the public may be congratulated on the fact that he has accepted and is filling the position. He has published one book, entitled "Spirit and Life;" another, entitled "Old Wine: New Bottles;" and has in preparation and nearly ready for publication another, entitled "The Pilgrims of Old England," and during the coming year still another one on "The Relation of Heredity to Religious and Social Problems."

TALENT AND GENIUS.—QUESTION.—Is there a difference between talent and genius? We say one has talent and another has genius. Is there any difference?

ANSWER.—Careless writers use the terms interchangeably. Webster in contrasting genius and talent says, "Talent supposes general strength of intellect, with a peculiar aptitude for being molded and directed to specific employments and valuable ends and purposes."

"Genius is connected more or less with the exercise of imagination, and reaches its ends by a kind of intuitive power. Talent depends more on high mental training and a perfect command of all the faculties, memory, judgment, sagacity, etc. Hence we speak of a genius for poetry, painting, etc., and a talent for business and diplomacy. Lord Chatham was distinguished for his *genius*; William Pitt (his son) for his pre-eminent *talents*, especially his unrivaled talent for debate."

A PHRENOGRAPH OF ELIZA ARCHARD CONNER.

FROM A PERSONAL EXAMINATION.

IF we accepted the doctrine of re-incarnation it would be easy to believe that this lady had been at some former period an inhabitant of that classic land which produced Sappho, Aristotle, Aeschylus, and Epictetus. At any rate, there is much in the stamp of her features and the dominant traits of her character to suggest affinity with the nature-loving, artistic and literary Greeks.

She is five feet five inches in height, and weighs one hundred and thirty pounds. Her hair is prematurely silvered, though by nature slightly auburn and inclined to curl. Honesty, loyalty and purity are unmistakable in her clear, blue gray eyes. Her nose is very feminine, decidedly retrouse, and of a type which negates every form of timidity, apprehensiveness or fear. She has also a chin which stands well forward as if it meant to occupy all the space belonging to it, and the expression of the whole countenance is that of bravery and determination. Still there is no sign of haughtiness, aggressiveness or avarice; no diameter, arc or contour that may be associated with a demand for more than justice, and nothing to intimate that she would be satisfied with less.

In some faces all the features seem to sag and droop, as if in sympathy with groveling instincts, morbidity, and gloom. But in these lineaments the inflections are upward, free, and open, like the bursting petals of a flower which longs to greet the sunlight of a new and happy day.

Her temperament is a peculiar combination in which the mental or encephalic predominates, but of the xanthous or blonde phase which denotes responsiveness, brilliancy, and versatility, rather than the concentration, deliberation, and logical accuracy which are more natural to the melanic or dark

variety. She has also a strong development of the thorax or chest, which is an important factor in the organization most favorable to courage, enthusiasm, and expression. This is often found in soldiers, debaters, reformers, explorers, navigators, and the active workers in nearly all departments of life. A strong respiratory system is often accompanied by a hot and dry skin, which indicates that the animal warmth is not freely exuded through the pores. In the present instance, the skin is dry, but somewhat cold at the extremities, the warmth being almost monopolized by the extraordinary activity of the brain.

Thus we are prepared to find here an exceedingly lively manifestation of all the mental faculties. We expect the affections to be ardent, spontaneous and demonstrative; the executive forces impetuous; the judgment quick rather than profound; the taste critical and exacting, and the ambition directed to the general improvement of the existing order.

As to the size of the brain, from the circumference alone, which is twenty-one and three quarters inches, we should consider it rather large. But an added value is to be inferred from the preponderance of the frontal lobes, as indicated by the great expansion forward of the ears. Only two faculties are especially developed in the social group. These are the maternal instinct and conjugal fidelity. She is peculiarly tender toward the young, or the deserving of any age who stand in need of motherly solicitude and protection. With her strong intellect, however, this disposition will find more congenial avenues for expression in public life as a reformer than in the retirement of a domestic circle. It is also largely through this element that she manifests affection for her friends. Her attachments are not evolved from the mere

fact of personal propinquity. There must be comradeship in spirit and purpose; and even then she will rarely require a long, unbroken association to make her happy. She is so versatile and has so many streams of thought to be fed that many friendships of the ordinary kind would only embarrass her in her work.

She is capable of great admiration for truly noble masculinity, and equally zealous in unmasking and rebuking the

pendent of the opposite sex, but whatever her love may be in degree, it is sure to be refined and elevated in kind.

The diameters at the seats of the hoarding and hiding propensities are very moderate. Her idea of money is to use it, and her notion of a secret is to tell it, unless there is a moral reason for the opposite course. Appetite for food, caution, the sense of personal value, and the tendency to think consecutively are all less than average. She has the



ELIZA ARCHARD CONNOR.

arrogant lordlings who try to subjugate her sex. For a congenial mate, her love would be fervid and romantic, but rather platonic, and her inclination would be to idealize the object of her regard. There is not a trace of coquetishness in her composition. Treachery and deceit would be impossible to her, and in all affairs of the heart she would be exceedingly candid and sincere. No doubt her application to intellectual pursuits has done much to render her inde-

self-reliance that comes from the practical demonstration of her power during a long experience; the prudence born of intelligence; and the mental concentration which results from discipline; but she is neither egotistic, sensitive to danger, nor given to prolixity in methods.

Aversion to monotony, however, by no means prevents her from accomplishing an enormous amount of work, for she is endowed with a persistence which

defies all storms of adversity, and keeps her at her post even after her duty is discharged. This is shown by the height of the head on a line with the ears. Intrepidity, energy, and industry seem to be her most conspicuous traits. She never flinches from any foe. Indeed, in the battles waged with tongue and pen, she can smile at the asperities which dishearten ordinary minds, and if called upon to defend a noble cause she will enter the contest with more pleasure than regret. Nor is she one of those who resist only as a last resort. On the contrary, at the first intimation of hostilities on the other side, she draws her weapons and advances to the front. But if she conquers she does not seek to kill, and though caustic and severe in denouncing wrong, her philosophy lifts her far above the plane of animal resentment and revenge.

As to the love of praise, she is exceptional only in the fact that her ambition is to be appreciated for higher achievements than the majority of either sex are likely to attempt. Still she is far from indifferent to personal admiration or the homage paid to the embellishments supplied by art. She is an enthusiast for physical culture, and firmly believes in emulation for health and beauty of both mind and body.

Of her moral character only the best can be said. An extremely keen sense of justice, active courage, and a critical intellect, in the absence of large reverence, combine to keep alive in her consciousness the sorrows and misfortunes of the human race, and impel her to labor for a larger liberty and a more equitable distribution of nature's bounties to all classes, but particularly to the dependent members of her own sex. Sympathy, charity, and kindness are also very active, and though she has a strong desire for personal independence, power and influence, she does not seek to rise at the expense of others.

There is a good deal to study in this

forehead. It is large in almost every portion, and cannot easily be classified or described in a single word. It includes elements of the scientific, literary, mechanical, and artistic types, but the literary and artistic qualities predominate and agree also with the temperament. There is a fine development of verbal memory and linguistic talent as evinced by the prominence of the eyes. The literary ability is also shown by the fullness in the centre of the forehead at the seat of the mental power which takes cognizance of events. The various senses of location, distance, motion, color, and music are all favorably indicated, and the width between the eyes is an evidence of skill in perceiving form. The lateral expansion of her upper forehead at the love of beauty, and the great temporal diameter at the seat of the mechanical impulse, are characteristics belonging to sculptors, painters, actors, and poets.

In the noticeable fullness of the outer portion of the forehead just in front of the musical faculty, or a little above the external half of the eyebrow, many phrenologists would recognize the memory of proper names. According to the lady's own estimate of herself, this is one of her most marked intellectual gifts. Mirthfulness, or wit, is also very conspicuous in the upper forehead, and its influence is apparent on nearly every page of her writings. The extent of the temporal region beyond the outer angle of the eye affords an unusually good illustration of mathematical talent, but the sense of order and tendency to specific observation are not very strong. She is too brilliant to possess the highest degree of precision in dealing with details, but her love of truth renders her much more accurate than is usual in her profession. Her ability to philosophize is fair, but she has more intuition than logic. She judges the qualities of things better than their relations, and it is generally enough for her to know that a thing is beautiful and

pure, or repulsive and base, without inquiring into the causes. This is also true as regards her estimates of people. She sounds, probes, and lances the body politic, the social, educational, and economic conditions, and the tenure of those in power who fatten by filching from the poor, and, like a surgeon, is more interested in discovering and healing the wounds and bruises than merely studying the forces that produce them. As a writer and speaker, she is earnest, eloquent, poetic, and, when her indignation is aroused, pungent and incisive. Her success in editorial work and lecturing was established several years ago, but she is especially fitted by nature for the dramatic stage. She would have become distinguished as an actress, both in comedy and tragedy. In this connection it will interest many to learn that she bears such a resemblance, especially in profile, to Ellen Terry, that while traveling in Europe she was accosted by people who supposed they were addressing the celebrated tragedienne.

The character may be summed up in the words, moral enthusiasm and intellectual brilliancy. She is omnivorous in her reading, and her thoughts are given forth with the variety of a kaleidoscope. Excelsior would be her motto, and if she ever reached one standard she would raise another still beyond.

EDGAR C. BEALL, M. D.

Eliza Archard Conner was born near Cincinnati, in Clermont Co., Ohio, not far from the early home of Gen. Grant, Prof. David Swing, and other national celebrities. Her family were of Quaker, German Moravian, Irish and English Presbyterian stock, one of whom founded the town of New Richmond. She was graduated one year ahead of the class in which she started at Antioch College, Yellow Springs, Ohio. She taught German and Latin in the Indianapolis High School, where her re-

fusal to accept lower wages than the male teachers received led to a reform in that matter which is still observed. In 1865 she became a regular contributor to the *Saturday Evening Post*, of Philadelphia, under the *nom de plume* of "Zig," and later to the *Cincinnati Commercial* under her initials of "E. A." In 1878 she accepted a position on the editorial staff of the *Cincinnati Commercial*, and in 1884 she became the literary editor of the *New York World*. In 1885 she became connected with the American Press Association of New York, where she is still engaged in editorial work. She is a member of Sorosis and the New York Women's Press Club. It is said that she has done as much newspaper work as any woman living, her daily average having been about two thousand words. She is the author of a book describing her experiences in foreign lands, and has also written several serial stories, besides an important special series of articles upon the late civil war. In her girlhood she was enthusiastic for the higher education of women. She has organized classes among her sex for instruction in parliamentary usage, and extempore speaking, and in addition to her regular page of general editorial matter, she finds time to edit a special live stock and dairy department. Her husband is Dr. George Conner, of Cincinnati, who fully sympathizes with her literary ambition, and by whom she has had one son. She is a phenomenal worker, and her life is an instructive illustration of what may be accomplished by a woman in America provided she has brains and pluck. Mrs. Conner is at present brought into especial notice on account of her address before the International Press Congress at Chicago.

It is the type of an eternal truth that the soul's armor is never well set to the heart unless a woman's hand has braced it, and it is only when she has braced it loosely that the honor of manhood falls.

CHILD CULTURE.

CHILDISH CURIOSITY.

IF all the wonders of this world should break suddenly and without preparation upon a full grown man, his mind would faint under it. The commonest things, apparently without cause, would seem miraculous. Knowing no laws of nature he would attempt outrageous feats, and exhaust all his energies to satisfy his curiosity. Happily we grow into knowledge gradually, so that this cannot happen.

Yet something a little like it happens every day in a child's life. He opens his eyes at dawn and watches the streak of sunlight steal through the window and strike athwart the ceiling, and questions crowd themselves upon his mind. What keeps the lines so narrow—why doesn't it break and scatter all over the room? Why is it on that side of the house in the morning and on the other side in the evening. He assails the first person he meets with these queries and with twenty others succeeding. His little brain is alert and eager. There are so many queer things. He wants very much to know why his goblet of water "sweats," and why people have to wear clothes, what use flies are (a puzzler!) and why babies can't walk just as well as grown people.

Thoughts rush through his mind in a disorderly procession; everything starts him off on a new track. His confusion is pitiable. He is like a person suddenly introduced into a show where a dozen bands are playing different tunes. He wants to hear, see, and know *everything*. And half the time somebody responds to his plaints with a remonstrating—"don't be silly." It is as if they said—don't be natural, don't be a child

We take pleasure in showing the beauties of home to strangers and in listening to their admiring exclamations.

And if it grows monotonous we recollect the duties of hospitality. But a child's situation is analogous to that of a guest. We hold the stores of knowledge and are familiar with the mysteries; he clamors to be let in and shown about. He seems *unreasonable*, and the other affairs of life are urgent.

How hard—how almost impossible it is for a grown person to recall his own youthful feelings at the moment he is dealing with a child! And how different would be many incidents of these lives if our memories could bring up stronger impressions of the sufferings we have outlived.

Does not nature know what she is doing when she makes imagination riotous in children? The little things scrambling up on our knees with their eyes and ears wide open and their restless tongues chattering have been projected into a strange world—a world of facts, and they want to understand their reason for being.

Children see everything and comprehend comparatively nothing, so their query nearly always is not—"what is it?" but "why is it?" Their instinct falters about in the darkness for a governing principle, a law, and nothing else can satisfy. And herein is a wide difference in the perceptions of children. Some are born utilitarians while others are born lovers of beauty and pleasure. A pair of bright eyes will turn indifferently away from a beautiful object to ask succinctly "what is it *for*?" while another child will be charmed with the sight of exquisite forms and colors, betraying a purely sensuous gratification. Thus early in life is drawn the sharp line between the scientific and artistic qualities.

A mother who sees each day some odd

manifestation, ponders silently over these things and learns to perceive the extreme diversity of her children's natures, although often it remains incomprehensible. It is the problem of her life to divide her attention justly between conflicting claimants: to satisfy the sober, anxious demands of the eldest born whose brow is puckered with thought, and to quiet without grieving the youngest chatterbox who would like to hang upon her skirts all day reiterating the same notes of interrogation.

She asks herself sometimes if a mother really is expected to be an encyclopedia, and is inclined to say petulantly "go to your father," or, "go to your teacher." But this is a delicate point in management. To the child his mother is all wise, and she ought to be cautious of shaking that sweet confidence. It is not to be expected that children will be reasonable in the demands upon their friend's time and strength. What do they know about such matters until they are taught? The discriminating mother will recognize when a crisis is at hand, when a mental revolution is taking place in her child, and his whole nature is wrought up to a pitch of earnestness, and when he is merely trifling. It is necessary of all things that children should never be confused or confounded. They can appreciate a frank confession of ignorance when, as often happens, their questions are too deep for their hearers. But a parent ought not to say "I don't know!" merely because he is lazy and indisposed to think.

Miss Muloch has a pretty little anecdote in one of her stories which sounds natural. Little "King Arthur's" mother is obliged to plead ignorance as to the working of locomotives, and to her excuse he responded gravely—"But mamma, you ought to know!" And this little reproof sent his loving mother to books to repair her omission. Happy the child whose mother is so faithful. The moments we spend in acquiring knowledge to impart to our children are

well employed, for a child should be taught chiefly by conversation and seldom directly from books.

The plea most mothers will make to this—that they have not time—should be translated into one that, in many instances, would be more candid: they have not inclination. The author recalls a little experience which took place years ago when she was pursuing a course of elocution in college. A young man who belonged to the class excused himself from rehearsal on the plea of "no time," when she had the impulse to turn to him and say: "You mean you don't want to. People always find time for whatever they really want to do." A few days afterward the gentleman, who was a busy law student, came to her and said frankly, "Do you know what you said haunted me. I've been thinking about it, and I believe it is true. Half the time our excuses of 'lack of time' are petty evasions. We can do what we take a hearty interest in."

Who doubts that the utmost pains is none too much to bestow upon the development of a young mind. A mother should feel that her vocation is supreme. Civilized society is hard upon women in some ways. Women are hard upon themselves. They want to be perfect in household duties and in social duties, and to be mothers also. But to be a worthy mother, completely faithful to her duties, is a life work for any woman. Let her do what she can besides; that comes first. Success in every other way cannot compensate for the loss of influence with our children. Mothers sometimes feel this bitterly when it is too late. She who leads a little child toward light and knowledge gains an unbounded influence over him. The history of all great men usually begins with a loving, earnest mother. The boy's eager questions are often keys he presents to unlock the mysteries of his nature.

FLORENCE HULL.

THE SMILING MUSCLES.

THE story of Nanny Falconer's experiences, as told by Mrs. Clara Doty Bates in *Wide Awake*, is an instructive lesson, not only to young people, but to many older people who have fallen into her bad habit of frowning. Though she had the advantage of beginning early to train the right muscles, much can be done in later years, by continual and conscientious effort, to remove those traces of worry and irritability which so disfigure the face. Here is the latter half of the story:

Her mother took Nanny's hand and led her to the mirror.

"Look in there, my child. What do you see?"

"I see your lovely face," sobbed Nanny.

"First, dry your eyes. Now, look at yourself. That is not an ugly face, even when it is wet with tears. Those lines are full of sweet temper. The laughing muscles are strong and flexible—you see they make dimples," as Nancy half smiled. "They like smiling best of anything. The shadow of crossness is all a bad habit. It is quite a new one, too, Nanny, not settled and hopeless. . . Here," pointing between the brows, "is the trouble. You use these muscles too much. You will soon have a mark there that will stay, I'm afraid."

"Yes, Don says it will surely freeze the first cold morning."

"Don't listen to the boys. Listen to me. We can make our faces, like our manners, largely what we like; as we can be rude and abrupt, or gentle and considerate, so we can be dark and forbidding in countenance, or open, fair and sweet. Keep the right face muscles in training, and the mood will be pretty certain to follow their action."

Nan laughed merrily. "What do I know about muscles, mamma? You are so scientific."

"What you do not know you can learn. A docile spirit need never show a sour face."

"Please tell me how. Often when Don and Rick call me cross, I don't feel so. I may be only thinking."

"Sit down. It has seemed to me that if you would think to a little better purpose, you might avoid being found so much fault with—as you call it."

"But isn't thinking of one's self vanity?"

"Not if you think with the hope of making yourself more loveable to those about you. To study to be pleasing is not vanity."

"But when I haven't thought of feeling hateful, why do I look so?"

"Because you are not on your guard. I have, myself, often got an unconscious look at myself in the glass and have seen looks of worry when I wasn't ill. Ah, these muscles you know so little about, Nanny—they are very ready tale-tellers."

"They are story tellers, you mean. They tell what isn't so."

"They get into bad ways. And if you do not want to make mistakes, you must educate them."

"But I might study physiology a whole year and yet look cross all the time."

"So you might if you didn't take the trouble to rule your face from within."

Nanny discerned her meaning.

"I should be like an idiot if I always laughed," she said.

"Don't be perverse, daughter. You know very well what I mean. Try this rule for a week, and see what the result will be. Whenever you feel irritable, even in a slight degree, go to the glass and straighten every drawn line into repose. You need not laugh, nor smile, but relax the tension of the worry, and see to it that there is not one visible trace of it left. By that time your fret will have vanished."

We can better understand the principle involved in this reasoning when we know that the muscles of the face have relation to nerve centres in the brain where the functions of thought are carried on. Sympathy, kindness, hope, operate very differently from pride, hatred, anger, selfishness, jealousy, etc., in the muscles, and so produce markedly different effects on the facial expression.

SUCCESSFUL IDIOT TRAINING.

An account is given in the *Popular Science Monthly* by Margaret Bancroft of the management of two cases of idiocy, which should prove very interesting to students of human nature.

The first case noted was a deaf-mute, twenty years of age, "a sickly, wild, destructive, disgusting specimen of humanity," who had to be taken charge of day and night. He would tear or destroy three or four suits a week. An attendant having noticed that he was fastidious about the color of things he wore, suggested having fine clothing for him. He was fitted with a suit and "the success was wonderful. He was perfectly delighted; blew and puffed on his clothes, and from that time, unless some very serious trouble arose with his care-taker, he never destroyed anything, unless it was ugly. He was then gradually led on from one step in good behavior to another—sitting to witness a play, being photographed, sitting in school during the opening exercises, drawing lines, and mat weaving, in which, when he threaded his needle and put in one row without help, the whole school set up a hurrah. There were many ups and downs, but from that time improvements was constant, till boy and teacher were separated in consequence of the burning of the school building. The case is in all respects a wonderful one. "It has taken unbounded patience, hopefulness and trust, but the great secret has been love,

our love for him, and his love for us, and trust in us." The other case was a boy, who had been hurt mentally by a fall and was converted into a destructive, murderous savage, with whom for some time after his arrival "we felt that we had a young tiger in our peaceful home. The first attempt to have him in the school room was a tempest." He was tied in a chair and had to be held by two persons; there he had only to be tied, but "after six months of this work, we could have him in the school room untied for a short time. It was so in everything we attempted to do with him; in teaching him we were obliged to have one person hold him, while another directed his hands. So on, until we gradually got him to like his work. In marching, calisthenics, games, kindergarten work, chart work, board work, slate work, there were the same battles week after week, but now he leads the marching. He is trying in all his work to use his right hand, but it is a great effort and requires much patience on his part. He is loving and neat, takes great pride in his clothes, says his prayers and tries to please. We are proud of his table manners." (Venturing a comment on this second case, it seems to us that some sedative treatment of his brain, either surgical or by cooling application would have been helpful toward reducing the evident excitability or hyperaesthesia of the nerve centers, and rendered the boy much more tractable and admirable. As the report stands, however, it is a powerful evidence of the results to be obtained by well applied training.—*Ed. P. J.*)

"The Japanese take baths at a temperature which a European could not endure. That which a doctor in Europe calls a hot bath, say 100°, is a 'cold' bath for the inhabitants of Japan. The temperature of the bath which the Japanese takes every evening, no matter to what class of the people he belongs, poor or rich, is never less than 107.6° F.; and sometimes runs even as high as 122.



MASSAGE. WHAT IT IS.

THIS method of treatment, introduced within a few years, is used to restore the equilibrium of those who have been subject to severe tensions, to give exercise to those who are unable to take it for themselves, and, generally, to restore the arterial circulation.

At death the arteries are empty, and all the blood in the body is in the veins. The word artery comes from two Greek words, one of which means air. The Greeks supposed that the arteries were always filled with air, as they found them empty after death. In nervous prostration and weariness from overwork the tendency of the blood is to leave the arteries and become engorged in the veins. Massage, rightly employed, aids in the restoration of the normal circulation, and thus helps the system to right itself.

The patient is extended upon a lounge or bed, and the operator begins with one foot, squeezing it gently with the hands as though it were a sponge filled with water and he were squeezing the water from it, and working always toward the heart. The hands of the operator clasp the limbs with a firm but gentle grasp, and apply this squeezing, pinching pressure all the way from the hands and feet to where these limbs join the body, not rubbing the skin, but pressing and working the muscles under it. The muscles of the chest, neck and abdomen

all receive the same treatment. Then the patient gives his back to the operator. All adown the back are large veins, and these become engorged with blood. The operator kneads and pinches and squeezes and presses all the muscles of the back for a long time, until a pink tint flushes the skin. All about the face, the neck, the back of the neck especially, there are many veins, and the muscles which they traverse are thoroughly handled until the circulation is free.

The patient soon begins to find relief, and sinks to sleep or into a delicious disposition to lie still and rest, which disposition should be encouraged as long as it lasts.

Physicians and surgeons who have undergone severe strains in serving their patients find great relief from their tensions in this mode of treatment, and after taking massage can sleep. One surgeon of whom we know, and who is intrusted with the most difficult surgical operations, has himself been gone over in this way, and to close the treatment his massage-giver removes his slippers and walks all up and down the back of the surgeon, as though he were treading grapes in a wine press, and thus by his weight and the kneading of his feet presses the blood from the engorged veins back into the general circulation.

When the face is pale, the skin sallow, the hands and feet cold, the pulse slug-

gish, the bodily functions all languishing, there is just as much blood in the body as when the opposite conditions prevail, but it has all betaken itself to the veins. As after a panic money is withdrawn from circulation and hidden away in vaults, banks, old stockings, and in boxes buried in the ground, so after a physical strain or shock the blood hides itself in the veins. Until the equilibrium of the circulation is restored the patient will feel and will be more dead than alive. A great many people are accustomed to exclaim, "I'm so tired. I'm almost dead," with more truth than they themselves realize.

Of course it would help one in undertaking to give massage first to receive instructions from a practiced operator, and to see and feel just how the work is done. We have attempted to make the process as plain as mere words can do it. Those who attempt to give massage after reading an attempt to describe the

operation as we saw it gone through with, will find for themselves, by experimenting, satisfactory ways of securing the desired results. Long continued, gentle manipulation of the muscles will be indicated in some cases, more vigorous treatment will be suited to others. Every observant mother has found for herself that long and tender handling of the limbs of her baby after its bath and gentle rubbings of its little body have been followed by most happy results.

This mode of treatment has no unpleasant reaction. There is no drug introduced into the body to produce certain effects and unknown mischief besides. Rest, sleep and appetite for food follow in the natural course of events after massage has been taken. The word massage comes from the French verb *masser*, which means to press the skin with the hand so as to give it elasticity. It is pronounced mass-sazh.

THE FLESH-EATING FALLACY.

It is a widespread notion that meat is needed for strength, and there are not wanting doctors who try to prove it. The fact is that the strongest animals of the world are vegetarian and not carnivorous. The lion is called the king of "beasts," but it is his ferocity more than his strength which makes him formidable. Carnivorous animals, as a rule, are notorious for their fierceness, while the vegetable eaters are mild. An elephant could carry half a dozen lions on his back. The strongest and fleetest and longest lived animals are vegetarians. The horse, the gazelle, the reindeer and the antelope are familiar examples of speed and endurance. A carnivorous animal, when put upon a vegetarian diet, lives about twice as long as others of the same species which are not so converted. Some time ago a writer in the *St. Louis Magazine* said that in a lecture he compared the short life of a dog with the long life of the donkey,

and a lady in the audience said that she knew a dog which was twenty-two years old.

"Well," said I, "I should like to inquire into the habits of that dog."

She replied, "I know his habits; he is Senator Palmer's dog and a vegetarian. He eats only two meals a day and is still a vigorous, healthy dog."

If a hunter wants his dog to be very fleet and to have a sharp, keen scent, he feeds that dog on cornmeal instead of beefsteak. Dog trainers, it is said, always keep the trick dogs of their shows on a vegetarian diet—oat meal and corn meal almost exclusively. The reason for this, as told by an exhibitor, is that the dogs are brighter and more teachable, and that they have a keener scent and are more peaceable. If they were fed meat it was impossible for him to keep thirty or forty of them together in one "happy family."

In the *Cosmopolitan* not long ago

a description of the monastery of Oka was published in which a brief account of the dietary is given in the following terms :

Soon Father Peter returned to inform us that supper was ready, and we followed him down into the basement, where a meal of mashed potatoes, coarse, dark colored bread, made on the premises, butter, tea, coffee and eggs had been prepared. "We never give our visitors meat," said Father Peter, "and, of course, we never take any ourselves. You have before you all we ever offer to visitors, even the Archbishop, when he comes. * * * We eat

only bread, vegetables, and drink water. Sometimes we have a little rice and sweet cider. We never taste meat, fish, butter, eggs, cheese, tea or coffee. We never use milk except when mixed with cooked rice."

"Do not men break down under such rigid and austere discipline and such poor fare?"

"At first the life is exceedingly severe, but we gradually get accustomed to it. There is very seldom any sickness among the friars." Those men live to a great age as a rule, although their life is far from an easy one.

A REPORT ON HYPNOTISM.*

DEFINITION.—Hypnotism is an induced or secondary physiological condition, in which the subject of it acts in a specific or *peculiar* manner, as contrasted with his general conduct in the common state.

The *condition* is one of degree—from that of complete consciousness, in which all the physical senses are in exercise, to complete unconsciousness and a total incapacity of sense expression.

INDUCTION.—The induction of the state may be objectively or subjectively brought about—

(1) By manual passes; a steady gaze; the command of another;—or (2) By looking at a bright object at rest or in motion; listening to monotonous sound, as the beating of a clock, or by dwelling continuously on some simple idea.

CLASSIFICATION.—The common classification of the hypnotic state into three stages,—viz., Lethargy, Catalepsy, Somnambulism—is, although these stages are distinctly differentiated arbitrary, they at most are notable as presenting the most marked of the physical and mental classes exhibited by the hypnotized. One subject may exhibit all three, *i. e.*, pass from one to another by suggestion or independently of extraneous influ-

ence, or may enter one and remain therein until aroused from it.

The phenomena of lethargy and catalepsy are simple, mechanical, dependent; of somnambulism, complex, both suggestive and autosuggestive, and often exalted to the highest degree of functional and sense activity. In the somnambulist's stage the expression of the subject's individuality may become very salient, all the training and experience of his life relative to the matter to which his attention has been directed appear to revive, making the play of faculty in perception, reasoning and imagination much removed in power and effect from the subject's average or recognized capacity.

SUGGESTION.—The theory of suggestion is insufficient to explain all the physical and mental phenomena of hypnotism. Using here the term suggestion in the ordinary, intellectual sense of a hint or intimation by which thoughts or ideas are represented or awakened in the mind—we account it insufficient for—

(a.) The hypnotic may speak and act in an independent, original manner; not pursuing the line of thought or

* Abstract of Report submitted by H. S. Drayton, M. D., of Committee on Psychology, New York Academy of Anthropology,

conduct that was in the mind or intended at the beginning by the agent. Further, the subject may exceed greatly in ideal representation the capacity of the agent, and to pass beyond the latter's province of thought direction.

(b.) The control exhibited by an agent may go much beyond that personal contact that *suggestion* requires. The subject may be influenced at a distance without previous intimation. As M. Dupotet, of l' Hotel Dieu (Paris), says: He "can be acted upon through walls and partitions on occasions when it could not possibly be supposed that he had any knowledge of your intention. They feel your presence; they know when you absent yourself: they go to sleep and awake according to your will."

In this we have a form of telepathy that can be accounted for on no other ground than that of the transmission of a mental force in some unaccountable way from one mind to another.

The theory of coincidence is not tenable because the data in this line of observation are too numerous and explicit.

(c.) *Suggestion* as a motor in the mutual relations of society is one of the commonest factors. It pervades every sphere of life and is especially active in child training. It necessarily partakes of the influence that one mind exerts upon another, and its degree of control may be estimated by degrees of friendship, affection, intellectual superiority, respect, admiration, fear, aggressiveness, and other factors in human character. Its mental effects are those of normal human relations. Its exercise in hypnotics may be the more potent because the trance state brings the subject into a close psychic relation or *rapport* with the agent, and is peculiarly responsive.

Professor James, of Harvard, one of our most patient American observers, does not accept the suggestion as an apt elucidation of the phenomena. He says: "The great vivacity of the hypnotic

images (as gauged by their motor effects), the oblivion of them when normal life is resumed, the abrupt awakening, the recollection of them again in subsequent trance, the anaesthesia and hyperaesthesia which are so frequent, all point away from our simple waking credulity and 'suggestibility' as the type by which the phenomena are to be interpreted, and make us look rather toward sleep and dreaming or toward those deeper alterations of the personality known as automatism, double consciousness or 'second personality,' for the true analogues of the hypnotic trance."

Physiological or pathological?

With a healthy subject hypnotism is a secondary physiological condition, fraught with no injury to the person. It may, by improper means, be made conducive to injurious results, but genuine pathological effects will not follow as a rule, unless the subject is already affected by some disease, especially some nervous or mental disorder, the nature of which is not known or understood by the operator. Employed for benign ends, and by an intelligent and experienced operator, one acquainted with the treatment of disease, good effects usually result, as good, comparatively, as the electrician obtains in the application of galvanism to disease.

AS AN EDUCATIONAL FACTOR.

Hypnotism may be applied as an instrumentality in the training of the young, its power to develop mental function into activity being serviceable toward obtaining that balance of faculty, that steadiness of attention and that will-control that are most desirable for permanent growth, intellectually and morally. By reinforcement of a weak will tendencies toward vice and criminal conduct may be antagonized and subdued.

In the training of youth the province of hypnotism must be considered as apart from methods in common use, and

its employment is warranted mainly where the regular means of correction and discipline fail. The feeble will, the vacillating irregular action of the faculties, inability to concentrate attention, wilfulness, obstinacy, resistance to parental or preceptorial control, incorrigible mischief-making, dishonesty, vicious practices and personal abuses that enfeeble both body and mind, and perversions generally of the moral sense are considered within the legitimate province of the hypnotic treatment.

Education is warranted, therefore, in employing this potent agency. To use the words of M. Hement, President of the section of Pedagogy in the Congress of Scientists at Nancy in 1886: "It may and it should do for the lunatic and for the child who is an incomplete being, all that is of a nature to correct the former and to develop the latter." The potency of hypnotism as a moral influence in either a good or evil direction is recognized by the Committee of the Academy, and its use for any malicious or corrupt purpose is emphatically condemned. At the same time it is maintained that abuse of this agent by the ignorant or malicious stands on no different ground before the law or public sentiment from the abuse of other agencies that are capable of benign effects in the human economy. The same reasons that may be urged for attempts on the part of any authority to suppress the employment of hypnotism by competent persons would apply to the common methods employed in medicine, while they would apply with much greater force to the widespread and promiscuous traffic and indulgence in alcoholic liquors.

DIET AND WORK.

A FEW years ago Dr. Frankland, an eminent English chemist, made a very extended series of experiments for the purpose of determining the value of various articles of food in sustaining

the strength during severe muscular effort. The following table prepared by him shows the amount of various articles of food required to enable a man to raise his own weight to a height of 10,000 feet, as in going up a mountain of that height, showing also the comparative cost of the several classes of food in England at the time of the observations:

	Price per lb.	Oz. required.	Cost.
	Cts.		Cts.
Oatmeal.....	5½	20.5	7
Wheat Flour.....	6	20.0	7½
Peameal.....	6½	21.4	9
Bread.....	4	37.5	9½
Potatoes.....	2	81.1	10½
Rice.....	8	21.5	11
Cabbage.....	2	192.3	25½
Hard Boiled Eggs.....	13	35.3	30
Milk (per quart).....	10	128.3	32
Lean Beef.....	25	56.5	88

"The smallest quantity required for doing the work is of oatmeal, and at the same time it is the cheapest in price, 5½ cents per pound. We should require 20½ ounces, the total cost being 7 cents. But it is very closely run by wheat flour, which costs one-half cent more, and one-half ounce more of it would be required. Potatoes are very low, but are expensive when you come to measure the work. Ten and a half cents' worth is needed to do the work that is done by seven cents' worth of oatmeal. The quantity of cabbage required is absolutely ridiculous. A man, to do the same work, would require to eat about a stone of cabbage, and who is sufficient for that? Of course, it must be understood that this table merely gives the theoretical quantities that would produce the force. It is obviously impossible to digest a stone (fourteen pounds) of cabbage, or five pounds of potatoes in addition to subsistence diet, nor would it be healthful to take large amounts of unbalanced food. Oatmeal and wheat flour have the advantage of being nearly balanced, and with the addition of milk it would be possible to live on either of them for long periods of hard work."

THE RHEUMATISM RING.

EVERY ONE has heard of the rheumatism ring, which you have only to buy and wear to feel the disappearance of your aches and pains. But perhaps everybody does not know that the trick of a ring cure for rheumatism is two thousand years old or more; was invented in fact by the Greeks or a people even older. We find instances of its use on record.

Galen, born about 131 A. D., and noted for untiring research in matters affecting health, gave ear to the popular fancies of his day by recommending for certain difficulties a ring set with jasper, to be engraved with the figure of a man wearing about his neck a bunch of herbs; and Marcellus, a physician of repute in the time of Marcus Aurelius, directed a patient afflicted with a pain in the side to wear a ring of pure gold, on which should be inscribed certain Greek letters. If the pain were upon the right side the circlet should be worn on the left hand, and this prescription should always be carried out upon a Thursday at the decrease of the moon.

It is to be presumed from the number of shops that sell this "ring cure" that a good many people are inclined to try their luck at it. It certainly is profitable to sell a thing of composition metal for a dollar or more.

SELF-DOSING WITH DRUGS.

The prevalence of the "grip" in Europe and America has stimulated the popular tendency to use remedies advertised in the newspapers or presented by druggists. On this point the *Lancet* (London) comments: "With the recurrence of influenza a word of warning against the possible dangers of self-medication becomes once more imperative. Many regard this affection as trivial and transitory, requiring little more treatment than merely remaining at home for twenty four hours or so; while they are prepared either to ignore medicine entirely, or to fly in reckless,

haphazard fashion to quinine, salicin, antipyrin, exalgin, or to any substance which may be widely advertised, either for the reduction of fever or the relief of pain. It cannot be too widely known that such a course is fraught with considerable danger, not only from the possibility of serious, but insidious complications being overlooked until the patient is perhaps moribund, but also from the fear lest any of the newer remedies should be employed in overdoses. The most casual reference to any work dealing with the synthetic compounds will show that, as a rule, they possess toxic properties, and this fact alone should cause those addicted to self-medication to pause before they act upon the assumption that statements in an advertisement, or even in the columns of the daily press, convey the whole truth. It is true that certain drugs relieve pain and reduce temperature, but it is equally true that, unless they are employed by persons who are properly informed, disastrous accidents will undoubtedly occur." We are of opinion that not only the large mortality in this country from epidemic influenza and resultant affections has been due mainly to the attempts of those suffering from them to doctor themselves.

IS EPILEPSY AN INFECTIOUS DISEASE?

Pierre Marie, who is connected with the Hospital Saint Antoine, Paris, expresses the view (*La Semaine Medicale*, July 13, 1892) that so-called idiopathic epilepsy is nearly always of infectious origin, not inherited, and thinks the fact that the attacks have often ceased after erysipelas, scarlet fever, and other infectious diseases, goes to prove the correctness of his view. He believes the treatment will come to be by the use of toxins of microbic origin or substances which act similarly, in line, we may say, with Pasteur's treatment of hydrophobia, etc. Now, we have the hypodermic injection of "Cerebrine" (a preparation of animal nerve matter), recommended as a remedy for some epileptic causes, operating, we may suppose, as a tonic to prevent functional disturbances. What a vista this germ origin of disease is opening up! But let not the tractable reader suppose that it can ever supplant the necessity for observance of ordinary health laws. By no means.

NOTES IN ANTHROPOLOGY.

An Ohio Mound Examined.—The following account of a mound and its contents discovered in Ohio is given in the *Popular Science News* for February: "The mound was oval in shape, with diameters of one hundred and ten feet and sixty feet. Its original height was apparently about ten feet, but from various causes has been reduced to five feet. Its structure was more or less stratified, and consisted of successive layers of loam, sand and yellow clay. Several skeletons were found in this mound, but, with one exception, they were almost entirely decomposed, and crumbled into dust on exposure to the air. The one which remained intact was that of a man over six feet in height, and the size of the bones showed him to have possessed superior strength. Near the head were found five teeth of a bear and two of a panther. These were all perforated and doubtless formed a necklace or armlet. On the right side of the skeleton was found a plate of copper measuring six by seven inches; on the left were several articles, consisting of two disks of copper joined together by a cylinder of the same metal, forming a sort of spool shaped body. These objects are very abundant in the mounds, and are considered by Professor Putnam to have been used as ornaments and suspended from the ears by cords, traces of which occasionally still remain. A large number of shells was found near the skeleton. The other skeletons found in the mound showed a remarkable diversity in the method of burial; the greater part of them were interred lying at length, some however were placed in a contracted position, the knees being bent up toward the chin. Two among them had evidently been burnt either before or after death. These different forms of sepulture may indicate burials at different ages or by different races, or more likely a difference in the rank of those buried; and the presence of the charred human bones points strongly to the existence of sanguinary funeral rites, such as in some of our savage tribes of the present day necessitate the sacrifice of human beings to accompany their chief on his journey to "the undis-

covered country." The same mixture of buried and burnt bodies has been noticed in certain tunnels in Brittany.

The explorers of this mound also discovered one of the so-called "altars" of burnt clay which are frequently found in the mounds. It was rectangular in form with symmetrically rounded corners, and measured thirty by twenty-four inches. In the centre was an oval depression, measuring eighteen by twelve inches and four inches in depth. This depression contained ashes and fragments of human bones. Various objects have been found upon these altars, but all bear marks of the action of fire, and were undoubtedly connected with religious or funeral rites. Among the objects found in the vicinity of the mound was the shoulder-blade of some large mammalian animal, more than six inches in length, and pierced with two holes, so that it could be suspended like the gorgets worn by the Indians of recent times. There were also found nearly a thousand small pearls, a plate of copper carefully wrapped in cloth, flint hatchets, knives and arrowheads, and pieces of pottery.

The Mound builders are apparently distinct from the Indians, who occupied the continent at the time of its discovery, though they may have flourished in comparatively modern times, perhaps not many years before the coming of Columbus. Their civilization resembles in many respects that of the bronze age in Europe, but with the notable exception that native copper was the only metal used by them. This is found quite abundantly in North America, but the tin necessary to make bronze only occurs in small quantity, and in fact has only been discovered within a few years. The men of the bronze age in Europe seem to have been equally familiar with both metals from the time of their first appearance, and possessed the art of smelting them together into bronze. The American Mound-builders, on the contrary, were only acquainted with copper, and only knew how to hammer it out while cold, and were ignorant of the art of melting and casting. They seem to have been a somewhat settled race, carrying

on an imperfect system of agriculture, but extremely warlike, as their forts, battle-fields, and burial-places in the Ohio Valley indicated. But whence they came, whither they disappeared, or what relation they bore to other races, both on the American and other continents, or the date at which they flourished in the great central valley of the United States are questions to which at present no satisfactory answer can be given."

The Stature of the Most Ancient Races.—Has the species of man increased or diminished in stature since it first appeared on this planet? Have his bones increased or diminished in solidity and weight? Have the relations in these respects between the two sexes always been as they are now?"

These are some of the very interesting questions approached by Dr. J. Rahon in a recent paper in the Memoirs of the Anthropological Society of Paris, entitled, *Recherches sur les Ossements Humains Anciens et Préhistoriques*.

His conclusions may be briefly stated. Comparing the earliest quaternary skeletons found in Western Europe with those of the present population, the former belonged to what we should call medium-sized people, with an average stature, in the males, of 1.63 metres. The tribes of neolithic times varied scarcely at all from this measurement, but the proto-historic nations, the Gauls, Franks, Burgundians, etc., ran the figures up to a mean 1.66 for the males; since their epoch it has been steadily, though slowly descending, at least in France, until the average of the Parisian men of to-day is 1.62 metres.

In all ages, the women have averaged about ten centimetres less in height than the men. The bones of both were rather heavier and more powerful in ancient times.

Incidentally Dr. Rahon shows that the height of the men of Cro Magnon has been over-estimated; that of the man of Spy underestimated; that the Guanches of Teneriffe averaged but one centimetre above the French of to-day, and osteologically were very similar to the Cro Magnon people; and that from the most remote time the human body has retained the same proportions.—*Science*.

Chinese Picture Writing.—Mr. Tyler in his Anthropology writes very interestingly of this:

"Looking at the ordinary Chinese characters on tea-chests or vases, one would hardly think they ever had to do with pictures of things. But there are fortunately preserved certain early Chinese characters known as the "ancient pictures," which show how what were at first distinctly formed sketches of objects came to be dashed off in a few strokes of the rabbit's hair pencil, till they passed into the meaningless looking curious forms now in use. The Chinese did not stop short at making such pictures of objects, which goes but little way toward writing. The inventors of the present mode of Chinese writing wanted to represent the spoken sounds, but here they were put in a difficulty by their language consisting of monosyllables, so that one word has many different meanings. To meet this, they devised an ingenious plan of making compound characters, or "pictures and sounds," in which one part gives the sound, while the other gives the sense. To give an idea of this, suppose it were agreed that the picture of a box should stand for the sound *box*. As, however, this sound has several meanings, some sign must be added to show which is intended. Thus a key might be drawn beside it to show it is a box to put things in, or a leaf if it is to mean the plant called box, or a hand if it is intended for a box on the ear, or a whip would show that it was to signify the box of a coach. This would be for us a clumsy proceeding, but it would be a great advance beyond mere picture-writing, as it would make sure at once of the sound and the meaning. Thus in Chinese, the sound *chow* has various meanings, as ship, fluff, flickering, basin, loquacity. Therefore the character which represents a ship, *chow*, has characters placed after it when different meanings of *chow* are intended. A recognizable pair of feathers is placed by it to mean *chow*—fluff; the sign of fire makes it *chow*—flickering; the sign of water makes it *chow*—basin; and the character for speech is joined to it to make it *chow*—loquacity. These examples, though far from explaining the whole mystery of Chinese writing, give some idea of the principles of its sound characters and keys

or determinative signs, and show why a Chinaman has to master such an immensely complicated set of characters in order to write his own language.

"To have introduced such a method of writing was an effort of inventive genius in the ancient Chinese, which their modern descendants show their respect for by refusing to improve upon it. At the same time it is not entirely through conservatism that they have not taken to phonetic writing like that of the western nations, for this would, for instance, confuse the various kinds of *chow* which their present characters enable them to keep separate. But the Japanese, whose language was better suited than the Chinese for being written phonetically, actually made themselves a phonetic system out of the Chinese characters. Selecting certain of these, they cut them down into signs to express sounds. Thus a set of forty-seven such characters serve as the foundation of a system with which they write Japanese by sound more accurately than our writing conveys it."

Whence the Etruscans?—The classical world was divided on the subject of the original home of the Etruscans and the old dispute is continued by modern scholars. On the one side it is maintained that they were a Northern people who descended into Italy from the mountains of the Tyrol, and in whom we may see the bronze-age inhabitants of the Swiss and Austrian lakes. Etruscan monuments have been found in the Tyrol, and Mommsen appeals to the fact that the great cities of ancient Etruria were built inland as a proof that the Etruscans could not have reached Italy by sea. On the other hand, the prevalent view among the antiquaries of the classical world was that they came from Asia Minor, Lydra more especially having been their primitive seat. This is also the view which seems to have gained most acceptance from the ethnologists of to-day, chiefly in consequence of a discovery made seven years ago by two French scholars in the Island of Lemnos. Here a sepulchral monument was found, on which the head and spear of a warrior were engraved, together with two inscriptions. The inscriptions proved to be Etruscan, though some of the words pre-

sented slightly different forms from those we have been accustomed to meet with in the inscriptions of Etruria proper. It has, accordingly, been assumed that the monument testifies to an Etruscan-speaking population in Lemnos in early days, and thus to the presence of an Etruscan people in Ægean lands. The conclusion, however, does not necessarily follow, since the tombstone might have been erected to the memory of some Etruscan pirate who had made his way to the Ægean Sea. But it must be allowed that the dialectic character of the words of the inscription is in favor of the theory which regards it as really the memorial of the Etruscan colony. Whether we shall ever know with certainty the original home of the Etruscan race is for the future to decide. Discoveries follow one upon the other so rapidly now-a-days that the question may already be upon the point of being answered. Who could have dreamed a few years ago that an Etruscan inscription would be brought to light in an island of the Ægean, or that one of the sacred books of Etruria would now be in our hands, written on linen by a scribe to whom Etruscan was a living tongue.—*Fortnightly Review*.

The Mahometan Fast Season.—Ramadan is the Mahometan Lent. At this time the Sultan always goes from the Gildiz palace in Pera across the great bridge of boats into his Turkish capital, Stamboul, to kiss the mantle of Mahomet. Ramadan is in the ninth lunar month of the Mahometan year, and during it the people are required both by law and the prophet to spend their days in fasting and prayer. From sunrise to sunset not a morsel of food and not a drop of liquid must pass their lips; and the more conscientious of the people consider it a sin to swallow their saliva during this time. They must not smoke or take snuff, or use any means to stay their appetite; and even the use of perfumery is forbidden. The Mahometan who is a perpetual smoker misses his tobacco more than his food during the fasting, and even the poorest of the day laborers', who, faint from working twelve hours on an empty stomach, having their dinner ready for them, watch the sun going down with a cigarette in their hands,

and will consume this before they begin to eat. The olive is considered to be five times more blessed than the water to break the fast with, and the dinner which follows the fast of Ramadan is always the best that the purse of the faster can procure.

Ramadan is to all Mahometan countries a month of day fasting and night feasting. The people make up for their abstinence during the day by a grand carouse at night, and Stamboul during this period holds a nightly carnival. All the restaurants and cafes are lighted and the streets filled with revellers, who are making up for their privations during the day. The wealthy sit up all night, receiving and returning calls and giving dinner parties, and after the evening services at the Mosque, the people go to the esplanade of the Suli Manich, the fashionable drive, where there is a dense crowd of promenaders. The bazaars are illuminated and the lemonade peddler and the sweetmeat men are out in all their glory. The season which ends the great fast of Ramadan, and which might correspond to Easter, is called Bairam. This is a time of feasting and rejoicing the months of fasting are over.—*Cosmopolitan*.

Effect of Habits on the Mental Development of the Indian.—It is one of the peculiarities of Indians, as of other savages where nutrition is sufficient to develop the bodies, that the infants and young children are lively, bright-eyed and cheerful. This state often lasts even up to puberty, but then a blasting blight seems to settle upon their men and women alike. The indulgence of the passion for revenge, the cruelties of a pagan religion, the inevitable degeneracy, the result of superstitious fear, the subversion of all individual rights to the law of physical force send the benighted soul downward, as it descends step by step until the level of the brute is reached; but it is true that in the poorest and lowest specimen of the worm-feeding child of the desert, as of the most highly cultured individual of the most advanced race, that no one ever remains stationary, and that the attributes which elevate one person are the very traits which must by some means be transferred to another, even this low, lost, and degraded specimen of the desert, to ad-

mit of an advance on his part. What these are let scientists and moralists decide. The most watchful scrutiny of the brute may detect distinct signs of the development of intelligence, but of moral degeneracy he is incapable; but man may abandon himself to the base instincts of his nature, until he sinks to the semblance of a brute, and yet his offspring will during infancy and childhood exhibit moral germs showing his capability of adaptation to the great heritage of which he has been robbed.

It seems to be in the self-sacrifice of the mother-nature, the long travail and years of helpless dependence upon the loving mother care that the germ is ever and ever renewed. For in the women of the lowest race, loving kindness, patience and long-suffering are notable traits. The real life of the Indian is given to skulking about in the woods with a nondescript foxy-looking cur, and by great cunning, and oftentimes by exertion of great personal bravery, he secures wild game and fish, and traps for the furry creatures, whose hides when sold, supply his few wants; and in this life is to be found as much happiness as he is capable of. The hard work of the squaws is undoubtedly, except under conditions of great misfortune, a pleasure and a relief to their otherwise monotonous lives. What causes the bright-eyed, vivacious maid of from fourteen to sixteen years to present the sad, lack-luster face of the woman, wife, mother of a few years later is not so easy of explanation, unless the lack of nutrition in the food eaten during the period when the most nutrition is demanded by the system, from the extra draw on the bodily mechanism during the period of maternity, explains it. It is true that none escape the doom so clearly expressed in the immobile features of dumb, cruel suffering. Or is it the old, ever-recurring question "of the man eating, without working, what another produces, who must therefore go without"—"the trail of the serpent" here also—the great social evil of all times and all classes.—*Popular Science News*.

Origin of Life.—An important meeting of the Victoria Institute, London, England, took place last month, when Mr. J. W. Slater, F. C. S., F. E. S., read a paper

in which he traced the difference between life and the physical forces, and reviewed all those experiments and arguments by which some had sought to prove that a key to the origin of life had been obtained. Contributions to the discussion of the question were made by Sir George Stokes, Bart., V. P. R. S., who stated that Lord Kelvin's recently alluded to suggestion that the germs of life on this earth might have come from the bursting of a remote star, was only intended by him to refer to the possible transmission, from one part of the universe to another, of life germs; but that for the first origin of life itself we must all refer to God. Professor Lionel Beale, F. R. S., in supporting Mr. Slater's views, says that an absolute line must be drawn between the living and the non living. Living matter was distinguished from all other matter by a property, power, or agency, by which its elements were arranged, directed, and prepared to combine according to a prearranged plan for a definite purpose. There was no gradual transition from the non-living to the living. Life was a special position independent of and not in any way related to the physical forces, powers, or properties, and holding in the cosmos a remarkable and peculiar place. Professor Bernard, of Dublin, pointed out that all evidence went to show that vital forces are unique and not comparable with any other forms of energy. Dr. Rae, F. R. S., contributed some valuable remarks, as also did Dr. Biddle, the Revs. R. Collier, M. A., J. H. Clarke, and W. A. Pippet. Dr. F. Warner, M. D., F. R. C. P., made several valuable remarks on the question, which was also spoken on by Dr. Shettle of Reading, Dr. Schofield, and others. Dr. Schofield was very interesting in those remarks in which he pointed out what may be called the history of the controversy in regard to life and the physical forces, and in concluding he specially referred to the dictum of Professor Huxley, viz., "Life existed before organism and is its cause." What that cause was the Christian philosopher fully recognized.

Is Our Little Toe Degenerating.

—The thumb and the great toe of men are

two-jointed, while the other fingers and toes are three-jointed. But it has been observed in the examination of skeletons that the little toe is occasionally two-jointed, the middle and terminal phalanges having been so united that they can hardly be distinguished. This variation occurs in about thirty-six per cent. of the cases, and usually affects both feet alike, but appears rather more frequently in women than in men. Pressure of the shoes has been assigned as a cause of it, but it has been observed in children under seven years of age, and even in embryos as often as in adults, and in circles where tightly fitting shoes are not worn. Dr. Pfitzner, who has made a special study of the subject has come to the conclusion that the little toe is in process of degeneration, and that without its being possible to show that it is suffering an adaptation to any external mechanically operating influence. Corresponding to this, certain processes of reduction are going on in the muscular apparatus. The whole phenomenon is of interest, because we are witnessing its beginning and can certainly predict its outcome in the final reduction of the little toe to two joints.—*Popular Science Monthly.*

Myth of the "Golden Apples."

—A paper was read by Dr. Phene, Architect, on "Golden Apples," at the last meeting of the British Archæological Association. Nearly twenty years ago Dr. Phene had visited different localities in which legends of a python were associated with golden apples, to elucidate, if possible, these myths. He succeeded in finding curious varieties of original forms of pomaceous fruits, not indigenous to the localities, but of Oriental origin. These he made known, and as the botanical evidence pointed to Persia and the traditions to India, he determined to prosecute his inquiries in the East. As result he obtained information in which the pear-shaped fruit of Rama was found to be the same in form and indentation with the objects held by the priests of Asshur, and on the apple-like espalier formed trees of Nineveh. He produced examples by photographs of this shaped fruit being offered to the Hindu deities, of their eating it, of its form on the thyrsus, on altars at Pompeii,

etc. The tree was also traced, through geological and historical writers, to Western Europe and into the districts of the well-known classical myths. These myths, legends and apples in every case led into the the orchard and cider districts of Gaul and and Britain, and there were found with them in the West the names of places and peoples identical with those named by Herodotus and others as the possessors of trees in Thrace and India. A direct line of route bearing the same names in considerable number was shown from India to

Britain of several different tribes or peoples' who in almost every case were found to be located side by side with each other and to have the same customs, worship and habits. Many points indicated their association with dolmens, and it was pointed out that the dolmen districts in particular abounded with these traditions, and were almost always in apple and cider localities. Hence it was inferred that these immigrants were the builders of the dolmens and the introducers of the apple and pythonic traditions in Western Europe.



NEW YORK,
June, 1893.

TOO BROAD.

"If the wire-drawing of specialists and the jargon of craniology be permitted to come into court, every assassin will escape. To allow the plea of irresponsibility is practically to inform Cain that the more atrocious, fantastic and horrible be his crime, the more certain will physicians and physiologists come to his rescue and keep him clear of the scaffold."

Thus writes a lady who has been well known to the world as the author of novels of a highly sensational character. Latterly she has shown a penchant for attacking some of the more salient inconsistencies of modern social life, and if her pen seems at times dipped in gall there is certainly enough of occasion in

some lines for her acrid objurgations.

The wholesale manner of her attack upon anthropologists, however, must be regarded as unworthy of a competent knowledge of cerebral physiology, especially on the side of phrenological predications. The later views of those specialists who study criminals do not admit of so extravagant a characterization. At the late anthropological meeting at Brussels the responsibility of society for the making of criminals was very clearly enunciated, but at the same time it was as clearly declared that to the individual blame in the majority of instances must be attributed for not exercising that ordinary care and judgment that society has a right to expect.

A clear understanding of what the writer quoted is pleased to term "the jargon of craniology," demonstrates the nature of human responsibility as no system of ethics or metaphysics can, and it is beyond question that with the aid of this same "jargon" the earnest social reformer can apply the principles of moral education with assurance of good results.

Great criminals do not escape the penalty of their acts so much because of the interference of the medico-legal

specialist, as because of the conflict of testimony, the adroit sophistry of lawyers, and the growing indisposition of juries to convict of murder. We need not say how much political partisanship has to do with the ruling of court in this country to-day as that in some cases has been notorious. What is wanted in the management of criminal affairs is more scientific knowledge and less ignorant, mawkish sentiment; this only will confer an intelligent idea of the positive needs of society, and enable its guardians to supply them.

THEY WOULD BE WELCOME.

A good deal of the wonder business is done by some of the newspapers in the West. Occasionally under the heading of "special correspondence" a Cincinnati Omaha, or St. Louis paper will publish a wild detail of incident in the name of science that makes the eyes of the sensation hunter gleam with delight. Such things, too, are eagerly copied by the press in all parts of the country, and so go the rounds filling the brains of the credulous with fake absurdities. Sometimes there is a genuine basis of truth and fact in the newspaper's statements, but upon it he builds such a mush of extravagant invention that the reader who knows what is true in the case condemns the whole as a piece of insolent fraud. One of the editors of a well known St. Louis newspaper seems to have a remarkably large and sensitive development of the wonder faculty, so often does he admit communications of a marvelous purport. Sometimes he does so in good faith, we are disposed to believe, thinking that the statements are trustworthy. Very likely

this was the case when, not long since, he published an item, interesting enough in its way, about a "girl phrenologist" who had examined the head of a man well known in St. Louis, and performed the service well. It was added that "women are going in for the study of it much the same as they are for medicine and the law," and that "there is a college of phrenology in New York city crowded with female students. At the last graduating day 49 women received diplomas," etc.

We should be glad to confirm this statement, Mr. St. Louis journalist, but the fact is you are about forty too many in your figures. Women are as well adapted to the phrenological profession as they are to the medical, and they can do better in the former financially, because there is far less competition. Besides, as an occupation it just as naturally belongs to one sex as to the other. The masculine human can not claim a corner on the privilege of studying heads and faces. In point of fact the same qualifications that make women good teachers tend to constitute them good judges of character and competent to advise with regard to training and development. Let the women take up practical phrenology; there is room in the Institute for all that will come, and they will be welcome because their interest in the study of human nature is usually attended with the zeal of enthusiasm.

THE COLUMBIAN EXPOSITION.

The opening of the Exposition at Chicago on the first day of May, in accordance with announcement, was a decided success. In spite of the rain and other unpleasant features of a very inclement

day, an immense throng representing many nations witnessed the ceremonies of the opening, and a degree of enthusiasm rarely exhibited characterized the occasion. President Cleveland with several members of the Cabinet, members of the foreign legations, and many National and State officials were present. It is said that the attendance numbered upward of 350,000 on this first day. Certainly in itself a remarkable indication of Chicago sentiment, and probably surpassing the assemblage on any previous occasion of a like character. At twenty minutes after twelve o'clock Mr. Cleveland touched an electric button that set in motion the machinery in the colossal building devoted to the display of mechanical inventions, and the great Fair was opened to the world. The President's address was short and to the point, closing thus:

"Let us hold fast to the meaning that underlies this ceremony and let us not lose the impressiveness of this moment. As by a touch the machinery that gives life to this vast Exposition is now set in motion, so at the same instant let our hopes and aspirations awaken forces which in all time to come shall influence the welfare, the dignity and the freedom of mankind."

Mr. Davis, the general manager of the Exposition, reviewed the work that had been done and the objects involved—stating that the number of exhibits now in place number 40,000, while they will exceed 60,000 when everything is in place. "By the foreign countries represented over \$6,000,000 have been appropriated for purposes of exhibition. "The great nations of Europe," he said,

"and their dependencies, are all represented upon these grounds. The government of Asia and of Africa, and the republics of the western hemisphere, with but few exceptions, are here represented." A fitting tribute was paid to the women of America, "who have afforded such prompt, spontaneous and enthusiastic co-operation." With so auspicious an opening it is to be hoped that nothing of a serious character will occur to mar the prospect of a brilliant success.

THOUGHT TRANSFERENCE.

The multiplying evidence of the communication of mind with mind that dispenses with the ordinary modes of communication are accepted by most observers as demonstrating a fact of nature. Some are bold enough to attempt an explanation of the process, and it must be admitted that one or more theories have been advanced that have much of the character of probability. The late Sergeant Cox, at one time President of the Psychological Society of Great Britain, ventured a theory that appears rational. He was of opinion that:

When any mental act is done, the fibres of the brain are set in motion, and of these motions the conscious self takes cognizance. The psychological conclusion from this physiological fact will be at once apparent. An idea or thought in my mind is attended with certain molecular movements of certain fibres in my brain. The motion of these fibres in my brain is communicated by ether waves to the corresponding fibres in your brain, setting up in them a similar motion precisely as an instrument that is played upon evokes the same tones

from an instrument containing similar musical elements. The movements in one brain impart to another brain, in a state of susceptibility, identical impressions, and as a consequence the two brains think and feel in a similar direction and may if there be great similarity of organization, think and feel alike.

Admit the idea of an etheric fluid or substance pervading space on which brain motive may act, just as the vibrations of the telephone diaphragm act upon the wire that connects the transmitter and receiver, and Sargeant Cox's explanation is by no means strained. Does it not seem likely that in such a theory we have a leading clue to the final resolution of much that is obscure in mental phenomena?

MIND EQUALITY.

To Mr. Beahm, of Virginia, who asks the following questions:

First—Are all minds, abstractly, equal in capacity and number of faculties and differ only in power of manifestation by virtue of differently developed instruments?

Second—Does the mind of a pig differ from the mind of a Webster in kind, or degree?

First—We would say, abstractly, *human mind* is alike and is clear, strong and available according to the instrument through which it works. The sense of justice or rightness is the same in quality but different in degree according to the endowment. Truth in logic or science is the same in quality but differs in degree.

Second—Pigs must be compared with pigs. I see no reason why the mentality of Webster should be environed with bristles, pork and piggish aspirations. Pig mind and body are adapted to be just pig, no more, no less! Horses,

dogs, pigs, birds and elephants are trained by *men* to obey certain commands, but they do not train each other in the new knowledge.

I remember a certain Virginia farmer who had a drove of hogs which, like those of his neighbors, ran in the public road, and they were fed at their respective homes. This farmer taught his swine to come at a call which would send every other hog differently educated away as fast as their legs could carry them.

His call was "Whe—e there, whee, stuboy! stuboy!" His hogs would lift their heads and come to him, all the others would put back their ears and run from him for dear life, as if a dog were after them. Their classical culture made the difference.

Another man of whom we know whistles for his hogs just as others do for dogs; in fact mere pounding on a fence, if followed by feed, would call the *educated* and scare the uneducated. Alimentiveness is the special faculty of "educability" in pigs as it is in many animals.

WHERE THE WRONG LIES.—"Doctor," said the patient, "I believe there's something wrong with my stomach."

"Not a bit of it," replied the doctor promptly. "God made your stomach and he knows how to make them. There's something wrong with the stuff you put in it, may be, and something wrong in the way you stuff it in and stamp it down, but your stomach is all right." And immediately the patient discharged him.

Rum's Offence.—From the late report of the Board of Police Justices of New York, it is found that during 1892 there were 88,711 cases brought before the police courts. An examination of them shows that fully seventy-five per cent. of the offenders owed their arrest to indulgence in intoxicants.—Still another demonstration of the liquor evil.

Our Mentorial Bureau.

To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

NERVOUSNESS—T. J. B.—Your sensations described as "numb, creeping, crawling sensations that have annoyed me for several years" need not cause the dread of paralysis. They are probably due to faults of digestion. You probably use articles in your diet that are disturbing. Modify the habit of drinking strong coffee, and if you use tobacco wind up from it. Get abundant sleep. The habit of going to bed late as a rule becomes in time a serious drain on the nerve centres—especially in the case of an active man like you. "Early to bed" is an important precept to the nervo-sanguine constitution. Seven hours in bed after 10 P. M. are worth much more than eight after 12 P. M., since the nerves become overstrained by the unnatural night activities.

GRAY EYES—L. M.—The pure gray eye of which you speak is exceedingly rare and if with large irids and fine dark lashes the effect on the facial expression is very striking. Usually fine gray eyes—those that are full, wide open and steady—are associated with an ample forehead and brown hair, the temperament being of the mental-motive type. We should not care to speak positively of the case you describe unless we had in view the general organi-

zation, but are inclined to consider such eyes as accompanied with a high quality of nerve fibre, sensitiveness, quick perception, ready judgment, and much natural regard for the ideal in art. There is probably an earnest self assertion in manner and speech that impresses one with the sincerity of the soul behind the eyes, and the expectation, too, of their owner that all the world will be true to its promises. We shall be pleased, L. M., to have your cheque for that five hundred dollars that you so magnanimously proffer for an interpretation of the eyes that have stolen your heart.

COMPARATIVE GROWTH OF GIRLS' AND BOYS' HEADS.—C. J.—There are variations in the growth of the heads of both sexes that are noticeable in early life, but it would appear that sexhood is not fairly stamped upon the head until the age of twelve or more, when the period of puberty has come. Observation has shown for instance that in proportion to their general stature the heads of boys under fourteen years is larger than those of girls of the same age. But after fifteen the heads of girls in proportion to their stature show a gradual increasing ratio of length which continues until the full maturity of womanhood.

TWO SISTERS, BUT DIFFERENT.—QUESTION.—Mr. Nelson Sizer—Sir: I have employed in my family two sisters at different times in cases of sickness, and they are very different in character and manner. The elder is full of ambition and energy. She rises with a jump and spring, every door shuts with a slam. She is overbearing and disposed to have her own way in everything, but is good help in the main. The younger is the exact opposite, is quiet and still, and equal in energy to the other, will rise in the morning without the least noise, shuts the room door without any noise, and will work so easy and accomplish as much, if not more, than the other with all her excess of exertion, and enjoys the love

and admiration of all who know her, although possessing not half the physical power of the elder. Now please tell me if it is the head or the heart that is different. Yours truly, A. B.

ANSWER.—One of these girls probably resembles the father and the other the mother. A man and his wife are sometimes as unlike as a file and a burnishing iron—both made of steel, but one having a file surface cut on it, the other being polished. If one inherits the file spirit and the other the burnisher spirit they will not feel or act alike. One of the girls probably has a large combativeness, moderate secretiveness and a raspy temperament. The other is more equable in temperament and in the organization of the faculties. Another idea may account for it. The mother of the girls may have been displeased about her situation in the first case, and have felt and manifested energy, force and racket. In the case of the other the child might have been desired, and therefore welcome, and the mother's mind in a quiet, amiable and smooth condition, and thus the two girls received the stamp of manner and disposition referred to.

PERSONAL.

OBITUARY.—The many friends of Prof. Nelson Sizer will learn with sympathetic interest that his most estimable wife reached the end of her long earthly career of usefulness and devotion on the 20th of last March. Her death terminated a period of physical suffering which she had borne with extraordinary patience for more than thirty years. The last six months she was confined to her bed, and for three years she had scarcely been able to leave the house. Yet until the last her mind was wonderfully clear. She also manifested her usual solicitude for the comfort of her family, and continued to show a lively interest in current events until within a few days of her decease.

Her maiden name was Sarah Hale Remington, and she was born in Vermont, January 24, 1813. On March 12, 1843, she was married to Prof. Sizer, who had carefully observed the principles of phrenology in his selection, and her daily life in every

hour of duty is believed to have demonstrated the wisdom of the choice. The celebration of their golden wedding, which she survived only eight days, is said to have presented a most pathetic scene.

In many respects her character was remarkable. For sixty years she had been a faithful member of the Baptist church. Her self-poise, endurance, memory, and judgment were phenomenal, and it is said by her intimate friends that she was never known to warp the truth or neglect the most trivial obligation. As a wife she was loving and self-sacrificing. As a mother, a step mother, and a mother-in-law, her life was also singularly harmonious and free from even a ripple of discord or unpleasantness.

Many beautiful tributes have been paid to her memory by persons associated with her in various capacities. The maternal instinct was one of her dominant traits, and it was supplemented by an extremely thoughtful and far seeing type of intellect. Of those who profited by her generous counsel, there have been many orphans, who in their prosperity to-day, gratefully attribute their happiness to her motherly interest.

Thus, while her course was not marked by active participation in public affairs, or characterized by startling deeds of force, her influence was none the less potent. In her long years of noble example and quiet ministry to those around her, she laid the foundations of a monument as much more lasting than marble as the moral law is superior to the world of sense. Though silent, the waves of her sympathy still flow on; for though her own heart no longer beats, its throbs of affection have quickened other pulses which now in turn transmit the message to those who will carry it down the ages.

ELDER FREDERICK W. EVANS, for many years the head of the Shaker community at Mount Lebanon, N. Y., died not long since at the age of eighty-five. He had been for half a century or more an earnest worker for Shakerism and social reforms in general. With voice and pen he was ever assiduously active for the good of his fellows everywhere. About sixty years ago he adopted vegetarianism, and from that time enjoyed good health uninterruptedly. We remember his

saying to us, a few years ago, when on his way to take ship for a trip to Europe, "I have not tasted any flesh stuff for fifty-six years." Such a man as Elder Evans is an honor to any society and generation.

DR. P. T. POWELL in an address before the State Eclectic Medical Society of Georgia, refers to the usefulness of a knowledge of the phrenological system in diagnosis and therapeutics in very earnest terms. Having made the system a matter of careful study he commends it to his medical brethren, in terms that are direct and forcible. He thinks that no physician can afford to overlook phrenology, as it is an element of the best success in medicine.

WISDOM.

THE diamond has the most sparkle, but window glass does the more good.

MOST people are willing to do away with vices—of other people.

YOU can not dream yourself into a character; you must hammer and forge yourself one.—*J. A. Froude.*

LET us not love those things much which we are not sure to live long to love, nor to have long if we should.—*Fuller.*

THINK for yourself, then you will be sure to understand the matter.

I HAVE often wondered how every man loves himself more than all the rest of men, yet sets less value on his own opinion of himself than on the opinion of others.—*Apollodorus, B.C. 104.*

DR. JOHNSON wisely said: "He who waits to do a great deal of good at once, will never do anything."

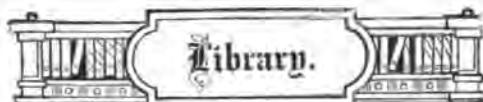
A CHINESE PROVERB.—A druggist who buys and sells drugs should have two eyes, a physician who gives drugs to patients should have one eye, and a patient who takes drugs should be blind.

A RIDDLE.

He passed thro' the forest and left no sign,
On the deep white snow no mark or stain;
He entered the town and tried my door,
And gently knocked on my window pane.

I rose to greet him but he was gone.
His farewell waved from every tree;
Like a shadow of night my guest had flown
To another land across the sea.

E. B. S.



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

THE MAGAZINE OF POETRY. A Quarterly Review. Illustrated. Charles Wells Moulton, Buffalo, N. Y.

The April number of this enterprising periodical contains over a hundred pages of miscellaneous poetry interspersed with biographical sketches which are of more than ordinary interest. There are also about eighteen portraits of the authors whose writings are given, which, thanks to the modern engraver's skill, the tastes of the editor and the intellectual faces of the subjects, render the publication doubly attractive, and add greatly to its value and usefulness.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONERS' INDEX, 1893. (ELEVENTH YEAR). New York: E. B. Treat, 5 Cooper Union. 8vo. pp. 626. Price \$2.75.

The continued issue of this annual for eleven years intimates a certain interest in it by the medical profession. The new volume now under notice seems to us an improvement in many respects upon previous issues. It is larger, yet its matter has that quality of condensation which the busy medico likes, and with the condensation there is a direct practical application of therapeutics that is sought for by the true doctor. A glance over the list of editors and contributors must suffice the examiner who seeks "authority" for what the volume contains, and is solicitous about the freshness of the information given. Noting the bulky character of the "Annual"—over 600 pages—and the small type employed, it must be said that the publisher has not aimed at covering a large number of pages with a moderate amount of matter, but has been liberal in both respects, so

that a purchaser finds himself the owner of a pretty respectable dictionary of medicine at a very low cost. The writer of this notice, speaking from the point of view of his own specialty, diseases of the nose and throat, recognizes the value of the information given in that line, and its decided keeping with recent advance in that department of medicine and surgery, and if he may venture an opinion regarding a field other than his own, the article on "Intestinal Surgery" alone should be worth to any practitioner all that is charged for the volume. Other articles might be mentioned in the same vein. Numerous illustrations accompany the text, some colored to indicate approximately the natural appearance of diseased organs.

IN HEALTH. THE RELATION OF THE SEXES.
By DR. A. J. INGERSOLL. WITH PORTRAIT OF AUTHOR. 12mo: cloth: pp. 249. LEE & SHEPARD, publishers, Boston.

Dr. Ingersoll's work relates to the influence of the spiritual life over the physical, more especially in sexual troubles and the special diseases of women. The author has been a practicing physician for many years, and gives views which he has applied in his practice with eminent success. He claims, with a good show of reason, that troubles of this character are curable, if patients are willing to commit their entire being to God, with a full faith that He is able to keep them from disease and sin. The work is written in very plain and direct language, with an earnest desire to help humanity. Of course many "practical" physicians would object to the claims of this Nestor among doctors, and impute them to a religious enthusiasm, but we feel assured that he has written a worthy and useful book, well suited to this day of sexual confusions.

PEBBLES FROM THE PATH OF A PILGRIM. By HARRIET B. HASTINGS. 16mo. pp. 319. Boston: H. L. HASTINGS.

A collection of stories and sketches illustrative of the prayerful Christian life. They are facts, not fancies, the author says, written with the purpose "to embellish nothing and to invent nothing, but simply to represent facts as they actually occurred in the gone-by years." The style is homely and direct as of one relating to a group of friends experiences that have occurred by the way, and whose nature has enlisted his deep interest. As a whole these "pebbles" form a worthy contribution to the evidences that are marshalled in support of that devotional life which is becoming to the avowed disciple of Christ.

CURRENT EXCHANGES.

The Century for May devotes a number of its first pages to the World's Fair. The first writer is Mrs. Schuyler van Rensselaer, who says some very interesting things and gives much valuable advice to those who intend to visit the great exhibition. Her article is illustrated by ten engravings of special merit. The second number is descriptive of the "Decorative Painting" at the Fair, by W. Lewis Fraser, and is also illustrated. The series entitled "Sweet Bells Out of Tune" is concluded, also "An Embassy to Provence," "Joseph Bonaparte in Bordentown," by F. Marion Crawford, is well written, and "Leaves from the Autobiography of Salvini," the third of a series, will be found exceptionally entertaining and instructive.

Harper's Magazine for May will awaken memories in the minds of old New Yorkers by the frontispiece which is entitled "Along the Canal in Old Manhattan." This is an illustration for "The Evolution of New York," drawn by Howard Pyle, and engraved by F. D. King. Thomas A. Janvier furnishes the first part of two articles on "The Evolution of New York" with four illustrations and six maps. Candace Wheeler has an article called "A Dream City," copiously illustrated. Charles Eliot Norton writes of James Russell Lowell with a portrait from a photograph by Mrs. Cameron, Isle of Wight. The other features are of unusual interest and value.

Of the striking features in the *Popular Science Monthly* for May, the pictures claim first attention. The number opens with a charming account of "Japanese Home Life," by Dr. W. Delano Eastlake, which has many characteristic illustrations. There is also a description of "The Oswego State Normal School," by Prof. William M. Aber. Prof. B. D. Halsted contributes an illustrated article on the practical subject "Decay in the Apple Barrel," and Prof. G. F. Wright defends his recent book in an article under the title "Evidences of Glacial Man in Ohio," also with many illustrations. "The Revival of Witchcraft," by Ernest Hart, will interest students of occultism. The able argument by Herbert Spencer on "The Inadequacy of Natural Selection" is continued in this number. Prof. Wesley Mills advocates the "Cultivation of Humane Ideas and Feelings." Other articles are, "Dietary for the Sick," by Sir Dyce Duckworth; "A Tribute of the French Academy to American Geological Exploration;" and a sketch, with portrait, of Prof. Samuel Wm. Johnson.

The Sanitarian for May contains several good things, especially an article on the importance of "Daylight in the Dwelling House," by John Brett, A. R. A. This will also prove of value to artists as well as hygienists. 35 cents a copy.

Medico-Legal Journal—March. Has voluminous articles on Railway Surgery, and the psychological relations of certain medico-legal questions.—Clark Bell, Publisher, New York.

Treasury of Religious Thought—May number received. E. B. Treat. New York.

American Medical Journal—E. Younkin, M. D., Editor. St. Louis, Mo.

Harper's Bazar—Weekly, devoted to social and conventional affairs. Illustrated. New York.

Literary Digest—Weekly. Later numbers show improvement, with fuller variety of compilation. Funk & Wagnalls. New York.

Quarterly Journal of Inebriety—Keeps on its way, progressive and militant, for reform in social customs that degrade and corrupt the human organism. A practical view of the treatment of alcoholic inebriety is given by Dr. L. D. Mason, in the number for April. Dr. T. D. Crothers, Editor. Hartford, Ct.

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of
FOWLER & WELLS CO.

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Change of post-office address can be made by giving the old as well as the new address, but not without this information. Notice should be received the first of the preceding month.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

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Our Descriptive Catalogues or our new List of "Books for Women" will be sent to any address on receipt of stamps for postage.

\$100 WATCH FOR \$80. Waltham Repeaters Sold to Subscribers only.—

Are you familiar with the term "repeater" when applied to a watch? The "repeater" is a watch of the very highest grade, and one that strikes the time of day. In the dark, in a crowd, or in any emergency, merely press the spring and the watch strikes the hour. The best "repeaters" ever made are those produced by the Waltham Company. This great concern will not make any more of these watches for years to come. The demand for them has always been light, because the expense of buying one has always been so very great. The purchase of a "repeater" in the past meant an outlay of from \$200 to \$500.

The Waltham "repeater" is a full-jeweled watch with nickel works. The watch is adjusted to heat and cold, possesses an improved patent safety pinion, a patent micrometer regulator (so simple that any one can use it), and a striking apparatus consisting of two silver-toned bells which strike the exact time within five minutes whenever a spring outside the watch is touched.

The case of the watch is worthy of the works. It is 14-carat gold-filled hunting case, with the ring, joint plugs, striking spring, and all the parts subjected to constant wear of solid gold.

The list price of these "repeaters" has been brought down to \$100, a very reasonable sum for the article offered, but the amount is still large for many who really need them.

But we have secured one hundred of them for our subscribers, and will sell them for \$80 each. The watches will not be ready for delivery until June 15, but such persons as want to purchase at the price named can send on their names for registration, and when the watches are ready they will be notified and can send the money and get the "repeater." As soon as one hundred have so registered no further orders will be taken. These watches cannot be bought through any jewelry store except in rare cases, and then they cost at least double what we ask. Address, FOWLER, WELLS & Co., No. 27 E. Twenty-first street., City.

An All-Knowing Book Clerk.—A few months ago, writes E. W. Bok, an elderly man of distinguished appearance walked into a Washington bookstore and inquired of the lady clerk who advanced to wait upon him whether she had any copies of Marion Crawford's latest book in stock.

"We have 'Don Orsino,'" said the clerk, "That is the latest book she has written."

"She?" repeated the buyer. "Then the author is a 'she'?"

"Oh, yes," said the girl glibly. "Marion is a girl's name."

"Ah!" replied the man, as a quiet smile stole over his face. "What does the 'F.' stand for in the name?"

"Fannie," unhesitatingly answered the clerk.

"Well," said the gentleman, "suppose you send me six copies of 'Don Orsino.' Here is my name and address."

The buyer had scarcely left the store when the proprietor came up to his clerk and said:

"What did the general want, Jennie? Some of his son's books?"

"His son's books? Who is his son?" asked Jennie.

"Why, Marlon Crawford you know. Crawford married his daughter. Let me see the card."

And the clerk, without a word, handed her employer the little pasteboard, upon which was inscribed:

GEN. BERDAN,
1015 Connecticut Avenue.

INSTALLMENT PLAN.—There are at all times some people who do not find it convenient to spend a sufficient amount of money at one time to procure all that they need or desire, and where an arrangement can be made by which a little time for payment is secured, it is found a great advantage. Our experience in offering the Encyclopedia Britannica to our readers and the large numbers who have taken advantage of the proposition has lead us to some further plans in this direction, as will be noted in another place. We offer in addition to the "Encyclopedia," the "New Model Manikin," a Health Library containing all the works of Dr. Dio Lewis, and the Student's set of phrenological books, and in this way we are confident that very many of our readers can take advantage of this proposition. There are very few of them who can not afford to spend \$1.00 a month in the securing of additional and valuable reading matter, and on the basis of these offers, the reductions which we have been making for cash orders can be secured without paying the full amount in cash at one time. It will give to those who send, the use of the books at once, and an opportunity to pay for them in an easy way. Let it be remembered these offers are only made to actual subscribers to the PHRENOLOGICAL JOURNAL.

Normal School Phrenological Society, Fremont, Neb.—We have received the following letter from F. H. Svoboda, of this Society:

Messrs. Fowler & Wells Co.,

Gentlemen.—Allow me to tell you something about the work our Phrenological Society of the Normal School is doing. All the classes are overcrowded with work, yet we had quite a number of interesting meetings ourselves, and, on May 6, we rendered our first public entertainment. The program you will find enclosed in this letter.

I hope the Society will grow while we are at school, and when each member goes to his home or work, he will continue to be interested in Phrenology and study it as it should be studied.

Please send a few copies of the JOURNAL, which I will distribute among the friends of Phrenology here.

Wishing you much success, and hoping to be able to report more favorably about our work in the future, I am, very respectfully,

F. H. SVOBODA.

We publish the program believing it will be suggestive to other societies:

1. Instrumental Music.....Miss Shank
2. Skull, Brain, Bumpology and Faculties.....Mr. Eaton
3. Perceptive Faculties.....Mr. Hanlin
4. Moral Faculties.....Mr. Pease
5. Practical Phrenology and Its Truth.....Mr. Svoboda
6. Vocal Solo.....Miss Ream
7. Utility of Phrenology.....Miss Bramel
8. Marriage and Phrenology.....Mr. Kiser
9. Correlation of Body and Mind..Prof. Benjamin
10. Vocal Solo.....Miss Tewksbury

This certainly would provide a rich evening's entertainment and instruction.

The Elgin Phrenological Society.—The Elgin, (Ill.) *Daily News* contains the following notice of the organization of a new Phrenological Society.

"Prof. F. S. De Vore's class in phrenology met at his parlors last evening where most interesting and instructive commencement exercises were held. After an instructive address by Professor De Vore, the class was organized into the Elgin Phrenological Society, with J. P. Hackett as president, Mrs. W. A. Smith as secretary, and John Stickling as treasurer. The president addressed the society, and each member of the society was called upon, and spoke earnestly of the benefits derived from the instruction received from the teacher and his wife. Professor and Mrs. DeVore were unanimously elected honorary members of the society. The professor accepted the membership for himself and wife, following which most toothsome refreshments were served by Mrs. DeVore. There was more speech and the pleasant occasion came to an end."

Wiona, Minn. Phrenological Society—

At our request we have received the following account. This Society was organized January 15, 1891. Prof. G. Morris, of Fowler & Wells' Institute, had given several public lectures and while remaining for the resulting business, taught a class of sixteen persons. Among these attendants was a Mr. S. W. Parks, who, for some months, had followed Morris as a student, who remained in the city, and after a few sessions of a fragment of the class was instrumental in bringing about a permanent Society.

By special invitation, the present incumbent of the chair was present, and by surprise was elected President of the first organization, with Mr. Parks as Secretary.

In the by-laws it was provided that this Society shall meet at such places as may be designated from "week to week." Of the Morris class the following named persons became members of the Society, viz: Rev. Mr. Dubendorf and wife, Misses Emma and Celia Petqrman, Miss Elda Van Emman, Miss Tina Wibye, Mr. Anthony Bergler and S. W. Parks. To these were soon added several other names, swelling the membership to fifteen. Mr. Parks was a good examiner, but in the early Spring he went away.

Early in 1892, the Society derived much benefit from a few public lectures from Prof Cozens, who also taught a small class including several members of the Society. In March the Society was re-organized with a more complete constitution, a full set of officers for efficient work, a membership fee of 25 cents, with monthly dues at 10 cents. With the funds thus acquired, the purchase of books and implements has begun. Several valuable working members have been added within the year, and we feel our strength improving, although still modest about attracting public attention.

Unfortunately, we have no examiner who is brave enough to answer to the name. Miss Wibye, however, is fairly qualified (but she demurs to this statement), and Miss Van Emman, also, but now as Mrs. Cance, she may not remain with us. We have bright members making good progress, who are adapted to intellectual work.

Our method is to select a program for the following meeting, say all the faculties, a group of organs, the temperaments with sub-divisions, etc. To secure accuracy in this work a subject who has a chart is selected, who, usually (with one or two others), is examined by all the members, under a designated leader, subject to the indications given in the chart. After a recess music, sentiments, suggestions for the good of the cause, and selection of next program, papers or readings, often by previous appointment, are listened to and discussed within the vast fields of physiology, ethnology, heredity, health, modes of living, etc. Session, 7:30, recess, 8:30, adjournment, 9:30 P.M., but varied by exigencies and often prolonged, but seldom a quorum (of five), appears on time to begin. By our present plan all the meetings for each month are held at the same house, a great improvement to be recommended, as it enables members who may have been absent a

session, to know where the next meeting will be held.

B. F. HURSTON, Pres.,
 TINA WIBYE, Vice-Pres. and Cor. Sec.,
 W. E. HASS, Sec'y.

The New York Association of Graduates.—At the last meeting of this society on May 1, both the size of the audience and the number of those who took part in the discussion afforded evidence of a degree of interest in phrenology that was very gratifying.

The subject for the evening was "Approbativeness," which the lecturer, Dr. Beall, described as one of the most important factors in human nature, not only from the fact of its conspicuousness and universality *per se*, but also because it acts in conjunction with a great many other elements of the mind, and thus exerts an indirect influence of remarkable extent. To illustrate the form of the head accompanying different developments of this faculty, several portraits were shown, including Blaine, Mrs. Cleveland, Hancock, Arthur, and other well-known characters. Three young men were also selected from the audience, and the peculiar phases of their desire for approval pointed out.

On Monday evening, June 5, Dr. M. L. Holbrook will address the society upon "Recreation and Recuperation." This will be the last meeting until the second Monday in September.

The Chicago Phrenological Society

continues to hold meetings on the second and fourth Tuesdays of each month at No. 240 Sedgwick street, Chicago. These meetings are well sustained by the graduates of the Institute in Chicago, others interested, and the general public, all meetings being open and free. We wish the secretary would send us reports occasionally that we might state more definitely what is being done.

THE BROOKLYN HUMAN NATURE CLUB.—

meets on the second and fourth Thursdays, at 8 P.M., of each month, at 214 Rodney street. At our last meeting Mr. Jas. B. Ingraham gave a talk on "The Literary Faculties." Mrs. E. S. Newins will speak on "The Reflective Group," at the meeting May 11, 1893. These meetings are growing in interest, and the public are invited to attend. Julia R. Floyd, Secretary.

HATCHING—"What's the matter with the baby?" asked a lady of a little girl whose baby-brother she had understood to be ailing. "Oh, nothing much," was the little tot's reply; "he's only hatching teeth."

A STUMP ORATOR wanted the wings of a bird to fly to every village and hamlet in the broad land; but he collapsed when a man in the crowd sang out: "You'd get shot for a goose before you flew a mile."

The Phrenological Society of Washington, D. C., held on Saturday evening, May 13, a very successful meeting at the residence of the president, Dr. T. A. Bland. Professor Wm. Windsor, who has been giving an extended course of lectures in this city, had been invited to meet the society and make an address. Dr. Bland opened the meeting with a brief review of the progress of phrenology and of his own experience years ago as a phrenological lecturer and examiner; he then introduced Professor Windsor, who spoke for fifty minutes in a highly entertaining and instructive manner. Hon. J. L. McCreery, vice-president of the society, followed Professor Windsor in a fifteen-minute speech on the practical advantages of phrenology in character-building, which was masterly in its argument, eloquent as to delivery, and full of practical instruction.

Professor George Dutton, A. M., M. D., of Chicago, Ill., Dean of the American Health University, a recently chartered Illinois institution, who was visiting Washington for a few days as the guest of Dr. Bland, closed the discussion by a very scholarly and able review of the relations of the human mind to its various organs and the philosophy of mental and moral action. Dr. Dutton, though an anatomist of renown, and author of standard anatomical works, is profoundly interested and versed in phrenology, which proves him a much broader man than those anatomists who repudiate phrenology because they fail to find the cranial bumps or depressions which have existed only in misconceptions of our teaching.

After a piano solo by Miss Lulu McCreery, Professor Windsor examined the heads of Dr. Bland and Rev. Dr. Kent, pastor of the People's Church, reading their characters to the satisfaction of their friends. The exercises were concluded with an examination by Dr. Bland of the head of a very talented young lady.

The cause is everywhere steadily growing, and this society is an important factor in arousing interest in phrenology at the capital of the nation.

M. L. MORAN, Secretary.

PHRENOLOGY IN CINCINNATI.—Dr. Martha J. Keller, of the class of '87, who has purchased the office and business established by Dr. Beall, is continuing the work there, meeting with encouraging success, and finds her time fully occupied.

W. A. G. ALEXANDER of '84, has been for some time in Toronto, but will soon, if he has not already, visit Montreal and go to Quebec. He has done well so far in Canada and will, no doubt, meet with continuing success.

Recreation and Recuperation, Mental and Physical, is the topic for the June meeting of the New York Association of Graduates of the American Institute of Phrenology, to be held in

the Hall, Monday evening, June 5th. Dr. Holbrook, the editor of *The Herald of Health*, will lecture, and will be followed by a general discussion of the subject by members and others present. This will be the last meeting of this Association for the season. The first meeting of the next season is to be held on the second Monday evening in September instead of the first Monday evening, as is usual. The readers of the *JOURNAL* and our friends are cordially welcome to these meetings.

ANOTHER INSTALLMENT PLAN OFFER.—In addition to the offer of the "Encyclopedia Britannica" and the "New Model Manikin" on the installment plan, we offer now to subscribers to the *PHRENOLOGICAL JOURNAL* the "Student's Set of Phrenological Books," which we sell at \$10.00, for \$2.00 in cash, and an agreement to pay \$1.00 per month, until the balance is paid. The books will be sent promptly on receipt of the amount, and the balance may be remitted at the rate of \$1.00, sending the amount to this office each month as due. These offers are for a limited time only, and we do not promise to continue them beyond the end of the present year, as, of course, it is an experiment, and we are not sure as to just what advantage it will secure us.

MUCH PLEASED.—A subscriber who took advantage of our installment plan offer and sent for the New Model Manikin writes: "Inclosed you will find balance due on your Manikin, less ten per cent. for cash. Am much pleased with the Manikin, which came to hand promptly, and which I think equal to one which cost me \$30." It is undoubtedly the case that this Manikin does contain some features not found in the most costly ones, and is in every respect equal to the best, and on the basis of the installment plan offer, it is placed within the reach of all our subscribers, and there are none of them who would not be pleased and profited by having this to which to refer.

THE PHRENOLOGICAL GAME.—We have been out of this for a few days, the entire stock having been exhausted by orders from lecturers, agents, and others, who were selling it. A new lot is now ready, and we take this opportunity of calling attention to it again. This will be found a capital source of entertainment and instruction through the sultry summer time. While vacating and resting any number from three upwards can play the game advantageously, and if you are going to the mountains, or to the seashore, take a set of this and see how much you will be able to do in the way of instructing and entertaining people who know nothing of the subject, and indirectly awakening an interest. It is sent by mail, postpaid, on receipt of price, 25c. Agents and Phrenological lecturers usually do well in handling it.

A GOOD HEALTH LIBRARY.—Persons interested in health subjects, and wishing to add such books to their library can not do better than to procure the complete set of the works of the late Dio Lewis, which we advertise and describe fully in a late number of the *JOURNAL*. His works are all of a very popular nature, and will certainly be read with interest.

NEW GYMNASTICS for Men, Women and Children, is the basis of very much that has been done in recent years in the line of physical culture. Nearly fifty thousand copies of the book have been sold, and it is still in active demand. Price, \$1.50.

WEAK LUNGS AND HOW TO MAKE THEM STRONG, explains the origin of consumption, and its special treatment, and simple means by which when possible cure may be attained. Price, \$1.50.

OUR DIGESTION; OR, MY JOLLY FRIEND'S SECRET, discusses food and drinks, and the conditions that affect our digestion in a practical way, and is in the Doctor's peculiarly cheery, clean and sensible style. Price \$1.50.

CHASTITY; OR, OUR SECRET SINS, is a work which has received most hearty commendations from the best authorities. Price, \$2.00.

FIVE MINUTE CHATS WITH YOUNG WOMEN is one of the books that is doing so much good for the young women of the land. As the Editor of the *Christian Union* says: "If a hundredth part of the advice here given were taken by American girls, there would be a visible improvement in their health within twelve months. Price, \$1.50.

OUR GIRLS is a chatty, pleasant book with the girls about matters that can not help being of interest and profit to them. The book reads like a story, and there is not a young girl that would not be sure to read and profit by it, if placed in her hands. Price, \$1.00.

GYPSIES: or, three years camp life on the mountains of California, is a book of fun from cover to cover, and yet it contains a very able discussion of the climate question, Chinese question, and other things, about which there is a difference of opinion. Price, \$1.50.

HEALTH IN A NUTSHELL is a sort of compilation of practical matters from the other works so edited and brought together as to be valuable and is especially commended to young men. Price, 75c.

PROHIBITION A FAILURE expresses the views of an earnest temperance worker, and every one interested in the subject should hear what he has to say. Price, \$1.00

THE BIOGRAPHY OF DIO LEWIS, by Mary F. Eastman, was prepared with the co-operation of Mrs. Lewis, and is a work of thrilling interest.

These books altogether amount to \$13.75; we will send the complete set by express for \$10.00, and we will make on this a special offer to subscribers to the *PHRENOLOGICAL JOURNAL*. On receipt of \$2.00 we will send the set to be paid for at the rate of \$1.00 per month, until the balance is sent. This places these books within the reach of all, and it is believed that many will be ready to take advantage of this special installment plan offer.

Dr. Jackson's Health Books.—Our readers will have noticed our advertisement in a recent number of the *JOURNAL*, of the Health books formerly published at Dansville, N. Y. We are now the publishers of all of these, and they are commended to our readers; especially will the cheap books be found useful, and as an evidence that these are of value we note the large number of orders that we have already received for them.

"Jerushy in Brooklyn."—There has been a little delay in the issuing of this book, caused by a fire in the printing office where the work is being done. But it is now ready, and we can assure our readers that every one who sends for it will be interested, and we believe profited by its perusal. Seldom have the follies of fashionable life been set forth in so striking a manner, and in contrast with the sensible ways of sensible people. It will be found just the thing for summer reading, and is sent by mail, postpaid, at 25c.

Back Numbers.—We can still furnish to subscribers to the *JOURNAL* for 1893, the back numbers to January whenever desired, and in case of subscriptions received before the July number is ready we date from the first of the year, and after the July number is ready we date from that, which is the beginning of the 96th volume.

Volume 96.—This number closes the 95th volume of the *PHRENOLOGICAL JOURNAL* and with the July number will be commenced volume 96. We think we may reasonably point with pride to the record the *PHRENOLOGICAL JOURNAL* has made in point of age as well as the work which it has done for the bettering of humanity. We have been told by those who have watched it from an outside point of view that it would be impossible to estimate the influence it had exercised in the lives of its readers, also on the great public conscience. The *JOURNAL* has been on the right side of the reforms of the day and has done much to promote them. It is believed the *JOURNAL* has never been better than during the present volume, and we think this speaks for itself. As to the next volume, we have in preparation material that will in many ways promote the improvement of the *JOURNAL*.

The Story of My First Watch.—The publishers of the *New York Standard*, a monthly journal devoted to the interests of the watch, jewelry and kindred trades, have shown commendable enterprise in getting from a large number of representative people of both sexes a series of special contributions giving the story of their first watch, including Chauncey M. Depew, Joseph Cook, Mrs. Logan, Bill Nye and many others. One of the most representative is that of Thomas A. Edison, who only says: "I never carried a watch in my life. I never wanted to know what time it was." Ten cents in stamps sent to Box 656, Harrisburg, Pa., the office of publication, will secure a copy of this number.

The Juvenile Temperance Reciter, No. 4, is a collection of recitals and declamations in prose and verse, for use in Sunday schools, day schools, juvenile and other temperance societies. Miss L. Penney, is the editor, who has done not a little of similar good work. Such a book is very useful in the campaign against the alcohol craze. Published by the National Temperance Society, New York, at ten cents.

A Tribute to Phrenology.—We have received the following communication from Washington, which is an indication of progress in the public mind regarding the importance of phrenology:

"The White Cross University of Science, of Washington, D. C., incorporated perpetually by Congress, has conferred upon Prof. Wm. Windsor, LL.B., and Madame Lilla D. Windsor, the degree and symbol of the White Cross Legion of Honor, "being the highest honorary degree of this University granted for great public services in Science, especially in Phrenology and Anthropology and extraordinary diffusion of knowledge on these subjects.

"The symbol of this degree, which accompanies its presentation, is a magnificent gold medal two inches in diameter, 18 carats fine, suspended from a horizontal bar and scroll bearing the name of the recipient and date of conferring. The medal bears the device of the White Cross, with the words "Faith, Life Saving, Purity," surrounded by a constellation of fifty-six stars and the words: "White Cross University of Science, D. C., U. S. A., Legion of Honor."

"The same University has also conferred upon Prof. Windsor, the honorary degree of Doctor of Philosophy, "as a recognition of his distinguished learning and proficiency in Mental Philosophy."

"This is the first instance when a duly incorporated University has acknowledged distinguished services in Phrenological work as a cause for conferring an honor, and the event marks a new epoch in the history of the science, worthy of note."

JULIA—"My husband is very hard to please."

MAUD—"He must have changed lots since he married you." And now they don't speak somehow.

To the Trade and to Teachers.—We wish to announce that we have become the publishers of Brown's Common School Elocution and Oratory, by Isaac Hinton Brown, a work well known and now used in many schools. The new edition, just ready, has been revised and improved, and it is now the best work on the subject of vocal and physical culture published, besides treating of oratory and elocution. It contains 328 pages well printed and bound in a very handsome way, and in every way worth the price, \$1.00. Examination copies sent to teachers, by mail, postpaid, for 80c. Orders from the trade will receive prompt attention, and be supplied at the usual rate of discount.

REMOVAL.—Dr. Chas. E. Page, the author of "Natural Cure," "How to Feed the Baby," etc., has removed from No. 47 Rutland street to 867 Boylston street, Boston. We make a note of this as some of our readers may have the memorandum of his former address.

ADDRESS WANTED:—We are desirous of securing some information in regard to J. L. Fowler, formerly of Tyler, Texas. Our letters sent there are returned by the Post Master, and we can get no trace of him. Should any of our readers be able to give us his present address, it would be esteemed a favor.

Instruction in Phrenology.—As is known to the most of our readers, the annual sessions of the Institute opens on the first Tuesday in September of each year, and we have this year extended the time from six weeks to eight weeks, without adding to the cost for tuition. This is done to afford better facilities for acquiring a better knowledge of the subject, and the prospects are good for a large class. It is a gratifying fact that the graduates of the Institute uniformly feel paid for the time and money spent in taking the instruction; there can be no question about this with those who attend it and take up the subject as a profession, but the knowledge of it is found very profitable in any occupation that may be followed. It gives, first, an opportunity for a thorough understanding of one's own nature and character which would be worth many times the entire outlay; in addition to this it gives a knowledge of others and includes the very best methods for culture and for success in life in every way. We therefore feel that we can safely and confidently urge every one who can to attend the Institute, and receive the benefit to be derived therefrom.

PERNIN'S BUSINESS DICTATION BOOK.—This is the title of a work by H. M. Pernin, being a compilation of actual business letters, and will be found very suggestive and useful to the shorthand and typewriter as well as to corresponding clerks, giving forms, etc. Price, 50c.

Where is My Dog? or, Is Man Alone Immortal? is by the Rev. Chas. J. Adams, Rector of the Church of the Holy Spirit, at Rondout (on the Hudson). Mr. Adams brings to this them, the same clear appreciation of the subject, the same keen wit and the same eloquence, and the same strong poetical element that he displays in his lectures on "The Caesars and Christianity." Some of the chapters, such as that entitled, "If" and the one entitled, "A Glimpse of the Future Through the Stomach," are epic in their comprehensiveness and strength.

The alternate title gives the key note of the book. Losing a dog that he loved, Mr. Adams began to question whether he might not meet it again. Then he asked: "What element of nature has man that the lower animals have not?" He found it so hard to find that he began to think that the lower animals might live with man beyond the grave. Hence this book.

The spirit of the book is eminently fair, as is everything that Mr. Adams says or writes. He does not hold that anybody will be damned who does not believe that animals are immortal. He believes firmly, however, in the immortality of all sentient beings, and feels that did all so believe, the dumb creature would be saved many a pain. He concludes the book with a chapter entitled, "If." If by writing he has saved a dog a kick or a horse a blow, he will feel that he has not written in vain.

He quotes from Bishop Butler on the title page to show that his position is clearly within Christian privilege.

One can hardly read this book without thinking that Mr. Adams may not be entirely wrong. Certainly, one can not read it without being entertained.

A Remarkable Respiration Record, in Infantile Pneumonia and Acute Enlargement of the Myroid Gland-angio-neurotic Oedema, are two interesting paragraphs by W. A. Edwards, M.D., of San Diego, Cal. The cases are exceedingly rare ones, but rare as they are we regret that the doctor could not note a recovery.

A Guide to the Columbian World's Fair, Chicago, Ill., illustrated, is a neat and well printed description of the grounds and buildings and more important features of the coming great show. Published by Knight, Leonard & Co., Chicago.

Fashion and Fancy for May is a bright number containing colored fashion plates, with bright home stories, sketches, and all that tends to make an attractive ladies' magazine; issued at Fifteenth street and Fifth avenue, by the Fashion and Fancy Co. \$3.00 per annum, 30c. a number.

Home and Country.—An illustrated monthly magazine contains a large amount of interesting matter. The opening article is very fully illustrated, entitled "A Miracle of History," relating to the birth and death of Christ. There is also an interesting article on the "Wonderful Performance of Yokis and Fakirs," and a "Study in Chiromancy." Price 25c., or \$2.50 a year.

A Military Genius.—In this number of the JOURNAL we advertise a book bearing the above title in which we believe many of our readers will be greatly interested. The book gives an account of the work done by Anna Ella Carroll in the civil war in which it is shown that she planned the successful campaigns which resulted in victory for the Union armies. These were accepted after a good deal of consideration on the part of the Government and proved to be in every way successful, and Miss Carroll received the acknowledgements of President Lincoln and Secretary Stanton, and from the Committee on Military Affairs in the Senate and House of Representatives, and every consideration that could be given except that of pecuniary compensation, which has been strenuously withheld. This work, prepared by Miss S. Ellen Blackwell, shows conclusively the justice of her claim, which is even at this time pending, for recognition and adjustment. The work contains a steel portrait of this remarkable woman with other portraits and illustrations, and it is quite safe to say that no one will take it up without reading to the finish with interest. It will be sent by mail, postpaid, on receipt of price, \$1.00.

Letters Miscarrying.—"Persons who are always ready to blame the postal service when their mail goes astray, may be interested in knowing that 27,677 letters, bearing no superscription whatever, were deposited in letter boxes in the United States during the year just ended, while 42,639 were so much misdirected that it was impossible to deliver them—to say nothing of the many times greater number that were directed wrong, but in such a manner that, after sometimes a great deal of trouble, the post office people finally succeeded in reaching the persons intended to be addressed. Letters that could not be delivered were found to contain money to the value of \$11,223. Yet we suppose there are people still alive who blame newspaper publishers for declining to hold themselves responsible for remittances alleged to have been made to them by unregistered mail!" We copy the above from one of our exchanges and presume it will be of interest to our readers.

Social Purity.—We have received from Mrs. E. B. Grannis, the president of the Christian League for the Promotion of Social Purity, a copy of the constitution and by-laws, with the president's address, setting forth the work and aims of this society. Readers of the JOURNAL should be interested in this, and a copy of the above may be secured by addressing Mrs. Grannis at No. 33 East 22d street. They have also issued in a leaflet form the laws of the various States relating to adultery.

REPUTATION.—In her advertisement, the lady principal of a school mentioned her lady assistant and the "reputation for teaching which she bears," but the printer left out the "which," so the lady's advertisement went forth commending the lady's "reputation for teaching she bears."

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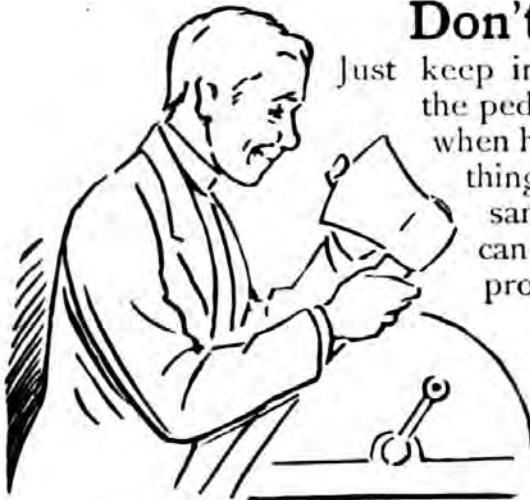
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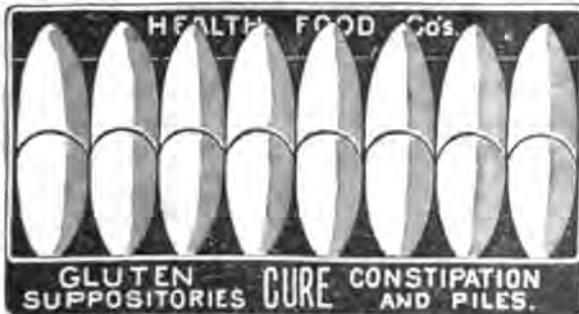


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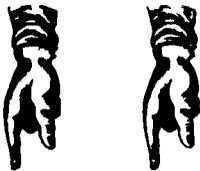
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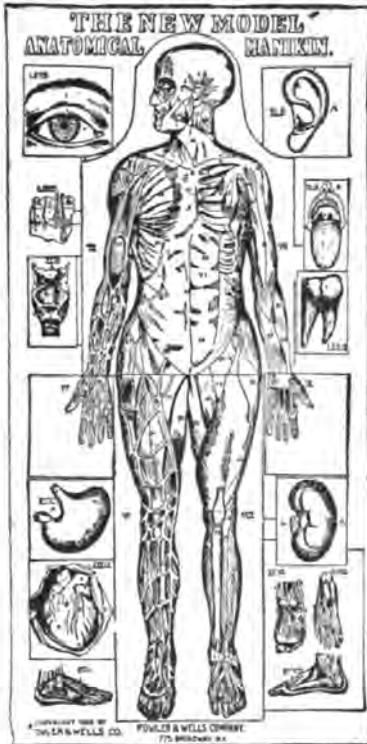
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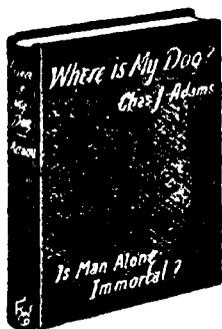
The following is a Synopsis of its contents comprised in 38 Chapters :

PAGE	PAGE		
CHAPTER I.—Early history of the Theory of Disease in Inebriety.....	17	CHAPTER XXI.—Treatment.—Its Nature and Plan.....	213
CHAPTER II.—Theory in Modern Times.—Its Scientific Study.....	21	CHAPTER XXII.—Inebriate Asylums and their Work.....	230
CHAPTER III.—Different forms of Inebriety.—Classes of Inebriates.....	26	CHAPTER XXIII.—Hygienic Treatment.	141
CHAPTER IV.—Dipsomania.—Its Varieties.	28	CHAPTER XXIV.—Duty of the State....	252
CHAPTER V.—Philosophy and Etiology...	38	CHAP. XXV.—Care of Pauper Inebriates	254
CHAPTER VI.—Inebriate Diathesis.....	47	CHAPTER XXVI.—Medico-legal Considerations.....	275
CHAPTER VII.—Predisposing Causes....	55	CHAPTER XXVII.—Rulings of Judges and the Law.....	286
CHAPTER VIII.—Traumatism and Injury.	67	CHAPTER XXVIII.—Irresponsibility in Inebriety.....	294
CHAPTER IX.—Adversity, Sunstroke, Heat, and other Causes.....	80	CHAPTER XXIX.—Special Forms of Irresponsibility, trance, etc.....	305
CHAPTER X.—Inebriety in America.....	91	CHAPTER XXX.—Relations of Inebriety, Coma, and Brain Disease.....	316
CHAPTER XI.—Mortality of Inebriety.—Fatality in Epidemics.....	100	CHAPTER XXXI.—Inebriety from Opium.	326
CHAP. XII.—Inebriety and Consumption	103	CHAPTER XXXIII.—From Ether.....	341
CHAPTER XIII.—Effects of Alcohol and Beer on the Mental Functions.....	113	CHAPTER XXXIV.—From Cocaine.....	349
CHAPTER XIV.—Diagnosis of Inebriety.—Study of Social Statistics.....	118	CHAPTER XXXV.—From Chloroform...	354
CHAPTER XV.—Delirium Tremens.....	131	CHAPTER XXXVI.—From Coffee and Tea	356
CHAPTER XVI.—General facts of Heredity.	145	CHAPTER XXXVII.—Psychosis caused by Nicotine.....	367
CHAPTER XVIII.—Statistics of Heredity.	183	CHAPTER XXXVIII.—Arsenic and Ginger	371
CHAPTER XIX; XX.—Pathology, &c.....	193		

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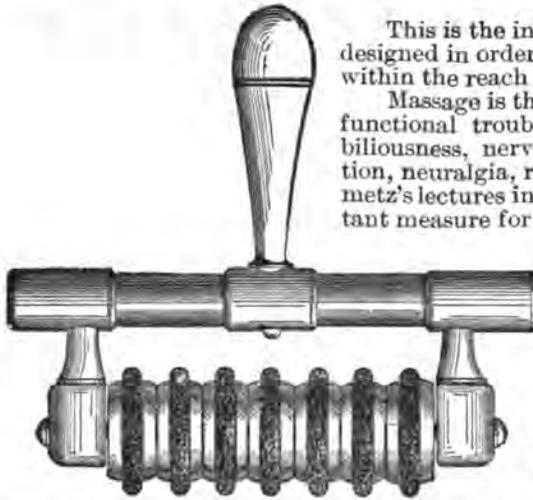
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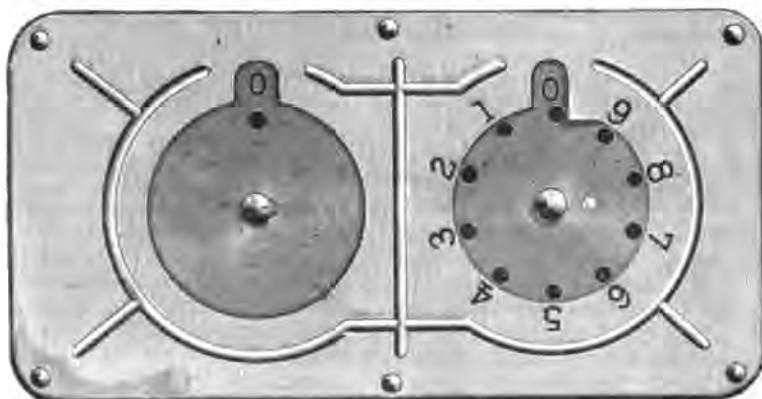
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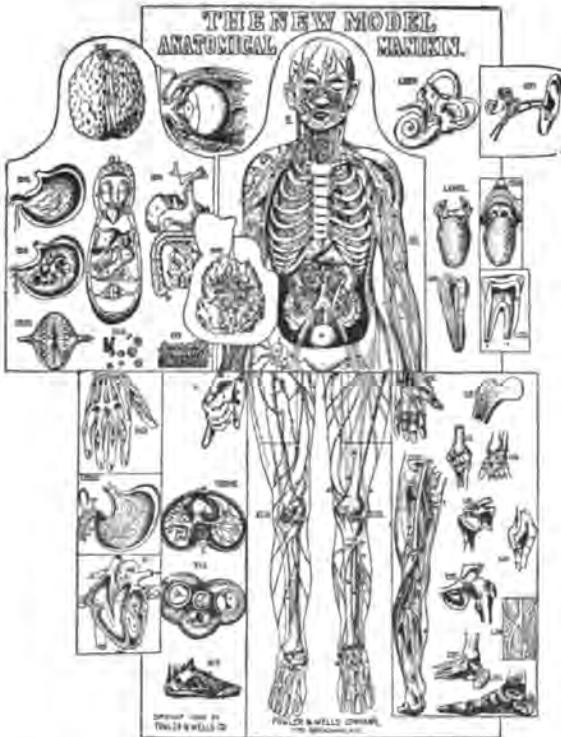
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CONTENTS FOR JUNE 1893.

I. Sketches of Phrenological Biography. Dr. Samuel George Howe. Portrait. Charlotte Fowler Wells.	250
II. Measuring The Perceptives (Illustrated). John W. Shull.	255
III. Psychometry.	259
IV. "Not If It Was My Boy."	260
V. Talent and Character. Their Study and Culture. Chapter VI. Prof. Nelson Sizer.	261
VI. Practical Phrenology. The Clergyman. The Rev. A. H. Bradford. Prof. Sizer.	266
VII. Eliza Archard Conner. Phrenograph and Portrait. Edgar C. Beall, M. D.	274
VIII. Child Culture. Childish Curiosity. Florence Hull.	278
IX. The Smiling Muscles.	280
X. Successful Idiot Training.	281
XI. Science of Health. Massage. What It Is. The Flesh-Eating Fallacy A Report on Hypnotism. Dr. H. S. Drayton. Diet and Work. The Rheumatism Ring. Self-Dosing with Drugs. Is Epilepsy an Infectious Disease?	282 283 284 286 287 287 287
Notes in Anthropology.	
An Ohio Mound Examined; The Stature of the Most Ancient Races; Chinese Picture Writing; Whence the Etruscans? The Mahometan Fast Season; Effect of Habits on the Indian; Origin of Life; Our Little Toe; Myth of the "Golden Apples."	288
Editorial.	
Too Broad.	293
They Would Be Welcome.	294
The Columbian Exposition.	294
Thought Transference.	295
Mind Equality. Rum's Offence.	296
Answers to Correspondents.	
Nervousness; Gray Eyes.	
Personal, Wisdom, Mirth, Library.	

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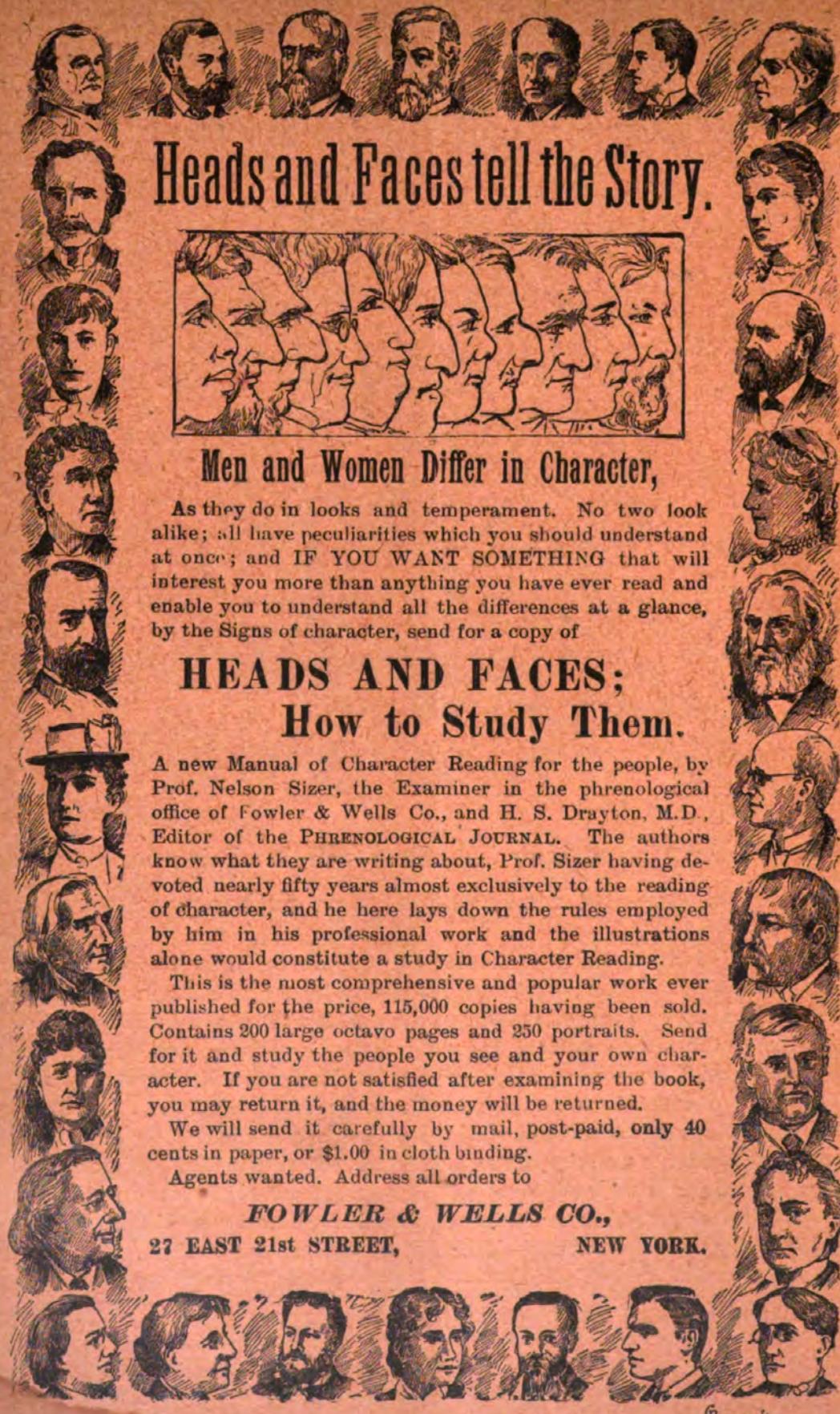


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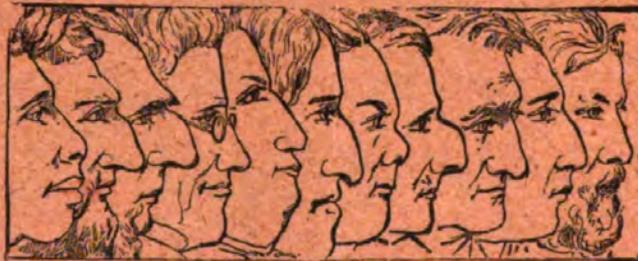
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THE
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A REPOSITORY OF
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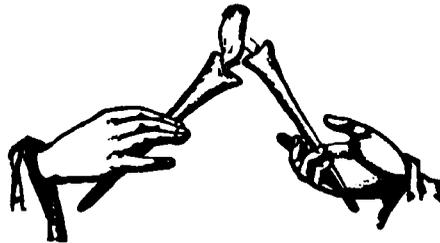
DEVOTED TO
ETHNOLOGY, PHYSIOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSY-
CHOLOGY, EDUCATION, MECHANICAL INDUSTRY, HYGIENE, AND TO
ALL THOSE PROGRESSIVE MEASURES WHICH ARE CALCU-
LATED TO REFORM, ELEVATE AND IMPROVE MANKIND,
SPIRITUALLY, INTELLECTUALLY AND SOCIALLY.

EMBELLISHED WITH NUMEROUS PORTRAITS AND OTHER ENGRAVINGS.

VOL. XCVII., OLD SERIES—VOL. XLVIII., NEW SERIES.

JULY TO DEC., 1893.

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1893.



“Quiconque a une trop haute idee de la force et de la justesse de ses raisonnemens pour se croire oblige de les soumettre a une experience mille et mille fois repete ne perfectionnera jamais la physiologie du cerveau.”—GALL.

“I regard Phrenology as the only system of mental philosophy which can be said to indicate with anything like clearness and precision, man’s mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power ; with his wants, as a creature of necessity ; and with his duties, as an agent responsible to his Maker and amenable to the laws declared by the all-wise Providence.”

—JOHN BELL, M. D.

Contents: July to Dec., 1893.

A	PAGE	E	PAGE	M	PAGE
Appetite, Human.....	42	Expression in the Insane.....	152	Mollusks, Human.....	15
Anthropology, Notes in 45-97-149-207-263-326	326	Elephant Worship.....	152	Morgan, Midy.....	29
Anthropology at World's Fair.....	45	Esquimaux.....	214	Murdock, Jas. E.....	55
Approval, Too Much.....	52	Experience and Brain Growth.....	228	Man, Antiquity of.....	97
Aberdeen, Earl of.....	58			Musical Centre.....	106
Approbativeness (Ill.).....	84-137	F		Microbes in Butter.....	148
Astrological Hits.....	106	Forgetting.....	54	Moral Education, Systematic 49-153-210-366	366
American Phrenologist, First.....	159	Fasting as a Cure.....	94	Matrimonial Bureau.....	158
Advice in a College Magazine.....	206	Faith, Question of.....	108-215-272	Mattei Cure.....	159
		Fighting the Inevitable.....	172	Military, The Chinese.....	207
B		Flannel Undergarments.....	271	Memorial Columns, Ancient.....	284
Biography, Sketches of Phren- ological.....	31-61-129-195-248-286	Fakir Doings.....	271	McClellan, Dr. George.....	286
Booth, Edwin.....	35	Found His Place.....	318	Mirthfulness.....	291
Boy with Good Habit.....	41	Failure in Life.....	319	Magnifying Glasses, Ancient.....	339
Baby, Definitions of a.....	41	Folk-Lore Study.....	328		
Big Heads and Little.....	52	For the Whole, Not One.....	330	N	
Baby, Bathing the.....	92			Narcotics, Popular.....	53
Booth and Tobacco.....	101	G		Negroes in U. S.....	98
Bellamy Colony.....	207	Gray, Elisha.....	6	Negative Days.....	119
Bridgman, Laura.....	213	Games, Japanese.....	45	Newspapers, Chinese.....	209
Botecudo Lip.....	264	Gleason, Silas.....	81		
Brains, Large.....	271	Girls, How to Educate.....	90-143	O	
Brooks, Phillips.....	273	Girls and Boys, Growth of.....	327	Occupation, Healthfulness of.....	44
Bread Reform.....	323			Oldest Book.....	208
		H		Offensive Warfare.....	326
C		How to Study Strangers (illus- trated).....	17-67-121-173-229-298		
Child Culture.....	39-88-143-204-253-317	Hurlbut, Elisha Powell.....	31	P	
Character, Training of.....	39	Heart Failure.....	106	Polyandry in Tibet.....	47
Color Variation:		Hurford, Dr. Joseph.....	129	Phrenology in Public Institu- tions.....	60
Coxe, John Redmond.....	80	Hygiene in Serious Maladies.....	146	Physiology versus Art.....	96
Children, Practical Interests.....	88	Healing by Faith.....	147	Phrenological Prognosis.....	102
Chinese Newspapers.....	98	Hottentots and Bushmen.....	151	Phrenologist's Blind.....	107
Color Blindness.....	98	Hebrew Type.....	159	Phrenological Societies, To.....	156
Cliff-Dwellers, Burial.....	99	Helping Upward.....	269	Parting Kick, A.....	156
Card Playing, Origin of.....	149	How Much Will Be Left? (Poem).....	271	Phrenologist, First American.....	159
Chinese Newspapers.....	209	Hutson, Sophia, Character of.....	281	Parents' Association of America.....	213
Coquetry.....	213	Human Nature.....	333	Poverty in India.....	263
Continuity.....	214			Psychology, Study of.....	271
Charcot, J. M.....	220	I		Perfect Man, The.....	321
Children's Hour.....	247	Indian, The Future of the.....	48	Proof of Life, One.....	332
Civilization, Fundamental Need of.....	253	Influence (Poem).....	140	Phrenological Progress.....	336
Common Way, The.....	256	Institute of Phrenology, Amer- ican, Opening of the Annual Session.....	198		
Clinical Hydrotherapy.....	260	If I Were a Boy.....	205	R	
Constant Cough.....	262	Intuition.....	214	Reflections, Unkind Personal.....	40
Civilization, Ancient.....	263	Is it Catching?.....	254	Red Face and Temper.....	53
Criminal A Social Product.....	265	Institute Alumni at Dinner.....	304	Religion of the U. S.....	53
Cooper, Dr. F. M.....	299	Instinct and Insight.....	317	Revenge.....	107
Clinical Phrenology.....	331	Insanity in Egypt.....	326	Race Studies, France.....	11
				Race Studies, Italy.....	114-168
D		J		Religion, Scientific.....	141
Dentistry, Ancient.....	46	Jones, The Rev. Silas.....	195	Rice, Strong Diet.....	148
Drink, When to.....	54	Julian, Isaac H.....	195	Ruins, New Mexico.....	150
Darwin, Memories of.....	111-166			Rest for the Consumptive.....	258
Dawn, (Poem).....	120	K			
Disease? What Is.....	145	Kidwell, Jonathan.....	195	S	
Darwin's Head.....	157	Kendal, Madge Robertson.....	278	Science of Health.....	42-93-145-258-320
Don't Care Boy Corrected.....	206			Smoking, Drawbacks of.....	43
Deafness.....	214	L		Signs of Character.....	104
Direction in Amusements.....	235	Lincoln, Abraham.....	27	Scientific Religion.....	141
Diseases, Treatment of.....	259	Liquor Men—Crazy?.....	105	Strange Tribe, Island Bangney.....	149
Dreams of Flying.....	271	Language.....	158	Society, Springfield, Mo.....	159
Dragon Tree Dead.....	328	Labor and Rest (Poem).....	194	Self-Consciousness.....	204
		Late Spectacle in Senate.....	270	Sleeping After Eating.....	214
E		Last Kiss.....	317	Still Metaphysical.....	332
Environment and Heredity.....	53	Lips, Color of.....	334	Sweet Food.....	333
Egyptian Woman.....	150			Schaff, Dr. Philip.....	324

CONTENTS.

T	PAGE	T	PAGE	W	PAGE
Temperament and Science.....	54	Thibetan Brigand People.....	326	Will Expression.....	66
Table Manners, Ancestors'.....	65	Temperament and Disease.....	333	Waite, Davis H.....	164
Therapeutics, Rational.....	83	U		Wentworth, M. C. and Mrs. M. C.....	186
Theistic Idea.....	97	Unexpected Evidence.....	51	Weight, Organ of.....	230-335
Tobacco Among Aborigines.....	100	W		When Grandpapa Was a Boy..	257
Teeth, Pearly.....	158	Will, Question of.....	49	Wet Pack, The.....	320
Teeth, Ornamented.....	208	Wilcox, Ella Wheeler.....	62	Wrinkles, How to Rub Out....	322
Tyler, B. B.....	246			Winter Home, A.....	334
Tyler, Cyril.....	250				



ILLUSTRATIONS.

A	PAGE	G	PAGE	N	PAGE
About, Edmond.....	13	Gray, Earl.....	123	Nye, Edgar William.....	133
Aberdeen, Earl of.....	27	Gardner, John.....	127	P	
Austin, E. W.....	182	Gibbons, Cardinal.....	178	Poe, Edgar Allen.....	126
B		Gall, F. J.....	218	Potter, Helen.....	185
Booth, Edwin.....	3-36	Griffith, Allen.....	202	R	
Barr, Amelia E.....	73	H		Rossini.....	115
Bridgman, Laura D.....	134	Harford, Dr. Jos.....	129	Rudini, Marquis di.....	169
C		Head, Symbolical.....	182	Roman Types.....	170
Chamberlain, Ex-Gov.....	128	Haight, Evelyn.....	183	Robinson, Gov. L. P.....	176
Crispi.....	169	Hayes, Mrs. R. B.....	184	Raymond, The Hotel.....	193
Chase, Salmon P.....	175	Hutson, Sophia.....	282	Richards, Jas. B.....	237
Charcot, J. M.....	219	Hunt, The Hon. Ward.....	295	Red Cloud.....	239
Cushing, Caleb.....	240	I		Richardson, Thomas.....	287
Clafin, Horace B.....	204	Irwin, Dr. Samuel.....	181	S	
Conkling, Roscoe.....	206	Ingelow, Jean.....	208	Salisbury, Marquis of.....	72
Cooper, Dr. F. M.....	301	J		Smith, Gerrit.....	177
D		Jacobini, Cardinal.....	115	Southworth, Mrs. E. D. E. N.....	85
Digestion, Poor.....	77	Julian, Isaac H.....	196-197	T	
Dally, Gen. A.....	78	K		Telautograph.....	7
Darwin, Charles.....	110	Koch, Dr. Robert.....	87	Temperament, Mental.....	123
Dix, The Rev. Morgan.....	181	Kendal, Madge Robertson.....	277	Temperament, Mental.....	125
E		L		Temperament, Mental.....	126
Eads, Jas. B.....	179	Lesdernier, Mad. de.....	188	Temperament, Mental.....	127
Edison, Thos. A.....	235	Law, George.....	232	Temperament, Mental.....	128
F		Longfellow, H. W.....	234	Temperament, Motive.....	24
Favre, Jules.....	11	Lemon, Mark.....	236	Temperament, Vital.....	73-4
Field, Cyrus W.....	231	M		Thaxter, Celia.....	76
G		Michelet, Jules.....	12	Tyler, The Rev. B. H.....	242
Gray, Elisha.....	4	Mitchell, D. G.....	77	Tyler, Cyril.....	251
Garfield, Eliza.....	79	Mott, Lucretia.....	125	W	
Gleason, Silas O.....	82	McClellan, Dr. George.....	200	Wilcox, Ella Wheeler.....	56
Gambetta, Leon.....	86			Waite, Davis H.....	163
				Wolseley, Sir Garnet.....	180
				Wentworth, Marshall C.....	189
				Wentworth, Mrs. M. C.....	190



ROCKWOOD, PHOTO.

EDWIN BOOTH.

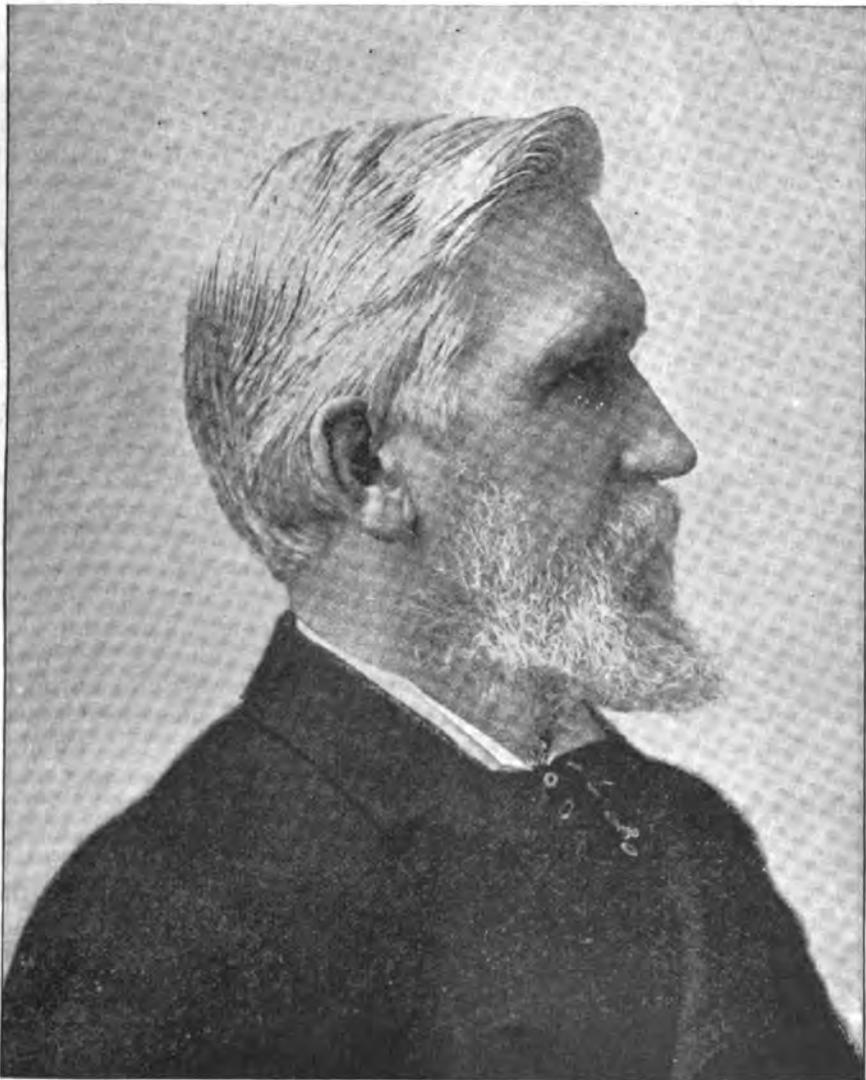
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THE
PHRENOLOGICAL JOURNAL
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NUMBER I.]

JULY, 1893.

[WHOLE NO. 655.



ELISHA GRAY.

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ELISHA GRAY AND THE TELAUTOGRAPH.

A name that has become very prominent in the field of useful invention is that which heads this column. As its owner has devoted many years to the solution of different problems in telegraphy that have occupied a conspicuous place in the thought of scientific men since almost the days of Morse, and finally has completed an apparatus that seems to be a perfect working out of one of the most difficult, it is but just that he should receive a wide recognition for his success. Especially is it due to his perseverance and talent that the world's thanks be accorded when the nature of his last invention is known, in brief, to be a device by which one may send to another at a distance a message in writing, or a sketch or drawing, which will be received in facsimile. Well is the apparatus that performs this really wonderful thing named the *Telautograph*.

Giving attention for a little to Professor Gray himself, it is observed that his portrait indicates certain characteristics of mental and physical constitution that are impressive. There is evidence of a strong and tenacious vitality—a power of recuperation and nerve maintenance that is above the average, and distinguished, we might say, by its harmony in the assimilation of nutritious elements.

The chest is ample, affording respiratory capacity, an important item in the organization of the brain-worker, and well associated with a brain that appears to run high at the crown. The poise of the head also intimates well aerated blood and a free co-ordination of the organic areas of cerebration.

The physical elements that enter into a strong temperamental combination are pronounced in Professor Gray. We note them in the emphatic outlines of the face. Strength, poise of faculty, power to hold the mind in a given line of application, and that

with but little if any sense of fatigue or irritation, characterize his mental efforts. His attitude in an objective sense is that of the student, earnest in his desire to learn and to know. His acquisitiveness, on the side of wanting money, property, wealth, is decidedly moderate, but on the side of wanting knowledge, capability of thought, reason, judgment, is very active. Becoming interested in a line of inquiry he is inclined to pursue a course of investigation until he has made himself master of the principles and uses of the subject. He has the ambition that reaches for success in affairs that have a practical and certain application, while ideas of a chimerical or merely theoretic nature receive but scant attention.

The mould of the forehead intimates the scientist and the scientist whose methods are specific. He would prefer to take up one branch of inquiry and to pursue that to its ultimate, and not attempt to spread himself over a whole department. He is not the man to have many irons in the fire, but the one that is there he will watch and use to the full extent of its serviceability, and, for the most part, in his own way. The outline of the head shows a brain well developed at the crown and full in the upper posterior region, indicating decision, severity, steadiness, self-trust and perseverance, without, however, that spirit of self-sufficiency that often renders the man of talent and accomplishment a disagreeable companion. He is kind, sympathetic, friendly, appreciative of those amenities that properly enter into social life, and so far from disregarding the duties and privileges that belong to manhood. We judge that his standard of manhood is high and everything that savors of meanness receives from him prompt and sharp condemnation. The following brief outline of his general career must suffice:

Elisha Gray was born at Barnes-

ville, Ohio, August 2, 1835. When a lad he was apprenticed to a blacksmith, and subsequently to a carpenter and boatbuilder. On the completion of his several apprenticeships,



TRANSMITTER.

he entered Oberlin College, and made a special study of physical science, supporting himself meanwhile by working at his trade. In 1867 he obtained his first patent for telegraphic apparatus, a self-adjusting relay. Since that time he has taken out nearly fifty patents, the most important of which relate to his printing telegraph system (which was largely in use before the advent of the telephone), the harmonic-telegraph, the telephone and the telautograph.

All of Professor Gray's inventions bear the stamp of thorough originality, and in no sense can he be called an adapter of ideas furnished by others. He was the first to transmit several messages simultaneously over a wire on the "harmonic" plan; and his famous Caveat of February 14, 1876, contains the first written description of the speaking telephone. The first speech transmitted over a wire was with instruments similar to those described in that Caveat.

For some years past, Professor Gray has been occupied with his telautograph or writing telephone. On this wonderful invention he again displays remarkable genius and individuality. His labor-

atory is at Highland Park, Illinois, where he resides. He is a member of the faculty of Oberlin College, and in 1878 was honored at the Paris Exposition with the red ribbon of the Legion of Honor.

Reviewing the work of Professor Gray in late years it should be said that the first facsimile telegraph apparatus was completed by him in 1887. This was, to be sure, a somewhat crude affair, when compared with the instrument that is now offered to public inspection. Using the description of Dr. Wahl, in the *Manufacturer and Builder*, in the older instrument the inventor had adopted as the specifically operative principle the method of "variable resistance," an expedient well known to electricians, and which already figures as an essential feature in the Cowper-Robertson writing telegraph. The inventor found that the variable resistance method introduced the objection that where aerial lines are used, the line is constantly subject to fluctuations of resistance, due to the varying conditions of the atmosphere, requiring for the production of uniformly satisfactory results that the resistance should be adjusted to suit the conditions of the wires. This objection, he found, seriously detracted from the utility of the appa-



RECEIVER.

ratus, and this system of operation was therefore abandoned in favor of the step-by-step plan, in which the

movements of the pen at the sending station, interpreted by positively-acting mechanism, are transmitted electrically to the receiving stations, and there exactly duplicated.

On this principle of operation the inventor constructed a second machine in the early part of 1888. The sending and receiving instruments in this form of the invention were placed on the same table, each contained in its own box, and each supplied with its own roll of paper. The mechanism

but though satisfactory results were obtained with it the delicacy and complexity of the mechanism involved in it were, in the inventor's opinion, too great to suit the requirements of commercial service, and further experiments were undertaken, which resulted, in 1892, in the evolution of the telautograph in its present form. This embraces two instruments at each end of the line, a transmitter and a receiver, which are placed side by side. Each of these is contained

The Telautograph is
a long distance
writing machine -



MESSAGE SENT.

employed for working the pen, however, was found to be too complicated, and although the machine provided for the automatic raising and lowering of the receiving pen, and for the shifting of the paper, which were lacking in the first machine, this machine also was abandoned.

In 1890 a third instrument was produced in which, also, the sending and receiving apparatus were combined on one table, as in the second;

in a wooden case somewhat smaller than a typewriting machine. In transmitting a message, drawing, sketch, or whatever may be desired, the sender takes an ordinary lead pencil and writes or draws his message with it on a sheet of paper, and simultaneously another pencil at the receiving end of the line reproduces every movement of the sender's pencil on a similar sheet of paper. The receiving pencil is actuated entirely

by automatic electric mechanism, and is not touched by the human hand. The result is a facsimile in every detail of the letters of the message, or lines of the drawing, sent from the transmitting station. Fig. 4 shows the appearance of the transmitter and Fig. 5 that of the receiver.

The pencil used at the transmitter has near its point a collar with two small eyes in its rim. To each of these eyes is attached a fine silken

inch of one of the cords forty of the teeth of the wheel will pass by a given point. Each one of these teeth stands for a single electrical impulse sent over the line, as will later be seen.

The mechanism of the receiving instrument is practically the duplicate of that of the transmitter, but its motions are purely automatic, being controlled by the electric impulses sent over the line from the transmitter. The receiver is pro-

The Telautograph is
a long distance
writing machine -



MESSAGE RECEIVED.

cord, running off in two directions at right angles. Each of these cords passes around a small drum supported on a vertical shaft. Beneath the drum, and attached to the same shaft, is a toothed wheel, so arranged that when either section of the cord winds upon or off of its drum a number of teeth will pass a given point corresponding to the length of cord so wound or unwound. Thus, if the pencil in its movement winds up one

vided with two escapements, which are actuated by polarized relays, and so constructed that each electrical impulse received from the line permits the escapement wheel to feed one step either forward or backward. These escapement wheels are mounted on vertical shafts, which carry drums of the same size as the transmitter. The forward or backward movements of the escapement wheels, therefore, are imparted to the

drums; to these are attached, by means of cords, pen arms of aluminum, which are hinged together at the point where the pen is carried. The writing is done with the point of a small capillary glass tube, to which the ink is fed through one of the aluminum tubes, which is kept supplied from a small reservoir. The point of the glass tube rests upon the paper, and when moved over it by the motion of the hinged arms to which it is attached, the ink is caused to flow from it; when it is raised from the paper the ink is retained in the tube by capillarity.

It is not difficult now to understand how the duplication of the writing at the receiving end of the line is effected. When a movement in one direction of one of the toothed wheels of the transmitter is made by the writer, a certain number of electric impulses, according to the length of the line, is sent over the line, and the escapement wheel at the receiver will be given a movement forward or backward, as the case may be, the same distance, carrying the drum around in the direction corresponding to that given by the writer's pencil to the drum at the transmitter. Two wires are required to transmit the writing, each of which is under the control of one of the silken cords, and connects with one of the escapements in the receiver. Thus, if the sender should describe a line inclining to the right (or left) at an angle of 45° , the right (or left) escapement of the receiver would be operated, and the movement of the drum, carried to the pen, would describe a similar line on the paper. If the sender should make a vertical motion of the pencil, the sending drums, and consequently both escapements, would be equally affected, and the resultant motion of the pen arms would cause the pen to make a vertical line. And it will be apparent that, no matter what complex motions the writer's pencil describes, they will faithfully be reproduced by the mechanism of the re-

ceiver and interpreted in facsimile by the receiving pen. The character of the writing or drawing reproduced leaves nothing to be desired. The "step-by-step" action of the receiving mechanism is made visible by a close inspection of the writing received, while an examination reveals a slight roughness; but this is so slight as to be scarcely perceptible. The fidelity of the reproduction will be seen in the illustration, which shows a message as written for the editor of the PHRENOLOGICAL JOURNAL, and its reproduction by the receiver. The future of telegraphic communication seems to have made by this invention a long step toward rendering the business and social relations of men more convenient and intimate than our grandfathers ever dreamed to be possible in the natural evolution.

Renan left so small a private fortune that his widow is forced to sell his library, and will dispose of it next year, while waiting for a pension. Renan's friend, M. Berthelot, says that the philosopher left the world almost as poor as on the day he began the struggle of life. In our land of well-paid professors it will be of interest to learn that Renan's salary in the Collège de France was only \$2,000 a year, five per cent. of which was deducted for a pension. Yet there was no other theological lecturer in the French republic who attracted so many listeners, or gave his college so wide a reputation.

This distinguished Frenchman has usually been called a philosopher, but in the strict sense of the term, this is hardly correct. He was rather a historian and a *littérateur*. He accepted and taught many ideas which come under the head of philosophy, it is true; but he dealt with what seemed to him to be facts rather than principles. That is to say, while promulgating abstract theories, he had them in mind as so many facts, and considered them with reference to their historical and scientific value.

RACE STUDIES.

III.—France.

The theory maintaining the advantage of race-mixtures has often been quoted to explain the development of the gifted race inhabiting the valley of the Rhine; but the nation limited to the present boundaries of the French Republic may be said to exhibit all the bright and shady characteristics of the southern Celts, and its antipathy to its Teuton neighbors has a deeper foundation than the transient interests of national politics.

Historical traditions, indeed, make it probable that the Gauls reached Western Europe later than the Iberians, but many centuries before the Franks, and their mental and physical peculiarities distinguish them as widely from the stolid German tribes as from the passionate and unaccountably capricious Basques.

The French justly pride themselves on their good taste in matters of art, and detest irregularities of style in literature and music (whence their under-estimate of Shakespeare and positive hatred of Richard Wagner), but in the concerns of practice their impulsiveness goes to extremes avoided by their neighbors, and their frivolity, irreverence, sensuality, vanity and cynicism are offset by tolerance, frugality, charity, industry, pluck, beauty-worship, wit, intelligence and misfortune-proof gayety. Ganganelli compared the four chief nations of Europe to the four elements: Italy, fire; France, air; England, water; Germany, earth. In their new colonies the Britons begin by building a warehouse; the Spaniards a church, the French a theatre.

The classic authors of antiquity often mention the amativeness of the ancient Gauls, their passion for music and dances; and their descendants still prefer a good song to a good dinner, a *bon mot* to an argument. Their countryman, Diderot, defines them as *le peuple chansonnier et moqueur*, and their talent for wit

under difficulties is indeed unrivalled. Terray's administration of French finances threatened the working classes with ruin; they merely revenged themselves by calling "the street of the empty purse" la Rue Terray, and when a grenadier of Louis XV. swallowed a silver dollar and the physicians feared for his life, a wag proposed to send for the Abbé Terray, who would find no difficulty in "squeezing coin out of a dying man."

Louis XV. let the Pompadour per-



JULES FAVRE.

suade him to raise her brother to the rank of a Marquis de Vandière, and the Paris wits at once called him the Marquis d'Avanthier—"Count of Day-before-yesterday." The new-made peer coveted even the Blue Ribbon of St. Louis, but the successor of the canonized king drew the line at that point. "*Non c'est un trop petit poisson pour le mettre en*

bleu," he said in allusion to the family name, Poisson ("fish") of the ambitious marquis—"That's rather too small a fish to be cooked blue."

When the banker Ducos was dragged before the Tribunal of Terror he proposed to save the court's time by a summary confession of his sins and the causes of his arrest. "Very well, let us hear your confession, but try to be brief." "Easy enough, gentlemen; I am rich." In Robespierre's time the word "Citoyen" had to be substituted for all titles of birth, and a humorist, at the risk of being himself silenced by the guillotine, set the whole opera in a roar by shouting at a barking dog, "Silence, Citizen!"

Neither the horrors of the Revolution nor the carnage of the Empire could dampen that spirit of mockery, and in 1815, when the Allies presented their enormous bill of damages, the Parisians welcomed the chance for a whack at their new sovereign. "Let us pay; haven't we a big revenue?" *gros revenue* having the additional meaning of a "gross pot-belly returned."

Like the Greeks of old, the French are still inclined to despise foreign nations as barbarians, and in commenting on the merits of a Russian dramatist, Voltaire remarked that the creature seemed really to have almost the sense of a human being; but Napoleon the Great, on his Russian campaign, went a dangerous deal too far when one of his generals reminded him that more than half the army of invasion was composed of foreigners. "So much the better," he said, "for every three individuals killed on the

Russian side I shall lose only one man and two hogs." When the Prussians evacuated Paris, in 1871, the citizens of the metropolis discreetly contented themselves with fumigating their streets, as after the end of a pestilence.

The French love of prettiness and brilliancy often gratifies itself at the expense of justice, and the superficial



JULES MICHELET.

scholarship of French writers has long been the banter of their learned neighbors. The *Courier Français* reported in 1822, that "according to the advices of the Austrian press, numerous Turks were encamped between the towns of Erdwallen and Lehmhutzen,"—"earth-walls" and "mud-hovels," and in 1870 a French journalist quoted the *Times* to the effect "that a German corvette had been sighted near the Island of Twilight." Such blun-

ders, however, are not confined to the Paris penny-a-liners. Hippolyte Taine, next to Adolphe Thiers perhaps the most accomplished French writer of

and then caught tripping in a similar way. During a conference with the representatives of the victorious invaders, he complained of the vandal-



EDMUND ABOUT.

the present century, makes his farmer Graindorge pasture his flocks in the "palmgroves of the Ohio Valley, and primeval forests enlivened by the chatter of apes and the screams of innumerable parrots," and according to the memoirs of the late Emperor Frederick, Thiers himself was now

isms of the German soldiers, and provoked Prince Bismarck to denounce the employment of Turkey in a war between civilized nations. "*Eh bien, mais pour tout cela vous vous servez des Uhlans*"—"all the same you are using Uhlans," said Thiers, evidently supposing the elite of the German cavalry

to consist of guerillas enlisted among some barbarous robber-tribe of the Turkish border.

For precision of style and airy lightness and grace, on the other hand, French writers stand unequaled, and as a conclusive proof Goethe used to quote Voltaire's sonnet to the sister of Frederick the

empire." Add the charm of a fairy-like grace of diction, and Haroun al Rashid himself would have condoned the sacrilege, though he destroyed the Race of the Barmecides to the third generation when Jussuf Ibn Barmek aspired to the hand of his sister. French *tact* of a superlative kind also enabled the punster



NORMANDIE PEASANTRY.

Great: "What erotic poetry addressed to a near relative of an absolute sovereign—an irascible despot at that?" German poets would have stood aghast at the mere thought, but had to admit that the ingenious Frenchman accomplished the venture with a fair chance of surviving the consequence. "In the fancies of dreamland, last night," he says, "I thought I was a king and possessed the still greater treasure of your love. Then I awakened to find that the gods had still been kind to me. They had deprived me of nothing but my

Calembourg to comply with the request of his sovereign who desired to test his talent for impromptu conceits. "Will your Majesty be pleased to suggest a subject?" "Well—make a pun on me." "The king, sire, is no subject," was the prompt reply.

That king himself hastened to the assistance of an old general who had come to pay his respects to his sovereign, and fell down headlong on the slippery floor of the audience-room, knocking down a table with precious knicknacks. "Never mind, never

mind," said the king, "a man loaded with laurels cannot be blamed for stumbling once in awhile." And after the siege of Ulm, when Championet received the surrender of General Mak, he returned the sword (a present of the British Government) with a smile. "What a beautiful hilt! but the laws of my country prevent me from accepting specimens of English hardware."

Napoleon could appreciate that talent, and once made a present of fifty dollars to a soldier who had been introduced to him as the tallest recruit of the French army. "Heavens, I'm a mere baby alongside of you," laughed the emperor. "Yes, Sire; that illustrates the difference between a great man and a big man," replied the recruit. Wit at the expense of humanity, however, has little chance of success in France, and the very hyenas of the Reign of Terror cried shame over a judge who had sentenced a fencing-master to the guillotine and then asked him if he thought he could parry a blow of that kind.

"Ces fous sont pleins d'honneur," said Voltaire of his countrymen; and the love of glory is, indeed, one of the master-keys to the character of the French nation. The grandiloquent manifestoes of the Corsican world-conqueror inspired his soldiers to undergo fatigues unheard of since the days of Xenophon's Anabasis, and the nation abandoned his cause only when it had been abandoned by victory. French savants, too, evince a predilection for sciences offering a chance for brilliant achievements; chemical and astronomical discoveries and archæological treasure-troves, but that intellectual pride can rise above the prejudices of national vanity is proved by their generous recognition of foreign merit, *e.g.*, the decision of the Académie Française to award a prize to a German scholar a few months after the crisis of the Franco-Prussian war.

Even the sensitive French poets can appreciate beauty in foreign

forms of manifestation, and Victor Hugo once declared that he would give a large sum to learn the name of the unknown Spaniard who on a rock near the St. Helena grave of the first Napoleon had inscribed the words: "Un luz incomparado aqui se apago," "a light unrivalled was extinguished here."

French cynicism and frivolity have been frankly admitted, and too often vaunted, by French writers, and the international popularity of the French nation proves how many foibles will be forgiven to charity and the love of mirth.

F. L. OSWALD, M. D.

(*To be continued.*)

HUMAN MOLLUSKS.

The most prudent man is generally considered the wisest man. And he who knows how to keep his own counsel is an object of admiration to his fellows. He is a being to be envied, and to be held up as a model to the youth whose tendencies are to "tell all he knows." Children are punished for lying, but are taught that concealment is one of the higher laws of civilization. The cautious, secretive man, is the wise man of the age. He never tells his secrets. He gathers knowledge unto himself and wraps it about him as a garment, close fitting, "tailor made," fashioned for him, and for him only, indivisible, and as much a part of its owner as the shell on the back of a snail, and quite as useless to others.

When he sees a bit of useful science, or an atom of practical wisdom floating past him, he opens his shell and greedily draws it in, and within his grasp, it is no longer public property; it belongs to him.

Gradually, carefully, and from every source within his reach he fills his mental storehouse, over whose tightly barred and hermetically sealed door is written the uncompromising words, "Mine, Mine, Mine."

His children usually inherit the shell, but if, by reason of their youth

and inexperience they show any indiscreet tendencies to convey even the most minute particles from that precious storehouse to their companions, they are quickly taught to draw in their feelers and shut up their shells, lest their neighbors should gather something from their incautious communications, and become as wise as they.

Meanwhile the garrulous, companion-seeking, impulse-governed multitude looks upon the human mollusk with open admiration and envy. He is pointed out as the man who never blunders and who never makes failures, because he never ventures beyond his depth—the cool-headed man, the farsighted man, the man who looks out for number one.

His words are dealt out sparingly and with hesitating gasps, as though the speaker were loath to let them go, fearing, perhaps, that in spite of all his care in choosing them, some unguarded utterance may betray a valuable secret. And this is the wise man, the man who, from Solomon's time until now, has been thought a worthy pattern for youthful imitators. If wisdom and selfishness are synonymous terms, then he is certainly wise. But is this cautious, close-mouthed, shell-fish disposition the highest type of civilization? "Self-preservation is the first law of nature." But is it the highest law?

According to the theory of evolution the human race began with the mollusk, and we do not find it so hard to accept the theory when we see one of these human clams crawling into his shell. But the beginning was not the end, and the mollusk made little progress until it discarded its shell. Among the lower orders of animal life three laws were found to be sufficient, namely, self-protection, self-maintenance and reproduction. But as the species advanced other and higher laws developed, until we find the birds protecting and providing for their young, and even in some cases caring for their aged ones. The

species is still wary and prudent, but garrulous, social, communicative and capable of giving pleasure to the highest form of life, even man, gratifying several senses; while the mollusk is able to please but one, namely, taste, and must give up its life to do that.

As the species advance farther and farther from the mollusk and nearer and nearer to man, we find the dog capable of feeling and expressing joy and sorrow, and also those higher attributes so often lacking in the human animal—gratitude and devotion.

The wisdom of prudence is not to be despised, but it should be put on as armor in times of danger and used as a necessary protection against enemies—not as a shell in which a man shuts himself up, alike from friend and foe, and in which he hides those attributes which generous nature has bestowed upon him, not for his own selfish gratification merely, but for cultivation, enlargement and dissemination.

Secretiveness is not wisdom, though it may be employed by her to guard her treasures which are "more precious than rubies" from the sacrilegious hand that would subject them to an evil purpose. All true wisdom is the result of an harmonious blending in the action or influence of our faculties, and one of our greatest difficulties is to discipline our minds so as to effect this result.

The human mollusk goes through life, seemingly, with one object—to hold fast all that comes within his grasp; and when he dies little is said about it, there is so very little to say. We bury him quietly, cover him closely, and set up a small slab which tells merely his name and that he lived and died, and, indeed, there seems to be nothing more to tell. Then we go on our way and scarcely miss him; and yet he was a wise man, who kept his own counsel, and "lived peaceably with all men."

A. M. COSTELLO.

HOW TO STUDY STRANGERS

BY

TEMPERAMENT, FACE AND HEAD.

CHAPTER VII.

TEMPERAMENT; ITS NATURE AND INFLUENCE ON CHARACTER.

THE old and familiar doctrine or statement that size is a measure of power, other conditions being equal, must be stated and insisted upon in regard to the brain, and also in regard to every organic function of the body. This principle that size measures power, if the qualities and conditions are the same, is applicable to every kind of matter. To study temperament is to learn quality and power. When the chemist understands the ingredients of a specimen of gunpowder, the amount to be used for a charge in a gun for a given distance or penetration is regulated according to the composition of the fulminate. One kind of powder may be twice as strong as another, and therefore but half the quantity would be required for the same result. The same principle is applicable to every other material. This is distinctly shown in respect to timber. *Lignum vitæ* is very dense; there is a great deal of ligneous matter in a given cubic inch of that wood. Ebony is compact, solid and heavy, but not so dense or heavy as the first named; then there is boxwood, another very fine and snug-grained timber. When we come to the ordinary kinds of wood, such as are used for the economic purposes of life, we reach hickory and oak, and extending our search we have the porous chestnut, the soft willow and bass, and, last, the palmetto, the coarsest and most spongy of all. Pine wood answers very well for certain purposes, but it would make a poor handle for a hammer, an axe or an excavator's pick. The different kinds of timber represent temperament, and temperament means the combination of parts

or qualities, and applying this doctrine of size a measure of power to textile fabrics in every variety, from fiddle-strings to crochet worsted, we have from the coarse sackcloth all the way up to the finest satin, and then we have the same grades respecting leather; we have the kid, the cowhide, and lastly the hide of the rhinoceros and the elephant.

When we come to sentient, organic life, everybody understands that there is a difference between the make-up of a Game chicken and of a Cochin or Brahma; the latter is a great, clumsy, awkward bird, slow in motion as well as in thought; he will weigh perhaps thirteen pounds, and a game chicken that weighs only five pounds will beat him out of record, and conquer him in battle in short order; but when we compare Brahma with Brahma and game chicken with game chicken, the conditions being equal, then size is the absolute measure of their power. When we compare bristles with bristles and fur with fur, we understand it; we can compare the coarse, the middling and the fine, and things are valuable according to the grade of quality. Grindstones, building stones and precious stones are judged by the same law. The same is true of human temperament, which means the relative proportion of qualities or conditions which make up a constitution.

Few persons are to be found who are exactly alike in their inheritance of the necessary constitutional elements of bone and muscle, of the nutritive or vital organs, and of nerve power, or of the circumstances of their birth and life, so that there are almost as many temperaments, or

grades of temperaments, as there are persons; each one has some modification or a temperament of his own. Occasionally we find men in respect to whom the temperament would seem the same, and they can be matched as to strength and speed as we match horses of similar constitution and size.

As we understand temperament and employ the term in studying and describing character, we recognize three temperaments or temperamental conditions. The elements of these temperaments are derived from different systems of organs. There are three systems of organs or factors in each human being, and in each animal that is highly organized.

First, there is the frame of bone and muscle, united by tendons, and these act like ropes and pulleys applied to levers; the jointed, bony frame united by the muscles and tendons make up the organic framework of the constitution, and it is called

THE MOTIVE TEMPERAMENT,

or the temperament of motion. Some have called it the locomotive or self-moving temperament. It is not difficult for a person to understand that the bones and the muscles, thus nicely united, constitute the temperament of motion. Half a century ago it was generally called the bilious temperament, and by many persons of the present day, the old name the "Bilious," is still used. In talking about this temperament we say the Motive or Bilious temperament, so that people shall know that the Motive and the Bilious are the same, and they will not be confused. The bones and the muscles act in harmony and in connection with each other, hence all form a distinctive part of the human economy.

THE VITAL TEMPERAMENT.

The second temperament is called Vital; it was formerly called the Sanguine temperament; and another temperamental condition or system of the

organism was called the Lymphatic temperament, but since the latter also ministers to nutrition, that is properly considered a part of the Vital temperament. The Vital temperament embraces the blood vessels, or the arteries and the venous system, and we include also the lymphatic system, which carries a nutritive fluid without the color of blood, that circulates freely through the system. The lungs, heart, and digestive apparatus, including stomach, liver, spleen and lymphatic vessels constitute the vital temperament, and its office is to manufacture and distribute nutrition to all parts of the system, and take up waste material and carry it off, thus keeping the system in health.

THE MENTAL TEMPERAMENT.

The third temperament is called the Mental; it has been called the Nervous, and in early time the Melancholic; it has also recently been called the Encephalic. The brain and nervous system constitute this temperament. The brain is the common centre of the physical system, and the nerves of motion and the nerves of sensation are the agents by means of which the mind, which is related to and acts through the brain, acquires knowledge of external things, and by means of which, also, the mind sends out mandates of purpose and power, through the nerves of motion, employing the muscles and the bones to execute and accomplish the desired purposes.

These several temperaments we will consider separately, and afterward in their combinations and gradations. In point of fact every living animal must have a nervous system, or Mental apparatus; also, bone, or shell and muscle, representing the Motive temperament; every being also must have the Vital or nutritive apparatus, including the stomach, to make the blood, and the lungs, or their equivalent, to impart oxygen to the blood, and then the heart to cir-

culate the blood through the arteries, capillaries and veins, so that nutrition can go to every part of the system for its up-building. Waste matter also is taken up, absorbed and carried off by the Vital apparatus, the whole making up the elements of life, health and power.

The Nervous system, or Mental temperament, is the most important. Somebody has said "Mind is Life," and the brain is the instrument through which mind acts, and the nerves carry the influences of thought and purpose and wish and will to the extremities, and bring back knowledge from the outer world, by means of the nerves of sensation.

As these three great systems belong to each organic life or constitution, they are sometimes developed in complete harmony, but frequently the Motive or Biliary temperament predominates; sometimes the Vital, at other times the Mental, yet there is always something of each temperament in each individual, existing of course in different degrees of strength, so that the doctrine of temperament is the basis of investigation as to the composition of each individual presented for study. No single temperament makes perfection. No one temperament constitutes the whole of manhood, but a combination of all the qualities and conditions of harmony give the ideal.

The subject of temperament is complex, but not insolvable. One may have 50 per cent. of the Motive, 30 per cent. of the Vital and 20 per cent. of the Mental; in others these combinations are reversed, or otherwise varied. We must study each person and learn by observation to detect the proportionate presence of each temperament, just as a painter does in mixing primary colors for desired shades.

THE MOTIVE TEMPERAMENT.

We may say that the general appearance of the Motive temperament, where it greatly predominates,

shows us the heavy, strong and bony frame, plenty of development in the muscular system, with tenacity and endurance of muscular power; the bones are large, and the outline of the system is comparatively rough; the hair is usually dark, often hard and coarse, and the complexion dark or brunette. There are some persons with light or red hair who have coarseness of texture and hardness of fibre, and this light-complexioned Motive temperament is called the Hanthous: so we have light-complexioned people of the Motive temperament. Occasionally a man is found who has strength of body, large, strong, angular features, and who has hair of a strong, wiry character, which he gets by inheritance from a parent who has dark hair and skin; yet he will inherit the light and sandy color of the hair, and perhaps the light complexion of the skin, from the other parent. He will seem to inherit color from one and quality of fibre from the other. The figure is commonly tall, though we find some short, sturdy, dark-haired, dark-skinned, enduring men; but usually the Motive temperament shows tallness of the body and length of bone, especially length of limb; also long, bony fingers and feet; strong features, wide cheek bones, and usually a heavy, strong voice. People of this temperament are fond of substantial affairs; they like to do rough, heavy, manly business, and we have noticed in different trades and occupations that persons of the Motive temperament are from choice connected with hard and laborious pursuits; they like to lift and carry burdens, they like to wield heavy tools and implements, they enjoy striking heavy blows and in the construction of houses, they will lay the cellar walls and handle the heavy timbers. In New York there is a class of men who fulfill these duties in reference to house building; they go from one place or structure to another and are thus occupied all the time; then

others with this temperament pretty strongly marked but with a combination of the vital will do the brick work; that is not light, but it is not

and the implements of his trade are not heavy nor coarse, nor do they require a rough, bony, muscular hand; and men should classify themselves in the prosecution of different kinds of work and business according to the temperament which they have, and so adapt themselves to the nature of the business. The choice of occupation, therefore, and the assignment of different persons to pursuits, require that the nature of the work or business should be studied and adapted to the organic conditions of temperament and the mental peculiarities of the persons who are candidates for the work.

Fig. 61. THE HUMAN SKELETON. This skeleton appears to have belonged to a person of a strongly marked Motive temperament; the heads of the bones forming the joints appear to be large; there are large ankle joints, large and heavy joints at the knee; the thigh bone is heavily and roughly developed; the bones of the hips, the pelvis, seem massive and large; the shoulders are amply developed; the spinal bones are heavy and the elbow and wrist joints are large. The bony processes for the insertion of muscles

are large on different parts of the skull and wherever on the skeleton the heavy, working muscles are attached.

Fig. 62. POSITION OF BONES IN THE BODY. Shows the position of bones as they are situated in the complete body, it being a back view. It is a contrast to Fig. 61, showing the bones by themselves; and the plump, well-rounded outline of the figure made of muscle and muscular connection tissue, with something of fatty tissue, make up the bulky develop-

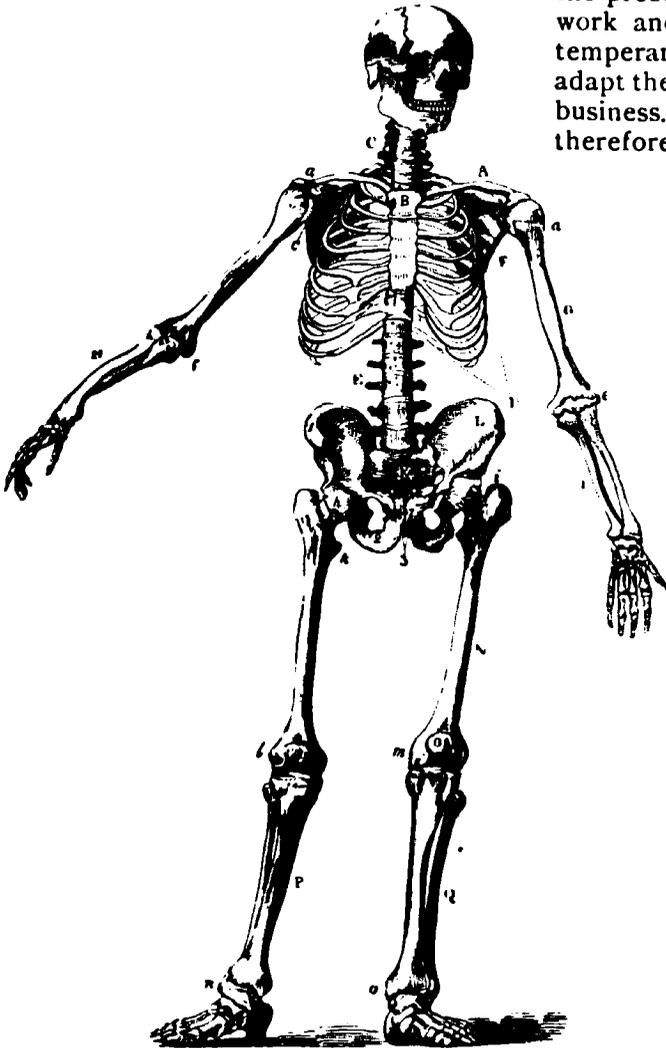


FIG. 61.—THE HUMAN SKELETON.

so heavy as the other—it requires quicker motions; then another class of men will follow the brick masons and do the inside work, which is called the "finishing" of the houses; then comes the painter and decorator; he has a finer temperament, and the quality of the mental and physical development is adapted to that which is 'artistical, elegant, and ornamenta'; he has more of the Vital and Mental temperaments; he uses a light brush,

ment of the body. The legs, the thighs, the arms and ribs are united by hundreds of muscles, which are generally attached to the heads of the bones, and by their action give to the system all the motions that are required for the varied duties of life. The human hand has been regarded as the most facile implement in the world; a horse's upper lip enables him to gather the standing grass



FIG. 62.—POSITION OF BONES IN THE BODY.

within reach of his teeth and to take up the feed which comes to him in any form; the tongue of the ox serves the same purpose, and while the thick lips of the ox are very immobile the tongue serves as a hand; the lips of the camel are large and loose, and

are employed by him as a hand to gather in food or whatever it wishes to take. The muscles which operate the tongue and the lips are related to the bony structure, and the nervous system imparts to the muscles their impetus to act, but the bony frame is the fulcrum; the solid ground on which the muscle is attached and the bony frame thereby becomes the basis of action. The most rapid manipulation of musical instruments by the fingers and the arms are performed through the legitimate mechanical adaptation and activity of the muscles and bones, acted upon by the nerves of motion, and when one watches the rapidity and accuracy of the motions of a distinguished pianist, he marvels at the wonderful possibilities exemplified in such artistic manipulation, and he concludes that the mechanical conditions and facilities of action in obedience to the law of human dexterity constitute the most marvelous facts in the whole economy of life. The sturdy steps of a horse and every motion of the pianist's fingers, and all other motions are under the law of organic action; and if one muscle, fiber or nerve becomes paralyzed it destroys the perfection of the muscular result; thus motion is governed and controlled by nerve, muscle and bone.

FIG. 63. MUSCLES EXPOSED.

This figure represents the muscles with the adipose matter dissected away, leaving the great muscular masses exposed to view. Of course this figure is not intended to be an exhaustive representation of the action of muscle and nerve; it is simply to show the massive agency through which the motive or muscular temperament works out its results. It is not strange that so troublesome a disease as rheumatism, when it is located in the muscular structure should give intense pain and suffering to the unfortunate victim. This muscular system is subject to a

high degree of cultivation, not only in development, but in facility of action, and is of late years attracting more attention among men of leisure

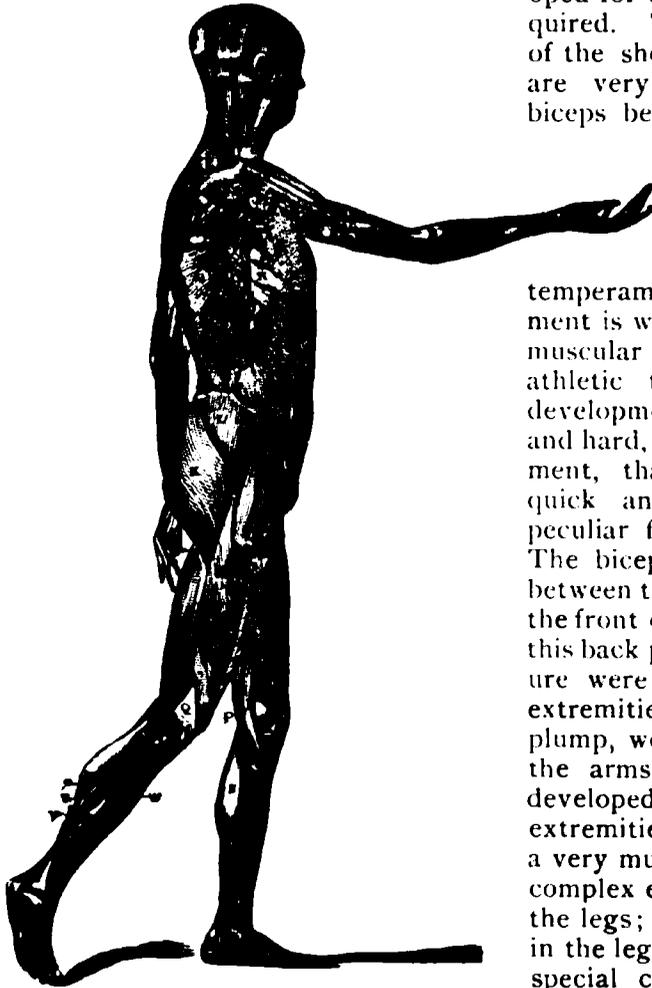


FIG. 63.—THE MUSCLES EXPOSED.

and learning than previously; hence some people think our colleges are making more of mere physical culture than is exactly required, but such matters are apt to regulate themselves and find the proper channels in which to work out their destiny.

FIG. 64. MUSCULAR CULTURE.

This is a back view of a student of one of our Universities, who is an athlete in boating. The photograph is taken with the muscles of the arms and the shoulders wrought up by the law of

the mind acting through muscle, and shows how the different muscles of the arms and back can be enlarged by exercise and hardened and developed for the duties and services required. The large deltoid muscles of the shoulders and the upper arm are very finely rounded, and the biceps between that muscle and the lower arm is very finely cultured and shows in the figure. This does not show a figure of a heavily endowed Motive

temperament; the Mental temperament is well represented. The extra muscular development is induced by athletic training. Some forms of development make the muscles large and hard, and other kinds of development, that which has to do with quick and accurate motion, gives peculiar fibrousness to the muscles. The biceps muscle in the right arm between the elbow and the shoulder on the front of the arm does not show in this back picture as much as if the picture were a front view. The lower extremities of this figure seem large, plump, well-rounded and heavy, but the arms and shoulders have been developed differently from the lower extremities by being made to undergo a very much more positive, active and complex exercise than the muscles of the legs; and here we see largeness in the legs, but not so much a sign of special culture as in the arms and shoulders. The legs have the development which indicates sturdy strength; in other words, still strength, a condition in which the muscles are fixed, while the shoulders and the arms show the culture of the muscles in active working order.

Some years ago two gentlemen came into our office and requested me to give a description of one of them who was a stranger. I took hold of his right wrist with my right hand and grasped the biceps muscle with my left, and he clinched his hand and flexed his arm to develop the muscle, and I was astonished at the

peculiar liveliness and multiplicity of the muscular fibers,—they seemed to be like a bundle of whip cords, and I said, "What do you do with these muscles?" And he said, "Nothing." And I said, "I should suppose if I were blindfolded and had hold of this arm that it belonged to the great violinist, Ole Bull. For I can think of nothing but the intense exercise required to work the violin which would give such a peculiar development to the muscles. When I got through with the examination I found out he was Ole Bull's son, himself a great violinist. If he had been lifting timber and making coarse and clumsy use of the muscles, they would have been hard and solid instead of fibrous strings, all alive, and feeling like a bundle of worms or of snakes. Mr. J. J. Watson was the gentleman with him, and he, being an eminent violinist himself, wrote the matter up for publication, thinking it was very interesting. This temperament then is one of motion, power, endurance and executiveness; persons having it well developed, especially if it be well sustained by vitality and nutrition, will be hardy and well adapted to extended marches and long, weary days of work; they will carry heavy loads and wield heavy instruments, and so become masters of motion and strength; a man of this temperament, on an iron grey horse, well trained as a cavalry man, would make a charge and wield a sword with wonderful effect in battle.

FIG. 65. A GOOD MOTIVE TEMPERAMENT.

Fig. 65 has a strong predominance of the Motive temperament, which is shown by the large bony hands and the rough outline of the shoulders, legs and arms; they do not look plump; to be sure the coat sleeve pre-

vents the perfect outline, but it will be seen that the upper and lower extremities are lean and bony, and that the cheek bones stand up rather



FIG. 64.—MUSCULAR CULTURE.

roughly; the shoulders are square and the neck muscular; the forehead has a bony ridge over the eyes, and it is rather a tall head, and especially tall in the region of the crown, and is somewhat narrow above and about the ears, and if that man knew how to wield his fists in encounter, he would be quick and positive in motion and his blows would be heavy and effective. The hair, eyes and complexion

are dark; his head is long from the chin to the crown; the bones and skin are rather thick, and the whole make-up is enduring.

observation what kind of men can be most relied on for the accomplishment of such duties and service, and will select their men accordingly.



FIG. 65.—A GOOD MOTIVE TEMPERAMENT.

In the selection of men for laborious work, where heavy implements have to be wielded, and heavy weights carried and controlled, this type of temperament will furnish the best material for such work; and men who are engaged in railroad building, bridge building, or the handling of heavy timbers or stone, will learn by

Young men looking out into the open field of life, wondering what they would best endeavor to pursue as a life calling, if they lack the Motive Temperament they should not learn to be blacksmiths, stone cutters, or bridge builders; nor should they go into the heavy lumber business. A man without the excessive develop-

ment of the Motive Temperament can do heavy work, or make a successful muscular effort in emergency and excitement, but it wears on him.

A horse with this Motive Temperament, large bone and strong muscles, will take a heavy load, but he don't like to be pushed and be obliged to work quickly; and men who are wise in the management of horse flesh, will not allow a nervous, sensitive, thin, sprightly horse to be overloaded or placed in a condition where he will be obliged to use more muscular power than his constitution properly warrants.

FIG. 66.—ABRAHAM LINCOLN.

Abraham Lincoln is a good representative of predominant Motive temperament, but in an extended and careful analysis we would say Motive Mental; the Vital temperament was the lacking or delinquent one in his organization. He was six feet four inches high; his arms and legs were long, lank and bony; he had a long, strong neck; the bones were prominent; there was little but muscle, and that was made up of tenacious, hardy tissue. The tendons which connect the muscles with the extremities were large and ample, endowed for power; he was a man who could wield the ax; he was called a "rail splitter," because he was famous as a young man for his ability to work timber into that necessary form for fencing in the great New West. In the border States, which were heavily timbered, the man who could use the ax in felling the forest and in making timber into rails or into cord wood, or preparing it for the saw-mill, or cutting it into lumber, was considered the head worker of the country. In the lumber camps everywhere the work requires muscle and bone, and the men are generally tall and high shouldered, they have long arms and great long fingered hands, but there is not a pound of surplus flesh on them. Abraham Lincoln lived in

the forest-leveling days; he was in the glory of his laborious life about 1830, and in his Western forest home he was a great chopper, a powerful wrestler, and was a mighty man among men, but he had hardly an ounce of fat on his whole masterful frame; it was all bone, muscle, sinew and nerve. As he advanced in life he laid aside the ax, though he was proud to let any friend see he was a good chopper, even while he was President.

As he studied law and practiced it, and brought his mind into relation with mental topics, his Mental temperament was increased and it became more influential; but he never essentially modified his bony structure or the muscular development; of course, as he used the pen more and the ax less, the tensity and hardness and general power of the muscles abated, but a recurrence of the labor which developed it would have called back the former power, and with his added mental development would probably have given that power a better direction than it had in earlier time.

The features of Lincoln were bony and coarse because the bones and muscles were mainly manifested. There are men who have a good bony structure and also plenty of the Vital temperament, but the bony frame in such cases is clothed and covered with abundant flesh and adipose, while Lincoln had but little of the Vital temperament which gives plumpness and smoothness. The Mental temperament was manifested in him in various ways; when he was pleased and was surrounded by conditions that awakened the gentle and tender feelings, his face would lose its hardness, there would come over it a mildness that made his face particularly sunny, especially when he smiled. I have watched him for an hour sitting by his side, while he was listening to one of Henry Ward Beecher's discourses, and as Mr. Lin-

coln was intent in listening to the sermon I had opportunity to scan his face at my leisure. When a certain thought was being uttered by the speaker, anything that was brave and peculiar, his face would be knitted with intense interest, and as it culminated in a flash of wit, or in an outburst of benevolent enthusiasm, Lincoln's rugged face would glow like a burst of sunshine upon the mountain's brow. Again he would show an eager enthusiasm as if he were making a speech himself. This was in the Spring of 1860, before he was nominated for the Presidency. The strength of Lincoln's style of speaking and writing, and the compactness and earnestness which exist in his sentences are the result of mentality working out through the Motive temperament.

Mr. Calhoun had the Motive, Mental temperament, and his utterances were like the stacatto expressions of the strings of a musical instrument, hard and intense rather than like the waving folds of a flag in the breeze, easy and graceful. Mr. Calhoun never joked, he never used a soft and mellow figure of speech; in his sentences he called things by their Saxon names, if they had one. We remember some of Mr. Calhoun's contemporaries: there were Webster, Lewis Cass, Silas Wright and Buchanan, men having an abundance of the Vital temperament, and there was pliability and mellowness in their lips manners and methods, but Mr. Calhoun's voice was like the twanging of a guitar string, as if his thought and his voice came from a string tuned up to concert pitch, only it was not especially musical, there was no fun or persuasive playfulness in it, but directness, sincerity and intense earnestness.

Mr. Lincoln had a strong social nature; he had a keen sense of humor and wit, and his mind was sharply analytical, and therefore he could see in a story the culmination of a long argument. This was often illustrated

by him while he was President; a little story would settle a knotty controversy. A Virginia farmer, a man about as tall as himself and about as bony, came to him with a chronic grievance; the farmer had had about twenty or thirty acres of wheat trampled on and nearly spoiled, first by one army and then by the other, and as he was loyal to the United States he felt that the United States ought to pay him for the damage, and he frequently came to see Mr. Lincoln about it right in the midst of the war, when it seemed questionable as to what the result would be. This tall, lank man stood in his presence and Mr. Lincoln said: "Yes, I remember, you are the Virginia farmer who wants to see me about that field of wheat. It reminds me of a story. When I was running a flat boat over the falls of the Ohio River at Louisville, and trying to work the stern oars so as to keep the boat off the rocks, we had some passengers on board, and among the rest was a woman and her little boy; presently I felt some one tugging at my coat tail, and there was the little boy, and he said to me, 'Mister, will you please stop the boat. I have lost my apple overboard.'" The Virginian thought a moment and then said, "I see the point." And he bowed himself out and never troubled Mr. Lincoln again until the war was over. There was grim humor about that, but the humor and the absurdity were very much better than a sharp argument. General Jackson would have thundered at the man and told him to go back to his farm and defend his wheat, as he did in the case of the New Orleans merchant when Jackson used bales of cotton to make breastworks of them. The owner came out and said, "These cotton bales are mine; I must have compensation if they are to be used for the public good;" and General Jackson took a musket out of the hands of a soldier, and, handing it to him, said: "There, go into the ranks and defend it."

That shows the difference between Lincoln and Jackson in a similar case: Lincoln told a story and sent in that way. Through all his administration he would tell a funny story, when a solid argument would

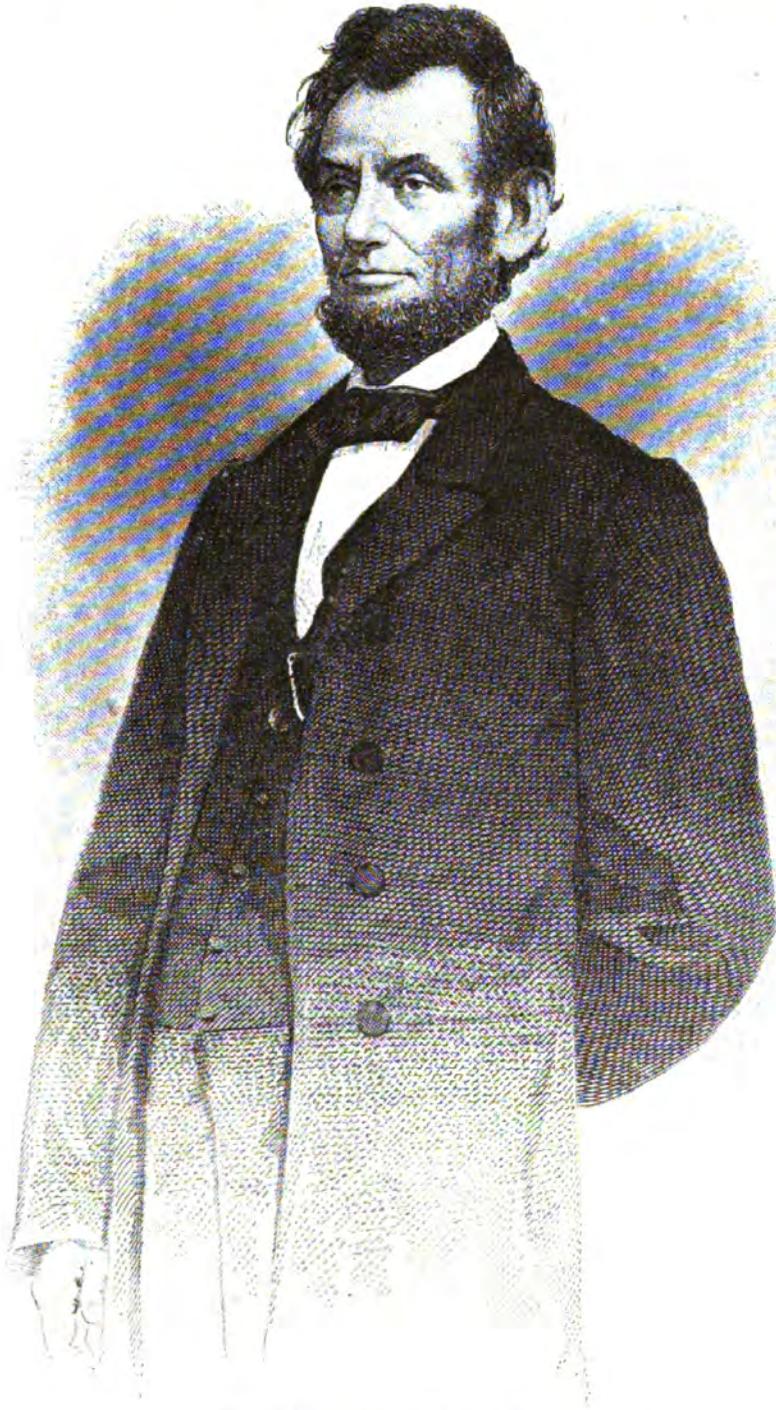


FIG. 66.—ABRAHAM LINCOLN.

the man off feeling cheap but good-natured, and so got rid of the trouble provoke an angry rejoinder and enmity.

FIG. 67.—MISS MIDY MORGAN.

This very remarkable woman died June 1, 1892; she was born in Cork, Ireland, November, 22, 1828; her name was Maria—Midy was her nickname that the cattle men gave her. She was one of a large family of brothers and sisters. Her father was a man of considerable consequence and wealth. As a girl, she became fond of horses on her father's estate, she was a fine horsewoman, and obtained great reputation as a daring rider. She was over six feet high, had a large frame, but was thin as well as tall and lively and vigorous.

In her country she used to ride after the fox and hounds, and she often led the chase among famous horsemen.

Her father died when she was a young woman, and left practically at the head of the family, she took general supervision of the farm, studied farming, cattle raising, and frequently visited the city markets. She raised cattle for the London markets, and also bred horses; horses were her hobby.

The mother went to Italy with Midy and her sister, who was something of an artist. In Rome the young woman resumed her horseback riding, and it was a bold ride that she made one day which secured for her an introduction to the king, Victor Emanuel. He, learning of her fondness for and knowledge of horses, arranged with her to go to England and Ireland and purchase a stock of Irish Hunter mares for his private stable. She accomplished her mission, took six valuable mares from England, through France, over the Alps, to Italy. The commission had been so satisfactorily executed that the king presented her with a gold watch, on the case of which was his monogram in diamonds; he also gave to her a great diamond star.

After fulfilling the king's mission she established a Zoological Exchange, and purchased and exchanged wild

animals for the various zoological gardens in the old country.

Mr. Lawrence, the American consul at Florence, advised her to go to America. In 1869 she arrived with letters of introduction to Horace Greeley, Henry J. Raymond and Leonard Jerome. She applied for a position as a writer on the *New York Times*. Mr. Raymond having died just before she reached America, Mr. Bigelow became editor. He listened to her pleasantly, then remarked, "that there is not a vacant place on the staff, except that of cattle and live stock reporter."

"Well, I can fill that," she said.

He laughed and told her she might try; and she so thoroughly filled the position that she commanded the respect of all the cattlemen and reporters, and was employed on the *Times* in that capacity for twenty-seven years. She suggested improvements in the treatment of cattle, and her writings fairly forced a reform in these matters. She wrote editorials for the *Tribune*, *Rural New Yorker*, *Turf, Field and Farm*, *Hearth and Home*, *Horseman*, *Breeders' Gazette*, and other papers. Her acquaintance grew large and valuable; her opinions came to be looked up to; she received invitations to lecture; she made an address before the Legislature at Albany; went to Washington by invitation of the President and gave him her views on "cattle transportation." She indulged her passion for horses on all occasions and permitted no opportunity to go by to see the best horses in the land. She became acquainted with such men as Robert Bonner and Cornelius Vanderbilt, and was elected member of the "American Jockey Club." She built a singular house on Staten Island that was thoroughly fireproof, of stone and iron, as her home, and was proud of it. She was a big-hearted woman and was always ready to help any one in distress. She loved all forms of animal life, and probably had more animals, of every sort, named after

her than any woman living. It is thought she left a comfortable fortune. She was a well-known figure about "Printing House Square" strong but regular, and her head high, and she carried herself with that spirit of steadfastness and independence that attracted attention;



FIG. 67.—MISS MIDY MORGAN.

and at the cattle market. She wore the regular boot, and, she being above most men in height, walking with a long stride, she attracted attention; but her amiable face, her intelligent expression and her pertinent words, full of wit and geniality, won the respect of all who met her. Being six feet high, and endowed with an ample amount of bone and muscle, she was a good representative of the Motive Temperament. Her features were large and

and her voice was pleasant, her eye invited confidence, her words were magnetic, and her presence was always commanding.

We cordially cherish the thought and the memory of her presence and words for the last quarter of a century. If she had been more endowed with the Vital Temperament she would have been more plump, and therefore would have been very massive as well as stately.

Fig. 68 is taken from life by photograph of a boy 17 years old. He had not been employed at hard work,

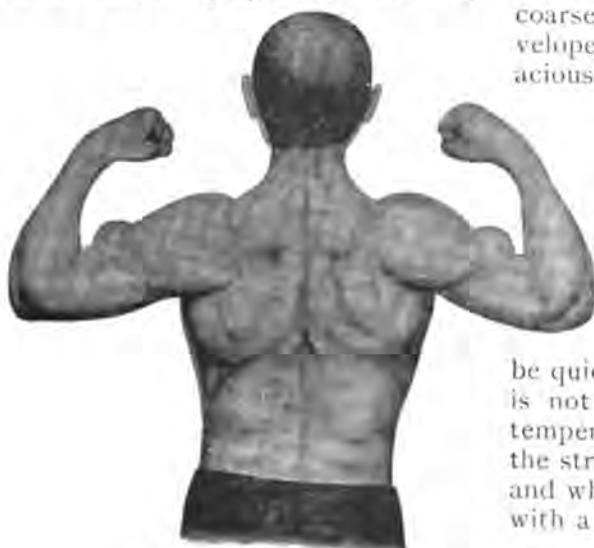


FIG. 68.—MASTER TYRON.

but he was an athlete among the boys, and he would wrestle, tussle and jump and run and play ball. His parents were endowed with abundant muscle, and the mother was tall, strong and muscular, and had a good Vital temperament added to the Motive; her Motive temperament stood in relation to the Vital about as sixty to forty. This boy, therefore, inherited a magnificent Motive temperament with a full degree of the Vital; he was well nourished by the Vital temperament, consequently the bones are well grown and the muscles are ample and plump. The picture thus taken from photograph shows the different pairs of muscles on the back and on the arms and the neck, and if he could have a thorough mental training to develop mind as well as body, he might be a man of notable brain power as well as of brawn.

In daily life there is a tendency for those less endowed with bone and muscle, and more of brain and nerve to become absorbed in study and brain work, and neglect bodily training—and those who are stalwart, take nearly all the exercise of body and less of brain work.

Fig. 69 represents a boy with a predominance of the Motive temperament. His hair is dark, strong and coarse; the bones are amply developed and his muscles are firm, tenacious and enduring without much of the Vital or Mental temperament to smooth, soften and refine his make-up; he will make a man adapted to earnest business, requiring more or less labor and physical exertion and endurance, manifesting a firm spirit and quiet, hardy courage; he will not be quick, flashy and impetuous; there is not kindling wood enough in his temperament to set him off quickly in the strifes and controversies of life, and when he becomes fairly imbued with a subject and his mind is made



FIG. 69.—BOY, MOTIVE TEMPERAMENT.

up, then positiveness will express as much as any word can of what belongs to his character. A girl with this temperament will be an energetic thinker and worker with positiveness and endurance, and be worth a dozen soft handed, pliable specimens of grace and beauty.

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.**ELISHA POWELL HURLBUT.**

SOME one has said that honesty in the legal profession is as scarce as blossoms in November. However true that may be, we had in E. P. Hurlbut one of the most distinguished advocates of Phrenology, an honest lawyer, and a man of great moral worth. He was a man of uncommon natural abilities, and took comprehensive and correct views of human rights. His books, entitled "Essays on Human Rights and Their Political Guaranties," "Civil Office and Political Ethics," and others, commanded much attention. His aim was to point out faulty law and how to remedy it. His sympathy for woman was strong, and he reasoned ably to secure her constitutional and property rights, both by his pen and by lectures. Mr. Hurlbut was very much interested in Phrenology, and much attached to Prof. L. N. Fowler as a representative of Phrenology. One morning in passing the phrenological office in Nassau street, he stepped in and said, "Mr. Fowler, Stephen Burroughs is in town, and it would be well if you could examine his head and take a cast of it."

At night, as he was going home from his office, he again called to see if anything had been done, and he found not only had my brother examined Mr. Burroughs' head, but had taken a cast, and there it was in the office, and he was greatly rejoiced.

Anything that indicated progress of the knowledge of the science was very pleasing to him. At his boarding house he was not slow in introducing the topic of Phrenology, and speaking in its favor. Some of the boarders ridiculed him for his enthusiasm, and said if Mr. Fowler could examine their heads and give them correct delineations they would believe in Phrenology. Mr. Hurlbut at once made arrangements for Mr. Fowler to spend an evening at his house and examine the heads of these opponents. The evening came, the examinations were given, and so accurately that Mr. Hurlbut was

charged with having "coached" my brother before he came, and though he denied it, they pretended they did not believe his statement. In one of these delineations he told the young man that he was fond of fast horses and would often be on the Bloomingdale Road (then the noted road for trotting). This was a fact well-known to all the friends of the young man, and they thought Mr. Fowler must have been told about it. Finally, knowing Mr. Hurlbut so well, and that he would not state a falsehood to ward off a charge, they acknowledged that they believed him and that Mr. Fowler had made great hits.

In this way and in many others he was constantly introducing Phrenology and interesting people in it. These are only two facts of many that could be given.

When Mrs. Farnham was matron of the Female Prison at Sing Sing she wrote a pamphlet on criminal jurisprudence, and Mr. Hurlbut aided her in its preparation, both by suggestions and with his pen.

The last interview I had with Judge Hurlbut was a few years previous to his death, when he was urged to have some of his books republished. This he would have done if he could have made such a revision of the books as he thought necessary, but his health did not allow him to do this. His books were all valuable and intended for the improvement of the human race, but they are now, as far as we know, out of print and only attainable at second-hand book stores.

The following more extended sketch of Judge Hurlbut was written at my request by his son, a distinguished lawyer of Albany:

"Elisha Powell Hurlbut was born in Herkimer county, N. Y., October 15, 1807, and was the youngest child of Judge Daniel Hurlbut. His paternal ancestor, Thomas Hurlbut, came to America in 1636 and settled in Connecticut. He was a soldier under Lion Gardner, and was famous for his brav-

ery in Indian warfare. For his gallant defence of the settlement when invaded by the savages, he received from the Colonial Government of Connecticut a large tract of land.

Judge Hurlbut finished his education at the Fairfield Academy in his native county, and after a short time spent in the study of medicine with his uncle, Dr. Westle Willoughby, he commenced the study of law with that gifted scholar and lawyer, Owen Grey Otis, at Little Falls, N. Y. Upon the death of this gentleman he completed his law studies in the office of the late Judge Arfaxed Loomis at Little Falls, and after seven years' clerkship (the time then required), was admitted to the Bar and practiced law with Judge Loomis until his removal to New York city in 1835. He was conspicuously successful in his practice, having received in the celebrated case of the Croton Dam (BAILEY VS. THE MAYOR)

the largest fee ever paid at that time in the City of New York. He was very prominent in all cases involving the right of eminent domain, in acquiring land taken by the city for the Croton Water Shed, and in the condemnation of land by the railroads in Western New York.

In 1847 he married Miss Catherine Cuyler Van Vechten, of Albany, N. Y., by whom he had four children, of whom two sons and one

daughter survive him, Gansevoort de W. Hurlbut, of the Albany Bar; Mrs. Morris S. Miller and Ernst C. Hurlbut. Mrs. Hurlbut died in 1880. After leaving the Bench of the Court of



ELISHA POWELL HURLBUT.

Appeals, he retired from practice and went to reside at Newport, in his native county, but soon went to Glenmont-on-the-Hudson (near Albany), and interested himself in personally superintending the education of his children and in following the pursuits of a country gentleman. He was comparatively inactive until his intense love of freedom and of country compelled him to join, heart and soul, and with all his eloquence and logic, in the effort

to save the Union. He was distinguished for his loyalty and zeal until the final triumph of the Union arms. He was urged by the Republican party to take official positions. At one time the nomination of Governor was offered him, but at all times he declined to accept any office whatever.

He was a profound reasoner, an eloquent and magnetic speaker, and noted for tireless energy and perseverance in anything he undertook. He was particularly successful as an advocate and as a public speaker. His strong love of justice, and his uniform kindness to the unfortunate, the poor and all helpless creatures, were remarkable. Before being admitted to the Bar he had tried nearly 1,000 causes. A romantic incident, one recalling the early days of America, was his celebrated defense of his old tutor in woodcraft and rifle practice, Nathaniel Foster, for the killing of an Indian in the wilks of Herkimer County. The old hunter insisted that he be defended by his pupil, and he was. The trial was held before Judge Hiram Denio in Herkimer, and resulted in an acquittal. There is much reason to believe that "Natty Foster" was the original of Cooper's famous "Leather Stocking;" perfect similarity existing in given name, habits of life, and personal description of the real and imaginary characters. The trial is reported in full in Simms' "Trappers of New York." The defense was entirely novel. The trial was also remarkable from the fact that Judge Denio for the first and only time was overruled by his lay associates upon the admission of evidence which saved the hunter's life.

He was about 27 years old when he went to New York and formed a law partnership with the late Judge Alexander S. Johnson, late Chief Judge of the Court of Appeals, and later on, Charles F. Southmayd, Esq., became a member of the firm of Hurlbut, Johnson and Southmayd. The partnership continued until the election of Judge Hurlbut to

the bench of the Supreme Court, of which he was later Presiding Justice, he being the youngest Judge up to that time who had ever filled that position or been a member of the Court, as well as the first Judge to hold office under the election system established by the Constitution of 1846. He was nominated by Tammany Hall, and received notice of his nomination on his wedding night. From the Supreme Court he went to the Court of Appeals. While here a novel question arose touching the very existence of the Court of Appeals. The Constitution of 1846 provided that the court should consist of eight Judges, and it was claimed that in the absence of any Judge there was no court. Judge Hurlbut wrote the opinion, holding it to be an efficient court although a lesser number than eight Judges sat, and the majority of the Court upheld him. (Comstock Reports.)

He is said to be the first American Judge of an Appellate Court that quoted Scripture to sustain his position, and he quoted from the first book of Kings, Chap. 18, v. 38, and Job, Chap 1, v. 16, and Job, Chap. 38, v. 25 and 35 to get at the definition of lightning.

The question being, was a mechanical destruction by lightning without ignition, fire within the meaning of an insurance policy insuring against damage "by fire by lightning"?

The Judge was a Democrat until the Civil War when he helped form the Republican party in this State, and after the close of the war he was an independent voter. About 1836 he delivered in New York City a course of lectures which later on formed a part of his celebrated work entitled "Human Rights and Their Political Guaranties." This book was published by Fowler & Wells in 1845, also reprinted in Edinburgh, 1847, by Mac-lachlan & Stewart, and by Simpkin, Marshall & Co., London. He was, as the book shows, one of the earliest advocates of the rights of woman, and was opposed to capital punishment; he also strenuously contended for reform in the following important matters.

At the time he wrote, the Constitution prohibited any minister of the Gospel or priest of any denomination from holding any office. Through his personal efforts the convention which revised the Constitution of 1846 struck out this provision. He also urged the impropriety of subjecting a witness to a religious test, showed the injustice of not permitting a witness in a criminal action to testify in his own behalf, and of not allowing husband or wife to testify for each other. He was chiefly instrumental in carrying out these reforms, and almost all the States which since then adopted their Constitutions have conformed to that of New York.

About 1843 he published in the *New York Evening Post*, edited by William Cullen Bryant, his essays on constitutional reform. They attracted much attention as they urged most radical reform in existing abuses. These essays elicited the most glowing praises from the Democratic press, as they showed remarkable ability. Later they were copied in full by the *Albany Democratic Reformer* of January, 1844. They demanded a reformed constitution, that the legislative power be limited, restoration of power to the people, abolition of special legislation, restriction of executive patronage, diminution of offices, their creation by the Constitution and not by the Legislature; private rights against corporate monopolies, abolition of trusts and the credit system, better protection of the elective franchise (in which he made a most eloquent plea for the full political rights and equality of woman, the only limitation he would place upon the right of suffrage being inability to read the English language with intelligence); the evils of special legislation, conservatism and reform in politics, abolition of the old Court of Chancery, and suggested the union of the tribunals of Law and Equity, fearing the power and patronage of the Court of Chancery as wielded by one man who thus "exerted an immense power unknown to the common law." In 1840, at the request of the Superintendent of Common Schools of the

State, he wrote and published a work under the title of "Civil Office and Political Ethics," which was arranged for the use of schools and laymen, with questions and answers containing a digest of the law relating to the domestic relations, wills, executors, sheriff, jurors, witnesses, constables, powers and duties of State and Federal Government; jurisdiction of the courts, civil division of the State; salaries and duties of all officials, and political ethics in general. The book was well received, and the Superintendent of Schools, seconded by the Regents of the University, recommended its introduction into the schools of the State.

In 1840 he wrote and largely circulated a pamphlet of considerable size and merit, entitled "Secular View of Religion in the State, and the Bible in the Public Schools," as well as one entitled "The Liberty of Printing;" also "The Priest of the Sun and Secularism," the last two being published by the Index Company of Boston in 1878.

He was deeply impressed with the truth of the science of Phrenology, as taught by George Combe, with whom he was upon terms of the warmest friendship. When Mr. Combe, after completing his two years' lecture tour in America was about to return to Scotland, his New York class in Phrenology presented him with an elegant silver vase. Mr. Hurlbut was chairman of the committee having the matter in charge, and as such made the presentation speech. This vase was exhibited at the fair of the American Institute and the gold medal awarded to its manufacturer. It was considered by the judges one of the most exquisite specimens of art ever produced in the United States. It was of Grecian model, having on one side three medallion likenesses of Gall, Spurzheim and Combe, and on the reverse side one of Dr. Benjamin Rush and Dr. Charles Caldwell.

Mr. Hurlbut believed in treating criminals from a phrenological point of view, restraining them always and

effectively, but denied the right of society to take life; and when, in 1854, Mr Combe published his great work on 'Punishment,' he said, 'It is gratifying to us to be able to cite the authority of the Hon. E. P. Hurlbut, of the New York Supreme Court, a lawyer of great talents and experience, in support of the principle now laid down — i. e., that society has no right to take the life of the condemned, the ends of

justice being accomplished when the ability of the criminal to do harm has been effectively restrained.'

Thus, after an active life, in which his best efforts had been devoted to governmental reform and correction of abuses, the amelioration of the lot of mankind and in attempting to promote and secure human happiness he died September 5, 1889, in his eighty-second year, at his home, at Glenmont-on-the-Hudson."

CHARLOTTE FOWLER WELLS.

EDWIN BOOTH.

IN all true art, whether expressed on canvas with blended hues, on parchment with woven words, by forms of stone, through concord of sweet sounds, or by the action of a play, the purpose is to suggest the subtle workings of the soul that find no voice in common speech; to mirror the nobility of nature, and with the fire of beauty so to gild all paltry cares and low realities that even the dullest life may glisten with jewels of hope and joy.

In this sense Edwin Booth was certainly an artist. Few men ever felt more deeply, thought more finely, or in imagination hovered more closely to the weird bourne between the realms of the known and the unknowable. Few have carried such a heavy heart so long in silence and still fewer have always been so near the masses of their fellow men and at the same time so far removed. He well illustrated the aristocracy of brain, not in logic, science, or religion as usually understood, but in the sphere of æsthetic sentiment. And as he seemed fated to wear the crown of genius he also bore the incubi that haunt all royal heads. He shrank from contact with the multitude. He was always before them, but never among them. He was the opposite of men like Beecher and Ingersoll. His emotions were not volatile or effervescent. They could not escape

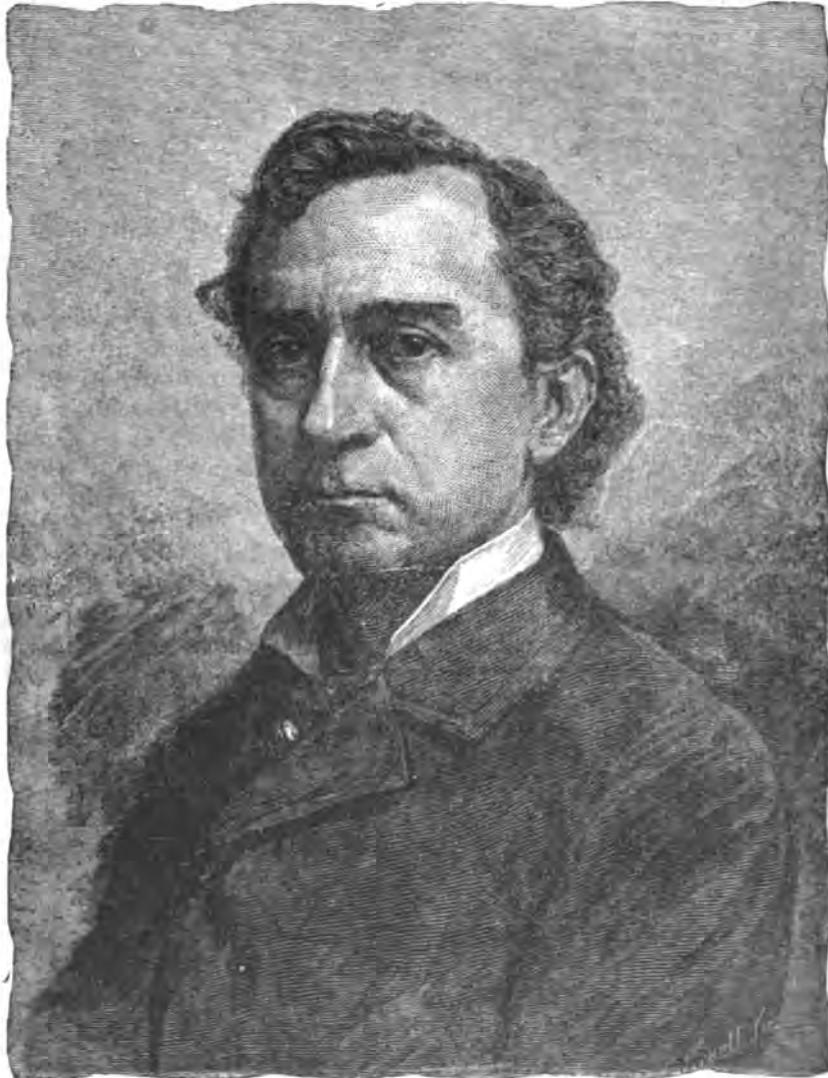
through ordinary channels. Art was the only language in which he spoke without reserve.

Men who are responsive, malleable and communicative are likely to be mellow in their bodily structure. The majority of those whose lives are earnest, serious and despondent are spare, like Cassius, and their blood contains but little fuel for the flames of sensuous delight. Their fibre is firm and solid; their bones are often large and their features prominent. Mr. Booth belonged to the latter class, and though always of handsome proportions as to both body and brain, his normal condition was that of marked freedom from surplus lymph or adipose material.

His temperament was the so-called bilious or fibrous. In the usual American classification it would be the motive, or, more strictly, the mental motive. By many old writers it would have been described as the melancholic. Its indications are strong features, black hair and eyes, dark complexion, and dense, closely woven tissues. This is the temperament of the tropics. It is peculiar to the Latin races, and explains in part the depth, intensity and endurance of their passions. Combined with a proper development of the brain it is favorable to profundity and penetration of intellect. It is the primary constitution in the majority of the greatest men and women, both saints

and sinners. It has been possessed by many of the most eminent reformers and martyrs, also by many of the most notorious criminals, the degree of moral feeling being determined by the form of the brain. It is essentially masculine, positive and active,

lime in virtue or unspeakably bad. Upon the moral and æsthetic sides, among the best illustrations of it in history may be mentioned the melancholy Dante, George Eliot, and our pessimistic Edgar Allan Poe. The resemblance between the sad and pen-



EDWIN BOOTH.

in contradistinction to the feminine, negative and passive. Like anthracite coal, it is often slow to kindle, but when once thoroughly ablaze it burns with a lurid and all-devouring heat. It inclines to fatal extremes. Its possessors are likely to be either sub-

sive faces of these three geniuses and the grave and gloomy countenance of Edwin Booth must be apparent to the most unobserving person. The large, dark eyes and the long, drooping nose were especially characteristic of them all.

Mr. Booth was called the "Prince of Hamlets." Other men imitated the character, but he acted it. He was born to play it and needed no "make up," for nature had already cast him in that mould. Those who wish to understand either Hamlet or Booth will do well to study both.

The dead tragedian had a large brain in all the best senses of the term, for the developments were chiefly in the superior and frontal portions. The cast of his head taken after death shows a basilar circumference of twenty-three inches and a trans-coronal measurement from the opening of one ear to the other of fourteen inches. From ear to ear around the forehead the distance is thirteen inches, and from the root of the nose over the median line to the occipital spine fourteen and a half inches.

The occiput, or back head, was not large. There was not much friendship, attachment, love or affection of any kind for persons outside of a very select circle. He was exceedingly loyal and devoted to a few, but he did not wear his heart upon his sleeve. Indeed, not many men could endure the seclusion which seemed to afford him satisfaction. And, though unconsciously a mighty conqueror of the gentler sex, very few women could have commanded his love. He was instinctively a monogamist, and the moderate development of his cerebellum, as well as the compressed and finely chiselled lips and chin, betoken conjugal affection, both refined and under excellent control.

The head was rather high at Firmness, but the calipers showed only $5\frac{3}{4}$ inches from the auditory opening to the seat of Self-esteem. He had very little of the feeling of self-reliance or self-importance and not much love of approbation. Probably no other man ever received so much applause with equal indifference. There could scarcely have been a more sensitive or modest nature. He used to say that his first ambition was simply

to become a "leading man." His head was also narrow at the sides, a little above and forward of the ears, in the region of Acquisitiveness, the diameter of the cast there being only about six inches. At Destructiveness, just above the ears, the calipers showed only a little over six inches, and at Combativeness there was only an average width.

The crown rose to a considerable height in the central portions, at Veneration, sense of the marvellous and benevolence. His mind seems to have been centred in a species of aspiration toward certain planes of sentiment, which most persons would define as religion. Mr. Booth may not have had any fixed belief in the orthodox creeds, but he must have been very sensitive to all occult influences, and inclined to meditate upon the mysteries of the "whence and whither." To the conspicuous strength of the sentiments in question may be traced much of his success in delineating the characters of Shakespeare.

His benevolence was not of the sort which goes out freely to strangers or to any individuals as such, except a chosen few. This part of the brain, as any one may see in a profile photograph, was developed upward and backward, indicating a broad philanthropy rather than a special and ready sympathy for immediate misery, excepting always his nearest friends and relatives. Hope was very weak, and its deficiency produced a sloping appearance a little below and forward of Firmness, which is at the summit of the head on a line with the ears. The head was wide at Caution. Conscientiousness was larger than it appeared, on account of the drooping of several adjoining convolutions, particularly those of Self-esteem, Approbativeness and Hope. However, the sense of duty is often deficient in artists of all classes, for it tends to produce an inflexibility of thought and manner which is somewhat opposed to the spirit of artistic work.

The forehead was finely balanced. It was symmetrically developed in nearly every portion. The perceptives—Individuality, Form, Size, Weight, Color, Eventuality and Locality—were all large. Order, the mathematical faculty, and Music seem to have been moderate. His order was the result of taste, love of beauty and a mechanical sense, rather than a desire for primness and precision in material arrangement. He had also a good development of the upper forehead, which signifies reflective intellect, or the power to think and philosophize. The prominent eyes gave unmistakable evidence of phenomenal verbal memory, eloquence and fluency of speech. The form of the lids suggested sincerity, and the general expression indicated poetic sentiment of the highest order. The diameter in the upper temporal region of the cast at Ideality is five inches. The cast of Lawrence Barrett at the same spot is three-quarters of an inch wider. Barrett had a more expansive, turgid and florid imagination than Mr. Booth, but the latter excelled him in genuine artistic instinct and taste, as a result of his closer fibre and more harmonious brain. Barrett's ideality appeared like a deformity on his head, exactly as was the case with the author of "The Raven."

In such extraordinary endowments, when isolated, there is sometimes a bulge or elevation, which encourages people in the false idea of protuberances as the basis of phrenological estimates. The true method is to consider the diameters of the head or the length of fibre from the opening of the ear, which is just opposite the capital of the spinal column and represents the common centre from which the different parts of the brain are developed.

There was no phenomenal width at any part of Mr. Booth's head, and as to his Ideality, he had more exquisiteness of feeling than extravagance in

this direction; and in appreciation of the quality of things rather than their mere ornamentation, and in the conception of a high polish on any kind of work, whether material or mental, it is doubtful if he had any superiors. He was not a great mimic in the ordinary sense, and while he had the rare ability to disguise his personality within certain limits he was best in the interpretation of a few sublime characters with which he sympathized at heart, such as Hamlet, Richelieu, and Lear.

He was a great actor largely because of his general superiority as a man, and he might have become distinguished in many other departments, especially in law or medicine. He could have been eminent as a surgeon, and but for his modesty he would have done much more than he did in a literary way. He was magnanimous and brave, generous and tender. No one can look at his classic features or princely head without a thrill of admiration. Of his faults, whatever they were, we do not now care to think, and if we ever consider them it will be to recognize them simply as misfortunes, legacies from ancestral errors, mistakes of the head, not of the heart.

Edwin Thomas Booth was born on his father's farm in Harford County, Maryland, November 13, 1833, "on a night memorable for a great and splendid shower of meteors." He made his first appearance as an actor at the Boston Museum, September 10, 1849, in the part of Tressil, in "Richard III." In his early career he passed through many bitter experiences. Indeed, his successes in later years were largely due to the disappointments which attended his first efforts. The shadows of sorrow in his own life became vivid colors in his portrayal of other characters on the stage. He was married twice, and left an only daughter. His death occurred at the Players' Club, New York, June 7, 1893.

EDGAR C. BEALL, M. D.

CHILD CULTURE.

ON TRAINING OF CHARACTER.

In an article on the need of improved methods in public education for the moral development of children Mrs. Diaz says earnestly: "The first step would be to make school committees and boards of education acknowledge that to insure honesty is a legitimate aim of school education; that teachers should be taught methods of moral training as they are taught ways of teaching grammar and geography; that this is as much the more important as it is more important that anyone be an honest person than a grammatical person." Similar language has been used in this magazine by the editor. She goes on: Honesty can be secured by proper training, as Horace Mann declares. The same is true of all noble qualities. As to methods, perhaps the most effective one would be that used by novelists. When they wish to make wrong seem despicable and right adorable, they do not use moral maxims, do not make lists of rules, do not scold; they show up human life, human life just as it is lived, with its trials and temptations, its joys, woes, failures, successes. Educators should avail themselves of this means of reaching the very inmost of the child by way of the heart and imagination. Children's sympathies are always enlisted on the side of the true and the brave. Thus, a story illustrating the noble traits of character, truth, honor, justice, love, sincerity, faithfulness, is sure to touch the heart of a child, and every such impression tells. Of great value in this character work would be discussions and conversations tending to draw out thought in regard to moral problems and trial situations, and showing the necessity of deciding every issue, however small,

by principle. The various incidents of school life and of newspaper mention might thus be made useful. Character is catching. Biography, therefore, would come wondrously well into the programme. Make room for it in this way: Let go the historical details of the savagery of wars and battlefields, the demoralizing record of the trickeries, and vices, and follies, and ambitions, and jealousies, and rivalries, and grasping greed of kings and grandees, made such by accident of birth, and let the children learn about the world's real kings and noblemen, nature's grandees, those who have thought the grand thoughts, and planned the grand plans, and proclaimed the grand principles, and lived the grand lives. For these have been the real sovereigns of the world; these are they who have saved the race, and of such as these are they who will lead it to its high destiny."

These are practical suggestions and right to the point. The trend of teaching in the line of common education is against the exercise of the higher emotions of children, and as a natural sequence what of emulation becomes aroused concerns the lower passions and acquisitive nature. The same writer further insists that the teacher should familiarize children with the innermost lives of the very choicest of humanity, with their principles of action and their thoughtful utterances. The really (royally) high education is that of thought and principle. These are the reigning powers simply because they prompt and control action. The inventions and discoveries, with all the progressive movements which have set humanity onward, have come from thoughts, not from thrones. The high ideas of a few persecuted wanderers were the

beginning of a nation. Says Carlyle, "The sailing in the *Mayflower* was properly the beginning of America." There were straggling settlers there before; some material, as of a body was there, but the soul of it was this. Ha! These men I think had a work!" And Lowell says, "Next to the fugitives whom Moses led out of Egypt the little shipload of outcasts who landed at Plymouth are destined to influence the future of the world."

Plainly, education in a republic should do more than fit men for earning a living, using this term in its common meaning, or for attaining high worldly position. It has been well said, "Never will democracy be satisfactory until we have learned to make every man in the land a nobleman." The plan laid by Sir Thomas More some four hundred years ago, had provision that "every child be thoroughly educated" and thus, "the great cause of crime and misery banished." Says one of our best writers, "Education is the element of freedom. . . . Freedom implies education of heart, head, and hand, . . . a preparation for all the duties of life."

The Vine and the Wall.

"I am so weak," said the little vine,
 "Over the wall my tendrils twine,
 I quiver in every passing breeze,
 And bear no fruit like the orchard trees.
 No birds can build in my branches small,
 I wonder why I was planted at all."
 The old wall heard her, and answered low,
 "You were planted over my stones to
 grow,
 You, with my strength, must your beauty
 blend,
 And each to the other some good may lend;
 The world has need of us, each and all,
 The clinging vine and the rough gray wall,
 And so,
 Although
 You may not know,
 Be content, little vine, just to grow."
 —Selected.

UNKIND PERSONAL REFLECTIONS IN FAMILY TALK.

From a recent number of *Harper's Bazar* we take a good illustration of what is far too common in family life.

If a man's foes are those of his own household, certainly a woman's severest critics are to be found there also. Few of us realize how surely our words and actions are being weighed and measured by the observers, large and small, who surround us. We are unconscious of the judgments passed, because they are usually silent ones. When they happen to be spoken out instead of only thought, we are taken aback, and sometimes appalled, at the arraignment and sentence of which we had been entirely unaware.

It is the privilege of the family critic to be ruthlessly frank. Politeness is unnecessary, and consideration for the feelings of the condemned one ridiculously inappropriate. The strictures are given carelessly and freely, and offence at the plain speaking is a contingency never imagined.

"It is only Jennie; she always says what she thinks." "No one minds Will; he always speaks out." "One's family, of course, may say anything." And why, pray?

Children are the most terrible of family critics. They see so straight. Your "no" to them means "no," and your "yes" "yes." You cannot deceive them with half truths, or by a juggle of words. They cut through your subterfuge and convict you at once. Their straitforward simplicity makes you ashamed of your falsehood.

And of all critics the boy is the cruellest. He is no respecter of vanities and shams. His cool questions and downright remarks make you writhe while you laugh, and laugh while you burn.

One of this sort, aged fifteen, asked lately, "Have you got a sinewy neck, mamma?"

"Gracious!"—with a start. "What do you mean?"

"Why" an inquiring and observing expression in his eyes—"I read the other day that all literary women have got sinewy necks. It said one could

always tell 'em that way. It was a never-failing test. Did you ever notice it?"

"Never!" hastily. "You will have to judge for yourself. I'm sure I don't know."

"Well," meditatively, "I think, perhaps, it is true."

What answer can be given to such refreshing candor?

A BOY WITH A GOOD HABIT.

Harry had seen some older boys flying their kites from the top of a house, and thought it would be nice fun if he could do so too. So he came to his aunt and said:

"Aunt Mary, may I go up to the top of the house and fly my kite?"

His aunt wished to do everything to please him; but she thought it was very unsafe, so she said:

"No, Harry, my boy; I think it is a very dangerous sort of sport. I'd rather you wouldn't go."

"All right. Then I'll go out on the bridge," said Harry.

His aunt smiled and said she hoped that he would always be as obedient as that.

"Harry, what are you doing?" said his mother one day.

"Spinning my new top, mother."

"Can't you take the baby out to ride? Get the carriage, and I'll bring him down."

"All right," shouted the boy, as he put his top away in his pocket, and hastened to obey his mother.

"Uncle William, may I go over to your shop this morning?" said Harry one day at breakfast. "I want to see those baskets again that I was looking at yesterday."

"Oh, yes, Harry," said his uncle; "I shall be glad to have you."

"But I cannot spare you to-day, Harry," said his mother. "I want you to go out with me. You shall go to the shop another day."

"All right," said Harry, and he went on with his breakfast.

No matter what Harry was asked to do, or what refusal he met with in

asking for anything, his constant reply was, "All right." He never stopped to worry or tease. He never asked "Why can't I?" or "Why mustn't I?"

The secret of all this was that Harry had been taught to obey, and also to obey in good humor.

DEFINITIONS OF A BABY.

A London paper offered a prize of ten dollars for the best definition of a baby. The following are some of those sent in:

The bachelor's horror, the mother's treasure, and the despotic tyrant of the most republican household.

The morning caller, noon-day crawler, midnight brawler.

The only precious possession that never excites envy.

The latest edition of humanity of which every couple think they possess the finest copy.

A native of all countries who speaks the language of none.

About twenty-two inches of coo and wiggle, writhe and scream, filled with suction and testing apparatus for milk, and automatic alarm to regulate supply.

A quaint little craft called Innocence and laden with simplicity and love.

A thing we are expected to kiss and look as if we enjoyed it.

A little stranger with a free pass to the heart's best affections.

That which makes home happier, love stronger, patience greater, hands busier, nights longer, days shorter, purses lighter, clothes shabbier, the past forgotten, the future brighter.

A tiny feather from the wing of love, dropped into the sacred lap of motherhood.

(The last given won the prize. We remember a definition given once by an old "bach," and thought it excellent at the time—"Sweet briars in the garden of life." *Ed. P. J.*)



THE HUMAN APPETITE.

IT is reasonable to suppose that the appetite of the original man was perfectly reliable, discriminating between proper and improper food, selecting that which is most promotive of health and discarding all that might in any way prove adverse to his physical welfare. It is also true, probably, that the normal appetite of to-day, if it exists, is able to make such discriminations in the selection of food as will be a safeguard against penal disturbances, and, in addition, will determine the amount of food demanded for the restoration of the waste tissues, every thought, every mental impulse and every physical act consuming vital force making an urgent demand for daily food. Since the poisons are more or less unpleasant to our senses, when in their natural condition, there is but little danger of harm from them, unless they are taken from choice, this seeming in accordance with the merciful design of the Creator. (In the brute creation the range of food is very narrow and limited, only wholesome and safe food being taken by them, all poisons—to them—as we suppose, being so disgusting that they do not take them, having no disease, only so far as they are subjected to diseasing influences by being within the range of mortal life and civilization. We infer that they never die, save by accidents and old age—some arriv-

ing at an advanced age in a few minutes, or hours, at most.)

It is supposable that if man had remained in his natural condition, with normal appetites and tastes, he would have been as free from disease as are the lower orders of creation, guided by instincts, in the absence of discrimination, reason and conscience. Instead, the so-called civilized races are weak and effeminate, hospitals being almost as necessary as our dwellings. It is safe to say that more than three-fourths of the existing diseases are produced, or materially aggravated, by the indulgence of unnatural appetites, all producing derangements of the organs of digestion, very largely affecting all parts of the system, more immediately the brain—the monarch of all the other powers.

Some of the more prominent of the causes of these stomach derangements are rapid eating, drinking with the meals—as a means of forcing the food into the stomach in the shortest time; taking too many meals or lunches; eating irregularly, without any system in the matter of the time for the meals; using food difficult of digestion—pork being a good representative of this class of food; too great a variety at each meal—the few articles eaten by such animals as the ox, horse and elephant, noted for their strength and endurance, may

well illustrate this matter—the general term, gluttony, comprehending all that need be said on this subject.

It is a humiliating fact that the “fall” has produced a sad degeneracy in the matter of abnormal appetites. While it is true that plain, simple, easily digested and nutritious food, such as the fruits and grains—the latter being far more nutritious than animal food—will the best satisfy the natural appetite, the average man and woman are not satisfied with anything short of a wide range of articles, many of which are comparatively innutritious, severely taxing the digestive organs and causing much disease and suffering. That must be a strange and perverted appetite

which demands earthy and inorganic substances, such as chalk, clay, slate pencils, and the like, such customs having been formed in imitation of the habits of Indians in both North and South America. It is presumable that such abnormal appetites are more usual among the young, especially girls, than among older and more thoughtful persons. If to the use of such articles we add the whole range of spices—pepper, mustard—lard—as found in all of the so-called rich pastries—the pickles, vinegar—as generally used—strong tea and coffee, etc., there will be ample materials from which to produce and foster an abnormal appetite.

Dr. J. H. HANAFORD.

THE DRAWBACKS OF SMOKING.

FROM A FRIENDLY POINT OF VIEW.

A writer in the *Gentleman's Magazine* of London, who, we may suppose, is not an opponent of tobacco-using from a moral point of view, but nevertheless makes a case that is against the common modes of burning tobacco, in rather technical phrase. He says the quid, the snuff-box, the pipe, the cigar, the cigarette—each embodies a phase of error. Tobacco consists of the leaves and stalk of a plant charged with an aroma, purifying, sustaining, exhilarating, and fragrant to the human being. Like the aroma of a rose this aroma should be inhaled in the form of a cool vapor, by the human nose. The chewer uses the tobacco at the right temperature, but in the wrong form, and puts it into the wrong place. The snuffer reduces the leaves and stalks to powder and puts it up his nose. He uses the tobacco at the right temperature, and puts it into the right place, but in the wrong form. The cigar smoker gets the tobacco into the right form, but puts it at a wrong temperature into a wrong place. The cigarette smoker blends paper with the tobacco. The pipe smoker puts his tobacco into a receptacle which is used for an in-

definite time, is very difficult to clean, and tends to produce cancer of the tongue and lips.

Moreover, in all forms of smoking, the tobacco becomes saturated with the smoker's breath. This seems to be almost poisonous. It is this which causes the lower half of a smoked cigar, if left on the table for a few hours, to become indescribably rank; it is this which makes the smoke of tobacco in a foul pipe noxious, and the smoke of tobacco not pressed down to the bottom of a clean bowl, nauseous even to the smoker himself. For wholesome smoking, the lower half of the cigar or cigarette should be thrown away; the pipe-bowl should be kept as clean as the stem, the tobacco pressed well down in it, and the contents, when three-quarters have been consumed, shaken out. All the injury to the smoker will then arise from the red-hot smoke, ashes, and dirt with which he plasters his mouth, throat, and stomach.

Nature protests as best she may against this varied abuse of her bounty, she tweaks the incipient sufferer's nose with endless “magnificent sneezes.” She weakens the cigar-

smoker's heart, and sometimes threatens him with paralysis; she inflicts cancer of the lips and tongue upon the pipe-smoker. A child who sucks a foul pipe she sometimes strikes dead. What is the lesson she is trying to teach? What is the right mode of using her delightful gift? Obviously to reduce it to vapor, to cool the vapor, and to apply the cool vapor to the nose. For this end a combination of the hookah and Rummel's odorator is all that is needed.

The closing remarks do not offer any compensation for the detail of pernicious effects that are charged to the account of smoking, for if it be admitted that the hookah and odorator would eliminate the evils that lurk in the tobacco leaf the number of those who would employ such interventions would be so few that they would rank merely as eccentricities in the great army of tobacco-burners.

HEALTHFULNESS OF OCCUPATION.

The happiest people in the world are the workers. In saying this one does not include the drudges and slaves. No person can be happy whose nervous force is exhausted, who drags unwillingly a load too heavy for his strength.

Happiness comes from the true adjustment and the right use of faculty. Running water is pure water. There may be a sort of dull content in stagnation, but never joy. The idle body is an unfit tenement for its celestial inhabitant. The sparkling mountain brook, overleaping obstacles, racing down precipices, singing as it goes, typifies the joy of action. Isolate a part of that transparent stream; let it stand in a motionless puddle, and all that the great life-giving sun can do is to breed in it horrible organisms. Let the overworked ones console themselves with thinking how much worse it would be if they had nothing to do. Purpose, with the effort that it breeds, is the underlying condition of life. Men and women suppose that by working they are earning merely life for the body. No less are they procuring the soul's life. It is the greatest misfortune for the average man to be relieved from the necessity of regular labor. Humanity knows very little of the laws that govern its well-being. "When the children have grown up and we have a comfortable sum in the bank, how happy we shall be!" says the weary mother. But if she has no happiness in bringing up the children, she will have no substantial happiness after they are brought up. The happiness comes by way of loving and giving; by being loved and receiv-

ing in turn. God gives himself to us through the human beings with whom he has placed us in relation; through the work that expands our natures; through the beauty and grandeur of the outward world. It is this reception, this breathing in of the spirit that constitutes happiness. It is not a thing outside ourselves to be bestowed as one gives a prize for good behavior; it is the play of faculty in its natural element. The sea creature left quivering on the sand far above the life-giving tide cannot be made happy by a gift, however costly or beautiful. It is out of its true relation. A friendly hand can lift it into blessedness. Not so can a man be set free from his limitations. He must grow out of them. And this world, with all its "trouble," its "pain," its "sorrow," furnishes the best possible growing place. Here are the beginnings of love, the beginnings of selfishness. Here is a chance to grow strong by caring for those weaker than ourselves. Here is the great soul-gymnasium.

When a man once fully believes that the free play of energy is the key to real success, wealth will not injure him. First of all, he will use the love-energy—the highest endowment of his nature; closely allied to this will be the wisdom energy. Mental energy will be given its opportunity. Physical energy will have full scope, that the other and nobler powers may not be obstructed by an impure and a weakened dwelling. The love-energy ruling all will spend itself in making room and opportunity for the neighbor; and here money will become a potent factor. When love

and wisdom hold the purse-strings gold will turn itself into a Jacob's ladder instead of glittering manacles.

If we are in conditions that do not suit us, the only way is to work out. Let the hand, the intellect, the heart, each in its own way become useful to the utmost. Ennui is largely a petition of the soul for a chance to act. "Begin a regular course of study and cure yourself of melancholy," said a wise physician. He knew that if his patient could be made to forget herself, let herself alone, nature's healing, nature's adjustment, would begin. The study might be but a small part of the cure. But the

mind, finding food for itself, space, light, the whole organization would be helped. Often the malady of a patient is so subtle, so unreachable, that he is left to die or go insane for the want of a remedy. Ten to one some part of himself has not fair play. That part has become diseased. No man can be healthy or happy without working with his hands, loving with his heart, thinking with his brain. This is the law written in our natures. To repeat what has already been said—when there is not full activity in a natural element, there is more or less stagnation, and stagnation means disease and death.

MRS. M. F. BUTTS

NOTES IN ANTHROPOLOGY.

Anthropology at the World's Fair. In the "American Antiquarian and Oriental Journal," Harlan I. Smith notes a fact of great interest to anthropologists, and which perhaps may not be very generally known. This is that there is to be a building at the World's Fair especially devoted to archaeological collection and everything of anthropological interest; it is to be called the "Anthropological Building," and the motto with which it will be adorned is "Man and His Works." Mr. Smith says: "The anthropologists of America are well pleased to have an entire building with a name covering all sections of the division 'M,' and that acknowledges pure science on the Exposition grounds; especially in a branch, which, although recognized as an important study in Europe, has only of late come to be so considered in this country. The new building adjoins the ethnographical exhibit, which will prove such an interesting part of the exhibition under Prof. Putnam's charge. In this way the exhibits of the entire division will be together, whereas, according to the previous plan, the collections would have been at some distance from the out-door villages of native people. The log cabin of colonial times and the representation of old Fort Dearborn, the original site of Chicago, or Chicago as it was eighty years ago, will be located near these villages. The United States

Government is making an exhibit of the Indian Schools in connection with this department. At this school it will be possible to see the results of the work in the educational line among the American Indians. On approaching the Anthropological Building, the visitor will pass through the reproduced ancient cities of Central America, viewing the casts of idols, inscriptions, etc. Near the main entrance to the building is situated the 'Portal of Labowa,' reproduction in staff of that wonderful ruin in Yucatan. In the northern end of the building will be a Laboratory of Physical Anthropometry. Here the sciences of psychology, neurology and anthropometry will be practically illustrated. The visitor will here be given a chance to have his measurement taken, and see his place on the charts which are made to show the physical characteristics of man. From the first to the last the exhibits of this department will be arranged to teach a lesson: to show the advancement or evolution of man. There can be no doubt that this chance to show the real uses of anthropology as a practical study will do much to fully establish its recognition in the educational institutions of this country."

Japanese Games.—In an article on "Japanese Home Life," in the *Popular Science Monthly*, Dr. W. Delaw Eastlake

makes mention of the amusements most popular among the Japanese and their very significant influence upon the culture of these people. "*Go* and *shugi*," he says, "are similar to our games of draughts and chess, yet the former is far more scientific than checkers. There are several games of cards, the playing cards being about as long as those used in this country, but scarcely three-quarters of an inch wide. Another favorite game is that of 'One Hundred Poems.' It is somewhat similar to our rather childish game of 'Authors,' with the exception that the Japanese game is by no means childish, and requires an intimate knowledge of at least one hundred poems of well-known merit. Two hundred cards are used in the game, and half a poem is written on each card. The cards being spread before the players, the half of a poem on any one card is read, and the other half searched for by the contestants. Then the different seasons of the year have typical games. The most picturesque of them is *hagnita*, battledore and shuttlecock, which is exclusively a New Year's game. Then the time of the cherry blooms brings its games beneath the bloom-laden branches. Music and song find their way into the homes of Japan far more extensively than in this country. To be sure the music of either *koto* or *samisen* is apt to sound strange, and at first perhaps almost unintelligible to our untutored ears; but we soon become familiar with the plaintive notes of the *koto*, or the sonorous vibrations of the *samisen*. The dramatic or operatic poems are sung with the accompaniment of the *samisen*, while the historical poems find a musical accompaniment only when recited on the *no* stage, and their flutes and drums are the instruments used. This dramatization upon the *no* stage is a very ancient custom, and can only be appreciated by the better educated classes. Correctly speaking, *no* is an historical dance, full of weird mysticisms almost unintelligible to those not conversant with its meaning, but its proper performance is a classic art. It has remained unchanged in the slightest detail for centuries, and through its medium the classic historical poetry of the nation is retained and placed before the appreciative public

of the higher class. Thus the drama and history of the country, so full of heroism and romance, shape themselves into poetry and song."

Ancient Dentistry.— While no specific data can be obtained as to the origin of dentistry, we know it was practiced among the Egyptians at a very early age. Herodotus (500 B.C.), in writing of his travels through Egypt, at that time one of the greatest and most civilized countries in the world, mentions the division of medicine in that kingdom with special branches, and the existence of physicians, each of whom "applies himself to one disease only and not more. Some are for the eyes, others for the head, others for the teeth, and others for internal disorders." It is thought that the Egyptians and Etruscans were farther advanced in the art of dentistry than any other people in that early period, for teeth filled with gold have been found in the mouth of mummies, indicating their advanced ideas. These people were the first to supply artificial substitutes in the mouth. Belzoin and others have found artificial teeth made of sycamore wood in ancient sarcophagi. The mode of fastening was by ligatures or bands of cords or gold wire, tying the substitute to its natural neighbors. In 1885 some specimens of prehistoric dentistry were brought to this country by an English dentist from Liverpool. One was a gold plate with several human teeth attached. The specimens were found in an Etruscan tomb. The plate was ingeniously made, and it was surprising to find gold used for a base by such an ancient people. Archaeological research may yet reveal things that will teach this generation. Ancient Greece is renowned as "the nursery of modern medicine." Hippocrates made a special study of the teeth. Aristotle (300 B. C.) also wrote extensively about them. Several Greek dental operators are mentioned as early as 300 B. C. Erasistratus is said to have deposited in the temple of the Delphian Apollo a leaden odontogoge, a tooth-drawer, to prove "that only those teeth ought to be removed which are loose or relaxed, and for which a leaden instrument will suffice." Galen taught (150 B. C.) that the teeth

were true bones, and declared that the canines should be called eye-teeth because they received branches from that nerve which also supplies the eye. Albacasis, an Arabian physician (about 100 A. D.), gave rules for the replacement of lost teeth by substitutes both natural and of animal bone or ivory.—EDWARD H. RAYMOND, D. D. S., in *North American Review*.

Color Variation in the White Race. Although the white men, whose nations have all through history been growing more and more dominant intellectually, morally and politically, are commonly spoken of as one variety of mankind, it is plain that they are not a single uniform race, but a varied and mixed population. It is a step toward classing them to separate them into two great divisions, the dark whites and the fair whites. Ancient portraits have come down to us of the dark white nations, as Assyrians, Phoenicians, Persians, Greeks, Romans; and when beside these are placed moderns, such as the Andalusians and the dark Welshmen or Britons, and people from the Caucasus, it will be evident that the resemblance running through all these can only be in broad and general characters. They have a dusky or brownish-white skin, black or deep brown eyes, black hair, mostly wavy or curly; their skulls vary much in proportions, though seldom extremely broad or narrow, while the profile is upright, the nose straight or aquiline, the lips less full than in other races. The fair whites, with transparent skin, flaxen hair and blue eyes, may be seen as well though not as often in England as in Scandinavia or North Germany. The earliest recorded appearance of fair whites may be in the paintings, where Egyptian artists represent with yellowish-white skin and blue eyes, certain natives of North Africa, a district where remnants of blond tribes are still known. These fair Libyans, as well as the fair red-haired people who appear about Syria and are known to us as forming a type among the Jews, may perhaps be connected in race with the fair nations, who were already settled over the north of Europe, when the classic writers begin to give accounts of the barbarous inhabitants, from the Goths northward to

the dwellers in Thule. The intermarriage of the dark and fair varieties which has gone on since those early times, has resulted in numberless varieties of brown-haired people between fair and dark in complexion. But as to the origin and first home of the fair and dark races themselves it is hard to form an opinion. Language does much toward tracing the early history of the white nations, but it does not clear up the difficulty of separating the fair-whites from dark-whites. Both sorts have been living united by national language, as at this day German is spoken by the fair Hanoverian and the darker Austrian. Among Keltic people, the Scotch Highlanders often remind us of the tall red-haired Gauls described in classical history, but there are also passages that prove that smaller, darker Kelts, like the modern Welsh and Britons, existed then as well. As a help in clearing up this problem which so affects our own ancestry, Hudley suggests that the fair-whites were the original stock and that these, crossing with the brown races of the far south, may have given rise to the various kinds of dark-whites. The Moors of North Africa, and many so-called Arabs, who are darker than white men, may be thus accounted for. It is thus that in India millions who speak Hindu languages show by their tint that their race is mixed between that of the Aryan conquerors of the land and its darker indigenes. The Gipsy race is another instance of this very combination.—

Polyandry in Tibet.—In the *Leisure Hour*, Mrs. Isabella Bishop gives the following account of the polyandrous system of marriage and its effects in Tibet: "Family life presents some curious features. In the disposal in marriage of a girl, her eldest brother has more 'say' than her parents. The eldest son brings home the bride to his father's house, but at a given age, the old people are 'shelved,' i. e., they retire to a small house that might be termed a 'jointure house,' and the oldest son assumes the patrimony and rule of affairs. I have not met with a similar custom anywhere in the East. It is difficult to speak of the Tibetan life with all its affection and jollity, as *family life* for

Buddhism, which enjoins monastic life, and usually celibacy along with it, on eleven thousand out of a total population of a hundred and twenty thousand, further restrains the increase of population within the limits of sustenance by inculcating and rigidly upholding the system of polyandry, permitting marriage only to the eldest son, the heir of the land, while the bride accepts all his brothers as inferior or subordinate husbands, thus attaching the whole family to the soil and family roof-tree, the children being regarded legally as the property of the eldest son, who is addressed by them as the 'Big Father,' his brothers receiving the title of 'Little Father.' The determination on economic as well as religious grounds not to abandon this ancient custom is the most formidable obstacle in the way of the reception of Christianity by the Tibetans. The women cling to it. They say 'we have three or four men to help us instead of one,' and sneer at the dullness and monotony of European monogamous life. A woman said to me 'If I had only one husband and he died, I should be a widow; if I have two or three, I am never a widow.' The word widow is with them a term of reproach, and is applied abusively to animals and men. Children are brought up to be very obedient to fathers and mothers, and to take great care of little ones and cattle. Parental affection is strong. Husbands and wives beat each other, but separation usually follows a violent outbreak of this kind. It is the custom for the men and women of a village to assemble when a bride enters the house of her husbands, each of them presenting her with three rupees. The Tibetan wife, far from spending these gifts on personal adornment, looks ahead, contemplating possible contingencies, and immediately hires a field, the product of which is her own, and which accumulates year after year in a separate granary, so that she may not be portionless in case she loses her husband.

The Future of the American Indian.—Writing of the future of the American Indian in *The Forum*, J. W. Powell says: "The Indians now number a quarter of a million of souls. Their pris-

time number was more than half a million; possibly, but not probably, three-fourths of a million. The depletion has mainly occurred within two centuries. Is it to continue until they become extinct? The three chief causes of depletion are wars with civilized nations, intertribal wars, and loss of sterling virtues. Do facts indicate that these agencies are likely to continue? While the Indians have been reduced, the white race within the territory of the United States has had a development the equal of which is unknown in the previous history of the world. There are also some gains to the Indian tribes, too, to be put against their losses. They are no longer savages; no real savages now live within the territory of the United States, if we except Alaska, and even there they have made some progress in culture. All the tribes have abandoned some degree of superstition. More than one-half worship one God under the forms of modern Christianity; the other half are in process of transformation. They have made even greater advances in industrial arts. All have learned to work to some extent, and all have learned the utter hopelessness of contending against the forces of civilization, and have abandoned the expectation, and generally the desire to return to their primeval condition. In forms of government they have made less progress than in religion and in the industrial arts. Many of them still cling with tenacity and pride to ancient customary law, but it is always modified to meet more or less the new conditions. With regard to language, great progress has been made. Many of the smaller tribes with languages restricted to a few are now extinct, having largely succumbed to mendicancy and crime, but a larger body of people, communicating through the agency of a common language, retain hope, virtue and manliness, and struggle against the ills of life and live on to learn new ways, to delight in new forms of religion, and to enjoy that prosperity and contentment that come from required toil. The Indians now left in the United States belong with very few exceptions to the great linguistic stocks, and were in Columbian times organized into confederacies of tribes. The linguistic obstruction to civil-

ization is fast disappearing. With respect to wars, there is little probability of much more trouble of this kind with the white race, and intertribal wars have wholly ceased. We may properly conclude that

the Indian tribes are not to be extinguished by war and degradation, and we have already reached the point where we may hope to save the remnant to be absorbed into modern civilization."



NEW YORK,
July, 1893.

SYSTEMATIC MORAL EDUCATION.

FOURTEENTH PAPER.

THE QUESTION OF WILL.

All investigations into the nature of crime lead to one conclusion, viz. : that the criminally inclined are especially weak in moral impulse. This fact may not be said to be due so much to original want of the qualities that inspire moral impulse as to training and habits that have developed the selfish propensities to excess, and left the moral to decay and waste. A late writer on criminal character says, that for its correction there is *no specific*, the remedy consisting only in a course of training that involves the intellect, the sentiments and the physical life, and is therefore *general, gradual and constant*. Every reformatory should be organized as a school in which the chief emphasis is laid in moral and industrial habits, for with their establishment it may be expected that the old tendency to disorderly and vicious conduct on

occasion will be counteracted, and the will strengthened on the side of propriety and right.

The principle involved in reformatory education may borrow an illustration from hypnotic experiment, whereby it has been shown that an individual when hypnotized may be impressed through suggestion to resist temptation to evil. Even though such a person may be given to some pernicious habit, and in his ordinary state of mind previously found it very difficult to resist its influence, the earnestly impressed suggestion will impart a power of self control that is likely to overcome the old tendency.

Here the dominance of the idea that the vice should not be repeated is the factor of release from its thralldom; and so in the education of the individual in habits that are correct according to the standards of duty and truth, honor and kindness, the performance of those habits becomes the dominant tendency, and in the face of temptation to do otherwise the trained will is not weakened.

What is the will? one asks. In reply we say:—It is not impulse or motive or obstinacy or mere persistence in any line of action, for a person of so called "weak will" may indicate these on occasion when circumstances prompt the exercise of certain of the stronger faculties in his mental organization. Will, as we have said in another place, is not a simple faculty,

but the result of associated faculties. Late writers on the human mind generally agree with this view. Professor Ladd, who may be taken as representing modern psychological opinion, says: "All the central organs have pre-eminently the property of automatism. But since in the case of man at least it is only on occasion of a certain kind and degree of activity of the cerebral hemispheres that what takes place in the nervous system has any corresponding expression in consciousness, the physical basis for acts of will in general is the conformatism of these hemispheres in general.

"An act of will, however, is always an act of some special kind. There can be no volition to motion in general, but only a volition defined and limited to the movement of certain limbs, or of the trunk including the limbs, with a certain direction, and in resolve or determination to act." The "physical basis" of mental action whether perceived directly or indirectly by consciousness, is brain, and the automatism of that organ may be general or particular, *i. e.*, it may involve a large or small area of the ideo-motor centres. But this automatism, expressed as it may be in action of one kind or another, indicates quality and extent of thought or mental habit. A suggestion from without sets in motion the cerebral machinery, so to speak, and if the suggestion concern a matter that enters into the common expression of the individual, the co-ordinate operation of the faculties that consider, it will be automatic for the most part. The habit of action that has resulted from many repetitions of an order of

thought may be interrupted or modified by attention, or the determined resolve of the individual to study carefully the nature and bearing of the subject, and not to form a conclusion until there is a fair understanding of the points involved, and of the consequences that will follow this or that course.

The broader the field of consideration, etc., the more interests involved, the more faculties are employed in the process of thinking. Out of the operations of brain, and of faculty as the function of brain, will proceeds—so that it is proper to say that will is a compound function appertaining to the mind as a whole. Perhaps Dr. Gall cleared up the old metaphysical confusion with regard to this matter in his definition as follows: "Will is not an impulse resulting from the activity of a single organ, or, according to certain authors, the mere feeling of 'desire.' In order that a man may not limit himself to wishing, so that he may will the concurrent activity of several of the higher intellectual faculties if necessary, motives must be weighed, compared and judged. The decision resulting from this operation is called will." So the will is not the self-determining power that so many appear to regard it, but the result of judgment. We speak of "good judgment" and "poor judgment" in the conduct of persons, and estimate their success or failure in relation thereto. It is not so much their will that is at fault as their judgment, and we are prone to refer that in large measure to habits of thinking and living that have been formed.

How much of bias or influence

habit may exercise is seen clearly enough in some of our ordinary experiences. We can not will to sleep or wake, to think or not to think, to remember or not to remember, to love or hate, or to express any other emotion when we like. We may by change of topic, association, scenery, get rid of a troublesome idea, but to relieve the mind of it at once by an effort of will is often beyond our power; and so, too, the will is equally powerless to determine the materials of thought. We cannot substitute one way of thinking for another until the thought habit that we have acquired shall have been changed, and this must be a gradual process to be at all thorough.

In a book published by Dr. Milner Fothergill, of England, not long before that eminent physician died, he discussed the relation of will to character and life, and gives some practical counsel to parents with reference to child training. In the course of this he says: "Of course so long as people will not make a study of character, and continue to regard such study as the pure outcome of malice solely, so long they will pursue the old tactics. Some suspend their self-inspection when they come across some thing not pleasant; that it would appear is just the precise point when it should be pushed resolutely. That, indeed, is the very thing it is most essential to thoroughly comprehend. We all have to live with our selves, and it adds much to our comfort to be able to do so peacefully and on good terms. To know our weak points as well as our strong points is to prevent other people playing on our weaknesses, just as important a

matter in life as to know our strong points and how to make the most of them."

It is the consensus of the faculties that determines will, the "strong points" or predominating elements of mind furnishing the motives. Thus the will is strong in some direction, be it that of selfishness or vice or of kindness or honesty. To render it strong and stable on the side of uprightness and integrity the faculties that are fundamental to rightness of thinking must be trained to habitual activity in the operations of mind. In all conduct that has a moral effect in any way they should be alert, and never dormant. Their participation will then of course impart the motive and color to judgment and act that would be deemed essential to proper moral expression.

UNEXPECTED EVIDENCE.

Among the many medical writers who have found in human magnetism or hypnotism a field of discussion worthy of their best mental endeavors is Dr. Ernest Hart, of London. A year or so ago he published an article in the *Nineteenth Century*, in which he takes high ground with regard to the inhibitory effect of the hypnotic state upon the action of the brain centres. He also postulates several phases of the blood supply that may be attended or followed by hypnosis, viz: when the brain or any part of it is deprived or partly deprived of the blood movement through it, when it is much congested and overloaded with blood, or when there is considerable local pressure. The part of the brain so affected must cease to per-

form its functions—by the mere operation of physiological law. Dr. Hart goes on to speak of analogous phenomena in sleep, and says: "We have observed (where portions of the skull have been removed) that during sleep the convoluted surface of the upper part of the brain, which in health and the waking state is faintly pink, like a blushing cheek, becomes white and bloodless. It is in the upper convolutions that the will and directing power resides; so in sleep the will is abolished and consciousness fades gradually away as the blood is pressed out by the contraction of the arteries."

This clear confirmation of phrenological truth coming in the channel it does and from authority that is unquestionable, is altogether unexpected, and adds a new characteristic of evidence to the mass already accumulated.

BIG HEADS AND LITTLE—A FABLE.

Some one invents a fable in which the comparisons made is of the following kitchen garden character:

A cabbage of respectable dimensions began bragging about the size of its head when a watermelon raised its head in dispute. Soon a hubbard squash chimed in for first place, and then a pumpkin roared out that it wouldn't play second-fiddle to any vegetable on earth. They were having it hot and heavy, when there came a philosopher who was asked to decide which had the largest head.

"As to the head," he replied, "that is a matter to be settled by a tape-line. Any of you measure ten times the size of this onion, but when you

come down to what's under the cranium that's a—ha—a—ha different thing," and his unrepressed tears bore witness to the strong emanations of the small comestible last mentioned. The big vegetable products figuring in the above squabble certainly have each virtues that are entitled to respect, while for a peculiar flavoring and juicy pungency, the little onion exceeds them. How often in human heads of small dimensions we find the concentrated potencies that suggest the last named! Our attention is certainly drawn to them in spite of ourselves, and we are more than willing to concede that that they have special peculiarities of constitution that render them notable if not important members of the human family. The bigger heads, not so dense in quality, or so spicy in aromatic expression, may, however, be more inviting to the average taste, and refresh us by the very mildness of their juices and the abundance of its storage in the delicate cellular tissue.

Moral—The saphead is more desirable than the acrimonious.

TOO MUCH APPROVAL SPOILS—

This is the lame excuse of the man who is unwilling to accord a word of praise for a service. It is a small matter to recognize a good action, even though it be a matter of sheer duty, with a passing remark of compliment; yet in many cases such a remark may be of great value to him or her who receives it and stimulate a development of noble worth that had been considered improbable.



Our Mentorial Bureau.



To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention

RED FACE AND IRRITABILITY OF TEMPER—F. T.—The redness of the skin you speak of may be a condition due to alteration of the tissue structure which occurs in some diseases of the cuticle, as for instance *æna* or erythema. Often it is associated with a determination of blood to the head, in which case if the person has an irritable organization he is likely to show ill temper, anger and want of self-control in or out of season. We have known some very good natured people who had very red faces, but as the world averages the red-faced man is usually given to habits that tend to irritability of temper.

ENVIRONMENT AND HEREDITY.—C. J. S.—We have discussed the bearings of these factors on the development of character from time to time in the columns of this magazine, and have indicated our leaning in terms unmistakable toward the major influence of education and environment in developing mind and character. Heredity furnishes the framework of the building, associative, training, example, the motives, color, and habits that are reflected in the active expression of the individual and make what is called his character.

POPULAR NARCOTICS.—B. Q. 4.—Question.—What does the editor think of those much advertised powders, or granules, for which their manufacturers claim so much virtue as remedies for headache, nervousness, sleeplessness, and brain fag? A reply ever so brief would please the inquirer.

Answer.—In a word, we should reply, avoid. The stuff offered by this drug concern, and that may deaden the sensibility of brain and nerve, but brings no positive help to the man or woman who may take it. The nerve sedative or sleeping powder your plausible druggist is so ready to sell you, at 10 cents or more the bottle, is a dangerous thing. It may breed a habit that will undermine the nervous system and make the user a wretched semi-paralytic for life. Beware of all the pleasantly tasting tonics, stimulants, sedatives, hypnotics, etc., etc. If exhausted nature craves help, take the advice of an experienced physician—never that of a dealer in drugs and proprietary medicines.

RELIGION OF THE UNITED STATES—S. A.—Your question involves the consideration of sectarian or denominational tenets, into which we do not care to go. If the national government may be supposed to approve any religion it is that of Christ, yet the principles upon which our nation was founded award the fullest toleration to all with regard to religious faith and practice. Liberty of conscience, it was asserted by the fathers of the constitution, is every man's right, and it is not to be abridged by any legislation. If it be asserted by any one that the fathers of the republic intended that their government should be conducted in accordance with Christian morals we can offer no objection, for the spirit of true Christianity, as we understand it, is tolerant and benevolent toward all classes. A clear understanding of the teachings of Christ and his apostles cannot sustain the employment of any measures

to compel people to adopt a particular form of worship, while the careful and honest following of those teachings, we think, will tend to develop the highest type of morals and religion.

WHEN TO DRINK.—F. P. N.—It is difficult to lay down a rule to which there are no exceptions, but in our judgment, there is in this matter very little occasion for misunderstanding. In the first place, while it is true that water is very necessary to life and the easy performance of most bodily functions, it should be remembered that many kinds of food contain it in sufficient quantities to supply the most urgent wants of the system. From ignorance of this fact, some persons exaggerate the importance of drinking. On the other hand there are those who go to the opposite extreme, partly from a blundering manner of applying a perfectly correct theory, such as relying upon solid food, but not selecting the right kind; and partly by miscalculating the needs of their particular constitutions. Where the vital temperament predominates, especially the sanguine or lymphatic form of it, in which the tissues are spongy and the pores act freely, a good deal of water is required to flush out the rapidly accumulating impurities. Indeed, such people can hardly exist without an abundance of water, and as they absorb and expel it very rapidly the question of time in reference to meals seems to be of little consequence.

However, there are individuals of the cerebral or mental temperament whose fibre is dense, and in whose stomachs water will sometimes remain a long while, almost as it would in a pitcher. In conditions like this, drinking at meals is obviously deleterious in the extreme. To be on the safe side, and to cover all ordinary cases we should say, drink pure, soft water *only before meals*. And the hours for eating should always be sufficiently far apart to allow the stomach to be empty for at least thirty minutes before the meals. During this period the necessary amount of water may be drank and absorbed into the bowels and blood without interfering with the process of digestion.

FORGETTING.—*Question.*—I am in a store and sometimes forget to enter on the book articles purchased. The proprietor loses the amount, and I am mortified, sorry and vexed. How can I cure this defect? I used to read stories for the present pleasure of it, but did not try to remember them. Perhaps that habit has dissipated my memory. How can I improve? J. A.

Answer.—You have given a good reason for a treacherous memory. You can cure the habit of neglecting to make charges for articles sold by having a pocket memorandum-book and establish the habit of entering on it the items of a purchase, with the price, before you deliver the goods, and this you can copy on the "blotter" or day-book. This will save from loss and cultivate the memory. When you read that which is worth reading try to remember it, and if you can tell the story to a friend who has not read the book, and this will reimpres the facts and enable you to recall them. It is a wholesome exercise of the faculties and their organs grow as muscles do—by use.

TEMPERAMENT AND SCIENCE.—*Question.*—I have seen it stated in some of the books that the motive temperament is favorable to scientific judgment. May I ask why the mental temperament should not be superior in this respect? A. R. K.

Answer.—The mental temperament, when excessive, is likely to be handicapped to a certain extent by imagination and a tendency to theorize, which are not conducive to the highest order of success in the sphere of positive knowledge. The motive temperament is favorable to a larger development of the perceptive, and the texture of the brain is also adapted to form and retain more accurate impressions of the phenomena of the objective world. Thus as a knowing temperament it must be superior to the constitution which is more inclined to think. However, the best results require a combination of the motive and the mental, especially in the more elevated and complex branches of science.



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

From an old Veteran Subscriber.—DEAR PUBLISHERS OF THE JOURNAL—Please allow me to say that if I am not one of your oldest living patrons, I am, or should be, ranked among the oldest living phrenologists in America. In a silent way I have been looking at heads, faces, postures of body and limbs, standing or moving the hands and mouth in earnest conversation, at home and on the by and high ways well thronged with humans of all ages, from infants and little children up to woman and manhood grown, and have compared the forms of one head with another, phrenologically and intuitively, some fifty-five years. I feel that the study of this, one of the most important subjects relating to the capabilities of the human race, should be well looked into at institutes of learning, and even in our district schools; for it has long been an established fact that the organs of the head are the most important factor, and where many persons must be employed together in certain capacities to labor, it would be a profitable investment to have their characters for honesty, mechanical capability and otherwise, well defined at the commencement.

Very respectfully submitted by one who was considered an "octogenarian" five years ago.

SOLOMON W. JEWETT.

April 22, 1893.

PERSONAL.

In the recent death of the eminent actor and teacher of elocution, Professor James E. Murdoch, of Cincinnati, another old and warm friend of Phrenology has passed away. The fact that a man of his extraordinary intellectual culture and moral integrity should have appreciated a science which so many superficial people have considered unworthy of recognition, was not only a credit to him, but also a great satisfaction to us.

Professor Murdoch, when a resident of

Philadelphia, sixty years ago, and later at Boston, was also on very intimate terms with the Fowler family, and Mrs. Wells remembers with much pleasure the friendship of the gifted tragedian, and the personal associations which were continued for so many years. Among the members of the dramatic profession who have really adorned and elevated the stage, Professor Murdoch stood second to none. His abilities in the exercise of his chosen art were of the highest order, and the purity of his personal life was not only above question, but was regarded as a model of excellence. He will not be forgotten by his friends either in the East or West, and the advantages of his instruction and the stimulus of his example, will not be wholly buried with him. His highly accomplished daughter, Mrs. Hollingshead, and a granddaughter who is said to be phenomenally brilliant, will do much in various ways to continue his good work.



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

TOOLS AND THE MAN; PROPERTY AND INDUSTRY UNDER THE CHRISTIAN LAW. BY WASHINGTON GLADDEN. 12mo. pp. 308. Boston and New York. Houghton, Mifflin & Co.

Taking as his text, we might say, a satirical statement of Carlyle to the effect that "the proper Epic of this world is not now 'Arms and the Man' but rather 'Tools and the Man,'" the well-known clerical author condenses in this volume the meaty substance of lectures delivered at various times on practical Christian sociology. Always clear and direct in statement, trenchantly airing evils and abuses in society without a tender regard for any

"privileged" class or person, Mr. Gladden performs what he deems his duty as a watchman set for the protection of the people by the God of humanity. In this book he reviews the field of modern controversy as it relates to the serious questions of labor, property, social ethics, economics, etc., and his observations and criticisms are veined with the great idea of human brotherhood, and of the necessity of subordinating individual selfishness and greed to the desire for the welfare of the community. The foundation for an improved society is a betterment of the individual morally, and unless this is done it is useless to expect any positive progress. The author believes that the adoption of the Christian method will accomplish the end so much desired, the correction of the worst abuses, and that industry and trade can be so transformed by humane motives that they shall be serviceable to all the higher interests of life.

FIRST DAYS AMONG THE CONTRABANDS. By Elizabeth Botume. Small 12mo, pp. 286, cloth. Price, \$1.25. Boston: Lee & Shepard, Publishers.

The author of this book scarcely needs an introduction to our younger readers who are familiar with the work of the American Church for the Young. She has taken a great interest in that very large society, the members of which are distinguished by a small silver cross on which the letters I. H. N. are inscribed. In fact, she has good claim for being one of the projectors of the "King's Daughters." During the late civil war Miss Botume went South and devoted herself for a while to the instruction of the negroes.

Her book is in the main a study of negro life and character. Avoiding the penchant of most writers, who deal with the negro, to be witty or humorous at his expense, she treats him with seriousness, as her vocation there was a serious one; but so many lively incidents and sparkling delineations occur that the reader is entertained as well as instructed. She depicts the conduct and talk of the ex-slaves faithfully, with all their naive conceptions and queer mixtures of shyness and freedom, to say nothing of their absence of convention and logical synthesis. The emotional elements that appear so markedly in the conduct and speech

of our colored brethren make up the more conspicuous parts of her incidents. She has chosen a style and method which will enable the reader who knows very little about Southern negro life to understand those belated people; and her frank and sincere statements of the efforts of the Northern teacher on behalf of the ex-slave clearly indicate the amount of self-sacrifice that was necessary to engage in such labors.

Incidentally there are references to military operations in progress at that time, and also a reference to the part undertaken by the United States Government for the improvement of the freedmen's conditions—a very unhappy one—at the close of the conflict, as everybody knows. There has been no attempt at fine writing in the preparation of this book. Its recitals are clear, straight forward and honest; so, too, we may say that the sentiment exhibited is that of an earnest and sincere missionary worker. She puts the case in almost a square-shouldered fashion, evincing the temperamental bias of her father's daughter. Hence there is nothing mawkish or exaggerated.

PHILLIPS BROOKS IN BOSTON. FIVE YEARS EDITORIAL ESTIMATES. By M. C. EYRES, Editor of the Boston Daily Advertiser.

This little volume of 120 pages will have for many a unique interest. It is the record of a notable man, commented on by a friend and sympathizer. An introduction by Rev. W. J. Tucker, D. D., Professor in Andover Theological Seminary and President-elect of Dartmouth College, fittingly testifies to the noble character of the great preacher. About thirty items constitute the reading matter, some of which are thus entitled: A More Excellent Way; Dr. Brooks' Lenten Lectures; Sentiment and Sentimentality; Preaching without Notes; Phillips Brooks' Power; Bishop of Massachusetts; Reaching the Masses; The Great Grief; A Teacher of Theology; The Last of Earth.

As a whole, the subject matter of this small book—a reprint of living words from day to day appearing—presents more vivid and lifelike representations of the great Bishop's personality and power, and sketches of marked incidents in his career.



ROCKWOOD PHOTO.

ELLA WHEELER WILCOX.

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EARL OF ABERDEEN,

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THE EARL OF ABERDEEN IN CANADA.

THE gentleman who occupies the vice-regal chair in the Dominion of Canada at the present time belongs to a line of English nobility of unquestionable quality. The high grain of the temperamental heritage is evident in the curvature of the head and in the tone of expression. The elements of mind find their brain centres in a brain of large calibre and excellent fibre. The development seems to be predominant in the central and coronal regions with a considerable projection backward and more than average volume in the upper forehead. It is an organization that naturally appeals to our appreciation of culture and refinement, for there is nothing in it that partakes of coarseness. The strength of the faculties lies mainly in those that relate to self development on the mental side, for the lower forces that relate to physical life do not appear to exercise as much control as the former. He is naturally a prudent, circumspect, conservative man, not an aggressive, self-seeking one; not inclined to promote anything with much energy that requires the employment of physical force as its chief factor. His measures would be of the intellectual and moral type—argument, persuasion, good nature, sentiment—to secure a desired end. According to his idea an appeal to force—compulsion—is derogatory to human character. Dignity, honor, respect, everything that enters peculiarly into human nature should place civilized man collectively, socially above the grade of being, that must needs be limited by arbitrary boundaries, and coerced into the observance of the common humanities. A proper education and the use of those privileges that every one born in a Christian land should enjoy, would, in the Earl's opinion, unless we read his organization amiss, make men and women generally what

they should be, honest, true and happy in their respective domains of living.

There is much sensitiveness in this organization: it is expressed in the thought and feeling, in the tastes and aspirations, and in the social life. He is reserved yet far from overbearing; he is quite decided in opinion yet never insistent. He has much dignity and self-respect, but is quite ready to yield a full consideration for others who deserve it. He is more tolerant of differences in opinion than the average Englishman born to a place of authority and influence, because first, he is naturally kind and broad in feeling, and second, because his reasoning faculties give him power to understand the fundamental differences in men. He should be able to read the spirit and motive that lead in the conduct of those with whom he has to deal in the social circle and in the world of affairs. And in comprehending the nature of individuals he is enabled to adapt himself when necessary to them. He has much more than ordinary capacity to please in the way of showing those courtesies that are so attractive in the house and on the street. As an official of high function the Earl of Aberdeen should grace his station; few of his predecessors, indeed, have had the natural capacity to grace it so well in the exhibition of those amenities of language and manner that win consideration from the public at large. He has no great development of the faculties of the lower forehead—those that relate to practical, every day matters, the multitude of entities that constitute the hard and fast of crude facts—but in reasoning, generalizing, appreciating the minor differences existing between ideas and the consequent and inconsequent of inference and deduction, the Earl is clear, nice and even subtle. He understands the bearing of a thought and the force of a logical

judgment. So in the discussion of a given topic he yields without protest to an opponent when shown by demonstration that his own views are wanting in rational evidence. He is fond of discussion, we are inclined to think, especially when the topics involve matters of philosophy or æsthetics. In the domain of education or out in the higher field of economics and social ethics he should show ability to criticise and judge accurately. His tendencies by inheritance and education are conservative in the main yet in the application of a principle there is a breadth of intellectual view that inclines him to prefer fairness to injustice, and generosity to selfishness.

The gentleman who has been appointed to represent the Home Government in the affairs of Canada is about forty-six years of age, having been born in August, 1847. His education was completed at Oxford, where he received the baccalaureate degree in 1871. While at college his elder brother, sixth Earl of Aberdeen, died, and he succeeded to the title. It is worthy of remark here that this brother was serving on board of an American vessel, in the capacity of a sailor, when he lost his life, having been washed overboard. That an English nobleman should resort to such an experience for any purpose is very interesting if not romantic.

Lord Aberdeen entered the House of Lords as a Conservative, but disagreeing with Lord Beaconsfield's government on a question of policy, has since been identified with the Liberal party. For many years he held the

office of High Commissioner of the Church of Scotland, a place that befitted him as a born Scotsman. It was, however, as Lord-Lieutenant of Ireland, while Mr. Gladstone was in office previous to the late Salisbury régime, that his lordship displayed to the full those qualities of head and heart that have made his name respected and beloved, not alone by the Irish people, but by the many in every land who sympathize with their cause. The Earl has been ably seconded in his political career, as well as in his various philanthropic and religious efforts, by an energetic and devoted wife—Isabel Maria, youngest daughter of the first Lord Tweedmouth—to whom he was united in 1877. Five or six children have been born to them, the eldest of whom, Lord Haddo, bears a title not unfamiliar to old-time Parliamentarians. Lord and Lady Aberdeen have resided quite recently in Canada. In one province his lordship owns and cultivates large tracts of land, so that it is not as a stranger for official purpose the Canadian people are called upon to give him recognition. On the contrary, the new Viceroy appears among them as one who has interests in common, and whose policy will not be that of a mere politician or official.

Further, the Earl knows somewhat of our own country from personal visits and the study of our people and policy, and we are of opinion that his influence will not be that tending to promote anything besides a friendly relation between the great sections of country that border on the St. Lawrence.

PHRENOLOGY IN PUBLIC INSTITUTIONS.

IN the *Phrenological Magazine*, London, Mr. W. T. Stead, editor of the *Review of Reviews*, writes in a very emphatic way regarding the importance of utilizing the principles of phrenology in public institutions, as follows:

Ever since I was in jail, I have always lamented the extraordinary waste of opportunities that is to be observed in every prison. A man of science takes endless pains in observing the habits of earth-worms, and in studying the development of black beetles, but the human individual, even when he is carefully stored up, as if for the purpose of examination and investigation, in a prison cell, is disregarded. Every criminal ought to be regarded as a specimen of social disease, and investigated by every permissible means; among these means, Phrenology ought to occupy the leading place. Prisons, however, are under the care of the Government, and Governments are slow, dull, and difficult to move; something, however, might be done if the importance of phrenological observations could be brought home to the attention of the doctors of our prisons.

If I were to be entrusted with the duty of directing what might be called the Phrenological Propaganda in this country, I would get a small tract written, if possible by a medical man, addressed to the medical officers of our prisons and convict establishments. I would call attention to the increasing interest that is being paid by the most advanced phrenologists of the Continent, and the United States of America, to the predisposing physical causes of crime. In this preliminary tract I would, so far as Phrenology is concerned, lie very low indeed, and never breathe or hint to our medical officers that I was endeavoring to get in the thin edge of the wedge of phrenological science; I would use the facility of Lombroso

and Mantegazza; I would refer to the wonderful book published recently by Dr. McDonald, who is attached to the State Department of prisons, in the Government of Washington; and I would endeavor to make every medical officer feel that it was his duty, his interest, and his pleasure, to make a careful scientific examination of the crania of all persons under his charge. There is no need, in such a tract, to insist upon any of the distinctive doctrines of Phrenology; all that we need to do is to drive home to the conviction of the prison doctor the fact that he is not up to the mark, and that he is losing his opportunities if he has not measured and scientifically observed the cranial development of every criminal under his charge. Familiarity with the outside of the skull, and the intelligent observation of the shape and position of the various regions of the head, will inevitably predispose him to take an interest in Phrenology. He may blaspheme, but he will study, and the great thing is to get him to study—for blasphemy does not count, being only the sin of the lips outward. If even one-half of the prison doctors of this country could be induced to draw up for their own use reports as to the shape of the criminal head, we should acquire data that would enable us to deal more intelligently and more sympathetically with many of those who come under the ban of society.

Henry Ward Beecher used to say, "that whether a man was a Calvinist or Arminian depended more on the shape of his head when he was born than any difference in the catechism to which he was subjected after he learnt to read," and if it were found, as it probably would be found, that a certain cranial development was so invariably followed by criminality as to justify its acceptance as the normal criminal cranium, we should know where we were in dealing with those

individuals towards whom the State has to stand in *in loco parentis*.

In dealing with prisons, the phrenologist must go warily to work, and feel his way with great caution. There is a fairer field for action in Industrial Schools and Truant Schools, and also on the Training Ships and in the Workhouse Schools. These institutions are, for the most part, under the direction of local representative bodies, and it would not be impossible, if phrenology were believed in, for the Phrenological Propaganda to have a representative on every Board; he would not be elected, of course, as a phrenologist, but it should be the duty of convinced phrenologists to see that some one holding sound views as to phrenological truth, should be in a position to bring the phrenological key to the solution of the sociological problems with which this Board has to deal. In the direction of studies and in the choice of occupation, the State, or rather the local authorities, might well take a hint from phrenology.

The children of the State have no one to whom they can pour out the troubles of their little souls, nor have they any one who will suffer and be sad; unless the matron can define the hidden thought, or the instinctive inclination of the child. The State, therefore, as it has not the key of love to unlock the secret chambers of the child's heart, should be all the more careful to seize the clue which is provided by the phrenological delineation. Very many times an intelligent school-master or a reflective guardian might discover in the delineation, a hint as to the stupidity of one child, or the perverseness of another.

A phrenological delineation enables the observer to see the gate through which he can develop an idea which is in the child's mind. Often when a teacher has been trying to drive an idea into the head of her pupil, and has utterly failed, another who knew the nature of the child's brain devel-

opment, has been able to plant the idea without the least trouble. It is just as if two men were trying to get a horse into a pasture, one of whom had eyes to see where the gate was, while the other was blind. The blind man might drive his horse as furiously as possible up to the quick set fence or the barbed-wire rail, without ever being able to force it into the field, while the other will simply deviate a little to the right or to the left, and so be able to accomplish his object. The developments of a child's head are so many keys or clues as to the avenues by which you can get into the inside of his mind. Take, for instance, two children, one in whom Veneration is abnormally large and in the other abnormally small; the child whose Veneration is high might be induced to learn many things by the mere exercise of the authority of the teacher, while ten times that authority exerted upon the other would utterly fail to impress upon his mind the lesson which it was sought to teach; that is equivalent to saying the dimensions of the faculty of Veneration indicate whether you can get "on the inside track" of the subject best by the power of authority or by argument. Similar illustrations might be multiplied, but that will suffice.

The *Phrenological Propaganda* should issue tracts, pointing out these things, and, if possible, illustrating them by concrete incidents drawn from experience gained in public institutions, and these tracts should be judiciously introduced to all those who are in authority over them, especially to masters and matrons of all workhouses and training establishments. It would make all the differences of the life of many a child if this open key to his inward mind were in the hands of those who have to decide to what he is to be apprenticed, or to what business he should be put.

May I conclude this very fragmentary and imperfect attempt to explain what seems to me the future of phren-

ology in public institutions, by saying how valuable I have found it in interpreting characters that were subtle, mysterious and profound. I have one case in my mind in which Miss Fowler's delineation would have avoided an immensity of friction and would have occasioned a good understanding, had I possessed it years before I had sense to ask for it.

Hans Andersen's fair story of the "Ugly Duckling" is continually reproducing itself in real life. The poor

cygnet that is born among ducks is scoffed at and persecuted by those who do not understand that it differs from them, not because it is worse, but because it is better. In the fairy story the cygnet had to grow up to a swan before the ducks realized what it was they had been tormenting. In real life a competent phrenologist might often discern a swan before it emerged from the state of the cygnet. This is at least an immense boon for the swan.

ELLA WHEELER WILCOX.

THIS gifted writer, who has been called the "Song Bird" of the Northwest, is a native of Wisconsin. Her family were in reduced circumstances at the time of her birth, though possessed of much intellectual vigor and ambition. Her advantages for early education were exceedingly meager, but her literary talent showed itself at the age of eight years in the composition of both verses and prose stories. At nine she was a local celebrity, one of the products of this period being a novel in chapters, headed with original couplets, which is still in the author's possession. At fourteen she became a contributor to the *New York Mercury*, the *Waverly Magazine* and the *Saturday Evening Post*. Two years later the proceeds of her pen were a financial aid to her parents. Her verses attracted immediate attention. At the age of twenty her name was known throughout the West, and her poems had been commented on by the Eastern press. "Poems of Passion" was the first published work which gave her international fame. This elicited a veritable storm of censure and praise in almost equal proportions, and extended over two continents. Her principal poetical works are: "Poems of Passion," "Poems of Pleasure," "The Beautiful Land of Nod," "How Salvator Won, and Other Recitations," "An Erring Woman's Love."

The books in prose are as follows: "Sweet Danger," "Was it Suicide? and Other Stories," "Adventures of Miss Volney," "A Double Life," "Men, Women and Emotions." The last named is the youngest of these children of her brain and is expected to create a furor.

Mrs. Wilcox has been for many years a resident of New York City, where her personal attractions have completed the social conquest for which her remarkable talents had paved the way. Her domestic life is characterized by great practical benevolence, boundless devotion to her husband and to the memory of her lost child.

The following phrenological analysis was made from a personal examination, Mrs. Wilcox having been presented as a stranger and without giving any intimation as to her identity. This is the verbatim report of the stenographer:

You have a strong character. You are like your father in your dispositions. You may have your mother's intelligence, her tact, her sensitiveness, her sentiment; but when it comes to the real work of life, you wield power in your father's spirit and name. It is favorable for a daughter to resemble her father, if the father and mother are equal in their characteristics and capabilities, and it is, in the same family, better for the son to resemble the mother;

then both sexes are in spirit blended in each person. The daughter gets the courage, pride, ambition and enthusiasm by inheritance from the father, and the son gets the gentleness, the pliability, the instincts and intuition which belong to the feminine; the daughter carries those by virtue of being a daughter, and the son, by virtue of being a man, has force and executiveness enough.

You have a strong tendency to be firm and determined; and when you think you are in the right you are plucky and brave. You have ambition in a marked degree; that gives you enterprising enthusiasm to do something that is worth mentioning. You do not like to be inconspicuous. You have sometimes thought that women who are veiled as they are in the Orient, only having a place to peep through to see where to go, and not to be seen, must find it very undesirable; it seems to you very unnatural. You like to manifest yourself. You would like a position where there was elbow room for mind and body, for power and for will.

You are headstrong. Your Firmness is large, and that tends to give that disposition. Your Conscientiousness being strong, makes you feel that whatever is right has a right to be. Then, when you get started, your Approbativeness tells you to win success and make yourself and what you do noted and conspicuous. If you were on the stage you would work according to the audience you had; and if they were a cold, frozen kind of people, who had no enthusiasm, though they might have intellectual sagacity, you would not think much of them. You would like to have the audience boil over; you would like to have the people rejoice when pleased. You will risk their frowns and hisses if they will only give you credit for what you do that is laudable and deserving; you will run the risk of the mistakes.

Your Self-esteem is well-developed; you believe in yourself; but you are

not so much inclined to lord it over other people as you are to demand your own rights and interests. From a little child you have always been inclined to repel undue domination. You would as a child six years old do a great deal better and would be dressed quicker if they would flatter you, tell you to have on your little this and that, instead of pulling and hauling you. You have enough of the masculine independence in you to make you resent and resist anything that seems like coercion.

You have large Combativeness; that gives you courage to do a good many things that another person in your circumstances might hesitate about doing. With your large Caution you are watchful; and like a man who rides a circus horse, you keep balance for the sake of caution, and you keep up motion for the sake of safety. A person cannot stand on a horse when he is still; when in motion he can keep his equilibrium.

You are good in executive work. As long as you can be doing something you are not bashful; when you stop and they make a wall flower of you, look at you, you begin to be embarrassed.

You have strong Friendship. You have strong Love. If you were a writer you would be a strong writer. You would put in a great deal of impulsive earnestness. If a thing should be said, you would say it strongly because it was true; and you would expect approval. If you were a public speaker you would be brave in your statements. You would make very strong general statements; and if you had occasion to make them specific you would be definite and earnest. You win friends more by the strong things you do than by avoiding that which offends. Some people glide along as an eel swims through the grass near the water's edge; he goes through without making a ripple at the top of the grass; nobody knows he is there; but the pickerel goes through as straight as an arrow and

he makes the reeds tremble because he hits them. You are more like a pickerel than like an eel. You get there, but you do not care so much who knows you are coming.

I suppose you have always felt circumscribed by the fact of sex. You have felt that if you were a man you could take more elbow room and do a great deal of good, and do it in a manly, strong way; but to be obliged to prune your conduct because you are a woman does not suit you. There are some women who have courage enough to carry themselves as women without feeling that they are restricted; if they have wing and power enough to rise above the fences they are all right.

You are remarkable for your power of affection as a friend. You would be loving as a lover or wife. You would be motherly. You would like to train boys rather than puny, tender girls. You are better qualified to drive a strong horse that will go somewhere than you are to coax one that is timid and does not know whether he can go or not; consequently, a brave, plucky boy who thinks he could do almost anything, you could teach to be manly. If you were a teacher you would like to teach a boy's school, because boys have courage, pride, will-power; and you would manage to harness it and get it to work in your interest. You would not quarrel with it. If you wanted to control a young man sixteen years of age, a younger brother, you would say: "Now, Johnnie, there is in you the making of a good deal of a man if you will only carry yourself wisely for the next six years. It is convenient, and it would attract the desire of most boys, perhaps, to do as you propose, but twenty years hence it would not be half as good for them as to buckle right in and grind their axes so that they can hew their way through the world. Get your education; then if you want a yacht you will know what to do with it." So you would send him back to

his books. Then if you had a brother who desired to quit college and thought he would not return after vacation, you would send him back with a double-headed interest in it by telling him that "it doth not yet appear what you shall be," but if you are faithful in this you shall be successful in that. That is the way to be master by and by.

We very seldom find a person who has as much force of character, as much ambition and enterprise, as much will and determination along with as much prudence and integrity. It is a rather interesting combination. You are bound to do something, and to do it emphatically. You are not one of the kind to scud along under the shadow of the fence and keep out of the way of responsibility. You take the middle of the road.

You have hope enough to expect that which you need. You have faith to believe that which ought to be shall be; consequently you work toward success with more effort than most people do. There are people who stand at a distance from duty and effort, and wonder and wait, doubt and hesitate, till the time for success has gone; the tide has turned; they cannot catch any more fish till the tide comes back again. If you had a boat and knew how to sail it; if you had a team and were accustomed to use it, you would get a good deal out of both; a good deal of distance without loss of time. If you had duties that required enterprise and energy, and were trained to the performance of them, you would get as much out of life as almost anybody could.

You have large perceptive organs; these give you quickness of appreciation. Individuality is large enough to give you a sense of what there is around you. If you were a writer you would be a good descriptive writer. You would describe scenery, you would describe conduct, you would appreciate motive, and you would have the skill and tact to make what you thought readable. You re-

member facts. You gain something from everybody you meet. Your Language is large; that enables you to express well what you know. You appreciate music. You enjoy the poetical. You have constructive power, the ability to weave thoughts into proper form, give expression to ideas and make them acceptable and interesting.

You have a good degree of the sense of value, the idea of property and profit. If you were accustomed to work for the public you would manage to get good compensation, good reward for what you would do. You have the faculty of taking your own part, asserting your rights and maintaining your interests. You have the power also to conciliate people who have power and influence, and to get them so they will work in your harness and pull at your end of the rope in the path of progress. For example, if you were a lecturer you would get

invitations; if you were a concertist or a writer you would get employment. People would want what you could do, what you could say and think, and they would let you name the figures, or they would name those that you would be willing to accept. You do not have to tease for a hearing or make an effort for a position.

You get your strength of character from your father; your courage, fortitude, ambition and your consciousness of power come from him, and with your feminine sympathies, perhaps inheritance in part, you are able to harness these forces so as to make them acceptable. It is like making lemonade with lemon juice and sugar—people think it is better than either of the ingredients separately. By all means speak or write either prose or poetry, and give your courage charge of your convictions and you will make a high and an indelible mark.

NELSON SIZER.

OUR ANCESTORS' TABLE MANNERS.

IT IS always interesting to review the manners and customs of our forefathers, whether or not our time suffers by comparison. How the table was set a thousand years ago and what was put upon it, and how food was eaten, form the topic of a short article in one of our exchanges. Among the most interesting features noted is that in the houses of people of fairly comfortable circumstances the table was set up in the dining hall every day, and consisted of boards placed on trestles. Upon this was laid the tablecloth, which in some of the old pictures is represented as having a handsome embroidered border. There is an old Latin riddle of the eighth century in which the table says: "I feed people with many kinds of food. First I am a quadruped, and adorned with handsome clothing; then I am robbed of my apparel and lose my legs also." The food of the Anglo-Saxon was largely bread. This is hinted in the fact that

a domestic was called a "loaf-eater," and the lady of the house was called a "loaf-giver." The bread was baked in round, flat cakes, which the superstition of the cook marked with a cross to preserve them from the perils of the fire. Milk, butter and cheese were also eaten. The principal meat was bacon, as the acorns of the oak forests, which then covered a large part of England, supported numerous droves of swine. Our Anglo-Saxon forefathers were not only heavy eaters, but, unfortunately, deep drinkers. The drinking horns were at first literally horns, and so must be immediately emptied when filled; later, when the primitive horn had been replaced by a glass cup, it retained a tradition of its rude predecessor in its shape, for it had a flaring top while tapering toward the base, so that it, too, had to be emptied at a draught.

Each guest was furnished with a spoon, while his knife was always car-

ried in his belt; as for forks, who dreamed of them when nature had given man ten fingers? But you will see why a servant with a basin of water and a towel always presented himself to each guest before dinner was served and after it was ended. Roasted meat was served on the spit or rod on which it was cooked, and the guest cut or tore off a piece to suit himself. Boiled meat was laid on the cakes of bread, or later on thick slices of bread called "trenchers," from a Norman word meaning "to cut," as these were to carve the meat on, thus preserving the tablecloth from the knife. At first the trencher was eaten or thrown upon the stone floor for the dogs which crouched at their master's feet. At a later date it was put in a basket and given to the poor who gathered at the manor gate. During the latter part of the middle ages the most conspicuous object on the table was

the saltcellar. This was generally of silver in the form of a ship. It was placed in the centre of the long table at which the household gathered, my lord and lady, their family and guests being at one end, and their retainers and servants at the other. So one's position in regard to the salt was a test of rank—the gentle-folks sitting "above the salt," and the yeomanry below it. In the houses of the great nobles dinner was served with much ceremony.

Not a few of the articles that are eaten to-day, despite our common hygienic teaching, are a heritage of the ages. Macaroons have served as dessert since the days of Chaucer. The Summer Yankee breakfast grid-dle cakes has come down to us from the far-away Britons of Wales, while the boys have lunched on gingerbread, and girls on pickles and jellies, since the time of Edward II., more than five hundred years ago.

WILL EXPRESSION.

I HAVE read with a good deal of interest the editor's fourteenth paper on "Systematic Moral Education" in the JOURNAL for July. I am more convinced than ever that we have lacked woefully along this line in our futile efforts at moral reform. I regret that every young man and young woman in our land will not see that masterly disposition of the question of will power.

I fully realize all the editor says, for I have had an experience that proves the position that he takes to be the correct one. About four years ago I was all "jaded out," and, to use a street phrase, I had "lost my grip." In fact a general break-down seemed imminent at thirty-nine. My friends as well as myself became so much alarmed that my wife accompanied me to the Utica asylum for the purpose of consulting the superintendent. After an extended examination that official reached the conclusion that nothing short of a few

weeks or months in the asylum (hospital if you please) would give me any relief. We returned home a sad couple and as the day approached for my incarceration we became sadder. Having two lovely children it grieved my wife to think of the taunts that they would have to endure from their schoolmates.

One morning I found her violently weeping, and on being pressed for a reason gave me the above. It touched my manhood somehow, and I said to myself, *I'll not go*. Next morning was the time fixed for my departure. After breakfast she asked about the time of the train, etc., to which I replied, "I am not going; I will assert my will power and stay at home." That hour the invisible shackles fell off and I became a free man.

What a victory we achieve when we conquer ourselves! Not only the approval of one's own conscience, but also of his fellows and of his God.

WEEDSPORT, N. Y. C. E. W.

HOW TO STUDY STRANGERS

BY

TEMPERAMENT, FACE AND HEAD.

CHAPTER VIII.

2d. THE VITAL TEMPERAMENT.

THE organs and functions which make up this temperament are called the nutritive system; they minister to the nourishment, feeding and up-building of the whole constitution, and take in the entire digestive system, beginning with the mouth, and including the stomach, the intestines, and the mesenteric system which absorbs the nutritive material and carries it up through the thoracic duct into the sub-clavian vein and thence into the heart. This fluid is a whitish, milky substance called chyle, and when it passes from the heart into the lungs and comes in contact with oxygen, it thereby becomes of a scarlet color and is called blood. The digestive apparatus may be supposed to end where the thoracic duct empties the digested food-material into the blood-current. The heart is the next organ of the vital apparatus which operates upon the fluid, sending it into the lungs, where it is charged with oxygen, and then sending it into the other side of the heart, which by muscular contraction starts it into the system of blood vessels called arteries.

The heart, lungs, veins, stomach, and intestines are not represented in this engraving (Fig. 70); simply the arteries are shown. The office of these is to carry the blood to the extremities and into the minute hair-like capillaries, from which nutrition is absorbed by the hungry tissues; these capillaries are so numerous and so extended that every particle of the entire economy is pervaded by them; there are branches of these from the larger vessels all along on the way

to the extremities, which supply the intervening parts with arterial blood, laden with nutrition, and then there is a system of veins (Fig. 71), which

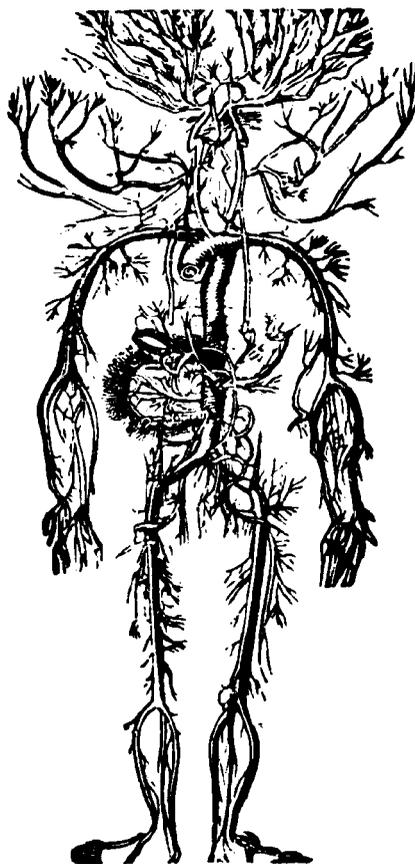


FIG. 70.—THE ARTERIAL SYSTEM.

returns the blood from all the points to which the arteries have carried it out; in fact, the arteries and the veins are united at their extremities. Each hair-like artery becomes a hair-like vein and returns the blood to the

heart to be sent again through the lungs to be revived, and then out through the arteries and back again through the veins. The arteries resemble the service pipes of the water works of a city, carrying the clean water to every house and every room, and then the veins, like the system of drain pipes in the houses, take up the blood, when it has done its work of nutrition and cleansing, and carries it into larger vessels and, like the system of sewerage, the veins bring back with the blood imperfections or impurities which it has in its journey taken up, and the blood is thus changed to a dark purple. In going through the liver the blood leaves some impurities, others are deposited in the kidneys, and some are excluded through the lungs and the skin; so the arteries carry out nutrition, and the veins bring back the blood that has become exhausted of its vitality, and has taken up impurities and the waste material of the system; and this process of carrying out and bringing back blood keeps up the current of life and vitality, and tends not only to nourish but to purify the whole system or constitution. This process of house cleaning and refitting which is performed by the blood is sharply illustrated by the house maid with her pail of clean water, scrubbing brush, pearline and wiping cloth, who loosens the dirt by the brush and pearline, wipes it up with the cloth and empties the accumulation into two sinks, called liver and kidneys, and so leaves the premises cleaned and sweetened, as the house is by removal of smoke, dirt and grease and the application of a coat of fresh paint and whitewash. A dwelling has a general cleaning once in six months, a partial cleaning once a week, and a daily tidy touch; but the "House Beautiful" in which mind lives has the cleansing process going on all the time. The scrubbing, wiping, rinsing process never ceases, or when it becomes lax the condition called disease occurs, threatening

decay and death. Proper food and hygienic conditions will make new blood of the right sort, and then if not polluted by bad habits, the normal action of life's functions will keep the system in happy, healthy working condition to ripe old age. Early death is the result of human error in some form; it is premature, and is a penalty of violated law, ignorantly or otherwise.



FIG. 71.—THE VEINOUS SYSTEM.

So completely does the system of blood vessels pervade the entire constitution, for purposes of up-building and cleansing, that there is not a place as large as a needle's point on the whole surface of the body which will not bleed if we prick it with a needle, showing that there is a blood vessel there. Now if everything else about

the body could be disposed of, leaving the blood vessel system intact, we should have before us, if the arteries and the veins were filled with blood as in daily life, a complete man, formed like the living man; even the skin is pervaded by blood vessels except the outer cuticle; so that the blood vessels would constitute a man of a blood-red color, and shaped exactly and in every feature like the man in life and of the same size within less than the thickness of a sheet of paper; thus, the blood vessels are found everywhere, carrying nutrition and bringing back impurities to be disposed of through their proper channels. Thus once in five minutes all the blood in the body, twelve or thirteen pounds, passes through the heart and visits all the extreme points.

We have in a previous chapter shown a man of bone and muscle. (Fig 62.) We now show two engravings which represent imperfectly the blood vessels, the arteries and the veins, (Figs. 70 and 71), which if complete would be shaped exactly like a man of bone and muscle, just as large, and showing the entire outline of organs made up of the blood vessels.

THE LYMPHATIC SYSTEM.

We show another man in Fig. 72 made up of the lymphatic system, somewhat similar to the arterial and venous systems, and these are small, delicate vessels and of whitish color, and carry, not the red blood of the arteries nor the purple blood of the veins, but the white fluid of the lymphatic system. The largest only of these lymph vessels are represented in Fig. 72, and they, like the arteries, enter in microscopic minutia into every organ of the body, and have an important part to perform in the great function of nutrition. This lymphatic system, instead of being a temperament by itself, properly belongs to the nutritive system. The digestive system makes the nutrition;

the arteries, veins and lymphatics distribute this nutrition, and the result is the up-building of the body; hence the temperament represented by all the vitality-making organs is called



FIG. 72.—THE LYMPHATIC SYSTEM.

the Vital temperament because it is the source of all vitality. The bones themselves are fed by this nutritive system called the Vital temperament; the muscles are built up by it, the nerves are built up by it, and even the veins and the arteries themselves are nourished and replenished with new

material of nutrition which they help to manufacture and absorb as health and the system require, so that everything that belongs to a man's constitution comes through the Vital temperament which is made up of the factors which we denominate the vital organs.

This temperament used to be divided; one part was called the Sanguine temperament, but in that case they regarded only the heart, lungs and arteries as constituting the Sanguine temperament; they left the digestive and lymphatic systems out of the question, and called this part of the nutritive system the Lymphatic temperament. Thus they cut the blood-making and blood-distributing systems apart, calling them by two names as two temperaments. In Mr. Combe's time it was customary for lecturers—and Mr. Combe did it himself—to ridicule the unfortunate people who had a superabundance of the digestive system. The Lymphatic temperament was a source of joke and merriment, and nobody wanted to be charged with having that temperament. In fact, that which they called the Lymphatic temperament was a partial disease; it was an unbalanced condition in which there was more nutrition generated than was assimilated and worked into complete life power, and thus, a man would become extra fat and heavy by an extra amount of lymph being induced. It was like pulling a lamp-wick too high, which gives imperfect combustion, and fills the room with smoke.

The Vital temperament includes the three systems illustrated by Figs. 70, 71 and 72, and also the organs which convert food into blood, which being combined, constitute the digestive apparatus (Fig. 73). This shows A, the heart; B B, the lungs; C, the liver; D, the stomach; E, spleen; f f f, intestines; m m, kidneys; g, bladder. All these organs are engaged in the processes of preparing food for nutrition and cleansing the tissues and blood of the impurities

and waste material which need to be carried out of the system. This temperament is distinct from the Motor or mechanical system, and also from the nervous system, yet both of these systems render indispensable aid in carrying on the processes of diges-

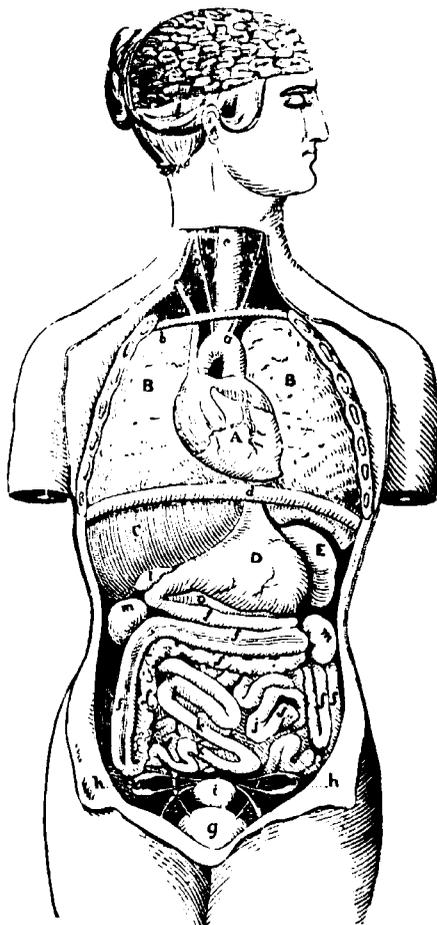


FIG. 73.] THE DIGESTIVE APPARATUS.

tion, from the chewing of the food all through the various processes of making healthy tissue and life power.

In the early history of Phrenology in this country it was found by lecturers that there was a great misunderstanding on the part of the people in regard to the nature of the temperaments. Since my public career of Phrenology commenced in 1839, I frequently had this experience before an audience. I used the names of the temperaments as Mr. Combe always

did, recognizing four temperaments, named Sanguine, Nervous, Bilious and Lymphatic, and I would say of a man before an audience, "This man has the Sanguine temperament." And the man, thinking I meant that he was happy and cheerful, would contradict, and plainly say that it was not so; that he was not sanguine, but inclined to look on the dark side, and then I would explain that it was not disposition I was talking about, but temperamental constitution; then another would come up for an examination who was of the Motive temperament, and as we called that Bilious, I would say "He has a strong Bilious temperament." And many times I would be contradicted on the spot, and the man would say "You are all wrong there; I haven't had a bilious attack for six years." The people thought the Bilious temperament meant a diseased condition of the liver and the bowels, and that the Sanguine temperament meant that a man had a cheerful and enthusiastic spirit. When we found a man who had the Mental temperament strongly marked we would say: "You have a predominance of the Nervous temperament." And often a man would reply: "You are mistaken, I am not nervous at all; in fact, the doctor always sends for me to assist him in surgical operations, because I am calm and never nervous." The Messrs. Fowler, coming in conflict, as they often did, with this error on the part of the public, were led to study the nature of the lymphatic system, dropped the term Lymphatic as applied to a temperament, and merged it into and as a part of the nutritive system, calling the combination the Vital temperament because both systems minister to vitality. Some still use the term Bilious for the Motive temperament, thus rendering themselves liable to be misunderstood. At all events the term Motive applies to the bones and the muscles, their functions mean motion; and vitality is the re-

sult of digestion, circulation and assimilation; hence Vital is the true name for the nutritive functions.

The characteristics of the Vital temperament are vital warmth, a steady and vigorous pulse, abundant and complete digestion, good circulation and assimilation, and therefore a tendency to plumpness of figure, a ruddy complexion and ardor in feeling, and ready recuperation for life's work. People who have the Vital temperament in excess are generally inclined to be fat, and as they become advanced in years are liable to get heavy and too stout, although they are not necessarily lazy, even if they are heavy. There are some such people who, though too stout, too much laden with adipose tissue, are yet earnest workers and great drivers; they have strength generated by good digestion; they have an abundance of healthy blood freely distributed through all parts of the system, giving life and vitality, and so they are cheerful, zealous and hearty. Many persons of this temperament have too full a development in the region of the stomach for their comfort. They have also a broad and deep chest; they have well rounded limbs and full, plump and thick hands. The complexion is often florid, the eyes blue or gray, the hair light or sandy, the cheeks red and the skin a peachy white, with abundant perspiration. We are speaking now of persons in which this temperament predominates, even as extra bone and muscle come from a predominance of the Motive temperament.

Lincoln, Calhoun and Jackson, having the Motive temperament, were slim, tall and bony; Lewis Cass, Silas Wright, Levi Woodbury and James Buchanan were rounded, heavy and plump, full of blood and had the Vital temperament; others, like John Randolph and Henry A. Wise, were thin, nervous, sensitive and excitable, had light bones and muscles and delicate features. These had the Mental temperament in predominance.

FIG. 74—THE MARQUIS OF SALISBURY.

In this portrait of Lord Salisbury we have an excellent illustration of the Vital temperament. The great size

ishment, giving ability to manifest breadth of thought and capacity for great affairs, such as a prime minister requires. In conjunction with the



FIG. 74.—MARQUIS OF SALISBURY—THE VITAL TEMPERAMENT.

of the chest, the fullness of the entire person, the large and healthy looking face, the stout limbs, plump hands and the well nourished appearance of the whole system, show ample digestion and nutrition, abundance of blood and a free circulation. His large brain is well supplied with nour-

ample vital power, he had with his large brain also a full share of the Mental temperament which gives him clearness of thought, and with his great endurance, the ability to think clearly and acutely, and bear the fatigues incident to his long and eminent public career.

FIG. 75—AMELIA E. BARR.
VITAL TEMPERAMENT.

The portrait of this lady indicates a decided predominance of the Vital temperament. In the appearance of that face, neck and shoulders there is evidence of excellent nutrition, fullness of life power, abundance of blood and of healthy tissue. It will be noticed that the features are not angular, massive or rugged, but pliable, mobile and expressive. The cheek is plump outward from the nose and full outward from the mouth, and the fullness and plumpness of the neck below the chin indicates a person who is well nourished, whose digestion is excellent and whose enjoyment of life is ample. The forehead is developed in the lower and middle sections rather than in the upper part; there is more tendency to gather knowledge, remember it, rehearse it, or reform it, according to her own impressions, than a tendency to follow a line of strict, logical reasoning; she translates her thoughts into feelings and clothes her ideas with sentiment and emotional life. The back head seems to be amply developed, indicative of the temperament in question, and also for great sociability, and especially the love for children. Her intellect is that of a writer, and her temperament and motherly spirit have made her an eminent writer for children.

Every function rejoices in abounding activity; the affections are strong and responsive; the thoughts quick, the emotions genial and smooth, making her a sympathetic centre wherever she may roam or rest.

Fig. 76. This boy is a good illustration of the Vital temperament;—the fullness of the cheeks outward from the nose and outward from the mouth show breathing power and digestion, and the fullness and strength of the chin indicates good circulation and quality of constitution, fibre and disposition are a good contrast to Fig. 69, and rightly trained he will make

a man of vigor and abundant vital power, and he will manifest also har-



Amelia E. Barr.

mony of character, and brilliancy of intellect.



FIG. 76.—VITAL TEMPERAMENT.
FROM A PHOTOGRAPH BY ROCKWOOD.

FIG. 77—MR. R——.

This gentleman, who came to us in the ordinary way of business, kindly consented, at our request, to have his picture taken for publication. He is a good specimen of the Vital temperament; his weight is 245 pounds.



FIG. 77—MR. R—VITAL TEMPERAMENT.

The relatively small and delicate features, as compared with the size of the body, the fullness of the perceptive organs, and the largeness of his back head, which, however, does not appear in the engraving, all show the Vital temperament, and also a strong resemblance to the mother, and from her he derives the comparatively narrow shoulders. His arms are very large at the shoulders and taper off, showing a comparatively small wrist and hand, and for a man standing five feet ten inches high his arms are short. The reader will observe the broadness of the hips and the largeness of the thighs and the fullness of the abdominal region; he had

a large digestive apparatus and made an abundance of blood, and he is strong, earnest and active for a heavy man; his feet are small, and we found by measurement that the



FIG. 78—MASTER H. T.

thigh measured twenty-seven inches; we rarely find an organization to show a finer nutritive and digestive apparatus, and the ability to convert food into life power more readily and abundantly. Then his head is large, and he can make steam as fast as he needs to use it. From the knee to the waist it will be seen how ample the development is, and that indicates largely where he got the last forty-five pounds.

FIG. 78 H. T.—VITAL TEMPERAMENT.

Shows a boy thirteen years of age. He is heavy in the region of the waist and below it, his legs are large and taper rapidly, his hand is deli

cate, and his features are also delicate, contrasting sharply with Fig. 69. The chest is full, but not prominent, and below the waist he is full, well rounded and stout. He weighed 135 pounds, and that is a heavy weight for a boy thirteen years old.

BALANCE OF TEMPERAMENT.

Some are evenly balanced in temperament. Washington was supposed to be evenly balanced. We think Chauncey M. Depew has a pretty fair representation of the three temperaments. General Lee was well represented in all the temperaments. Mr. Beecher had a fair balance, with perhaps a little surplus of the Vital, which made him stout in his later years. Rev. Dr. R. S. Storrs is a good specimen of Harmonious temperament, as his portrait elsewhere represents. His head is large, his face plump and full and his body was just full enough to be grand at sixty years of age. Rev. Dr. Cuyler is thin and wiry; the Motive Mental temperament prevails in him, and the Mental Motive is more conspicuous in Mr. Talmage, though his complexion favors the Vital.

In the examination of persons in respect to character, constitution and temperament, it is comparatively easy to recognize the Motive temperament in the large bones, strong hair, in the dark complexion and in the fullness and hardness of the muscles. The Vital temperament generally has depth of chest and a good development of the shoulders and a rounded fullness of the abdominal region (see Figs. 74, 75, 76, 77, 78), with ample fullness and largeness of the limbs and plumpness of the face and hands. There is, however, a special method of estimating the development and healthy condition of the lungs and of the digestive system and also of the circulatory system by the form of the face of the person.

THE BREATHING POWER.

A large and healthy condition of the lungs will generally be found with

a strong development of the malar bones, or a frontal prominence and width of the cheek bones outward from the nose, and if there is an abundance of good, healthy flesh on every part of these bones we expect to find large and vigorous lungs, and where that section of the face is broad and strong, we generally find a large chest, capacious and healthy lungs. No matter if the man is tall and slim, if that part of the face is well filled out he will have a good development of the lungs, though there may not be an ounce of fat on him, and, like the large-chested, slim-built greyhound, he breathes deeply and abundantly and he is not short-winded. When consumption or any diseased condition of the lungs invades the system, it produces a feverish expression of the face outward from the nose, the hectic flush, as it is called, appears thereon, and as the disease advances that part of the face becomes wan and pale and thin, the cheek bones show plainly and the eyes look glassy, glaring and cavernous. I have seen the late Dr. Dods, in magnetizing a person, put his fingers on that part of the face and nearly stop the man's breath; he would not say anything, but the man would soon pant for breath. Writers on magnetic and physiological subjects, some years ago, used to talk about the poles of the lungs being represented in the malar part of the face, and they also spoke about the poles of the stomach having relation to the middle side sections of the face outward from the mouth.

DIGESTIVE POWER.

Anybody can observe that those who have good digestion are apt to be plump in the cheek outward from the mouth, sometimes unpleasantly so. Young persons who have healthy digestion and good, wholesome food are fat and full in the cheeks.

It may not have escaped the observation of nearly every reader, especially mothers, that when a child is troubled in the Summer with a dis-

turbed condition of the digestive apparatus, he falls away in that spot; the middle of his face, called the cheek, gets hollow and thin, and that part looks pale; and when a person is nauseated he looks white about the mouth, and the part of the cheek that should be fresh or red looks white. People have a contemptuous expression, "He looked white about the gills," when he was seasick or nauseated by the sight of blood or his stomach was "turned" by something else. Dr. J. B. Dods would place his fingers and thumb on the sides of the face at the poles of the stomach and the robust man would at once turn pale and become deathly sick at the stomach.

Now, to come back to the child, let him be cured of this Summer trouble, and in four or five days he seems to be as plump in the cheeks as he ever was, and no other part of his body has fallen away; his legs and arms seem as plump as before, but during his short sickness his cheeks fall in, and as soon as the stomach trouble is ended his cheeks fill out again and he is healthy and happy as ever. His loss of flesh was chiefly on the cheek. People are often astonished when we charge them with being troubled with dyspepsia; they confess the fact, but wonder how we know it, but it will be readily shown in a thousand photographs that might be presented; so this sign of poor digestion is manifest and easily discerned.

THE CIRCULATION,

or the strength and activity of the heart and the integrity of the circulatory system, are indicated by the fullness, length, breadth and strength of the chin, and to use the old phrase, the poles of the heart are represented in the chin. I think a Phrenologist would recognize, in looking over the faces of a thousand men in regimental line, every man who is especially liable to a disturbed action of the heart, as well as every one who was stern, staunch and

steady in that respect. The same, also, as to the breathing and digestive power. We sometimes say of a person under our hands, "Your circulation is perfect and strong, you are likely to hold on to life to a good old



Celia Thaxter.

FIG. 79—LARGE CHIN, HEART STRONG; CHEEK FULL, DIGESTION GOOD.

age; if your stomach does not break down, your heart will do its work with steady vigor and strength until all the other functions of the system are exhausted." And to another person we will say, "Your circulation is not naturally good and strong, therefore you should avoid the use of articles that are by their nature calculated to disturb the action of the heart, or the nerves which operate the heart."

Tobacco, coffee and spices induce a disturbed action of the heart, and I suppose that thousands of men and women have been benefited and saved by giving up those habits relating to the use of coffee, tobacco and spices through my professional advice, and there were some notable cases where the patients had a dis-

eased condition of the heart or of its functions, and afterwards perfectly recovered from the trouble by avoiding those articles which it was supposed produced the disturbance. More than fifty years ago I had an attack of disturbed action of the heart and I sent for a physician in the middle of the night, and when he came and felt of the pulse and studied the action of the heart, he said: "Do you use coffee?" "Yes," I said. "You had better stop it," he replied. "Do you use tobacco?" "Yes," I said. "You had better stop that, too, for if you do not, your heart will stop some time and you cannot start it again." I dropped coffee and tobacco, and I have had no trouble with the heart for half a century.

It may be said within the field of safety that three-fourths of the people who die suddenly of heart trouble, or heart failure, to use the popular term, will be found to have been habitual users of coffee, spices or tobacco, and sometimes of all three.

On the 31st of January, 1891, the Secretary of the Treasury, Mr. Windom, as will be remembered by not a few people, died at the close of a great speech he had made before the New York Chamber of Commerce. Of course it was an exciting position, but he had been Senator, and was not afraid of the presence of men of calibre and knowledge, and, being an excellent financier, he was looked up to by the distinguished company he was addressing, which well knew how to appreciate him. He went through the speech grandly, but before the applause was ended which followed his last sentence he fell prostrate with heart failure, and the newspapers innocently said that "he had taken a cigar out of his pocket ready to light and that it was in his fingers in death." He might have lived twenty years longer and have continued his usefulness if he had avoided that habit, and seven years before his death I frequently predicted that he would probably die in that way, just

by looking at his photograph; and let any one look at his picture on the



FIG. 80—DIGESTION POOR, CHEEKS HOLLOW; CIRCULATION FAIR.



FIG. 81—D. G. MITCHEL, VITAL-TEMPERAMENT BALANCED. BREATHING, DIGESTION AND CIRCULATION GOOD.

national bank note! He was a magnificent looking man, but his chin was small, and his heart was the one weak part of his system. We have twenty millions of people, men and

when he came he questioned the family as to what she had been eating, for he surmised that there was some trouble with the stomach, and he managed between times to get an emetic down her throat. She then threw up a large quantity of nutmeg. She had been to the nutmeg grater and eaten all the little ungrateable pieces, and so she had taken perhaps the value of an entire nutmeg, and when she threw it up the whole house was filled with its odor, and it covered the floor, looking like Indian meal. Then the doctor said: "Now she will be all right." And so she was.

A medical friend of mine had a patient, a young man who had recently gone as clerk into a village store where he could have opportunity to eat all the cinnamon and cloves he wanted. So he was nibbling at something of the sort all the time; but he soon began to have trouble with his heart and he went to the doctor, who, smelling the odor of spices, asked him whether he ever eat any, and he replied: "Oh, yes, I eat spices all the time." And the doctor told him that was the cause of his trouble, and advised him to quit their use entirely, and he soon got quite over the difficulty.

But there are some people who tell me they do not care, they like certain things, and they are going to enjoy life whether they live five instead of fifty years longer or not; but the use of these articles is founded not on a natural want but purely on habit. A man has an uneasy feeling, craves something, and indulges himself; then his system gets used to it, and his desire for it grows, and all these unnatural, artificial things, tobacco, alcohol, spices and coffee, have an evil effect on the nervous system. Animals generally by in-



FIG. 82—GEN. ABRAHAM DALLY,
AGE 93.

He was a soldier of the war of 1812. In 1880 he appeared in his uniform at the Centennial Celebration, and was seated with President Harrison on the grand stand at Madison Square, New York. His face shows the integrity of Breathing Power, Digestion and Circulation. Hence his long life.

boys, in this country who are smokers, and they are all candidates for such an end, and some will perhaps reach it before long; then the coffee drinkers and those who use spices heavily are liable to the same trouble.

A neighbor of mine had a bright little girl of nine years, and one day she had convulsions. A doctor was hastily sent for half a mile away, and

instinct evade them. We learn gradually, little by little, to use them, until a habit is formed, which craves the accustomed indulgence,

Mrs. Garfield had a harmonious temperament, fine quality, and a good education. Her husband dying left her with four children, James A.,



FIG. 83—MRS. ELIZA GARFIELD, MOTHER OF THE PRESIDENT, AGED 80.
THE FACE CARRIES THE BEAUTY OF A HARMONIOUS VITAL TEMPERAMENT.

and we become its slaves. A systematic, gradual lessening of the amount used will enable any person to go out of the habit as he acquired it, and perfect freedom from the desire for it will be reached in a few months. The veriest slave of alcohol, tobacco, opium, arsenic, tea, coffee or spices, by lessening the amount used by a constant and systematic rule, will save his health and utterly conquer the habit and the acquired desire.

the future president being a babe. Her slim resources consisted of a log house and a farm in the forest half cleared. She had a hard time in raising and educating them. Her fine intellect planned well; her industry and economy made her the master of her condition. Her face was marked by the signs of Breathing, Digestion and Circulation, and was beautiful and winsome even in old age. Our pioneer, patriotic and pious mothers, "God bless them every one.

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

JOHN REDMAN COXE, M. D. SILAS O. GLEASON, M. D.

DR. COXE was one of the very early advocates and disciples of Phrenology in America, and, in 1822 read before the Phrenological Society, of Philadelphia, an essay, entitled "Remarks on Phrenology, in its Connection with the Soul; and as to the Existence of a Soul in Brutes."

This lecture was delivered in the same year that Dr. Caldwell, of Kentucky, gave his first course of lectures on Phrenology to his class in Transylvania University, as well as the year of the formation of the Phrenological Society of Philadelphia, organized by Dr. John Bell, who was made its first president, and when to declare one's self a believer in this science was to make himself liable to ostracism, obloquy and misrepresentation, loss of patronage and friends.

At the conclusion of his lecture Dr. Coxe said: "I must remark, that so far from the science of Phrenology being a newly discovered one, it is, on the contrary, one of the most ancient. I have, in my possession a very curious old quarto volume, printed in 1508, entitled 'Margarita Philosophica,' a kind of encyclopedia, embracing in question and answer, between the master and his pupil, every science of the day, from the letters in the horn book up to theology and metaphysics. Among the singular engravings, with which it abounds, is one of a human head or skull, on which are regularly depicted by metes and boundaries, the then acknowledged faculties of the mind, in their respective localities, with a precision not unworthy of Gall or Spurzheim. Well did Solomon declare that there is 'Nothing new under the sun.' Doubtless the science of Phrenology existed in the distant epoch of the Jewish monarch, although its principles had not been fully elucidated. It is, however, perfectly demonstrable, that neither before nor since the time of Solomon have the organs of amativeness and of philoprogenitiveness exhibited a stronger development than in his brain; for we have Scriptural assurance that this illustrious and wisest of monarchs had no less than seven hundred wives and three hundred concubines!*

*Could the numeration of Bible days be like ours? There must be some mistake.

His conscience on these points must have had but a feeble development!

"About a century after the work above mentioned appeared a treatise by J. Heurnius a medical writer of very superior merit, entitled 'De morbis qui in Singulis partibus humani capitis insidari consueverunt.' At ch., 10, p. 100 of his work, speaking of phrenitis and its various forms, he says 'Secundo differunt phreniti, de loco affecto: nam vel totum cerebrum, vel ejus pars occupata est si pons cerebri, ea erit antica, postica, vel media. Scio hic disputari, utrum principes facultates capitis, sedes in cerebro habeant varias, necne, etc.:' from which it is evident that the doctrine of localities was then a subject of discussion.

"It is, however, so rational, that it can scarcely be a source of wonder to find that even centuries before that period the same opinion had met with supporters. Accordingly we learn that Galen (the most renowned of the medical profession in any age, either ancient or modern), who flourished about 200 years after our Saviour, had promulgated and sustained a similar doctrine. Heurnius refers us in proof of this, to Aph: 27 of 1st Prorrhethics; and to his 4th book, *De Locis Affectis*, in which he says, that when the brain is affected, 'Apud anticos ventres suos laedi imaginationem: sin illi medios secum ventriculos trahant, perverti et cogitationem.'

"He elsewhere inquires why phrenitis has such varied symptoms; and why, at one time, the imagination, at another, thought or memory, shall be defective? 'Hoc evenit (says he) ex humoris raptu ab una in aliam cerebri partem; itaque hoc pieri et variarum cerebri mansiorum irritatione, ei alteratione praegrandi, unde successiva opera * * * id est facultatum apprehendendi, judicandi, et memorandi.' Further on we find, 'Si principes facultates quae in cerebro habitant, arias mansiones occupant, igitur unus idemque homo poterit ingeniosus esse, vique imaginandi excellere, et etiam memorandi potentia alias ante-ire; at plerumque ingeniosi immemores sunt: quin non raro memoria valide exsplendescit, torpescit imaginatio,' etc. And in Galeni de Hippoc: et Plat: decretis, Lib. 5, ch. 4, we find the following: 'Neque in una tantum animae parte, neque in una facultate et judicium et effectus existere, ut Chrysippus sentit; sed, plures esse diversasque genere tum facultates, tum partes.'

"We need not quote further, although we might abundantly, for the writings of Galen prove the subject to have been a favorite with him. It wanted merely a name to establish its scientific standing; and I have merely adduced the above few facts to

prove that Phrenology is not now for the first time illustrated, but that it reaches back through sixteen centuries, if not to the time of Hippocrates, who lived nearly 400 years before Galen. I have now completed the object I had in view, of maintaining the firm belief I have long had of the truth of the great outlines and fundamental principles of Phrenology, a belief unalloyed, I trust, by any slavish attachment to the vagaries to which it may have given rise. It is a science which, though of long standing, as I have demonstrated, is nevertheless still in its infancy, and will probably so continue until augmented elucidation shall have established a chain of facts so powerful as to enforce a general opinion that, so far from its consideration leading to infidelity or atheism, as many have affirmed, on the contrary it tends to magnify the power of the Deity in the manifestation of that part of His works, that is, to survive 'the wreck of matter and the crush of worlds!'"

This lecture of Dr. Coxe was not published in book form in connection with that entitled "Considerations on the Recognition of Departed Friends in Another State of Existence—'and whether in that state they have, or have not, cognizance of the affairs and transactions of this world, together with the probable influence on their happiness, should such be the case;'" and one "On the Descent of Jesus Christ into Hell, as an Article of Belief of the Protestant Episcopal Church—'with an attempt to show that it cannot be proved from the Sacred Scriptures,'" until 1845, twenty-three years after it was delivered. Feeling that an explanation was due to his readers for the length of time passed between its first delivery and its appearance in book form he prefaces it with the following explanation: "The following essay is not given to the public at this late date from its delivery before the Phrenological Society, when the subject was comparatively unknown here, and almost universally derided, with any view of affording instruction in the science; for since that time, by the learned lectures and writings of Dr. Combe and others, its value has become properly appreciated. It is chiefly intended to point out that few sciences are of anterior

standing; and that long before Gall and Spurzheim undertook to maintain its rightful claim to rank among them, it had received a very extensive consideration among medical and other writers, of which the facts herein adduced will be deemed sufficient proof."

Dr. Gall, the discoverer of the science, began making observations of peculiar characteristics with peculiar formations of heads and faces when but nine years of age, and not old enough to know what the Ancient Sages had said or taught on these subjects, and it is to *his* discoveries and teachings that we are indebted for the present status of knowledge of Phrenology and the blessings it confers on mankind. We should also be thankful to Dr. Coxe and others who have made researches in the philosophies and writings of the Ancients in the same direction, and imparted to the world the results of those researches.

In an early volume of the PHRENOLOGICAL JOURNAL was announced substantially the same facts, but the name "Phrenology" was given to the science (during the life of Gall if the writer be not mistaken) by a Dr. Forster, of Great Britain, while Dr. Spurzheim was lecturing there.

We hope to have further particulars regarding Dr. Coxe in a future number of the JOURNAL.

DR. SILAS O. GLEASON

was born in Colerain, Franklin County, Mass., Nov. 3, 1818. When in his sixth year his family moved into the small mountain town of Winhall, Bennington County, Vermont, where he was brought up on a farm, getting about twelve weeks of school in each year, till eighteen years of age; he then attended one term at an academy. After this time he taught school in Winter and worked on the farm the rest of the year, until he was twenty-one years old. About the year 1835 he borrowed Combe's "Constitution of Man" from a neighbor, read it

with intense interest, as it opened to him a new world of thought. Then came Gall and Spurzheim on Phrenology, which gave him another send-off into the thinking world. To the

“It was to me an inspiration—a teacher of real value.” Having to provide himself with the funds to go on with his education, he took phrenology as a study, and lectured on the



SILAS. O. GLEASON, M. D.

authors of these works he feels that he owes very much. Later came Fowler and Wells; from the PHRENOLOGICAL JOURNAL he obtained much solid instruction and useful information in many directions. He says,

same for two years, 1840-42, finding both pleasure and profit therein, and securing funds thereby for the further pursuit of study. These studies determined him to make the profession of medicine his life-work.

In the study of medicine he was a classmate of Joel Shew, M. D., who was the first practitioner of "water cure" in New York city.

For one year Dr. Gleason tried the drug practice with as good success as any neighboring doctor, but his expectations of the healing power of *drugs* were not realized. He then traveled and lectured on anatomy and physiology, using a French manikin and the human skeleton, with drawings, etc., in illustration. He thereby became conversant with disease under almost every variety and form, treated with medicines of every character which human ingenuity could devise. He became satisfied that the public *demanded* and *needed* something else to relieve them of the maladies to which they were subject. In 1846 he opened a watercure establishment at Greenwood Spring, a beautiful situation on a hillside overlooking the village of Cuba, N. Y. Many patients were here treated, and broken down constitutions restored to health and vigor by pure air and the judicious use of pure water, under Dr. Gleason's care. He has always since then been most enthusiastic in his advocacy of the watercure treatment. In writing to the *Watercure Journal* in 1846 he said:

"The age in which we live is one more pregnant with interest to the eye of the philosopher and philanthropist than any previous epoch in the history of the world. More important features are being presented than those which characterized the French Revolution or the active days of Martin Luther. Diffusion of knowledge and free thinking are two prominent characteristics of the age. Literature is not confined to the few, but is within the reach of all. Science carries her blazing torch into the glens and vales, and fears not to scale the rugged mountain side, wherever the farmer drives his team afield, or the sound of the mechanic's hammer and saw is heard, there are found those whose minds are cultivated and en-

larged, whose powers are expanding like the fragrant rose. It requires no prophetic eye to foresee the result of such a general diffusion of knowledge. The masses will think and act for themselves.

"There is a dignity and self-reliance in this age truly noble, bespeaking the utility of science in enlightening and improving the mind. Such, then, is our interesting age, and in such an era comes forth the watercure, robed in sympathy and power; it comes to meet the demands of the present age; it comes when the keenest eyes are watching; the necessities of the world demand it. It is the province of the physician to use remedial agents in such a manner as to arouse the powers of life, and call into requisition all the dormant energies of mind and body. Such is the emphatic language of the hydropathic treatment. Heretofore, invalids have been allowed to assume attitudes of ease—to be smothered by bed-clothes and close confined air—to lounge and smoke in the shade; but such a course is now deprecated. Good health and cheerful spirits never did and never will remain with the fretful and indolent. Action is inscribed upon the human constitution in characters as visible as the sunbeams upon the mountain-top on a bright summer's morn."

In the earlier years of Dr. Gleason's career he was noted for his energy and great perseverance. Many obstinate and apparently hopeless cases passed through his hands. We have in mind one remarkable case of J. C. Jackson, who was restored to health from the border land of death. Dr. Gleason would not give up working over the man, and in the end conquered.

After forty-seven years' labor in the cause of hygienic medical practice, Dr. Gleason writes from "The Gleason Sanitarium, Elmira, N. Y.," his present home, "My phrenological studies in early life have made me an independent thinker, and I can truly say that phrenology has been a great factor in my life."

CHARLOTTE FOWLER WELLS.

*The accompanying likeness of Dr. Gleason is from an excellent photograph taken at about seventy years of age.

APPROBATIVENESS.

AS the old mental philosophers deduced chiefly upon the method of introspection in their study of the mind, they were led to differ with one another not only as to the nature and number of the inherent elements of the mental constitution, but in some instances, even as to whether there were primary faculties at all in the sense we now attach to that term.

However, the desire for approbation has always been so conspicuous, not to say obtrusive, among the phenomena of human nature, that it has been recognized by the metaphysicians of nearly every school. Still, none of the old introspectionists ever succeeded in defining it or describing either its primary or combined manifestations with the precision and accuracy shown by the phrenologists. It is also interesting to note that the old philosophers usually emphasized its extreme or heroic manifestations, just as Dr. Gall did in his first account of Destructiveness and Acquisitiveness, which he was disposed to designate as the propensities to kill and steal. This was natural enough, as his attention was first called to these faculties in murderers and thieves. In much the same manner, from the observation of inordinate ambition in such extraordinary characters as Alexander, Caesar, Richelieu, and Napoleon, it was quite as natural for the advocates of the old doctrine to consider the extravagant side of Approbativeness rather than its normal action.

The "desire of esteem" is the name given to this faculty by Reid and Stewart, while Dr. Thomas Brown treats of it under the title of "desire of glory." Dr. Brown, who was one of the most eloquent, brilliant, and learned writers of the old school, shows his appreciation of the profound influence and importance of this feeling by referring to it as "that passion, to the infinity of whose view

the narrow circle which contains all the objects of our affection, is scarcely a point; which connects us with every human being that exists; and not with these only, but also with every human being that is to exist in the long succession of ages."

Among the contemporaries of Gall, with the exception of Lavater, there was scarcely a reference to any relation between this psychical quality and any particular portion of the physical organization. There was no attempt to associate it with any of the viscera or fluids of the body as the ancients were accustomed to do in their speculations regarding most of the human passions and desires, and the first light of any value thrown upon this branch of the subject is afforded by the great founder of phrenology.

Dr. Gall had already discovered Self-esteem and its location in the brain, when during a visit to a certain asylum, he saw a patient said to be insane from pride. Accordingly, he expected to find a considerable development of Self-esteem in the median line of the vertex, and was not a little embarrassed to observe a great depression at that point. However, the head expanded very greatly on each side of the place allotted to Self-esteem, and after studying the actions of the woman for a short time, it was very clear that, while she made great pretensions to importance, dignity, and authority, there was a singular absence of these qualities in her manner. While assuming the title of queen of France, instead of quietly expecting people to pay her homage as a matter of course, she sought by the most obsequious expressions and gestures to win admiration and inspire confidence in her extraordinary claims. From this time forward, Gall had no trouble in distinguishing between Self-esteem and Love of Approbation.

The seat of this faculty is in the lower margin of the superior parietal lobule of the brain, and when greatly developed produces breadth and fullness at the upper and posterior portions of the cranium which, if the head were a cube, would be called the corners.

In estimating the strength of this sentiment, it is very important to



MRS. E. D. E. N. SOUTHWORTH.
APPROBATIVENESS LARGE, WITH HIGH
MORAL DEVELOPMENT.

keep in mind the temperament and the influence of the other mental powers. Especially is this true as to the direction in which the desire for approval will be displayed. When Conscientiousness, Firmness, Self-esteem, Continuity, and Cautiousness are all deficient, as is sometimes the case, the whole upper backhead will be lowered so that Approbativeness may be large and yet present a very different appearance from the configuration accompanying a large endowment of the organs mentioned above. Of course, one should never look for a projection or peak rising from the surface of the skull like the pyramids on the plains of Egypt, but in the case here supposed, it will

be necessary to do more than simply consider the distance from the ear. Again, it should be remembered that when Approbativeness is in reality only moderate in the brain, if not offset by a sense of duty, prudence, forethought, or a thorough discipline of the character, it will produce an amount of selfishness and offensive vanity, quite surprising and perplexing to one who does not study the combinations.

In judging the direction of the manifestation, or in other words, the particular thing for which an individual is especially anxious for applause, the rule is simply to observe the other elements of mind which are strongest or best adapted for display. If the moral faculties are supreme, there will be sensitiveness on the subject of duty, and a keen desire to be esteemed for honesty and right conduct. If at the same time Acquisitiveness should be small, a reputation for impecuniosity would cause but little distress. On the other hand, if the moral faculties are weak, the possession of wealth might be a source of vanity for the sake of the power it confers, with Acquisitiveness either large or small.

The painter is likely to be vain of his pictures; the poet of his verses; the actor of his mimicry; the singer of his voice; the hunter of his game; the warrior of his battles; the scholar of his intellectual treasures, and thus of every calling and condition in all ages and all climes.

Another reason for the remarkable influence exerted by the love of praise may be found in the circumstance that it acts in connection with a larger number of confederate faculties than almost any other. As an illustration of this, let us suppose that a man with large Approbativeness secretly writes an elaborate book. He frames a new and startling theory, gathers the evidence to support it, and

weaves it together with the utmost care. He devotes many years to the work, while separated from his family, so that the success of the undertaking is a matter of the greatest importance. He conceives and executes the whole plan without consulting his friends, and after the book is published, he is showered with congratulations and compliments which

which until now had troubled his imagination with anxious fears and doubts, is entirely relieved. His Conscientiousness, which had not been satisfied as to his moral right to make such an investment, is now put at ease. He begins to anticipate the numerous advantages which his family will derive from the new source of income; and the prospect of a domes-



GAMBETTA—APPROBATIVENESS LARGE, WITH LOW MORAL DEVELOPMENT.

afford him intense pleasure. But if we look into his feelings we shall see that many other faculties besides the love of praise are agreeably excited by the expressions of approval. He has spent the most of his money, and his Acquisitiveness is gratified to be reminded that the book is worth much more than it cost, and is likely to have an enormous sale. His Cautiousness,

tic reunion which so long seemed impossible, suddenly fills his heart with the most delightful emotions. Now all this torrent of happiness may be awakened perhaps by a single complimentary remark or word of indorsement received from the publisher who examines the manuscript, or from the first critic who reads the book. The word of praise has appealed not only

to Approbativeness, it has also kindled Hope. It has offered encouragement to new endeavor. In short, it has stimulated the whole mind, and if we consider all this complex action, we need not wonder at the

may be pleased by the reputation of being the greatest eater and drinker or the best fighter.. It is one of the most powerful motives in society. * * * * It favors industry, but also introduces luxury;



DR. ROBT. KOCH, THE BACTERIOLOGIST.

APPROBATIVENESS MODERATE.

mighty influence of flattery in all departments of life.

Spurzheim says of the love of approbation: "Ambition is the distinguishing epithet of its agency if its object be of great importance; vanity, if claim be laid to distinction on the score of trifles. * * * * Combined with the lower feelings it

it produces polite manners, but makes us slaves of fashion, and is the mortal enemy of personal liberty. Nations who possess it in an eminent degree are scarcely fit for a free government. The number of those who wish to distinguish themselves only by talent and virtue is small."

EDGAR C. BEALL, M. D.

[To be Continued.]

CHILD CULTURE

PRACTICAL INTERESTS FOR CHILDREN.

THERE are thousands of things waiting to be done in the world and thousands of persons are needed to do them. Of course the things can remain undone—most of them will, at any rate, for a long time to come—but the loss thereby suffered by society will be something which no mere figures can calculate. But if any of these necessary things are done at all, it must be by the men and women of coming generations, the boys and girls of to-day. Granting this proposition, the inference is obvious that their interest in these matters must be aroused and secured before "the cares of the world and the deceitfulness of riches" depress the spirit and corrupt the heart.

There are certain things in our material existence which can be counted, weighed and measured, but, as a rule, they belong to the least valuable of our possessions. Moral and spiritual influence is impalpable and imponderable, and a full estimate of its value it is impossible to obtain; but we may be sure that we are in no danger of exaggerating its extent or its beneficence. The preservation and planting of trees, which has received so great an impetus in our country during the past few years, is by no means a purely physical benefit to the community, even granting the delight of the eye in their beauty and the enjoyment by man and beast of their welcome shade. One of our sweet singers has truly told us that "he who plants a tree plants a hope, plants a joy, plants peace," and shows also in what way these effects flow from the leafy fountains. The love of the beautiful, interest in plant life, in

form, in color, in growth; consideration for the comfort and enjoyment of others; necessary self-sacrifice in some cases,—all these have been the outgrowth of the children's awakened interest in trees, and the spiritual influence and development is worth a thousand times more than all the saplings planted in a twelvemonth. The instinct which leads the child to protect this feeble growth, to watch over and closely observe the beautiful development, is very largely an ethical one, softening, refining, and uplifting the nature. The Gospel of Tree as it has been preached and practiced during the past few years has made a new holy scripture for the sons of men.

The wholesale destruction of birds, whose beaks, wings, and plumage have all been displayed upon the hats and bonnets of civilization, is a source of great distress to those who are fond of these beautiful creatures and anxious that they should have a chance for their natural enjoyment of existence. A strong effort has been made to create a public sentiment which shall protect these little lives and make women unwilling to decorate their heads with the dismembered bodies of slaughtered creatures. But the movement makes slow progress. The society woman who above all others would have influence in this direction, is the one who of all others delights most in variety of adornment, and is often too selfish or has too little time to devote to what some one has called in connection with this subject, "fanciful philanthropy." Why cannot the well-known fondness of children for birds and animals be

encouraged and directed to just such practical ends as are sought by the Audubon Society and the Society for the Prevention of Cruelty to Animals? The sympathy and consequent assistance of young workers could easily be secured for these two great fields of humane effort.

What woful wailings are continually ascending to heaven from the inhabitants of our large cities concerning the lamentable condition of their streets? The newspaper which does not daily in some way refer to them in expressions of disgust and discouragement is worthy of being preserved as a curiosity in literature. Yet dirt, it has been well stated, is simply matter out of place. The litter of the streets which becomes such an intolerable nuisance, resolved into its component parts, consists very largely of paper, cards, handbills, notes, letters, envelopes, telegrams, wrappers from bundles—all clean enough and innocent enough in themselves—but when flung to the winds of heaven by thousands of heedless hands, form enough confusion as well as ultimate dirt and disorder to make the streets as repulsive as possible, even if no other refuse were added to the supply. There will never be clean streets until people are clean enough to keep them so, and, making due allowance for the disorder wrought by wind and weather, the fact remains that nine-tenths of the litter in our public highways of which the people so loudly complain is placed there by the people themselves. If it is true that "cleanliness is next to godliness"—at any rate, we are very fond of saying so—then there is some ethical development even in the sweeping of a sidewalk, and a moral victory obtained by simply refraining from adding to the litter already accumulated. And where, logically, ought to begin the effort for a cleaner and, therefore, more wholesome and more moral condition for our streets if not with the children, who will in time occupy and control them, and upon whom their

future cleanliness or disorder will wholly depend?

For public enterprises it is necessary to create a lively public spirit, and this cannot be secured if appeal is made only to those who are callous with indifference, hardened with selfishness, or hoary with habit. It is the young alone upon whom can be made deep and durable impression, and whose interest can be secured from very tenderness of heart and unselfishness of mind.

Aside from these public enterprises are interests which directly concern the individual, yet which are, indirectly, of great benefit to the community at large. Children can be interested in many forms of elementary natural science with profit to themselves and to others. What more beautiful, more desirable, but, alas! more costly, than flowers? Where one now grows, millions might be made to grow, and if he who multiplies the blades of grass is a benefactor, surely he who increases the number of blossoms must also be considered one. Even the narrow yards of our city houses afford room for a flower bed; in some of them could easily be planted quite extensive gardens, as large a one as could be cared for during leisure hours. Morning glories, sweet peas, pansies, geraniums, verbenas and a host of lovely growths could be successfully cultivated even by a novice in the art of gardening. House plants in the Winter are a joy and inspiration to the members of the household, furnishing not only beauty and fragrance, but standing as perpetual types of hope, progress and attainment.

The study of mineralogy, geology, and zöology, as well as that of botany would reveal a world of wonders to the curious and inquiring child. Provide such a one with a microscope in the depths of a forest or upon the seashore, and for him there is literally created a new earth, while the outcome of the marvellous revelation may later make itself felt in infinite bene-

factions to the race. Children can also be incalculably entertained and instructed by a box of paints, a box of tools, a scroll saw, a camera, when old enough to use one. It often becomes possible to discover the natural tendencies of the child by the use made of these different opportunities, natural and artificial, and cases have been known in which congenial and profitable occupation for life has been thus almost accidentally discovered.

Nothing is truer than the saying that the author of all evil can always find abundant occupation for those unable to provide it for themselves, and children are, beyond all others, not only the most active but the least able to direct their activities to profitable ends. It is the duty as well as the privilege of their elders to do this for them; to see to it—and in the accepted time—that the tastes and in-

stincts which may prove the social and moral salvation of the child, and through him, perhaps, of the community, shall not be allowed to languish and die for want of recognition and lack of opportunity for development.

Think of the limited, aimless, barren lives which might have been made infinite in their possibilities for culture and progress, and rich with achievement on behalf of their fellow-men! And if to achievement is added the cultivation of unselfishness, unselfishness of motive and of action, a desire to be and to do for others instead of for one's self, not many more generations of men would live and die upon the earth before we should see the coming of that kingdom of righteousness for which all aspiring souls so ardently long.

CAROLINE B. LE ROW.

HOW SHALL WE EDUCATE OUR GIRLS?

THE first thing of importance to be considered in the education of a girl is a strict regard for the laws of health. She should be taught that it is right to be well and strong, and grossly wrong not to be.

If she has inherited a feeble constitution, let her recognize the fact as early as possible, and strive to overcome it as much as may be by an understanding of, and living to, the laws of health. Great things may be required of her in years to come, and she must be well armored for the battle by possession of strength and power.

If, on the other hand, upon arriving at the thoughtful period of girlhood, she finds herself possessed of a healthy body, she should be jubilant and sing praises that she fares so well in creation, appreciate the blessing, and live to the laws which make for the same.

Every girl should recognize that the first duty of her life is to keep in good condition, physically. She owes it to herself, her friends and to man-

kind in general to be in condition to do her part toward making the civilization of her day, and more than all to the unborn generations, who shall bless and curse, with their inheritance of life and power. Given a healthy body with common sense to keep it so, the young girl can turn her attention to other affairs with the sure feeling that the fountain of life forces will be equal to the demand.

She should be led to cultivate her mind and heart, the seats of perception and feeling. Here is a great field to work in. How can the mind be cultivated? by study? reading? trying to memorize all or a part of what others have written or said? In a measure, yes. It is good mind training, and is useful, but if we wish our girls to be anything but parrots, we must teach them the importance of first thinking, and then expressing their thoughts.

To find the calibre of a mind we must get our girls to talk upon a subject and give an opinion. No matter how crude at first, they should learn

to use their powers. Teach them the importance of being Miss —, who declares so and so on some subject, being of course open to conviction any time new light is thrown upon it. Girls should stand for something to-day as far as they have thought it out, and learn to listen while others talk, weighing and balancing for truth. They should listen and ponder well, but learn to think and act for themselves. Individuality of thought and expression should be taught our girls. It will give them self-poise and sufficiency, more character. A woman loses no feminine graces or virtues by being an earnest seeker for truth. When such a one is met it is frankincense and myrrh to the spirit.

The more knowledge she can gather by keen observation, truth from experience, hope by reasoning, justice by comparisons, and humanity by sympathy, the better friend, wife or mother will she be when called to enter upon the sacred duties of the same.

We have too many half-hearted girls, good, but good for nothing in a practical sense. Good in a sort of negative way, who could scarcely give a good reason for even that. Every girl should ask herself the question: What am I here for, what can I do, what powers do I possess which if exercised will add a mite to the virtues and graces of society? When she perceives her duty, then action must follow.

I would teach every girl the royalty of labor, the importance of self-support, and the self-respect engendered thereby. If she has decided what she is adapted to do, let her become trained therein to the utmost of her capacity. If she happen to mistake her calling, let her try again, and after a little she will find her place, where she will work naturally, as the roses bloom, the birds fly, and the sun shines.

Work of the right sort is as natural to the human race as the air we

breathe. Who should be happy and contented if not the doers—the creators of the beautiful and useful?

To feel that we are needed in the world is in itself an energizing thought. It quickens the blood, brightens the eye, and broadens the views to meet your fellows on the battleground of life, and give and take. As important as work is to the young girl, it is only a means to an end, and that end a wholesome enjoyment of the good things of life.

We do not plan enough joy for the young; they pine for it, and when it comes within their reach they breathe it in like air and sunshine. Some writers dispose of a girl by suggesting that she learn to become a good housekeeper, proficient in music, dancing, paint a little, embroider and crochet, and of course read the latest novel, and the supposition following that in due time some dear good man will come her way and be pleased to make her his wife. Well, that is well enough in some cases, but not all.

If a girl shows a disposition to be a housekeeper, let her do it; but why should every girl be a housekeeper, any more than every man a carpenter. We have various gifts; each to their own I say, then we get good results. The woman who likes a business life will be happier in using the energies she possesses in that way, and when her day's work is done she will be more companionable than if she had kept the house when her soul was not in it.

Women do well hundreds of things in which they have no particular interest, simply because they find the work undone, and do it, which is all right; but I call it downright robbery to expect a girl to spend a lifetime of energy and power in work distasteful to her, when, by a little good management, she could be doing that for which she is adapted. I believe in kindness and unselfishness in the social exchanges of life, but let every one choose her work according to the moving of the spirit.

Everything in life is made easy and

harmonious by simply observing the rule of adaptation. The graces of mind will be spontaneous when harmony reigns in the individual, and con-

tact with the world will remove the excrescences as fast as we grow in perception.

KATE WESTON.

(To be Continued.)

BATHING THE BABY.

The importance of a clean skin to the healthful growth of young children needs no argument for its proof. The method may sometimes puzzle the inexperienced mother, especially if her child be delicate. Then too much bathing is weakening. The hints of an experienced nurse in the *Household* are pertinent. She says;

Be sure before disrobing the child that there are no drafts and that the room is not too cold. Have ready a bathtub, and into this gently introduce the little one. I have found that one can not be too careful in handling a baby in the bath, and that a sudden plunge of the unsuspecting body into the water—no matter what the temperature of the bath may be—almost always is a shock to baby, as is proven by the sudden catching of its breath and cries. I am now speaking of the quite young infant—not the older one who has learned to like his splash.

When the child has been immersed for a little time—three to five minutes will be sufficient—take him out upon your lap, and, with a sponge lathered with pure, white soap, go over the whole surface of the skin. After which again immerse baby in his bath (which must be kept up to the right temperature—about 70 degrees—(75 to 80 degrees would be better for the weakly infant) by an addition of hot water), supporting his head with the left hand and arm and rubbing the body beneath the water with the right hand. In about five minutes lift him out upon your lap, and quickly and thoroughly dry the skin by rubbing with a fine, warm towel. Now dip the sponge in cool water, wet the top of the head, face, and, after squeezing the sponge quite dry,

go over the body with it. This prevents a tendency toward tenderness superinduced by the use of warm water. Some able physicians advise the constant use of cold water only, declaring that the warm bath should be emphatically condemned; but I am bold enough to declare in the face of all this, that such a shock as this treatment would give to a tender little baby would be something from which it would not soon (if ever) recover. Warmth is what a baby needs, and as long as I nurse children they shall not be subjected to what a strong, healthy man generally finds it difficult to endure.

The plunging of her offspring into the chill waters of a running stream, may do for the Indian mother, and even Indian babies often die of this senseless exposure, but for mothers who have lived artificial lives, housed in warm quarters and subject to little, if any, exposure, to endeavor to follow the savage's example with her pappoose—wouldn't do at all. A simple cooling-off process, such as I have described—a gentle lowering of the temperature of the tender little body, will afford it sufficient protection against excessive sensibility to atmospheric changes.

The warm bath is of great value in many affections of children, especially in febrile diseases; in spasmodic affections of the bowels or bladder; in prurigo, tetanus and convulsions. In the last named disease it draws the blood from the overloaded brain to the general surface of the body, and, by equalizing the circulation, relieves the local congestion. In fevers it calms the nervous excitement, and is almost always conducive to sound and peaceful sleep.

THE SCIENCE OF HEALTH

RATIONAL THERAPEUTICS.

In an article on this topic, by Dr. A. D. Mosely, of Arkansas, published in one of our liberal exchanges, he says some things that indicate the trend of later medical opinion toward higher and natural methods. For instance, we are pleased to quote :

The best physicians are optimists. Anatomy and physiology teach us of man's natural structure and the performance of his being in health. Man is, when physically perfect, subject to natural influences. In Nature's great chain if he sever a link, he suffers the consequences. Pathology treats of the body in disease, or violated laws, and Therapeutics of how to cure disease by correcting these violations. It may come by correction of vicious habits, diets, baths, and clothing; but we are to proceed in accordance with Nature's laws. Nature should never be lost sight of, and should always be allowed to step in and assert her powers in disease, for without this we avail nothing, and are groveling blunders. * * *

The writer attended a local medical society last summer, when pneumonia was discussed. The majority of physicians recommended mercury in good sized doses, to stimulate the liver, and in croupous pneumonia to defibrinate the blood, so as to prevent the organization of the exudate. * * * They further recommended proper food to sustain the patient's strength.

Let us investigate and see if this be rational therapeutics according to our latest physiologists, as in this branch of medicine all schools agree.

There is no fibrin existing in the blood in a free state, but fibrin factors do exist therein, fibrinogen and fibrinoplastin. They are converted into fibrin only in the presence of a special ferment for the purpose of forming new tissue. This is generated at the death of the white and red corpuscles. This may occur in croupous pneumonia, but does this justify a drug which will defibrinate? Not according to the teachings of physiology. Those elements are the highest organic nitrogenized proximate principles circulating in a free state. On them depends the nutrition of the muscular system. The heart, which is exclusively muscular, is the first organ to give the alarm if the blood be defective in oxygen. It gives the characteristic anæmic sound after exhaustive disease. Defective albuminoid base gives us palpitation after slight exertion, quick pulse and heart failure following exhaustive diseases. If these facts stare us in the face, and we take physiology as our standard, why give a defibrinator like mercury to thwart the very plan we wish to prosecute? When we see the patient failing, we give beef tea and milk to strengthen his flagging powers and to supply him with myocine and caseine. We do this for a good purpose, but we should not simultaneously exhibit mercury to kill the albuminoid base, which gives us fibrin factors. The *rationale* then, would be, give food and leave off the defibrinator. Give the patient vitality to overcome the disease. Give fibrin factors to strengthen the heart.

If organized lymph seem prominent, resort to the special sedatives and control the circulation, thereby controlling the active inflammation. * * *

We sometimes see great blisters on the back of the neck of patients suffering from pneumonia and who have typhomania. The poison circulating in the blood is the cause of the mental disturbance. A blister could not draw the poison from the blood. Then why use it in the brain disturb-

ance? It is functional; the disease is in the blood *per se*. A depurant would be rational, together with a remedy to correct perverted action. A warm application to the chest in pneumonia dilates the superficial blood vessels, allowing them to hold more blood, causing those in the lungs to contract in the inflamed area, thus neutralizing the vascular disturbance materially and aiding the lungs to recovery.

FASTING AS A MEANS OF CURE.

SINCE Dr. Tanner proved conclusively that it was possible for a human being to live without food for nearly six weeks, there has been less dread of causing serious injury to one's constitution and health by fasting a few days. It was noticed long ago by persons compelled to fast on the ocean that in some instances a marked improvement in bodily conditions was the result, especially in regard to old tumors and enlargement of certain parts, as in goitre, etc., some of these disappearing permanently. The *rationale* of these cures is explained on the principle that the primary healing power is inherent in the living system. Under a season of fasting the vital forces are set to work at housecleaning, and all the abnormal or useless materials are eliminated from the body.

Many diseases are undoubtedly caused by indulgence in an improper quality and excessive quantity of food. When the lower animals, such as the horse, cow, or hog, are sick, they invariably refuse to eat anything. When they begin to eat, the farmer is satisfied that they will soon be well. Here is a lesson of great importance to us which we would do well to learn and put into practice. But, usually, people partake freely of unwholesome viands and deleterious dainties as soon as they are slightly ill or ailing, and it is reasonable to presume that they suffer serious consequences by

not following the example of the inferior creatures.

Obesity is a disease which can be removed by a spare diet and short seasons of fasting. There are obesity specialists who advertise to cure persons of this disease without any change of diet. They do it by giving poisonous drugs which cause a violent action of the system to rid itself of the medicine, and while this is being done digestion and assimilation are disturbed so that little food can be taken. Meanwhile the vital energy in getting rid of the drug also carries off some of the surplus tissue and fat. All such methods of curing obesity are frauds. Any one who understands the first principles of health and disease knows that any scheme of drug medication in such cases is irrational. The true method is to allow the living system to expel its impurities instead of putting more poisons into it. It is much better to fast voluntarily than to be compelled to take a poisonous drug which may permanently damage the health.

The prescription or advice given to a New York lady not long ago by a London physician for obesity was an excellent one, and next best to a rational diet with short seasons of fasting. It was this: To eat only one article of food at a meal. If she selected bread, it was to be nothing but bread at that meal; if meat, but a single kind. She was

confined to no particular class of food, and was allowed to eat as much as she wished of the one thing chosen. This lady followed out the advice to the letter, and in less than four months she reduced her weight from over 300 pounds to 175. This plan is reasonable and worthy the confidence of any intelligent person. There is no mystery connected with it, or any scheme to extort money by fraud. If one lacks the courage and knowledge to apply a restricted rational dietary with seasons of fasting, let him try this simple plan. It is an available means of relief for every person who needs it, and it is in accord with scientific principles.

Acute rheumatism is another disease which may be greatly relieved, if not entirely removed, by fasting. Dr. Shew, one of the pioneers of hygienic medicine, never prescribed food so long as the fever continued. He treated many cases of this malady by this and other purely hygienic methods with eminent success. Dr. Wood, of Montreal, Canada, has reported a number of cases of acute rheumatism which he treated by fasting, with plenty of water as a drink, and frequent sponge bathing. He reports seven cases which were speedily cured in from four to eight days by this method, and states that he could give the history of forty more which were treated the same way and with the same success. In no instance was it necessary to continue the fast beyond ten days. No medicine was employed, and in no case did the treatment fail. He further says: "From the quick and almost invariably good results to be obtained by simple abstinence from food, I am inclined to the idea that rheumatism is after all only a phase of indigestion, and that by giving complete and continued rest to all the viscera that take any part in the process of digestion the disease is attacked in *ipsa radice*. This treatment, obviating as it does almost entirely the danger of cardiac complications, will

be found to realize all that is claimed for it—a reliable remedy for a disease that has long baffled the physician's skill; and the frequency with which rheumatism occurs will give nearly every one a chance to test its efficacy."

This same principle will apply with equally good effect to colds, inflammations, and fevers, except those of a zymotic nature, such as small-pox, typhoid and scarlet fevers, etc.; and even in these a restricted dietary is a *sine qua non* in their rational treatment. Dr. Graves, of Dublin, Ireland, who wrote upon fevers quite extensively during the first half of this century, and was considered high authority, taught dogmatically that *fevers* should be *fed*. He was so imbued with this idea that he had the inscription, "Feed Fevers," placed upon his tombstone. No greater error ever found its way into a medical book. A true knowledge of disease dissipates this false doctrine, which, no doubt, has been one of the prime causes of the fatality of many fever patients. A fever being an effort of the vital powers to remove impurities and poisons, the assimilation of food becomes difficult; and it is, therefore, a great help to this remedial process not to burden the system with food while its whole energies are directed to the work of purification. Fully to explain the rationale of the beneficial effects of abstinence from all nutritive materials in a fever would necessitate an elucidation of the fundamental principles of medical science. Suffice it to say this method of treatment in all ordinary acute diseases is in accord with the true principles of medical science and the laws of physiology.

I will conclude by relating a case of intermittent fever which came under my observation and was cured by three days' fasting, with plenty of water as a drink and a daily sponge bath. This was a young man who was living in a malarious county. To have the "chills," as this disease

was called, was a very common experience. In this case the paroxysms were temporarily broken up several times with quinine. This young man was induced to try the fast cure, which he did with complete and permanent success.

With our present knowledge of malaria, by seasons of fasting and the employment of strictly hygienic dietary, which excludes all fermented foods, condiments, and stimulating beverages, in most cases it would be almost safe to guarantee a cure.

J. G. STAIR, M. D.

PHYSIOLOGY vs. ART.

THAT much vaunted type of feminine proportion has received something of a blow lately from an unexpected quarter—scientific physiology. An English newspaper relates an incident in which the eminent naturalist, Owen, and the late Professor Chadwick of sanitary reputation took part; the latter said:

“As a Commissioner of Health I must profess myself altogether opposed to the artistic theory of beauty. There is the Venus de Medici, which you artists regard as the perfect type of the female form. I should require that a typical statue with such pretensions should bear evidence of perfect power of life, with steady prospect of health, and signs of mental vigor; but she has neither. Her chest is narrow, indicating unrobust lungs; her limbs are without evidence of due training of the muscles; her shoulders are not well braced up, and her cranium, and her face, too, are deficient in all traits of intellect. She would be a miserable mistress of a house and a contemptible mother.” But the listener assured the sage critic that he had made a most artistic criticism of the statue, and that his auditor would join in every word as to his standard of requirements.

“Mr. Hunt was aware, he said, that he was talking heresy to the mass of persons who accepted the traditional jargon of the cognoscenti on trust, but in his opinion the work belongs to a decadence of Roman virtue and vitality, and its merit lies alone in the rendering of a voluptuous being without mind or soul. If no authorities of equal weight will stand forth in de-

fence of this marble lady, it is to be feared that the famous Venus de Medici will soon be ranked among imposters. The strange part of the matter is that it has taken 213 years to find her out.”

This will appear rank heresy to most people of artistic temperament and study, we know, but it is nevertheless true as must appear to any rational judgment when the precious relic is studied in the light of a correct understanding of the relations of physical development to health and feminine function. In one respect the statue deserves praise—the naturalness of the waist—and that we are ready to approve.

In regard to this question of standards it is well to be careful in forming conclusions. There are, for example, certain valid reasons for the popular notion that a relatively small waist is peculiarly appropriate to the female form. But unfortunately most persons follow their instincts to an extreme without a due exercise of philosophical intelligence. This is illustrated in the Chinese custom of preventing the development of the female foot, as well as the European habit of compressing the waist. Running and other exercises were encouraged for girls among the Greeks, physical training well adapted to chest expansion; and as the Roman artists were given to imitating the Greeks, it would appear that in moulding the feminine bust they were in some respects governed by a false notion of beauty, and so were inclined to neglect the chest and head.

ED. P. J.

NOTES IN ANTHROPOLOGY.

The Theistic Idea in History.

—“ Last year a book was published in both French and English by Prof. G. D’Alviella, under the title ‘The Idea of God as Illustrated by Anthropology and History,’ and it received a careful handling by the distinguished Professor Reville in the Proceedings of the Music Guimet. From these two excellent sources, we may take the last word as to the genesis of the notion of Deity, as understood by scientific minds. It arises first from the association of the idea of personal life with that of motion; for instance, the swaying of the tree to the primitive man is as certain a proof of personal life as the flying of a bird. By extension of this, and later through dreams, memories of the dead, and casual associations of motionless objects with motion (as a rock in the midst of a rapid), arose spiritism or animism, to which these writers apply the general name, ‘polydemonism.’ In this stage there is no Pantheon, no hierarchy of the gods, no idealized generalizations of divine powers. This appears in the next stage which is ‘polytheism,’ in which the mind of man seeks to co-ordinate the visible power of nature, and to explain one by the other, thus subsuming a group under one abstraction which becomes to him a personified, idealized force. This is the epoch of mythology which is at once an imaginary history and a tentative philosophy of the unseen agencies in nature. The ultimate stage, monotheism, has various origins depending on the ethnic psychology of the people among whom it arises. It may be an exaltation of the national god through national pride, so that he shall be ‘God of gods, and Lord of Lords,’ as seems to have been the case with the Israelites; or it may arise from concentrated devotion to one divinity to the mental exclusion of others as in the so-called ‘honotheism’ of ancient Egypt; or again, in nations of uncommon speculative insight it may be a purely logical deduction, as among the ancient Greeks. Most

of the so-called monotheisms are in reality only ‘monolatries,’ that is, there is worship of but one god, though many divine powers are recognized as existing. The important point is urged, especially by M. Reville, that this sequence of development is not historical; it is not even ethnic, but strictly anthropologic, that is, the whole of the sequence exists contemporaneously and in the same locality with its highest number. Alongside of the pure speculations of Plato were the puerilities of paganism; and in modern Christian communities there are far more polydemonists and polytheists than monotheists, in the scientific sense of that term. Both writers reach the opinion that the religious sentiment is not a passing phase of human mental evolution, but a permanent trait, and that, though all existing cults and creeds may pass away, it will only be to give place to nobler ideals of humanity and loftier conceptions of divinity.”—*Dr. D. G. Brinton in Science.*

Antiquity of Man.—“ It seems certain that Assyriologists are able to carry back the history of our race to a more remote period than can possibly, with any show of reason, be claimed for it by the chronologists of India, China or Egypt. And it appears quite reasonable that this should be so. Central Asia, if not Mesopotamia, according to tradition and science, was most likely the birthplace of the human species, and hence it seems reasonable that the people who inhabited the valleys of the Tigris and the Euphrates should have a greater antiquity than those who lived in the land of the Nile, or in regions more distant from the first home of the race. If, therefore, it should be proven that Egypt had a civilization antedating the Christian era by five thousand years and more, as many suppose, we should be quite warranted in claiming for the ancient people of Mesopotamia a civilization several centuries older, and thus fixing the beginning of its

history somewhere near to six millennia before the time of Christ. Linguistics and ethnology tell the same story as history and astronomy. They demand a greater antiquity for mankind than Biblical scholars have hitherto been disposed to concede. Like history and astronomy, they seem to fix the dispersion of the sons of Noah about five or six thousand years B.C., a much longer period than is indicated by any version of the Bible as usually interpreted. Adding this time to the two thousand years that are ordinarily supposed to have elapsed between the creation of Adam and the deluge, and the nineteen centuries that date from the coming of Christ, we have for the age of the human race a period that covers nearly ten thousand years."—*Rev. J. A. Zahm, in American Catholic Quarterly.*

Color Blindness.—Lucien I. Blake and W. S. Franklin, of the University of Kamar, have recently published in *Science* the following deductions in regard to color-blindness, at which they have arrived from study of statistics and personal tests: "It is probably not far from the truth that five out of every hundred males are more or less deficient in color sense. Among females, the percentage is not nearly as large. Most cases of color-blindness are found to be congenital and are incurable. Many have been produced by disease, some by violent concussions in accidents, and some by excessive use of tobacco and alcohol. Temporary blindness to violet may be induced by santonine. From these facts naturally follow these questions: If color-blindness follows the laws of heredity, is it on the increase or decrease? Further, is it a product of civilization? The conclusion is fairly well established that among civilized nations color-blindness is almost equally common. Among 418 Indians who were tested—285 males and 133 females—only three cases of color-blindness existed. These were males and all full-blooded Indians. Of these, two had defective color sense for red and one for green. The half-breeds showed more instances of blunted color sense than the full-bloods. This was evidenced in more frequent and prolonged hesitation among

them in comparing the colors than among the full-bloods. If this be confirmed by more extended examinations, it would, in conjunction with the low percentages obtained as above, be a strong argument for the theory that defective color sense is in some way the product of civilization. Nearly every case of color-blindness is for red, fewer for green, and seldom one for violet. What is the meaning that the defects are those limited, at present, at least, to the lower end of the spectrum? The Helmholtz-Young theory of color-perception will locate the affection in the layer of rods and cones responding to the first of the three primary sensations of color. But why this special layer is with five exceptions the only one affected has at present no explanation. Also, why the percentage among females is so small is unexplained. The law of heredity indicates increased sensitiveness in those nerves which are subjected to special use through many generations. It seems reasonable to look for an explanation in the more perfect color-sense in females to this fact, but whether this law of heredity will increase the percentage among males cannot be foretold without an enormous increase of data. The theory here proposed is that defective color-sense is a product of civilization, with the use of tobacco as a possible factor. The non-use of tobacco would explain also the low percentage of color-blindness among females. This theory leads to the thought of increase of color-blindness in males in the future generations."

The Negroes in the United States.—The negro problem is one that pushes itself inevitably before every thoughtful observer of this country. In *The Christian at Work*, President Winston, of the North Carolina University, writes most earnestly on this subject, comparing the present with the past condition of the colored people, and considering their possibilities for the future. He says: "The moral progress of the race is very discouraging. Both the average white man and the average colored man over forty years of age in the South will tell you that the negroes are worse morally than they were in slavery. This is not true of all.

There is gradually forming among them a higher class, who respect themselves, and who honestly desire to elevate their race. This class includes the best educated of the younger generation and the most thrifty and industrious of the older generation. The class, however, is very small, not exceeding five per cent. of the population, and its moral influence on the mass of the negroes amounts to very little. The great mass of the race is probably in the same moral status as during slavery. The restraints of slavery have been removed, and passions hitherto repressed by fear are not yet controlled by character. The younger generation of men are no more industrious and reliable than the older, and the women are quite as lewd. Besides the highest class and the great mass of negroes, there is a lowest class, which did not exist in slavery. It is made up of drunkards, gamblers, loafers, vagabonds, petty thieves, professional prostitutes and others, who live by vice instead of labor. This class constitutes about ten per cent. of the population, and is steadily increasing. The criminal propensities of the race are very marked. According to the census of 1890 the negro furnished 32½ per cent. of the penitentiary convicts, although he constitutes only 12 per cent. of the population. In the North Atlantic States he is five times as criminal as the white man; in the South Atlantic States, one and a half times; in the North Central, one and a half times; and in the Western, ten times. It is a striking fact that the negro is far more criminal in the Northern States, where he has long enjoyed freedom, than in the Southern States, where he is still greatly restrained by fear of the white race. The material condition of the race is similar to the moral. The great mass is essentially in the same condition as during slavery. Those who had bad masters are probably better off; those who had good masters are possibly worse off. The highest class is very much improved, and enjoys all the comforts of life in a greater degree. The lowest class is much worse off. It includes not only the vicious and the idle, but also the weak-minded, the afflicted and uncared for, young and old. Under slavery these were all cared for by the master, but now

there is among them a degree of suffering and a death rate unknown then, and this will explain the large relative decrease of negro population in the South from 1880 to 1890. In the whole country the negro has diminished from one-fifth of the population in 1870 to one-eighth in 1890. Freedom, with its greater cares and responsibilities and greater opportunities for vice, has not helped the vitality of the negro. The negro's real struggle at present is for industrial opportunity rather than for social distinction or for political power. His vital and industrial powers are now in test, and if he wins the fight he will then develop character and intellect, and enter upon a political and social struggle."

Burial Among Cliff-Dwellers.—

One of the questions regarding the cliff-dwellers is that pertaining to the disposition of their dead. Consequently the following description by Clement L. Webster, from the *American Naturalist*, of a mummy found in Southwestern New Mexico, is of great interest and value: "The mummy had been carefully placed in an excavation made in the floor, on the side, and slightly under the partition wall. The wall here, as well as elsewhere, rested upon the debris which previously collected in the cave. Every portion of the body, including the hair, nails and teeth, was perfectly preserved. The preservation of the body was due to the great dryness of the atmosphere of the country, and the chemical elements of the soil, etc., in which it was entombed. The mummy was small, being that of a child apparently about seven years old, although inferior in size to a child of the same age with us. It had been carefully and completely wrapped in two large pieces of coarsely woven cloth of different textures, made from the fibres of the 'Spanish dagger,' which was used so extensively by the cliff-dwellers for this and other purposes, and then again as carefully wrapped in a large and nicely woven mat of bear grass. After this it was bound with cords on to a small and curiously shaped board of cotton wood, the cords crossing the body and passing through small circular holes made in each corner of the board. The board had apparently been fashioned with a stone ax,

and was afterwards finished by being rubbed with some instrument. The hair on the head of the mummy was of a beautiful dark brown color, and of a soft and silky texture. The arms were drawn up near to the sides of the head, and the hands clinched, and the legs also were somewhat drawn up. There existed on the wall of one of the rooms located a few feet away from where the mummy was discovered many strange and interesting characters or picture-writings of those ancient people painted in the provincial red color. Close by where the mummy was discovered was also found an ancient weaving room of the greatest interest."

Tobacco Among the Aborigines.—The following extract is from an article by John Hawkins in the *Popular Science Monthly* on "The Ceremonial Use of Tobacco": "Comparing the stone age of the new world with that of the old, an important point of difference comes at once into view. The American race is distinguished in culture from all other savages by the possession and use of an implement to which nothing analogous is found among the prehistoric relics of the Eastern Hemisphere. That implement is the tobacco pipe. Among the aborigines of America the use of tobacco was widely prevalent. The practice of cigar smoking was observed by the companions of Columbus on his first voyage, and in the brilliant series of discoveries following, as well as in the slower process of exploration and colonization, the pipe, the cigar and the snuff mortar revealed themselves at every step. On the southern continent, although pre-Columbian pipes are occasionally found, smoking was not so extensively practiced as in the North. Leaving South America, and crossing the tenth degree of north latitude, we approach the native land of the pipe. Pipes of clay or stone are found in abundance throughout the United States; those from the mounds sculptured in the form of various quadrupeds and birds, and occasionally of men, being among the most interesting examples of native art. With the aborigines tobacco was regarded as an herb of peculiar and mysterious sanctity, and its use was

deeply and intimately interwoven with native rites and ceremonies. With reasonable certainty the pipe may be considered as an implement, the use of which was originally confined to the priest, medium man, or sorcerer, in whose hands it was a means of communication between savage men and the unseen spirits, with which his universal doctrine of animism invested every object that came under his observation. Similar to this was its use in the treatment of diseases which in savage philosophy is always thought to be the work of evil spirits. Tobacco was also considered as an offering of peculiar acceptability to the unknown powers, in whose hands the Indian conceived his fate for good will to lie; hence it is observed to figure prominently in ceremonies as incense and as material for sacrifice. The calumet or pean pipe, too, was at once the implement of Indian diplomacy, the universally recognized emblem of friendship, the flag of truce, the seal of solemn compacts. Tobacco, in short, was intimately connected with the entire social and religious systems of the Americans. The practice of smoking tobacco probably originated in its use by the prophets or soothsayers, a class of persons characteristic of a state of primitive culture. It was natural that some man in every savage community, on account of a mental peculiarity—a taint of insanity or some powerful nervous derangement—should become distinguished among his fellows for vivid and frequent visions. As his business as seer increased, he necessarily used artificial measures for bringing on a condition of stupor essential to the exercise of his calling, and in many cases tobacco was the narcotic used. Its advance from this restricted use is easy to trace. When men had learned that the sacred herb could drive away disease, recall the past and reveal the future, they naturally wanted to try the effect upon themselves, so in time smoking became a common practice."

Science has done much for us, but it is a poor science that would hide from us the great, deep, sacred infinitude of nescience, whither we can never penetrate, on which all science swims as a mere superficial film.



*Ex fronte, ex capite, ex vultu, etiam
in ipso oris silentio natura loquitur.*

PLATO.

NEW YORK,

August, 1893.

THE DEATH OF BOOTH—AND TO- BACCO.

THE death of Mr. Edwin Booth at a time when he should have been near the summit of his great career as a tragedian sets many to thinking about the cause or causes of that paralysis which slowly but surely conquered a man of good natural constitution. The press has little to say about the unhealthful habits of a conspicuous man in its obituary notices, but concerns itself mainly with that current of activity that has made him a public character. The principle honored by the newspaper man may be the old one, *De mortuis nil nisi bonum*, yet it seems to us that if a genuinely instructive lesson would be read to that "rising generation" in whom the hopes of the future rest, something of the truth should be told regarding the habits of an eminent person, as they were known to his friends, and to the practice of which his premature taking off appears to have been largely due.

Everybody knows that an actor's life is beset with temptation to excessive indulgence of the appetites—and that many young men break down early in their career because of such indulgence. Mr. Booth was earnest in promoting those methods that tended to elevate the spirit of the drama and the character of players. He was a hard student, and sought to put the best of himself into his representations, and to elevate the character that he personated. His playing had nothing in it of a tawdry, mechanical nature, nothing of the routinist. One was impressed by his playing that he understood all of the better qualities of his part and made the most of them. Hence his motives as an actor and a man were high, and his life and thought were the soil in which the motives germinated.

But there was one practice to which Edwin Booth was addicted, and for upward of thirty years inveterately, that must have had an injurious effect upon such a temperament as his. We refer to smoking. He was accustomed to use the strongest of cigars, and so strong was the influence of the habit that friends who believed that his nervous system was weakening under it could not persuade him to give it up, although shortly before he found himself unable to meet his engagements he had reduced the daily allowance of cigars to one a day, and that, however, was a large one. Physicians differed with regard to the cause of his malady, but there were some who blamed the tobacco he burned very earnestly for the attacks of vertigo and other prominent symptoms that indicated the degenerating condition

of heart and brain. For many years he smoked, it is said, almost incessantly; even in the theatre, between acts, he would have a cigar in his mouth. He was thus in the toils of the weed, and to it as a chief cause, we think it can be safely said, was due the loss of one whose example as an artist and a man in the calling that he pursued has been most instructive and valuable to his fellows of the stage and to the drama-loving public.

PHRENOLOGICAL PROGNOSIS.

One of our friends writes to us regarding a difficulty he has encountered in his study of practical character reading, and wishes to know whether the mental qualities predicated of individuals who are examined as strangers and the probable future predicted for them are verified in many cases by subsequent manifestation of talent or conduct. Now, it seems to us that the obscurity or indefiniteness of which our correspondent complains is largely in his own mind. He seems to misunderstand the purpose and aim of phrenological delineations. For example, it seems to him to imply confusion or indefiniteness to state, as was done in the July number of this JOURNAL, that Edwin Booth might have become distinguished in other professions, such as surgery. To us, however, there is not the slightest difficulty in a question of this kind, for it has never been a principle of phrenology that a man might not possess almost equally marked abilities for two or even more vocations. Indeed, this is an exceedingly common experience in phrenological practice. As an illustration of three very distinct forms

of artistic talent, we may mention the case of Joseph Jefferson, who is considered by many to be almost equally gifted and skillful as a painter, a writer and an actor. Eminent critics have also expressed amazement at the extraordinary literary beauty displayed in Salvini's recent book. Carl Schurz is an example of musical and linguistic talent combined with a vigorous interest in political life.

The versatility of Michael Angelo was remarkable, and Goethe was another many sided genius. Indeed we might multiply instances of this kind *ad infinitum*. In such cases the intelligent phrenologist will be likely to discover the different talents or tastes, but he is by no means under obligation to predict the specific channel in which such an individual will ultimately decide to concentrate his energies. Circumstances may also have much to do in determining the final choice of a pursuit in such a case. Hence the business of the phrenologist is simply to point out the existence of the different talents, the relative advantages of each, and reasons for giving a preference perhaps to a particular one. The individual will then be enabled to choose more intelligently.

As to Edwin Booth, it should be borne in mind that there is no definite faculty or combination of faculties which may be found in all actors, or which may be considered necessary to success in the dramatic art, unless we include in these terms a certain flexibility of fibre, responsiveness of temperament, artistic instinct, etc., together with that "general superiority" of organization which was ascribed to Mr. Booth. In other words, it is easy

enough to say of an inferior man that he could not become a great actor, and it is almost equally easy to assert the opposite of men like Wendell Phillips, Conkling, Beecher, or McGlynn. But to determine long years in advance what the choice of a highly gifted man is going to be, is not strictly a part of a phrenological opinion. However, in the majority of instances no doubt we could guess it. But from the fact that many persons are prevented by poverty, illness, or lack of opportunity, from carrying out their plans or pursuing their favorite lines of work, the phrenologist should confine himself to a statement as to what one will be able to do under certain conditions, leaving the question as to what he will do, and other forms of prognostication to the chiromanists and astrologists.

The idea in practical phrenology is to point out the scope and quality of mind in the individual—to give him an invoice, as it were, of his mental stock, in order that he may more accurately judge of its value and capabilities. For example, a man may overlook some talent which might be turned to account; or, what is more frequently the case, he may fail to notice or understand some serious deficiency in his character which renders all his reasoning on that subject inaccurate. He fails to consider certain premises. His conclusions are wrong; hence his actions lead to disaster. Such was the fate of Napoleon. He lacked the sense of justice and never understood it in others. He disregarded the moral law, and madly plunged on and on in his selfish race until the forces he had so long defied closed round him and

buried him as in a flood. If his mighty intellect could have received the information which scientific and philosophical phrenologists of to-day are able to impart, he might have been spared his crushing defeat. He could have been made to understand that he was opposing a law of the mental constitution, the violations of which are certain sooner or later to fill the cup of life with bitter dregs.

If the guilty individual appears to escape, it is only because his punishment is concealed. If he suffers nothing else, he will at least be cheated of the enjoyment which devotion to the highest ideals would otherwise afford, and this is a penalty, or, to express it philosophically, a consequence which can never be evaded by any persistent scorner of the eternal verities. This will overtake him with the certainty of death itself, and often with more horror.

Such are some of the truths, the warnings and the admonitions phrenology can give, and it is thus as a mentor rather than as a prognosticator that it should be considered and applied.

WHY OBSCURE?

Character in the expression is the product of associated faculties operated upon by environment. What this proposition involves one must understand ere he attempt the criticism of mental conduct. In the exposition of the capabilities of a person the most competent examiner may seem obscure for the very reason that the auditor is not acquainted with the principles governing the operation of the faculties. It certainly would not be expected that a

man unacquainted with the principles of chemistry would understand thoroughly the statement of a chemist who was describing the results of certain analyses that he had recently made. The conduct of the molecules of different substances in certain relations is not so simple a thing that everybody can grasp it without some careful preparation in the way of technical study. Whether or not there are chemical changes in the brain coincident with the exercise of the psychic centers, when a person is giving expression to thought, we are not quite ready to assert, but aside from that we do assert the necessity of one who would grasp the processes of thought relation intelligently, to have clear views of the meaning of the faculties, and of the physiological bearing of brain states upon the action of those faculties.

Very much, if not most of the unfavorable criticism and objection of educated people to phrenological delineations, arises from the fact that they have not made themselves acquainted with the primary elements of mind constitution, and so can not comprehend the applications of phrenological philosophy. Gall, Spurzheim, Combe, it must be emphasized, did not cast loose from the teachings of metaphysics, but, discerning the truth in the old mental philosophy, grafted it upon their physiological discoveries and demonstrated it after the manner of received science. The people who have learned the meaning of intellect, sentiment, propensity, instinct, and can differentiate their bearing on mental expression are competent to understand the reasoning of a phrenological analysis.

SIGNS OF CHARACTER.

The indicia of mental traits are accumulating with great rapidity. Observers in every line of life and of every shade of culture, are contributing to the mass of facts or vagaries relative to physiognomy and phrenology. Every part of the physical organization is being scrutinized, and alliance between this or that peculiarity of contour or movement and some play of sentiment or idea is pointed out. In a knuckle bone as well as in a cheek bone some wiseacre finds tremendous mental issues. Indeed, the function of character reader can be no longer claimed by a special class of savants, men who, like Mantegazza and Bridges, devote much time and a superior order of mind to close study of the psychophysical elements of human nature, but the tradesman, the mechanic and the street lounge avow authority to pronounce upon "indications." The shoemaker can read you a dissertation on the meaning of a bunion or a malformed toe-nail, and insist that the wearing of a shoe on the inner side intimates something very different from wearing it on the outer side. So the headdresser insists that the part of the hair has its important significance, and there is not a little to be learned from the gloss and curl of it. And the tailor will give you many "points" that may be depended upon as faithfully as those of a bookmaker on a racing day. These "points" will include the number and style of pockets demanded by his customer, and the pattern or quality of the goods selected. Then the butcher has his opinion of his patrons, derived from the kind and cut of the

meat they order; and even the milkman and the newsboy are ready to advise us regarding the sort of man that lives over the way from the number of quarts that go into the house or the particular newspaper, that is dropped in the basement area.

A straw may show which way the wind blows, provided it is not in a narrow alley or pent-up court that the straw floats; and from this we might derive a note of warning against placing too much reliance upon many superficial phases of conduct in man or woman for a reading of character. Fashion, custom, suggestion, have so much to do with everyday life that to take seriously this or that action as

an expression of a definite trait would be a positive error, a misreading that might work injustice and harm.

Better, far better, is it to adhere to the solid principles of that old philosophy that has the human organization for its foundation; that appeals directly to the man himself for its "signs," and finds them in the special and individual development of brain, bone, nerve and muscle. The part of the hair, the cut of a coat, the wearing off of a heel, may furnish material for a bit of gossip or a guess, but apart from the inferences the gossip or the guesser has obtained in some personal contact with the man, there is very little to claim our notice.

ARE THE LIQUOR MEN CRAZY ?

It would appear from the statistics of recent liquor legislation in some of our older States that the idea of majority-rule has become obsolete. The manufacturers and sellers of liquor have so managed affairs at Albany, N. Y., and Trenton, N. J., for instance, that, under color of law, they can exercise their will in the face of the decent and law-abiding, and force them to endure the results of their worse than brutal business. Over in New Jersey the reckless spirit that characterizes the liquor devotee has been shown by recent acts of a Legislature elected apparently for the express purpose of doing the will of the sporting and drinking class.

These acts make the matter of obtaining licenses to sell liquor anywhere and on all occasions easy, and accord remarkable protection to the manufacturers of the various kinds of drink, and in view apparently of some attempt on the part of an outraged public to undo the nefarious work. One act passed in 1891 creates a County Board of License Commissioners, appointed by the Governor,

to hold office for five years—and having power to grant licenses when they have been refused by other licensing boards or commissions—and to reduce the fees if they see fit. With such a system in force temperance progress is impossible, but every privilege is afforded to the instrumentalities of vice and degradation. A few rumsellers can defy an entire community; ninety-five out of one hundred citizens may remonstrate against the liquor evil in vain—for a few bloated worshippers of the whiskey jug can laugh in their teeth. But there is a movement across the Hudson which seems portentous of a rising storm, that will demonstrate the right of the majority to rule, and the existence of a better moral sentiment among the people at large than that exhibited by saloon-keepers.

THE INSTITUTE

begins its session for 1893 on the first Tuesday of next month. To the students already registered, and those intending to register, we would say that new features in the course may be expected.

Our Mentorial Bureau.

To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention

HEART FAILURE.—QUESTION.—What is heart failure? Is it an organic disease, or does it arise from nervous derangement?

M. B. V.

ANSWER.—There are several forms of heart disease, in which there are derangements of the valves very similar to the defects often observed in ordinary pumps. Or there may be morbid conditions in the walls or membranes constituting the chambers of the heart which result in a failure of the organ to perform its proper functions, and thus terminate fatally. But the phrase, "heart failure," is more commonly employed to designate causes of death which originate in conditions remote from the cardiac structure. Among these may be named the various forms of inordinate emotional excitement, such as profound fright, or the high tension of the nerves attending a political struggle or any other phase of the battle for power and position in which the vitality is expended more rapidly than it is generated. In other words, the demands upon the vital energies are too great. The individual is "overworked," and the nerve force needed to supply the

heart is insufficient, and the function is suspended. It is like the result upon an engine when the steam pressure is low. And as the causes of the exhaustion of the vital force are often very complex or undiscoverable, it becomes a matter of convenience to throw the blame upon the heart.

ASTROLOGICAL HITS.—F. R. P.—Most of the people who ply the trade of astrologist are good judges of human nature, by experience and study, so that they say those things to their patrons that, while analytically of a really quite simple nature, so apply that they seem quite wonderful. Some of these fortune tellers, character venders, etc., have studied phrenology enough to learn its principles and are greatly helped in their predictions. It is interesting, however, to note how opinion will change of the advertising astrologist or fortune teller after a person has had two or three different interviews with him. A friend of ours who has given much time to investigating this class of advisers, said to us not long ago of one who appeared "quite wonderful" at first: "I don't think so much of Mrs. —; she does not turn out to be what I expected. A good many things that she said now appear to be quite explicable on simple common sense principles." If you will carefully examine the statements of the man you mention we are assured that you will find them to be far from wonderful, but rather of a general nature, and likely to fit many cases.

THE MUSICAL CENTER.—QUESTION.—Why is it that we often find the organ of tune well developed and yet unaccompanied by musical talent?

T. H.

ANSWER.—There are difficulties attending the estimation of musical ability which require rather more knowledge of cerebral anatomy and temperament than is necessary in the case of the other faculties, so that the learner should not be surprised at

occasional width of the temples in unmusical individuals. In fact, the musical center occupies but a small portion of the second frontal convolution, and from its position it is not able to expand the forehead very greatly except in cases of extreme development. In the supposed cases of well-developed Tune, to which the questioner refers, the appearance is probably due to large Constructiveness, Calculation, etc. A study of the temperament in such persons will also probably show a degree of hardness and unresponsiveness which would not be compatible with musical sentiment.

BLIND PHRENOLOGISTS.—A gentleman writes us from California to know what we think of the facilities in the Institute and the chances in the phrenological lecture field for his son, who is bright and well educated, but totally blind.

In reply, we have to say, that if he could be well taught by a competent phrenologist, it would be a good profession for him; and the fact of his blindness would be a perpetual advertisement in his behalf, because people sometimes say a phrenologist judges of a patron or a person by his dress and appearance, and forms a general opinion of him by the cut of his garments and the way he carries himself. Though men who are clergymen in this district have disguised themselves with the loud colors and cut of a commercial drummer's clothing, though they have often come in with a slouching rudeness in language, especially in grammar, as if they had had no culture, and had their characters described, and have been told that if they had had the proper education they might have done well in the pulpit—would have made fine orators. We have sometimes examined a party of thirty or forty in a dark parlor, never having seen the persons before, or since, in fact, to our knowledge, and they said we described each one so that they knew every man we had under our hands while the examining was going on; and there was no order in their taking the seat; they did not know who was in the chair till he began to be described. This shows you that character can be described without seeing the person; therefore a blind man might do it well.

Moreover, a blind man is more sensitive

to touch, because of his training. At the same time, he would be handicapped in certain directions; for example, in the matter of studying people by sight, and under circumstances where a manual examination would not be possible.

In regard to instruction, of course, the greater portion of our lectures can be easily understood without the aid of sight, and even if a blind man should be unable to receive the benefit of such teaching as we give by means of drawings, etc., he would still, in our opinion, be amply repaid for his outlay of time and money. Again, it should be remembered that a blind student is more attentive than those who see. His mind is more likely to be concentrated upon his work, so that in the end he might even come out ahead.

Another point, which, perhaps, involves the greatest difficulty, is the provision for an escort to and from the lectures. A blind student ought to have some one to accompany him, not only to the class, but also to assist him in examining skulls and in other ways. And if a second person should receive the benefit of our institution, we should be accused of partiality if we did not charge him the same fee as the others. But details of this sort, we think, might be arranged without much trouble, and, on the whole, we are favorable to the idea of phrenology as a profession for the blind.

REVENGE.—*Question.*—Will you please explain the spirit of retaliation or revenge? If it proceeds from Destructiveness, why are not all persons revengeful who have that organ large? MRS. S. C.

Answer.—Destructiveness takes its direction according to the development of the moral organs. It simply desires to annihilate whatever is in the way of the gratification of the other faculties, so that if Conscientiousness, Benevolence and the other superior sentiments are strong, the feeling of revenge will scarcely be possible. Discipline of the mind also has much to do in this matter. If the intellect is well cultivated the individual comes to see that in hating his brother he is engaging in a very unprofitable, not to say detrimental, exercise and cheating himself of much higher enjoyment.

PERSONAL.

The members of the Class of 1890, who all remember with pleasure the good little five years' old boy, Byron Trawatha, who attended that session of the American Institute of Phrenology with his father and mother, will share the regret we feel in announcing his recent death, at the home of his parents, in Pittsburg. He was permitted, as a favor to his parents, Mr. S. and Mrs. Annie V. Trawatha, to attend the Institute, as they felt sure he would cause no inconvenience to the class, and they could not arrange to attend unless he could be with them. He became the beloved pet of all, and never once raised his voice during the session. Usually his intelligent face was watchful to every fact, and finally he occupied a front place in the class picture of the year. We all thought we never before had seen so good a child, so quiet, so manly and mature for his years.

In a letter from his mother, written in reply to one from us, she says: "Yes, our precious baby never lost his interest in Phrenology, and always considered himself one of the class of '90. Nothing ever came from you that he failed to know as much as possible about. He showed himself a good judge of human nature, taking notice of his schoolmates, etc. A short time ago he brought one of his classmates to our home for his father to examine. The child has a peculiar head, and this attracted our boy's attention."

Had this boy been spared he doubtless would have made his mark as a character reader, for his mental endowments were exceptionally fine.

PASTOR KNEIPP, the famous Bavarian water-cure doctor, lectured lately in Berlin, Germany, to about 2,000 people on water treatment. He is seventy-two, but strong and energetic, and easily would be taken for a much younger man. He believes that what can not be cured with water is altogether incurable, and bases his opinion upon his own personal experience, as forty-seven years ago he was told that he had an incurable disease, but water brought him out all right.



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

THE QUESTION OF FAITH.

To the Editor of the Phrenological Journal:

IN the May issue of your journal there is an article entitled "The Power of Faith," in which an endeavor is made to impress upon the mind of the reader the importance and value of "faith" and "prayer," particularly the latter, by citing the case of one "Farmer Andrews," who was so deficient in the faculty of cautiousness that he was constantly in trouble. On the occasion in question he was apparently saved from a horrible death while walking on the railroad by the timely premonition of impending danger in the wife's breast, and her subsequent prayers to her God to spare the life of her husband. In her prayers she is quoted as saying, "Father, spare my husband, my only beloved. My Father, he is my all. Children have I none. Thou hast taken them; spare me him. Lord, I beseech thee, etc."

Now, to a careful reasoner, a few questions are here suggested: Where are this woman's children? Why are they dead? Can it be possible that this noble-hearted woman, this loving wife and mother, did not pray God to spare them? Did she willingly and readily yield them up without a struggle to save them? If not, then why didn't God answer her supplication by sparing them to her? Would it help the matter any to say that God does whatever He thinks or knows is best for his creature?

Did the fact that this lady believed her children were taken to Paradise materially lessen her physical suffering? Is her faith in God's infinite goodness warranted by her experience at that time? Does her faith in the supernatural adequately recompense her for the loss of her children? Suppose for a moment that we had the power to take one of her babes from its tiny grave, endow it with life and vigor, and then hold it up with its arms outstretched

toward its mother and say: "Madam, here is your child, but it is not God's pleasure that you should have it. Now will you take it, or shall we return it to its grave, sleeping again the sleep of death?" What would be that mother's reply? How long would she hesitate? With the fast-rising fountain of her maternal affection, would she not fling herself forward to embrace her offspring, braving the wrath of the Being she had been taught to worship?

Is it not of daily, aye, hourly recurrence, that some anxious mother kneels by the bedside of her beloved child, earnestly petitioning God to spare its life, yet in a few hours thereafter she is weeping over its lifeless form? What of the millions of prayers that were offered to God to spare the life of President Garfield? From every pulpit, from every school, and from every Christian family altar in the land prayers were sent to heaven to save his life? These people were not lacking in faith, but did their united efforts avail aught to stem the fatal tide?

PETER LEIST.

WISDOM.

A very small amount of doing is better than a wagon load of resolutions.

"The best of all acids is assiduity." Use this wonderful chemical; it will eat its way through every difficulty.

To obtain perfection it is not necessary to do singular things, but to do common things singularly well.—*Francis de Sales.*

Use what talent you possess. The woods would be very silent if no birds sang there but those which sang best.

The desire to be like other people has been the ruin of many. It is well to imitate their good qualities, but too often it is the case that the bad are imitated.

It is well enough to build castles in the air provided we have given them a relation to earth by the provision of a substantial foundation.

He who judges a man by the size of his hat alone may expect to make some mistakes. A big hat may not hold a big brain.



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

FROEBEL'S LETTERS. Edited with explanatory notes and additional matter by ARNOLD H. HEINEMANN. 12mo., pp. 182. Boston: Lee & Shepard.

The interest in the kindergarten is deepening in this country, and with the increase of the schools established to illustrate the principles of kindergarten methods, it is but natural that the German benefactor who early promulgated them should be more and more considered. This new volume contains a selection from letters of Froebel unpublished, that gives us glimpses into the soul of the child lover, and show how earnestly he worked to interest others in his "idea." On this account the book has some claim to be regarded as a brief history of the system, as well as a sketch of the unfortunate philanthropist's career.

A WOMAN'S PHILOSOPHY OF LOVE. By CAROLINE F. CORBIN. 12mo, 289 pages, \$1.50. Lee & Shepard, Publishers, Boston

The author of this book is evidently a woman of very superior natural intelligence and instinctive refinement of feeling, to which has been superadded a rare culture, especially in the direction of philosophical thought. She has chosen a profound subject, and her treatment of it is remarkable for both delicacy and strength. She has climbed to a height where the air, though cool, perhaps, is delightfully clear and pure, and she is anxious that others may share this ozone of truth. The work abounds in lofty sentiments, reflections of great value, and on every page encourages a high standard of affection between the sexes and an exalted ideal of love and its purpose in the great economy of life.

THE CHARACTER, OBJECT AND SCOPE OF THE MEDICAL PROFESSION. Read at a meeting of "The Union Medical Society," Alliance, O., May 4, 1893. By J. P. GRUWELL, A. M., M. D.

A dignified plea for breadth of culture in the profession, a necessity that is forcing itself more and more upon the attention of the physician who would realize in his work the spirit of the time.

DESIGN, ARGUMENT, FALLACIES. Refutation of the argument that nature exhibits marks of having been designed by an intelligent being. By the Editor of the *Truth Seeker*. 59 pages.

RELIGION A CURSE, RELIGION A DISEASE, RELIGION A LIE. By SAMUEL P. PUTNAM. 96 pages.

The above, published by the Truth Seeker Company, show their spirit clearly enough in the titles. Without prejudice it should be said that while written forcibly and energetically they fail in logical definiteness. The pressure of the writer's motive appears at times to color too deeply the language and the argument, so that the attempted demonstration is seriously weakened.

SCIENTIFIC STAR BUILDING. The Nebular Theory Examined. By ROBERT PATTERSON. 77 pages.

GEOLOGICAL EVOLUTION. An Examination of its Pedigree, Pretensions and Predictions. By ROBERT PATTERSON. pp. 83.

THE ORIGIN OF LIFE. Was Man Evolved from Granite? By same author as above. pp. 36.

DARWINISM. The Origin of Species. By same author. pp. 74.

The above monographs are parts I., II., III., IV., of the Anti-Infidel Library, published by H. L. Hastings, Boston, Mass., at 15 cents each, or \$1 for the four in cloth. The author, whose learning and fairness appears at much advantage in the series, was not opposed to scientific investigations or to scientific literature, but with a Christian's sincerity has sought to expose the errors, guesses and inventions that pass for science in the popular literature of the day. He was a careful reader of the published works of leading savants, and had a breadth of view allied to his culture that is rare in any class of educated mind. The devout and reflective reader will find these books to his or her taste. They are instructive with regard to vital questions; they are elevating to the soul in the best sense.

"BEAUTIFUL STARS MY DARLING." Waltz song and chorus. Words and music by Prof. William Windsor.

We have just received a copy of this new composition, and are very glad to recommend it to all lovers of old-fashioned melody and that tender sentiment which, though it may create a smile, is as universal and imperishable as life itself.

The words of the song are characterized by the well-known emotional ardor and eloquence of their author, and the music is absolutely rhythmic and appropriate to the thought.

CURRENT EXCHANGES.

Mr. George Kennan, in the *Century* for July, answers the recent defense of Russia made by the Russian Secretary of Legation in this country, and Mr. Joseph Jacobs discusses the attitude of the Russian Government toward the Jews. The illustrated articles in this number include a description of "The most Picturesque Place in the World," by Mr. and Mrs. Joseph Pennell,—the name of the place not being disclosed; Edmund Goss writes of the famous actress, Sarah Siddons, and Salvini continues his remarkably interesting autobiography; John La Farge writes of the art of the Japanese; "Famous Indians" are described, with reproductions of notable medallion portraits which will prove of especial interest to our readers.

Thomas Bailey Aldrich tells of some quaint old Portsmouth characters; an article on the World's Fair contains a great number of fine engravings, and a delightful article by Mrs. Oliphant on "The Author of 'Gulliver'" contains portraits of Dean Swift, "Stella," Sir William Temple and others. Dr. Allan McLane Hamilton's article on "Mental Medicine," in which he discusses "The Treatment of Disease by Suggestion," shows a leaning towards a scientific form of mind-cure.

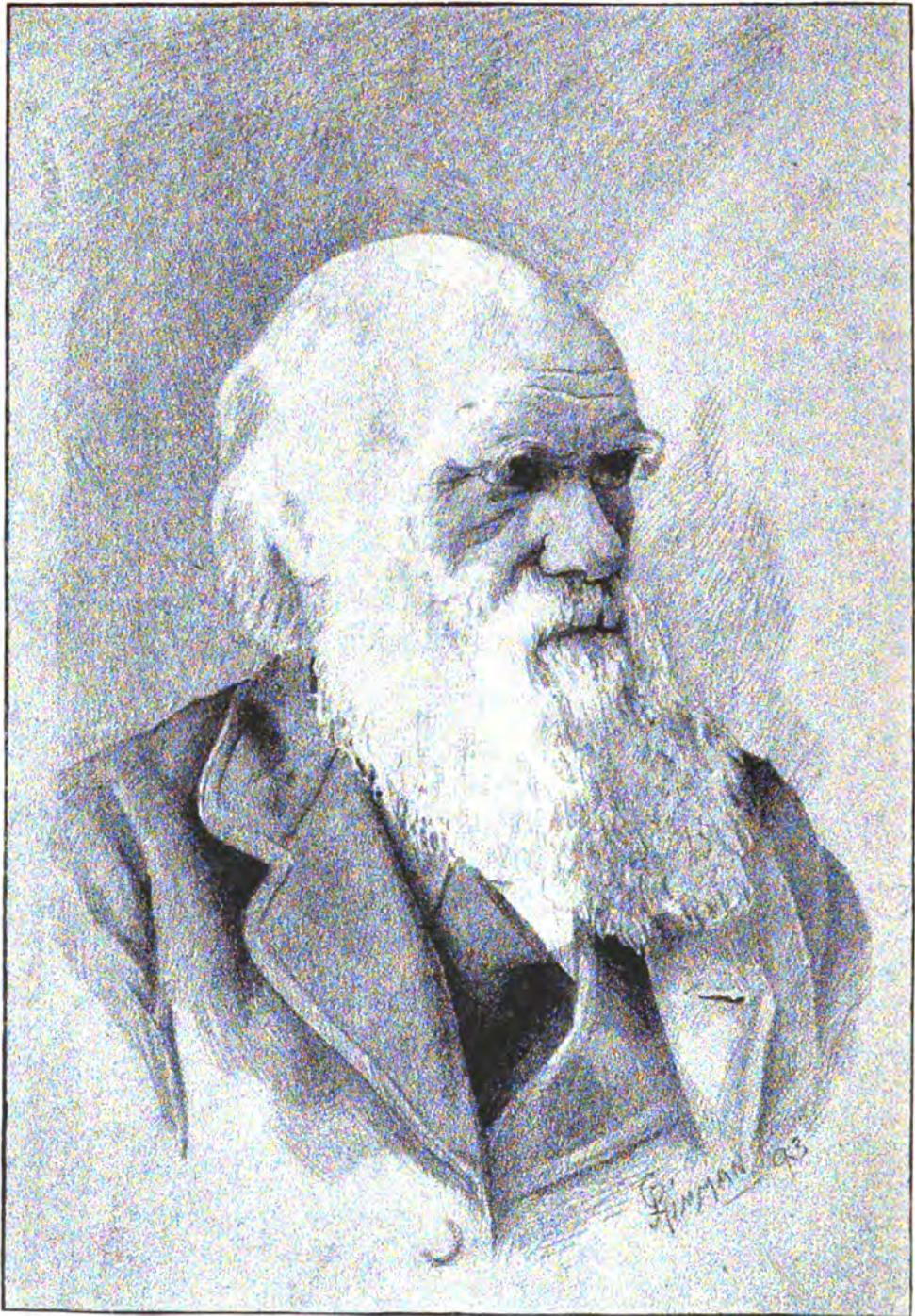
In the July number of *Lippincott's*, Patience Stapleton contributes a lively and fully illustrated story of ranch life in the West, entitled "The Troublesome Lady." The fifth in the series of *Lippincott's* Notable Stories, also illustrated, is "The Reprieve of Capitalist Clyde," by Owen Wister. Other illustrated articles are "On the Way," by Julian Hawthorne, which deals with Washington as a starting-point whence to visit the Exposition, and "Chicago Architecture," by Barr Ferree. "Fanny Kemble at Lenox," by C. B. Todd, gives an entertaining account of that famous lady's life in Berkshire in former years. Morgan S. Edmunds describes "A Wild Night on the Amazon," and Giovanni P. Morosini tells "What the United States Owes to Italy." Gilbert Parker supplies an account of "The New Poetry" and Mr. W. E. Henley. "Edgar Fawcett discusses 'Certain Points of Style in Writing,'" and Maurice Francis Egan gives "An Old-Fashioned View of Fiction." Robert Tinsol and Frederic M. Bird set forth the relative advantages of "Point vs. Truth" and "Truth vs. Point." M. Crofton, in "Men of the Day," handles Alexander Dumas and Secretary Hoke Smith. The poetry of the number is by Mary Isabella Forsyth, Clifford Lanier, Flavel Scott Mines, and Lloyd Miffin.

Harper's Monthly for July opens with an article upon "Italian Gardens," with fourteen illustrations of rare beauty as regards both the scenes and the photo-engraver's art. Other notable contributions are: "French Canadians in New England," by Henry Loomis Nelson; part II. of "The Handsome Humes," a novel, by William Black; "Side Lights on the German Soldier," with numerous illustrations, by Poultney Bl elow; "Three English Race Meetings," profusely illustrated, by Richard Harding Davis; "The Function of Slang," by Professor Brander Matthews; besides poems, stories, Charles Dudley Warner's Editor's Study, etc.

The American Medical Journal, edited by Dr. E. Younkin, St. Louis.

Childhood, The Magazine for Parents, is evidently doing good work.

The Sanitarian, published in Brooklyn, presents much valuable matter in the July number.



CHARLES DARWIN.

THE
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[WHOLE NO. 657.

MEMORIES OF CHARLES DARWIN.

BY LOUISA A'HONESTY NASH.

WE had the happy fortune to be near neighbors of Mr. Charles Darwin, of world notoriety, for about four years. Our house and grounds were at one end of the village, his house and grounds at the other. Between, the village street seemed to crawl its lazy length—never any bustle or stir but when the little ones turned out of school twice a day, or Sundays, when the villagers walked to and from their parish church that had been standing there, its old yew guarding it, about eight hundred years. The neat little cottages—no two or three alike—stood near together, with trim little gardens fronting the street, each with its little fence and wicket gate, and bright flowers through the Summer-time. Some of these cottages were old-time homes, built of cob, set in transverse posts of timber, that had stood (some upright, some diagonally set) holding up the old thatched roof. Within might be still seen the great square chimney, the “inglenook,” inside which the old folks had sat and kept warm for generations, while the hams and bacon sides hung up high to smoke.

But these had mostly given place to the warm red brick and rich red tile, lightened at intervals by the coat of plaster and the newer slate, that

brightens and silvers in the shining sun. And there were three little village stores, where the enterprising tradesman had covered his little garden plot all over with a “shop front,” extending to the village street. At the head of the village it branched into two more roads, widening at the branching place into an open space. On one side of this stood the parish church. There were several breaks in the cottage rows as you passed up the street. The trim little houses gave place to low walls, with trees peering over from the other side. Open iron gateways (that had taken the place of the heavy oaken doors) revealed a large house within, where the squire, or some other “great folks,” dwelt.

In one of these lived Miss Elizabeth Wedgewood, daughter of the old Staffordshire master potter, Josiah Wedgewood, and Mrs. Darwin's eldest sister. A wonderful old lady she was of 84, with intellectual faculties of a high order, all fresh and keen, and a heart all the warmer and more benevolent for its long stay in a world where there is much to love and much to pity. In another such house lived Dr. Frank Darwin, the home-son who helped his father through his declining years, and in the house at the further end, as I have

said, had lived for thirty years that great father of his. These large houses all open out at the back (as did our own) on their lawns and gardens, and meadow land, and farmsteads, and conservatories, and gardeners' cottages.

So do the well-to-do English people live, side by side, and often heart to heart, with their poorer brethren, going in and out among them, ministering to their wants and sympathizing with their joys. Ah! the happy, simple life of the English country village, "far from the madding crowd," is a picture that does not find its counterpart over here, and that few Americans can understand, and consequently appreciate.

Such was the little Kentish village, eighteen miles from busy London, and, at the time the Darwins chose it for their home, about twelve miles from a railroad. But then the roads were such that a lady could walk, or drive a two-wheeled donkey cart on them the whole year round, except the snow were to fall and hide up the road a little while. The English people never forgot the lessons they learned in road-making from the sturdy old Romans, and they have not yet arranged to work out or to *play out* their road tax! Our road opened out a few miles upon one of the veritable old Roman roads, the highway between London, Maidstone and the Kentish coast. Legends of these old-school *industrial* schoolmasters still survive. There is Cæsar's well, where Cæsar is said to have stamped his foot and water welled up. A few miles further on the soldiers saw a raven fly, and Cæsar said: "Follow the course of the raven's flight, and it will bring us to a stream." They reached a little river, and it is called to this day the Raven's bourne.

Now the village of Down seems sacred to the memory of Charles Darwin. The place stands high—and it is up, not down, to get there. Down (from the A. S. *dun*, a hill) is as high as the topmost pinnacle of St. Paul's

Cathedral. The air is pure and bracing, and Mr. Darwin thought he could count on quiet and seclusion for his work. Still people found him out. He would tell how a German one day found admittance, and, taking a seat himself, said: "Sit down and tell me about your theories," keeping his seat for two whole hours to listen. Not so an American visitor, who had driven from London "just to shake you by the hand," he said. And having shaken him by the hand he departed according to his word.

Up to the last few years Charles Darwin would make expeditions into the country—sometimes riding an old pony, sometimes walking—looking for orchids in the Cudham woods. This was at the time of his book on the "Fertilization of Orchids." In his greenhouse were the old plants on which he had so often bent his eyes under his shaggy eyebrows, and when he had no further use for them, he gave some of these plants to us. I feel sorry now we did not keep one always with us, a household god, as his memento. Those shaggy eyebrows of his used to bother his wife when he had his photograph taken, for she said, "they prevent his ever having any eyes in a photograph." Speaking of them himself, I remember one day, when lunching at the house, he called my attention to the picture of his father, a large oil painting on the dining-room wall, in which I could discover no family likeness. "Well," he said, "my father used to wonder how I came by my heavy brow—not my inheritance, he was sure—and he used to say he never noticed them until I returned from my long voyage on board the 'Beagle,' and he believed they grew to that size because of my observing all the time," and then he would laugh heartily. Mr. Darwin's laugh was the most spontaneous, cheery laugh in the world, making a stranger feel at home at once.

Charles Darwin's laugh did people good to hear. The heartiest I ever

heard from him was once when he asked me about some bird on which the conversation turned, and I answered as if I was only talking to my children, "Oh, it was only a little dickey-bird." With shame I thought afterwards, what a definition for a great naturalist's ears. But then there was such a sweet, child-like simplicity about the great man, you would forget he was great, because he was always interested in the little things that make up everyday talk so much. I remember once having been to see his wife with a young niece, who happened to have a bunch of some wild berries in her hand. We had left, and got as far as the iron gate leading out into the road, when Mr. Darwin came running after us with all his might. "You will think me half cracked, I am afraid, but after you had gone I thought I should like your niece to let me have some of those berries. You see the bloom is on them." The child was proud enough to share them with such a neighbor. Just then he was studying the wherefore of the bloom on fruit.

Before leaving England, and after our home at the end of the village (Down, in Kent) was broken up, I stayed a day or two at the Darwins' to say good-bye. And this was the order of his day: Up early, a couple of hours before the family breakfast, when he prepared himself a cup of coffee in his room, not liking to stir any of the household servants up so early. Then to work at his observations. That day he came into the dining-room with his hat and a round warm cloak on, carrying carefully a precious plant. Some change, in which he wanted us all to observe with him, blended with an apology for interrupting, for he was always the most courteous of men. After the family breakfast came his hour of relaxation, when he would have a game of backgammon in the drawing-room with his wife. And then he would retire to his study and rest on the couch while she read some light book or the daily

correspondence to him. It was only by husbanding his little natural strength by these periodical rests that he was able to get through the gigantic tasks he did. Study and observations till lunch, and again after it a short respite. Between 4 and 5 he generally came into the drawing-room for the ladies' tea and to chat generally with any one calling at that time.

I can see him now sitting up on an unusually high, old-fashioned, cretonne-covered armchair, with his feet on a high footstool, so as to be level with the fire in the grate. He was then in failing health, and Dr. Andrew Clarke was very careful of these little things.

I remember at a dinner party in his own house, his saying to me on taking his place, "Excuse my shuffling so under the table. I am hunting the warm slippers I slip my feet into."

By medical order his dinner was not begun with the usual soup. So the butler brought him round the next course out of order, for which he made a simple little apology to me, sitting next him. Before the dessert was handed round, he said, quietly:

"I am tired now, I must go and rest."

After dinner, when there was no special company, he would have another game of backgammon with Mrs. Darwin, and retire early before the rest of the family. Once when there had been some music and singing—my husband had been playing Beethoven—Mr. Darwin said (which is likewise noticed in his biography) in such a simple, regretful way:

"I am not able to get the enjoyment from music that I did when I was young. I suppose from turning my attention always to other things, the musical corner of my brain has got atrophied."

If the musical corner had got atrophied, he had not allowed the philanthropic corner to wither. Any case of trouble or sickness met the ready sympathy—and many an appe-

tizing invalid's dinner was carried out from the Darwins' kitchen to the sick cottagers around them. They had the faculty of attaching themselves to those about them—the poor blessed them, and in their own household there were four or five trusted old servants whose home had been with them ever since they kept house. I remember once during an illness inquiring of the butler how Mr. Darwin was, when he said, "Master's illnesses now-a-days are nothing to what they used to be. About thirty years ago, many's a time when I was helping nurse him, I've thought he would have died in my arms." Mr. Darwin sought to make the village thrifty by managing their benefit club. It delighted him to

tell that Down was such a healthy place; the people were so much longer lived than in other places; that he had got the actuary of the Benefit Club, of which Down was a branch, to arrange a special grade of bonuses for the Downites. I notice he says somewhere in a letter, "As for myself, I believe that I have acted rightly in steadily following and devoting my life to science. I feel no remorse from having committed any great sin, but have often and often regretted that I have not done more direct good to my fellow-creatures." From the great benevolence of his nature I can well believe that at times this regret was very strong.

(To be Continued.)

RACE STUDIES.

IV.—ITALY.

By F. L. OSWALD, M. D.

Southern Europe has been called the "Graveyard of a Better Past," and as the statesman Cavour observes, the hope of revival depends less on the generosity of powerful neighbors than on the vitality of the sparks yet lingering in the ashes of degeneration.

Italy, from that point of view, might claim a comparatively bright prospect of national resurrection. It may be true that her mediæval stars owe their fame partly to the contrast of the surrounding darkness, but the fact remains that in the course of the last five hundred years, the birthland of Raphael and Columbus has had the one decidedly prominent man in almost every branch of human pursuit.

It would, indeed, be strange if time had entirely smothered the seeds of bygone ages. Race will tell, and under strange disguises the characteristics of the successive conquerors of the fair peninsula can still be traced in their modern descendants. The ambition of the world-conquering Romans still asserts itself at every favorable opportunity. "When the

legions of the Cæsars were routed by the iron-fisted barbarians of the North," says Heine, "Rome sent dogmas across the Alps and contrived to regain the sceptre of the world for a dozen centuries,—by a change of method, but with undiminished energy of enterprise." The boundlessness of that enterprise is strikingly illustrated in the reform-plans of the first Napoleon; its recklessness in the writings of Niccolò Machiavelli. In 1810, when the marvelous Corsican had almost become Emperor of Europe, he seems to have valued his power only as a steppingstone to still more gigantic achievements. According to the memoirs of Las Casas, his ulterior schemes appear to have included the plan of starving England into a compromise, completing the union of France with the confederation of the Rhine, Spain, Portugal and Holland, and then using the consolidated strength of Western Europe to crush the power of the Czar, and form a defensive and offensive alliance of

progressive nations. As a check upon the eastward progress of the Russian Empire, a Federation of Mohammedan Powers was to be



CARDINAL JACOBINI.

strengthened by the restoration of the Black Sea Provinces, the Holy See was to be transferred to Paris in order to facilitate the "control of politico-spiritual agencies," and the maritime superiority of Great Britain to be offset by the construction of bomb-proof floating batteries (an anticipation of our ironclads), besides the construction of a fortified military overland road to the East Indies, and a line of escort ships guarding the ocean highway between Western Europe and the east coast of North America,—in short, a moral and physical reconstruction of the civilized world.

That outline of objects is matched by the programme of means suggested in the works of Machiavelli, whose *principe* is to attain the goal of absolute power, by ascending to every height of ingenuity, and descending to the very lowest depths of treachery and meanness. "First gain the victory at any price, and then chant the prescribed *Te Deums*," was Prince

Eugene's summary of that system of moral philosophy.

"The reason that modern Italy has established no foreign colonies," says a correspondent of the Cologne *Gazette*, "may be found in her lack of discretion rather than of enterprise; her proconsuls are in too great a hurry to get rich and do not know when to stop." He then quotes some queer reports from the attempted settlement on the east coast of Africa, where a plenipotentiary of the Italian Government had blackmailed nearly all the well-to-do Musselmans by arresting them on trumped-up charges and offering to authorize their release in consideration of a "security" in cash, besides setting his traps for bribery boodle all around.

The sagacity of the Bonapartes and of several of the princes of the House of Savoy precluded such mistakes; but the limits of their ambition were defined only by circumstantial considerations. "Let him have half the island of Corsica," said the humorist Wieland, after the battle of



ROSSINI.

Waterloo. "For what purpose?" "So that he can amuse himself conquering the other half."

During the chaos following the

downfall of the Roman Empire the Saracens contrived to possess themselves of Sardinia, Sicily, and several harbors on the south coast of the peninsula, and the admixture of



ROMAN TYPES.

DANDY. GUARD. WINE SHOP GIRL.

Semitic blood can still be traced in the commercial talent of the Italian coast-dwellers (many of whom can also claim descent from the Mercury-worshipping Greeks), and in the remarkable precocity of their youngsters.

A Neapolitan gamin of six years will try to repay the banter of a stranger in kind, and in a game of repartee can hold his own against a whole schoolroom of young Northlanders. Young Savoyards, with no

visible means of support, make their way as far as Paris and Vienna, but cannot begin to compete with their Southern neighbors.

"That depot cicerone is sick again; I wonder if we could not take his place and make a couple of scudi," Alfred Meissner heard a street Arab whisper to his chum near a railway station of the Eternal City. Seeing a chance of fun, the traveler concluded to encourage that project. "Are you anything of a guide?" he asked the shrewder looking of the two young rascals.

"Oh, si, Signore, I made many a dollar at helping gentlemen like you. Do you want to see the sights of the city, and the fine shops?"

"Never mind the shops; what I should like to see is the great monuments of ancient times. Do you know anything about them?"

"That's me; this way, sir," said the little scamp, after whispering a word to his partner; "this way, Signore, it's only a few squares to the Campo Santo."

"Santo? what saints are buried there?"

"All of them, sir; Sts. Peter, Paul and Virgilio—and it's the place where they killed John the Baptist, where he——"

"Never mind; do you know where they killed Julius Cæsar?"

"Cæsar? Let me see—oh, yes, its two squares from here; you can still see the bullet holes in the wall where they fired their pistols at him!"

"Indeed? could we get a look at that?"

"I suppose so, but——" after some reflection, "strangers can't get in except on Saturdays; but my uncle can, and he could get you one of those flattened bullets for two scudi, if I'd know where to find you this evening; when you get home you can sell it for ten dollars, easy. He was a great man, wasn't he, that Cæsar?"

"Yes, of course; you saw him, didn't you?"

"Well, no," with a gleam of sus-

picion, "but I heard my grandfather talk about him. He used to wear a red uniform or something like that. They had a song about him, too, I think."

"Did you ever hear about the poet Virgil?"

"Yes, that is, I know the house, he used to run that place on the corner of Coma and Ripa streets."

"Owned a taverna, did he?"

"A taberna, you mean," corrected the young scholar.

"Yes, it was a sort of music hall, a concert room with a restaurant," etc., etc., till the source of inspiration was stopped by the payment of the stipulated scudi.

Is it not possible that a similar gift of impromptu controversy encouraged Prince Pico della Mirandola on that memorable New Year's day of 1488 to publish a list of nine hundred theses which he offered to defend against all the scholars of Christian Europe? Signor Crispi a few years ago complained that a young Italian deputy can be refuted, but never silenced. "They would rather have us lose an hour of precious time in the crisis of national danger," he said, "than lose an opportunity for displaying their wit."

That passion evolved the improvisatori of the eighteenth century, who agreed to discuss any desired

topic in public, under the onerous condition of carrying on the debate in rhyme, and no power of mediæval despots could stop the satire of pamphleteers who risked liberty and life by affixing their lampoons to the walls of the public streets. In default of better butts the cities of mediæval Italy quizzed each other, and the revivalist Savonarola added fuel to the fire of banter by his fanciful localization of the seven cardinal vices, denouncing Genoa as the headquarters of pride, Florence of avarice, Venice of luxury, Bologna of wrath, Milan of gluttony, Rome of envy, and Naples of laziness. The Florentines may thus have been made the scapegoats of a national foible which avoids the odium of unpopularity by all sorts of shrewd devices, like that of Andrew Doria, who received the Emperor Charles the Fifth on board of a gilded galley and wound up a splendid banquet by flinging ten thousand dollars' worth of plate overboard—after observing the precaution to surround the ship with a circle of submerged nets. The ultra Scotch thrift of impoverished Italian aristocrats avoids expenses by the use of coaches with adjustable family coats-of-arms, which can be changed at short notice, as the otherwise identical chariot passes from hand to hand.

(To be Continued.)



NEGATIVE DAYS.

BY HARRIET E. IJAMS.

THERE come negative days in our lives—to the most of us—when all that we do, all we say seem nothing to us. We are in a complete state of passivity, victims of circumstance or mood, enthralled by a lethargy with a destructiveness to our peace of mind, stability of character and execution that would be effectual were we not to strive to disengage it. There then seems to be no spontaneity of thought and buoyancy of spirit, no relish for life and its interests. One seems separated from these, set apart for the nonce, viewing all through a mist.

Woman with all her greater endowment of vitality and endurance has also the larger share of this minor make-up. Her nature is more susceptible to surrounding and miasmatic influences. Her moods, which some one describes as a string of beads, are hung on a frailer cord, more readily unstrung. Given, for the most part, a smaller life to lead, smaller things for her attention, she succumbs sooner to small trials.

Some there are who are so evenly poised that outside influences seldom reach them save that of real calamity. They cannot understand these lesser shades in others. Shadows thrown from some subtle, invidious presence—phantoms of the brain, mayhap. Alleviation for this sombre suffering, which seems often a mental characteristic in its manifestation, there surely is. The study of effect followed to the cause will magnify this theory. There are some whose lives are embittered by not merely days but periods of long duration of these doleful lapses. Their cure requires almost superhuman efforts. Melancholia is one of the worst diseases that can infect man, casting its baneful emanations upon all in its wake, like some pestilential presence spread-

ing with epidemic force, or some hideous, horrible beast discharging venomous stings from its murky atmosphere.

Some of the causes are hereditary, which may be overcome undoubtedly; physical through a disobedience of the laws of nature and health; loss of sleep and the reaction of befogged condition, exposure, intemperance, overwork, disappointments, business losses and other failures of life, poverty, insufficient or innutritious food, prolonged mental excitement, extreme religious fervor which leads to morbidity, a dwelling of thought upon one subject, sorrow, temperament, uneven condition of life, climate, excess or deficiency of faculties, or perversity, reaction after great joy, and, organization.

That which in childish years is temper in time becomes moods in adult age. Scott says of one of his characters: "It was conscience that prepared this mental phantasmagoria." But "conscience is emotion not judgment. Intellect judges." Cautiousness and love of approbation are prime causes. Will power may be too passive, self-esteem or courage too small, or there may be a lack of faith. Some who observe hygienic principles are subject to this trouble.

"Unrestrained emotion—all emotion which is not entirely under control—is a weed that chokes the mind. We need pruning and clearing and lopping, lest our intelligence become a wilderness;" but arbitrary measures would produce an arbitrary creature, a deformed product of convention. Too much decision robs the beauty and need of simplicity. One should yield a little to nature—allow her sway. Woman has been primitive so long it is hard for her to get above convention. She has always been, and is still, to a certain extent, restricted.

In first, clothing, which entails ill-health; food with a like result; in thought bound by what others say, her fathers believed, fearing to approach the novel, liberal, mysterious, thereby putting limitations on her increase of recognition; in irregularity, productive of irregular temper; in superstition rather than a clear understanding faith; in sentimentalism—fast fading away—which weakens intellect and morals. In these she has made herself less than she should be. When she asserts herself in these woman's highest rights, when she breaks these shackles, when she claims independent thought and living, the results in her improved condition, physically, mentally and morally, will be so evident that no check will be given her, and her mind will have less of the volatile in its nature. She will be allowed her own individuality to work out as a woman in woman's lines.

To dethrone this mental monster of dismal mien we would throttle it with a vehemence that would immediately extinguish it if we could. But once doing is not enough. We must prolong the labor of patient weeding. Taken in its incipient stage this disease may be averted. When the cause is known one can work for the cure. "What women want is vitality, nerve and spirit force, good dispositions, calm judgments, which all summed up mean knowledge." One may digest volumes on how to have a clear mind without remembering it all. In epitome, the secret is: moderation, good stimuli and food, health, repose. Let go of self not only mentally, morally, but physically. Take natural, easy positions in sitting, walking and standing. Work easily but carefully.

I once knew a woman with a *penchant* for funerals and funereal topics in conversation. With the most saint-like but woe-begone expression she would eagerly describe the last funeral she had attended. Her attire tallied with her mind aspect. Her face was

dark and sallow. No wonder! Her life had a shadow and she was reflecting it in her character rather than stepping out of it into healthy sunshine. This was a mental malaria, and like the physical disease, productive of lapses in results. One day good, the next bad.

Let human nature work out its own individuality; give exercise to each faculty; cultivate and preserve health; let none be dominated by the material. In the words of a writer: "Let mental and this inner or psychic power assert their sway. The entire scenery of life will be transformed. Unsuspected stores of energy will be liberated. Mankind will live in exaltation and enthusiasm. There will be abounding life, not plodding existence. Life will then be what Emerson says it should always be, an ecstasy." Impossible, impracticable, you say. Nay, try it and see. If men and women would only see both sides of life, the spiritual as well as the material, there would be more joy in living.

Deviation should not bring despair. "Sins repented of form the steps of the ladder whose top reaches into the highest heavens." If life seems to have been shattered in pieces take them up again and put them together. By these we are lifted higher. Although sorrows will come, though our wishes may be changed, reversed or thwarted, there is nothing that cannot be borne. It is interesting to contemplate the extent of man's possibility in cheerful yieldance to the inevitable; endurance and acceptance of things placed in his path; power to curb rising objections; the extent and power of his will. "A superiority to circumstances, a divine disregard of environment, and a oneness with the strongest path of the universe, the things that are unseen means more than appears on the surface." A knowledge of one's own capacity will enable one to follow this statement. We must learn to feel the depth of life in each word and ac-

tion, however trifle. Behind each substance there is something else. Every angry word or look, every discontented feeling, every unjust opinion of others, every impure thought, retard progress, mean retrogression. Every folly makes life seem vanity. But with a conscious feeling for and weighing of everything that comes in the daily path, we may say all is not vanity, this is not "a vale of tears," *life is worth living.*

Life is all too short to waste one precious moment in repining. All these, though but grains of sand to time and that but a particle of eternity, are constituents of the whole. *Carpe diem* is a thought to carry with us in our lives. The bravest soldiers are always chosen for the worst and most exposed battles. Yet discontent and doubt have their eyes in the mental economy. They are the electric charges that purify the atmosphere of life. They make the realty and faith more secure.

A grumbling, discontented spirit, resulting from ill-health, dissatisfaction or a perverted will, may come from a Christian, but I doubt it. I do not believe in some Christianity. The agonies of the flesh and spirit suffered by the Divine Teacher refute the idea. For the correct exercise of the Christian spirit each faculty must be brought into play in a normal manner; no excesses, and as little as possible of deficiencies. No exact rule can be prescribed for the cure of these mental diseases other than the showing of a few of the causes. Each must find out his peculiar malady and work for its cure with assistance and by his own will.

Some one has said that "there are moments when a man is almost a god—this is when he is sincere. But there are so many men in the world, keen as a hawk in seeing little points, and availing themselves of them, but blind as a mole in beholding the measure of the circumference." To those in sorrow the knowledge that the ripened soul has only gone a little

farther on the road should be sufficient solace. Death is only resuscitation. By giving the best that is in us and filling out each moment of our lives with our utmost skill, our days become not passive or negative, but active and happy.

A dewdrop depending from the point of a blade of grass, swung and glittered and sparkled in the sun like a minute creature happy in living, lending its infinitesimal beauty to jewel the surrounding growth of green! Life and nature are full of these gems and radiators. What is beauty but a reflection of some greater and higher glory? This drop caught up the gold of the sun—a little world in itself catching the expression of a greater world. Beauty is an oasis in a desert, or a mirage, a distinction from monotony, grace lent to primness, poetry to garnish prose, or a drop of dew on a roseleaf.

So let us flash our little moments of living as this dewdrop, shimmering and glittering and quivering and trembling with its heaven-dropped joy. Illuminate the days with a drop of brightness, extract and quintessence of a benign influence distilled from on high.

DAWN.

Cold and stern the hills,
 Before the morning light ;
 Like hope, to cheer men's ills,
 A rosy glow doth glide
 O'er snowy hill and summit bare,
 And tinge the darkest shade
 With color soft and rare,
 Till every gloom doth fade.

When thus in glorious light
 The mountain tops are clear,
 Longs, too, my soul for height,
 Where glory maketh glad ;
 And from the night of fear
 Awakes in radiant glow,
 To feel the sunlight near
 To soothe and soften woe.

Ellen Burns Sherman.

Abercorn, Quebec.

HOW TO STUDY STRANGERS

BY

TEMPERAMENT, FACE AND HEAD.

BY NELSON SIZER.

CHAPTER IX.

THE MENTAL TEMPERAMENT.

THE brain and nervous system constitute the important apparatus which we call the Mental Temperament. It is the centre and the master of all the structures which make up the bodily organism. Everything else is the servant of this. The genial, hard-working butcher, who, in plying his trade, has cut up droves of oxen, sheep and swine, if questioned on the subject of the nervous system, would remember that in the cranium of his victims there is a conglomerate mass called "brains," and when he splits with his clumsy cleaver the spine of an animal he has seen a white substance in its long cavity, which he calls the "pith of the backbone." To him it is meaningless, and while he hews his way through the quivering flesh, severing myriads of once conscious nerve filaments, if he should chance to discover a large branch nerve he would regard it as merely a "string," precisely as he would a portion of the cellular tissue which lies between the layers of muscle, and with as little knowledge of its use.

It is only the eye of the anatomist which detects the more considerable nervous fibres and requires careful attention and sharp analysis to trace them on their way towards their infinite divisibility. These filaments, moreover, cannot be recognized in their last analysis without the most powerful microscope. In fact it requires something more subtle than microscopic power, faith and experiment even, to appreciate how infinitely extended and minute the

nerve fibres really are in the human system.

It is not a stretch of fancy, it is no flight of the imagination, to say that if all the parts of the human body, except the nerves, could be removed, and these should occupy the same positions precisely that they now do, the man would stand forth in full size and ample proportion, though probably he would not weigh ten pounds. The eye could not penetrate between the fibres.

We know that the finest point cannot be brought in contact with the surface of the human system without producing sensation—without hitting a nerve; if, then, there is a fibre of nerve at every point of the human surface which the sting of a bee cannot fail to touch, not to say the clumsy point of a cambric needle, it shows that the nerves have been divided till they so completely fill all the space constituting the bodily surface, that nothing visible to the naked eye separates the nervous filaments; that the nerve fibres fill the space as completely as particles of moisture fill a given space in steam or vapor.

In making this statement, it is not forgotten that the blood vessels are distributed in a similar manner, though less minutely, throughout the system, so that the needle's point perforates one of them also whenever it is made to penetrate the surface.

As the heart is the great centre of this minute network of blood vessels, so the brain is the centre of that almost infinite network, the nervous system. This vehicle of the soul, the intellect

and will, this agent of all sense and feeling, is more emphatically a *distinct man* than any other part of the human system would be. True, health requires a harmonious condition of frame, muscle, digestion, circulation and assimilation; but may we not assume that bones and muscles, stomach and circulatory power, are mere adjuncts, aids and servants of the *nerve-man*?

We do assume that the brain and nervous system constitute the agent or instrument through which the soul becomes cognizant of external things, and by means of which it exercises its power upon matter. If we may use the illustration, it is the handle which enables the soul to take hold on matter; it is the connecting link between gross matter, oak, iron and granite, and that interior thought which determines into what forms and uses iron and oak shall be fashioned and made subservient to human power and purpose.

In Fig. 84 we introduce a rude illustration, a kind of trellis of the nervous system, it being the fourth in the series of systems which combined make up manhood. This shows the nervous system somewhat as the map shows the Mississippi and Missouri rivers in a rude and general way, without showing the ten million small streams and contributory rills which after a while get large enough to be shown on the map.

The nervous system is quite as pervasive in the constitution as is the muscular and bony structure, Fig. 62, or as the arterial and venous systems, Figs. 70 and 71, or as the lymphatic system, Fig. 72, it pervades the whole human structure; it fills the entire body. The nervous filaments connected with the brain penetrate everywhere, piercing bone and muscle, accompanying every artery and vein with its smallest ramifications. This is the man of nerve.

Imbued with sensitiveness the most delicate, capacity to suffer pain, or to enjoy pleasure the most exquisite,

the nervous system must be regarded as the crowning excellence, the sublimation of the physical organism. All the other parts of the structure are mere ministrants to this. What



FIG. 84. BRAIN AND NERVES.

were bone to give form, and erectness, and substance, and stamina to the human body without nerve to inspire and direct and utilize their action in producing motion and force? The history of paralysis answers the question. What were digestion and assimilation to feed and nourish and develop the man if he were without nerve power, without sensitiveness to pleasure and pain, and without the power of motion? What were delicious tastes, what were beautiful sights, what were harmonies of form and proportion, what were enrapturing strains of music without nerve to carry the report of these external facts to the internal man?



FIG. 85. EARL GREY. MENTAL TEMPERAMENT.

FIG. 85.--EARL GREY. This picture represents the mental temperament in very high degree. The head and face are pyriform, wide at the top, and tapering like a pear toward the chin. What delicate outline of figure! How refined and classical!

Observe the hands, long and thin. This is taken from a fine engraving published in London in 1843, with the fashions of dress of fifty years ago. The elaborate white neckwear then in vogue, with the high coat collar to cover the dressing of the neck from the

Let it not be said that we would endue mere nerve with soul-power; that we would make the immortal man to consist of mere matter. If anything more than another evinces the wisdom and skill of the Creator, it is this adaption of the nerve fibre to be the medium through which external things can be brought, so to speak, in contact with mind. The immaterial spirit, indestructible, immortal and invisible, is brought into connection and co-operation with outward life by the instrumentality of the varied and peculiar apparatus under the general name *nervous system*.

Certain it is that the eye is not sight; it is but the instrument of sight. The auditory apparatus is merely the agency through which all sounds are brought to the soul. The olfactory and the gustatory nerves are as necessary to tasting and smelling as are those of sensation to the function of feeling. But they are external. Behind the eye, which receives and forms the image, is the nervous retina, which is but the optic nerve spread out to receive the impression. This is carried through the optic nerve to the brain, and within that brain, using it as its agent or instrument, resides the conscious spiritual being that we call man.

Any one of the external senses may be destroyed, sight for example, while all the rest remain perfect, by destroying the connection of their nerves with the brain; still, within the mind, in his interior life, in his consciousness and memory, man sees the glorious rainbow; he pictures to himself faces of friends, the landscapes he has known and the starry heaven he has so often admired, but which, in the flesh, he shall see no more.

The old composer who had lost his hearing could still write oratorios and

play them with masterly skill. Though his ear refused to transmit the sound, his inner life knew the harmonies and his memory enabled him to enjoy, in silence, the music by which others were enraptured.



FIG. 86. LAURA D. BRIDGEMAN.
MENTAL TEMPERAMENT.

Laura D. Bridgeman, the first deaf, dumb and blind person ever educated, had so sensitive a touch through the education of her nervous system, that she was able to select different colored worsted, and manufacture elegant patterns of crochet work with the accuracy and taste in combinations of color that belong to the work of those who can see.

Behind, or within, all these delicate contrivances, these sources of joy and of sorrow, the soul sits serene, communing directly with its God, and indirectly, through its nervous instrumentalities, with all the *works* of God.

If this nervous system, this most delicate of all God's structures, has such exalted labors to perform in the outworking of the soul, need we argue

ear to the shoulder; the watch ribbon and seal at the hip, are characteristic of the time. Observe how classic are the features—slim nose delicately formed, and the eye keenly cut, and the refined lips, pointed chin, and the broadly expanded temporal region, and

breadth and elevation of the top head. Such a mental and physical development indicates literary and artistic taste, and an irresistible leaning toward culture and refinement.

the necessity of keeping this soul-house free from every abuse and contamination?

Who, with this view of man's excellence, with this view of the infinite wisdom exhibited in his structure, can innocently violate the sanctity of this house he dwells in? Consider how this sensitive nervous system is tor-

Let those who would play upon this delicate human instrument with rude appliances do so if they will till wisdom reform them or death kindly rid the world of their presence and malign influence; but let it be ours to treat this temple of God with a refinement and gentleness, with a wisdom and care commensurate with the



FIG. 87. LUCRETIA MOTT. MENTAL TEMPERAMENT.

tured by the use of alcoholic liquors, how it is abused by the narcotic and the stimulating effects of opium and tobacco, how tea and coffee and condiments tend to pervert its normal action and promote disorder and unhappiness! Is it surprising that dyspepsia, gout, rheumatism, neuralgia and delirium tremens, heart trouble and nervous prostration, should utter their protest and thus seek to instruct the soul how better to govern the temple it inhabits?

beauty of its structure and the glory of its being.

This, the nervous system, like the blood vessel system, consists of two analogous systems: *First*, the nerves of motion which go from the brain and spinal cord, and carry the mandates of the mind to the extremities, and are the basis of muscular action or motion, and these are called motor nerves. No muscle can act without a nerve to give it impetus. *Second*, the other system consists of nerves of

sensation or feeling, carrying information, pleasurable or painful, from the extremities everywhere to the sensorium, to the brain and mind. Taking these two systems of nerves, it is impossible to conceive of a substance more pervading, more omnipresent. We have said that at every



FIG. 88. EDGAR ALLAN POE. MENTAL TEMPERAMENT.

FIG. 88.—EDGAR A. POE was remarkable for an excessive mental temperament. His frame was light, slender and refined in its outlines; his features were delicate and sharply chiseled; his brain was uncommonly large for the size of his face and body; his skull and scalp were thin, his hair fine, and his head widened in its upper development. How massive in the upper part of the forehead, in the region of Reasoning! How broad in the region of the temples, where Ideality, Constructiveness and Sublimity are located! And the region of Spirituality was also enormously developed. He was remarkable for a critical and original intellect, a vivid and brilliant imagination, and for sensitiveness of temperament which was often painful to himself. His entire life was an intense excitement. The wierd and solemn sadness which runs through every line of "The Raven," had in his own life as much of truth as of poetry, and we can but regret that so gifted a nature could not have had environments which would have blessed and given sunshine to his life. He was the son of theatrical parents, and, of course, inherited the tendencies toward the dramatic with the peculiar susceptibility of the mental temperament. He died in 1849, at the early age of forty. His short but brilliant career has made an ineffaceable impression upon the world. Edgar A. Poe had dark hair and eyes, which carried a vein of sadness and shadow.

needle's point all over the body a blood vessel could be punctured and the vital fluid would respond; and now, at every needle's point of space on the surface of the body is a nerve or a multitude of nerves. We have, therefore, an all present sense of feeling, since every perforation of the needle's point everywhere gives pain. If every other tissue of the system but this, the nervous, were dismissed from the constitution, there would be left a complete nervous man. Imagine an image of exactly the size and form of a man made up of cotton fibre, and if it were colored a kind of pearly grey the cotton fibre would look like the nervous filaments; if everything else were dissected away, there would be the nerve man of the form and size of the original man, an essential part of the physical ego; and this is the nervous system.

When people complain of being "nervous," therefore, this infinitely diffused sensitive organism being everywhere, can it be wondered at that whenever this shall become feverish or in any way disordered it should make the whole man suffer? When we think of this delicate composition of manhood—muscle, bone, blood-vessel, lymphatics, and then add the nerves, so related as each to affect the other—we may well say, "Man is fearfully and wonderfully made." And yet people rudely kick and cuff, they stab and pierce, they pound, they bruise, they shoot and lacerate this complex and sensitive structure, and wonder why it does not always recover when it has been thus maltreated. Is it a wonder that a sensitive student, reading of the organic systems and the diverse ailments to which those structures are liable, should feel and imagine, as is nearly always the case, that he has all the diseases that are described?

And this, remember, collectively, is only the *machinery* of manhood; we have a man of mentality besides, and these are only his tools, his implements of health and power of con-

sciousness and achievement. The man of mentality, the soul power, lives in this house of many members, which are united by the great sensorium, the brain, where mind and matter coalesce and interplay in the development of mind and power.

And this, which feels, knows and inspires to action, is called the Mental Temperament; this is the machinery of that temperament; this becomes the connecting link between mind and matter. And on the healthy condition and harmonious working and interworking of these organisms depends the outcome of life and health and power. Verily, it is "a harp of a thousand strings," or ten thousand millions of strings. For who can count the nervous filaments? And every one is a factor. Who can count or estimate the capillaries which carry blood and nutrition or bring back waste material to be disposed of for the maintenance of health? Is it not really strange that a harp of so many strings should really keep in tune, or approximately in tune, so long? It must be remembered that the Mental Temperament is a part of every human constitution, though in some of the lower forms of idiots the mental system is so small, weak and defective that it is a large charity to call it Mental Temperament.

That which we denominate the Mental Temperament depends upon the predominance of the brain and nervous system. In a harmonious or balanced temperament, each system or temperament being represented in equal degree, the person is capable of manifesting the characteristics of each of the temperaments equally; but there are few persons so well balanced that they do not show manifestly a predominance of the Motive, of the Vital, or of the Mental Temperament.

Where the Mental Temperament predominates, Fig. 89, the frame is light, the head large as compared with the size of the body, and especially

as compared with the size of the face. When decidedly predominant, we see the high, pale forehead, broadest at the top, delicacy of features, expressiveness of countenance, fine hair,



FIG. 89. JOHN GARDNER,
MENTAL TEMPERAMENT.

FIG. 89.—MR. JOHN GARDNER has outlines of face and head, as well as the qualities of body and mind, which belong to the mental temperament. How sharp and definite the features! How elevated and expanded the top head, giving clearness and force to the moral qualities! His head measures over twenty-three inches in circumference, and his weight, about one hundred and thirty pounds, is forty-five pounds too light for such a head. He has a remarkably active intellect, is very sensitive and susceptible in his feelings, keen in intellect, and is one of the most successful of inventors. Mr. Gardner has the blonde type of complexion, which gives sunshine and cheer to life, unlike Edgar A. Poe. He is superintendent of the "Winchester Arms Co.," New Haven, Conn.

thin, sensitive and fine grained skin, and often a high-keyed, sharp, but flexible voice; the figure is delicate, elegant and graceful, but seldom strong or commanding. In dispositions and mental manifestations, such persons are refined and susceptible; they have taste, a sense of the

beautiful, vividness of expression, intensity of feeling, and are generally



FIG. 90. MENTAL TEMPERAMENT.

inclined toward study, thought, meditation, and to general mental manifestations; the thoughts are quick to come and rapid in their progress; the senses are keen, the imagination lively, and the moral dispositions strongly marked.

If a line be drawn around the head from the center of the forehead to the most prominent part of the back head, those having the Mental Temperament will generally show a head larger above that line than below it. If the temperament be of the vital type, it will often be found larger below that line than above it. The brow will be prominent, the side head broad, and the base of the brain comparatively heavy. With the Mental Temperament, the upper side head is prominent, ample and broad; the head is likely to be long and broad on the top, and well expanded and rounded upward. The logical, the sympathetic, the æsthetical and the aspiring elements are stronger than in those who have the Motive and Vital

temperaments in predominance. Most of the scholars and leaders of thought will be found endowed with more of the Mental Temperament than of each of the other temperaments. In this temperament the skull is usually thin and the bony material fine, and the scalp generally not so thick as in the Vital and the Motive temperaments.

Fig. 91. This indicates fineness of organization, delicacy of features and of quality, and a fullness of the brain development indicating a decided predominance of the Mental Temperament. In any collection of men the contrast between him and Figs. 74, 77 or 80 would be prompt and decisive. Little criticism is required to detect a decided predominance of either temperament. This head is broad above the median line; is decidedly intellectual, and clearness and vigor of thought would readily be inferred. There is nothing of coarseness of fibre or features or of the general make-up or of the expression that would give one the idea of



FIG. 91.—EX-GOV. CHAMBERLAIN.

the robust vigor of the Vital Temperament and the hard, bony, enduring power which belongs to the Motive Temperament.

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

BY CHARLOTTE FOWLER WELLS.

DR. JOSEPH HURFORD.

As a sketch of this gentleman appeared in the PHRENOLOGICAL JOURNAL of June, 1890, only brief men-

suasion and of English descent. When quite young he commenced the practice of dentistry, in which he worked for several years with great



DR. JOSEPH HURFORD.

tion of him will now be made. A more extended account will be included in the Volume of Sketches in due course.

Joseph Hurford was born in Cadiz, Harrison County, Ohio, Oct. 5th, 1809. He was of the Friends' per-

success. Being very tall, 6 feet 4 inches, he found the stooping, and confinement of an office, wearisome and exhaustive, so that he felt compelled to abandon the business. He then gave all his time to the study of law, reading all day and often late at

night. The effect was hard on his eyes, but he persevered and finished the course, and was fully prepared to be admitted to practice at the Bar. But the painful result of his unremitting study was an attack of amaurosis, which compelled him to give up the use of the eyes for nearly a year, and finally to give up law. About this time he met with Combe's works, which he read and studied, and then decided to devote himself to phrenology. Many professional people attended his lectures, and complimented him for his methods as a lecturer and accuracy as an examiner. While engaged in the study of phrenology he discovered a composition of which he made casts of the brain and other parts of the body. This proved so valuable that his brother Aquila manufactured and sold in one Summer \$6,000 worth of such casts.

He lectured and traveled many years as a phrenologist, and although now nearly 84 years of age and in feeble health, he retains his interest in the science, urging people to study its principles and apply them in their lives. He still occasionally examines a head. A few weeks ago a lady said to him that if he would correctly delineate a few traits of her character she would become a subscriber to the JOURNAL. The examination was given, and the lady was greatly surprised at the truthfulness of the description. Her name is now on our subscription list.

Dr. Hurford resides in New Brighton, Pa., and enjoys the highest regard of all those who know him.

DR. SAMUEL IRWIN.

The following sketch was prepared, at our request, by one who was intimately acquainted with Dr. Irwin for many years:

"Dr. Irwin was born at Carrickfergus, Antrim County, Ireland, in the month of March, 1802. His mother, whom he resembled closely, died of consumption when he was five years of age. His father died at the age of forty-four, leaving him at ten a

delicate boy without pecuniary support. Hence there were many barriers to his success in life, but his was a spirit that did not let them prevent his making an effort to rise in a moral and intellectual as well as financial way. He never undertook anything without asking God's blessing, which made him rich in a high sense. In 1840 he was married to Joys Grant, and shortly afterward sailed to America. Early in his career he became interested through the PHRENOLOGICAL JOURNAL in phrenology and hygienic medicating or water cure, as it was then called, and his interest in these and kindred subjects increased more and more. At the first opportunity he made himself a subject of Prof. O. S. Fowler's research on phrenology, had a complete chart made, and so vivid was the picture of his character to his mind's eye that he could but believe, and set about at once to obey the admonitions given him. He was a man of very strong will power, and *hated every false way*, so that to change his habits it was necessary to convince him thoroughly he was wrong.

Dr. Irwin was never a professional phrenologist, but ever remained a student and strong believer in its principles, always brought it to bear on those with whom he came in contact, and his judgment, when passed from a phrenological standpoint, was conceded usually to be correct in the main. He was very fond of gardening, fruit raising and the like, a pursuit he believed to be man's most natural sphere. His chief talent, however, lay in "healing the sick." Prof. Fowler certainly hit the nail on the head when he advised this man to be a "water cure" physician. That he was eminently successful hundreds over this land whom he relieved and started on a better way can testify. He was also a success financially, and a splendid type of the Good Samaritan, counting all those his neighbors whom he could benefit. There are many others like the writer who will

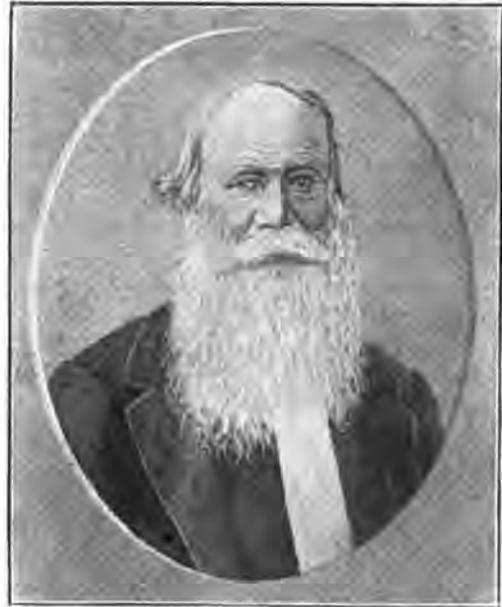
always bless the day they first met Dr. Irwin. It was impossible to be with him and not be benefited. His leading characteristic and the "key note" to his success, it seems to me, was *self-control*. No man appreciated more the meaning of the proverb, "He that rules his own spirit is greater than he that takes a city." Dr. Irwin was very conversant with Bible literature, and could always quote Scripture to support any assertion he made. The writer was intimately associated with him for several years, and will mention in detail a few of the things he taught me not to do, both by precept and example: No whiskey, no tobacco, no tea or coffee (water was his only drink), no flesh foods (not vegetarian merely, but hygienic); he wanted his patients to understand they couldn't get well without complying with the "conditions," which always meant, quit sinning against your body. His kind, gentle, loving way of rebuking error commanded respect and love in his young friends. His life as a whole was a happy one, because he embraced every opportunity to make others happy.

May the dear old doctor's life of well doing be an incentive to better efforts on the part of the rising generation. He resided at Jonesboro, Ga., for about fifty years, and died there when about ninety years old, June 12, 1892." C. H.

For many years we have often heard of Dr. Irwin, and how much he was doing for hygiene and phrenology, and he often sent to us for books on these subjects, scattering them among friends, patrons, and strangers of whom he heard, and whose influence he wished to gain in favor of the science.

Long before the commencement of these "sketches" we endeavored to obtain particulars regarding his life to publish in the PHRENOLOGICAL JOURNAL, deeming him worthy of a notice therein, but did not succeed in getting it. As for himself we always heard that he was so fully oc-

cupied in healing the sick that he could not command the time and the quiet requisite for the production of such an article as we wanted, or to which he would be willing to attach his name. Besides that he was too diffident to write about his own do-



DR. SAMUEL IRWIN.

ings, and, therefore, we heard nothing from our appeals for a sketch.

Learning of his financial success we hoped to obtain some aid from him in securing the "Home" we need for our American Institute of Phrenology, but before we wrote to him personally on the subject, he had become too old and feeble to give us any attention, and our appeal was without any response.

Not having heard of his decease we wrote again, when his niece kindly replied that her uncle had departed this life. Then we wrote her, asking for some items of his life from which to give a sketch of him to our readers, and also a likeness; and the accompanying biography from the pen of Conway Hutchinson is the result. No picture of Dr. Irwin could be found, except a very dim one which required touching-up before the artist could make one that would

at all answer our purpose, but we were thankful to obtain this much.

From this picture—poor though it be—a phrenologist could but infer that its original was not merely an ordinary man, but one whose mind was ever on the alert to learn something new—something by the knowledge and application of which he might make beneficial to those in need of such aid. Notice the amount of brain in the region devoted to the intellect. All those organs are well developed and no essential (so to speak) one lacking. This indicates one with good judgment. Added to this is the crowning point in the moral region, as may be inferred from the height of the “upper story” of his head, where are located Human Nature, Suavity, Imitation, Benevolence, Veneration, Spirituality, Conscientiousness and Hope, and the whole face expresses the activity of those characteristics.

It is, therefore, no wonder that he exerted such an influence as is credited to him in the biographical sketch. He read character at once, and had the ability or judgment of how to meet each case and apply the mental as well as physical remedies adapted to it. Firmness and Conscientiousness being large and contiguous to each other, would influence each the other to a great degree, and we would expect that when he had decided that any course was wrong or right he could not be swerved from the position he had taken. He would not knowingly do wrong, and if convinced of an error he would regret it exceedingly. Before finally deciding a point he examined it on all sides, and seldom had occasion to accuse himself of being in error. He possessed a sufficient quantity of the propensities to estimate his own rights at their full value, granting the same privilege to others, but would demand from them the same strictness which he allowed to them,

Would that we had more persons in the world like Dr. Irwin in those

qualities which indicate harmonious action of the groups of organs. He was characterized for an active mind, decision, energy, kindness, coupled with justice, excellent common sense, a well-balanced organization, and, as a physician, he diagnosed disease as if by inspiration. He seemed to “see through” an individual, apprehending not only the present condition, but its cause, and how to eradicate its results. Like the “lightning calculator,” he saw the whole case at once, from the beginning. Such persons as Dr. Irwin have been a blessing to the whole world, including our science, and their influence will never die. He was a Christian gentleman, beloved by all who knew him, and loved most by those who knew him best. He had many beneficiaries, was exceptionally cheerful and bright. The frown in his picture was caused by near-sightedness.

He left an aged widow, but no children.

His knowledge of hygiene, *and his willingness to live by its rules*, enabled him to overcome his early indisposition and delicate health and live to the age of ninety years. Would that more persons lived conscientiously, and thus prolonged useful lives.

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Whoever would wish perfect conviction of the advantages of physiognomy, let him, but for a moment, imagine that all physiognomical knowledge and sensation were lost to the world. What confusion, what uncertainty and absurdity must take place, in millions of instances, among the actions of men! How perpetual must be the vexation of the eternal uncertainty in all which we shall have to transact with one another, and how infinitely would probability, which depends upon a multitude of circumstances, more or less distinctly perceived, be weakened by this privation! From how vast a number of actions by which men are honored and benefited, must they then desist!

LAVATER.



EDGAR WILLIAM NYE.

[“*Bill Nye.*”]

BY NELSON SIZER.

As a writer this gentleman needs no introduction to American readers, although the first two-thirds of his name are not so familiar to the average eye or ear as the well known monosyllable “Bill.”

Mr. Nye was born near Moosehead Lake in Maine, though he moved from there while very young, and, as he says, “lived in the West among the rattlesnakes and Indians,” until he grew up. He practiced law for about

a year, but according to his account he managed to keep the matter very quiet, so that only a few people ever knew much about it.

However, he was afterward a Justice of the Peace for six years, and his success on the bench was quite pronounced. Many interesting anecdotes are related of his career as a judge in the town of Laramie.

There can be scarcely a doubt that his keenness and penetration of mind, his quaint literary style, and marvelous familiarity with all phases of character, are the outgrowth of lessons learned in that primitive Western atmosphere, where all the springs and fountains of the heart gushed forth without restraint—where men and women knew little of conventional disguises, and could be studied as they really were.

Mr. Nye's home is on Staten Island, where he owns a large house, about half a mile from the landing at St. George. He has a beautiful wife, and four children which are divided equally as to sex.

The humorist is about forty-three years of age. He is rather loosely built, large boned, six feet in height, and straight as a plumb line. Those who can read between the lines of his writings will find a great deal of philosophy in what he says. Like most men of his profession, he is characterized by gravity of countenance rather than by an expression of mirth. This is due to the influence of Secretiveness, which, aside from the intellectual cognizance of incongruity, is the chief factor in the sense of humor.

Another peculiar feature about his work is the manner in which he always makes himself the target of his ridicule. No shaft of sarcasm is ever directed where it will cause pain to others. In this way he is enabled to give his fancy a much wider range than if he pursued any other course. He is also saved from the danger of falling below a particular standard of literary polish. He never writes under a strain. He has made for himself an original path, and it has led him to wealth and fame. But he deserves his success, for he has

earned it. If he has received honor and riches, he has given healthful pleasure in return.

The following phrenological description was dictated to a stenographer, Mr. Nye having been introduced in the consultation room simply as "Mr. Edgar," and without giving any further hint as to his name or occupation:

You have a fine quality of organization which gives you susceptibility, and you have a pretty good frame, but you are not one of the tough sort. You are more active and sprightly than hardy. Some men, like some horses, have toughness without measure. Some men, like some horses, have speed with considerable toughness in that direction, but we do not call the speedy ones hardy; they cannot keep on flesh and work hard.

You have what we call the Mental Temperament. Your head measures $22\frac{7}{8}$ inches, and if you had as much hair as people generally wear it would be called a 23-inch head because it would measure that. Such a head requires 175 pounds to carry it. We just had a subject with a 23-inch head who weighed 123 pounds. She was 19 years of age, so it took our best efforts to teach her how to carry such a head with such a body. We told her to sleep twelve hours every night if she could. If you sleep eight hours it will answer because your head and body are well balanced. The larger the head in proportion to the body the more sleep a person requires. You rest fast, you work fast and think fast. You are intense in your life. You are not what we call a moody man in your thoughts and conceptions. The vision you get of the outward life and inward life is such as can be obtained through a clear plate glass.

You have a critical mind, power to know the difference between one thing and another, one shade of thought and another, one term of expression and another. You have Constructiveness large, and that may be employed in diverse ways besides the use of tools and the management of machinery. A man who is a painter will get in a group of horses like those in the picture of

"The Horse Fair," or a group of men like those in "The Declaration of Independence," and he will arrange them in such a way that they will be harmonious and look easy. A man who has good Constructiveness will pose a subject for a photograph; he will arrange groups of anything, in a front window for instance, and make them look harmonious and easy.

Your Ideality is large; that gives you a sense of the beautiful, elegant, ornamental and decorative. You have large Acquisitiveness; that gives you an appreciation of the dollar or value side of life. It always seems to you that anything that is worth having for anybody or for any animal should not be wasted. Strings are too good to be lost; you want some place to put them so you can find them when you need them. You have a place on your desk for pens and other things, a certain place where you will know just where to reach for them; so Constructiveness and Economy work together. If you wanted a house you would contrive just how you wanted it; you would plan the rooms, would know just how many you wanted and how large the rooms were to be before you decided about the general size of the house.

Your sense of music is pretty good. You enjoy the harmony of sweet sounds and are pleased with the musical execution of those who have good voices and know how to use them. You meet people sometimes and say, or think it, "What would I accept as compensation for living on the same ten-acre lot with that voice."

Imitation is large enough in you to copy sounds and voices. If you were engaged in earnest conversation with a person and were telling of a dialogue about some matter between two people you could imitate their voices so that the person would know right away whom you were imitating, if he were acquainted with them.

You appreciate the droll and funny side of life as well as the dramatical, æsthetical, mechanical and economical. You appreciate, also, the prudential side of life. You are not cunning but you

are judicious. Sometimes you silence inquisitiveness by utter frankness. Sometimes if persons ask you questions about something they have no business to know anything about you just answer them squarely, and you will do it so plainly that they do not believe it to be sincere. We knew a man once who asked a young lady when she was to be married, and she replied, "Next Wednesday, if that will suit you." He concluded that she was not to be married before Christmas, but she was married the following Wednesday. You would be more likely to bluff a man in this way: If a man came to you and said, "When is Miss Jones to be married?" you would say, "Well, I have been thinking of that myself for three or four months, but I suppose when she gets ready she will announce it." You may have an invitation to her wedding in your pocket; but you have told the truth—you had wondered about it. What you say sounds so frank that the man thinks you do not know. A man who has a fair development of Secretiveness and a pretty good share of Mirthfulness rather enjoys toying with topics in that way, especially where inquisitive people meddle. You would enjoy the thought of a person remembering it and finding out how he had been bluffed.

Your Firmness is large; it is more a steady strength of character than it is obstinacy. Yours is not a sudden spurt of contrary obstinacy; it is more of a steady pressure of persistency that does not get angry and boil over. Instead of saying to a man, "Mind your own business, and do not interfere with my affairs," you would quietly shake your head, as much as to say, "You are not going to find it out; you are not going to be my master in this matter; I am going to get the best of you by following my own course." Firmness sometimes is like a screw which works silently and steadily, and sometimes it is like the crashing blows of a sledge hammer—then it makes more noise and gives more of a shock; but the screw goes on and does not let up.

That is like your Firmness. It is intellectual determination; there is a moral sense that comes in, a persistency that helps it, as well as a feeling that gives obstinacy; but it is obstinacy tempered by other faculties. It is not boisterous, neither is the force of the screw, but it is sure.

Approbateness is larger in your head than Self-esteem, consequently you care more for the approval of others than some men. You mingle with people who deserve your confidence and respect on terms of equality. You do not stand on a pedestal like a school teacher before the pupils—you come down on a level. If you were teaching school you would not stand on a platform, you would be on a level with the pupils; and you would lay your hand on a little girl's head and assure her that you were her friend, and though she was bashful and sensitive you would help her. In other words, you do not keep people away from you; you do not have a spirit that repels people; you do not feel that you can make more in the world by pushing through people, keeping them down and back. You try to win your way among men who are your equals more by real skill than by brusqueness, even if you had a right to be brusque, if rights go in that direction. If you were a judge on a bench you would lean forward to listen to what might be said to you to make sure that you had really gotten the right conception of it, and if you heard it rightly you would be clear and sharp in your response, but you would not be rough in your demonstration. You would say to a lawyer who was pushing a point: "Brother Smith, can't you avoid pushing that any further in that direction? Is it necessary to insist upon that point?" That would be your way of telling him that he could not go any further in that direction. "You have said enough." Some men would say it that way, but while you cut off his progress and he feels reprov'd, he does not feel insulted. You know what to say to censure and reprove a man and accomplish what you wish, but you utter it in such a way

that he feels nobody else will see it, and if others do not see it he does not care much, because he has tried the experiment and he did not know whether he could carry it through or not; but anywhere he might chance to meet you he would treat you with curved lines instead of straight ones. In other words, you want to evade an overt manifestation of authority; you want to accomplish what you wish without saying sharp things. You try to mould people first—if the horse will move at the sound of the voice you will not hit him. You like to have men come to the right line of conduct without raising your voice or saying anything sharply.

You would make a fine practitioner in medicine; you would treat people with kindly sympathy that makes them feel that they are pretty near to you. You know there are some men we respect highly in every way, but somehow we never feel that we are within touching distance of them; we accept their assistance or what they say, but they are not brothers exactly. You treat people in such a way that they feel pleased to have you near them. For instance, there are some men who practice dentistry, and when they come to examine the mouth of the patient there is a recoil, a sense of—I wish I could avoid this. You have a temperament that makes it easy for people to submit to necessary inspection and not feel uncomfortable or nervous about it. There is about as much difference in the moral and intellectual prejudice as in the physical.

You inherit pretty liberally from your mother, and she may probably have strongly resembled her father. The nose is masculine, but the other parts of the face, except the cheek bones, have as much of the feminine. The development of the head is more likely to come from the mother.

You are social, loving, affectionate, susceptible. You have Combativeness and Destructiveness enough to make you spirited and energetic. You work fast and hard when you have occasion for it. You love truth for its own sake;

you love honor because it is honorable. If we could give you a little more Self-esteem we would do it. If we could give you a trifle more of Veneration we would. Perhaps a little more hope would keep you on the sunny side of the fence, where the grass gets green earliest.

You should have had a good education. You would have made a fine speaker or writer. You could have done well in the scientific world, in the mechanical or artistical; and you would

have done very fairly in the commercial. You would make a good editor with the practice and culture that is requisite. People would learn to know your writing. If you were on one of the large dailies you would write for what is called the humorous column, and a man who read an article of yours day before yesterday might not know the name of the one who wrote it, but when he took up the paper he would hunt for your *nom de plume* if you used one.

APPROBATIVENESS.

II.

BY EDGAR C. BEALL, M. D.

THERE are several pairs of faculties which are often confounded in the popular mind, such as Firmness and Continuity, Combativeness and Destructiveness, Ideality and Order, etc.; but the twin sentiments of Approbativeness and Self-esteem doubtless take precedence of all other mental elements in producing confusion. For this reason it would be impossible to do justice to the discussion of the former without a differential consideration of the latter. Excepting natives of the Southern States in this country, the Americans rarely possess much Self-esteem, and hence not only form incorrect ideas of it themselves, but appear to require considerable study in order to comprehend the analysis of it given in phrenological books. The sense of self-hood is in reality antagonistic to the desire for approval. Perhaps the best illustration of the distinction may be found in a comparison of the national character of the English with that of the French, or by contrasting the sombre seriousness of the Spanish with the easy informality of the Americans.

Self-esteem imparts to the manner a sort of frigidity; Approbativeness is warm and malleable. One may be called rock, the other cloud; one

is oak, the other vine; one is strength, the other weakness; one is positive, the other negative; one is peculiar to the male principle, the other to the female; one finds its inspiration from within, the other from without; one is a master, the other a slave. Self-esteem degenerates into pride, tyranny and arrogance; Approbativeness into vanity and vulgar ostentation. The former is likely to be concerned with affairs of magnitude and remoteness, while the latter is absorbed in the puerile and immediate. Self-esteem is independent; Approbativeness is dependent. Pride holds the head erect and straight, while vanity is expressed by an oblique nod. Dignity lowers and lengthens the upper lip; love of praise shortens and raises it.

Many people who are dominated by Approbativeness acquire the reputation of being conceited. In their eagerness to obtain notoriety or distinction, they push to the front, and often more rapidly than they would if Self-esteem were the ruling instinct. To succeed in their ambition, they sacrifice the dignity which to the proud man is the condition of satisfaction, just as the gambler or financial speculator, with small Acquisitiveness, takes risks which would frighten a miser or a conservative busi-

ness man in whom the hoarding propensity is strong.

But in their feverish efforts, the scramblers for place and popularity assume a boldness which is begotten only of the excitement of the moment.



POSE OF HEAD WITH APPROBATIVENESS
LARGE.

They seem to be over-confident of their strength, whereas the real excess of feeling is not in their consciousness of their ability, but simply in their desire to appear great. It thus happens that two men of opposite characters, one proud, the other vain, may, in the same community, rise to high official position, or become distinguished in some department of learning, and to the unreflecting, average individual who has not closely observed their methods, from the similarity of their attainments, they will seem to have been impelled by the same motives. In such a case, the phrenologist will discover that the one man is a sincere lover of his work, while the other has made his profession a cat's paw.

As an aid in determining the influence of Approbativeness, it is well to consider besides the temperament, the nationality and the vocation, where these can be ascertained. Of the nations that exhibit this quality as a dominant trait, the French are undoubtedly first. The Irish come next, and the Americans are not far behind. We are rapidly developing vanity in this country, but as a people we still lack

the politeness and polish so characteristic of the French. As to temperament, that constitution which is most susceptible to impressions generally, will be found most responsive to flattery and most easily wounded by ridicule or blame. To specify this temperament, we should call it a combination of the xanthous mental and vital, or the nervous-sanguine, as described by Dr. Jacques. This is the emotional organization so often seen among the Irish. The North American Indians, who are very muscular and bony, illustrate the opposite constitution.

Other things being equal, an individual engaged in a business which brings the product of his labor under a constant fire of criticism, will be found more sensitive to public opinion than the man whose work is a part of some vast system in which his name and personality are concealed. Of the former, musicians, actors, authors, painters and phrenologists are good examples, while reporters for large newspapers, or mechanics that work in factories, represent the second class.

One of the amusing things about vanity is the display of it in efforts to conceal it. Many a man believes that he has conquered the desire for praise,



POSE OF HEAD WITH APPROBATIVENESS
SMALL.

and carefully avoids all exhibitions of the weakness, as he considers it, when at the same time his only motive for repressing the sentiment is the fear of having it detected and ridiculed. Thus vanity becomes jealous of itself, and,

paradoxical as it may seem, in order to quicken its own pulse with delight, it thrusts a dagger into its own heart. And when the individual imagines the feeling is dead, and chuckles over his victory, he is amazed to recognize in his



EXPRESSION WITH APPROBATIVENESS
LARGE.

self congratulation and anticipation of approval from his friends, the old familiar thrill of Approbativeness itself.

The vitality of this ubiquitous and irrepressible element is truly remarkable. However, we need not seek to kill it; we should simply train it and direct it to work with the moral sentiments, where it may become a stimulant to the attainment of the highest culture. We all appreciate praise for the qualities we ourselves admire, so that if our own standard is lofty we shall not be spoiled by flattery addressed to our lower instincts; and as human nature is now constituted, very few are in danger of receiving enough praise for well doing to excite their Approbativeness to an injurious pitch. On the contrary, if one attempts to pursue a very high aim in life, he may have to travel much of the way without company; and if he seeks to effect any great reform, so far from expecting adulation for his efforts, he may be glad if he escapes calumny and abuse.

Whatever the circumstances may be, it is always of great advantage to be familiar with the sentiment under discussion. If selfish and designing people seek to impose upon us by the arts of flattery, we may thus be enabled to defeat their purposes. And if we are disposed to bestow compliments upon

others, either as an expression of our sincere admiration, or for the sake of politeness alone, it may be well carefully to consider the effect of our words. Many persons make mistakes in this matter from a lack of Causality and sense of human nature. For example, it is common for such persons to resort to the most absurd apologies and excuses in order to justify themselves, when a moment's reflection would show them that they were only whetting the edge of the enemy's knife. Many people who wish to appear to sympathize with the hobbies of their friends, forget to post themselves in advance, and in their first remarks upon the subject they betray a degree of ignorance which excites pity, if not contempt. As an illustration of this, there is a story of a young lady in a southern town who was asked if she was familiar with Shakespeare. She replied with much animation: "Oh, yes; I read that when it first came out."

Those who bestow fulsome praise upon a man who has large Causality should be prepared to have their motives questioned if not correctly divined. The only way to please such an indi-



EXPRESSION WITH APPROBATIVENESS
SMALL.

vidual is to show him that his merits are really understood and appreciated. If he sees that his ideas are copied by others he will certainly be delighted.

for it has been truthfully said that the most sincere form of flattery is imitation.

In the training of children it is customary to appeal to the love of praise rather more frequently than is best for the development of moral character. The ultimate effect of constant flattery in childhood is to benumb the sense of duty, and render the individual dissatisfied with the rewards which naturally flow from virtuous actions. To such a one, the ordinary course of events becomes stale, wearisome and distasteful. There is a craving for excitement and notoriety. To gratify this restless longing many adopt the stage as a profession. Some rush into financial speculation. Others feel that they would be happy to see their names in print. But such aspirants for fame are invariably disappointed. Unless they have some benevolent motive they will never find perfect pleasure in applause.

It may be interesting to conclude with a partial list of words and phrases which express the functions of Approbativeness, either in its normal or abnormal relations, or which indicate ideas associated with the sentiment in some manner, directly or indirectly:

Ambition; affability; adulation; regard for appearances and appreciation; affectation; aristocracy; desire for approval, approbation and applause; boasting; bragging; ceremoniousness, civility, courtesy, compliments, complaisance; sensitiveness to criticism, censure and calumny; love of distinction and display; fear of disgrace or condemnation; desire for eminence, show, public office, fame, notoriety; honor, good name, reputation, popularity, superiority, excellence; fashion, style, ostentation, pomp and parade; regard for etiquette; flattery, commendation, glory, renown; love of praise; mortification, embarrassment; sensitiveness, thin skin; "Mrs. Grundy"; "what they say;" fear of ridicule, shame, scandal, slander; vanity, sycophancy, obsequiousness; jealousy, rivalry, emulation, competition; fear of blame or reproach; blarney and palaver.

The conditions and actions suggested by these expressions remind us that, although Approbativeness occupies a somewhat remote seat in the brain, its influence is widely felt in the front ranks of society. And as its power is almost equally great for good or evil, it certainly deserves our serious consideration.

INFLUENCE.

BY MRS. AGNES HASKELL.

Out from life's mystery-land alone
A small soul found its way;
A seed, from the hills of eternity blown,
To root and flower in clay;
And the winds were gentle, and skies were fair,
And Love grew with it apace;
And somebody's child was nurtured with care,
And fashioned in tender grace.

The years, like happy dreams, hurried by,
And crowned her with only good;
Till she stood—in her womanly purity
A flower of womanhood!
Beyond rubies her price, her gracious sway
Blessing the favored sod;
And at last, outgrowing her bonds of clay,
She went to meet her God!

Out from Life's mystery-land alone
A small soul found its way;
A seed from the hills of eternity blown,
To root and flower in clay.
The skies were dreary, and winds were wild,
And wisdom's light obscure;
Neglect shut out from somebody's child
The good and sweet and pure.

And years with their weeks of hope crept past,
And crowned her with grief and shame;
Till she stood like a tree that insects blast—
A woman only in name!
A target for scorn, her graceless sway
Cursing the luckless sod;
And at last outgrowing her bonds of clay,
She went to meet her God!

SCIENTIFIC RELIGION.

WE have before us the fact that these five moral faculties (Conscientiousness, Veneration, Benevolence, Hope, Faith) are bestowed on mankind. We know what they are. We are endowed with reason to guide us in the exercise of these faculties, and this reason forces us to assume that the Creator does not work at random. Before the fishes were made there was water to swim in. Before the animal creation, man included, there was air to breathe, water to drink, food to eat, and land for a dwelling place. The fledgling bird does not spread its newly-gotten wings to the ambient air unwarrantably. It was made to soar aloft with impetuosity. Man is a reasoning being. His reason is a gift from the beneficent Creator. Paul reasoned with Felix of righteousness, temperance and judgment to come. He enjoins us to "prove all things," that is, analyze, investigate, *reason*. And nothing short of bigotry can dissuade us from using our reason to its fullest scope. It would be idle to assume that reason is better than other attributes possessed by man, but it is given to us for our guide, and is indispensable. In Bunyan's allegory "Great-heart" was the guide of a little company of pilgrims who were journeying to the Celestial City. He could not make the journey *for* them, but without him they would have been lost and hopeless. He represents the Christian's armor of courage, hope and trust, in concert with reason. Reason must find the way.

A prominent minister says that reason never convinced anybody yet. That is an indirect method of impugning the apostle Paul. It is an insult to the All-wise Creator who endowed man with reason. It is a specious, uncandid method of evading the plain truth. It is a way that some of our prominent ministers have of walking in the tracks of their mentors and

predecessors, and allowing others, of the past, to do their thinking for them. That leaves them with less responsibility, less to do in the way of thought and investigation; and, to maintain an equilibrium, they give the greater scope to the imagination and feelings, and the result is that they have toppled way over into the mire and snares of bigotry and superstition. The logical consequence is that the parishioners go the same road because they are afraid to go any other. They are afraid of the truth. Hence, if some rash mortal steps out on the world's platform and announces a few salient truths which do not conform to the stereotyped systems of the religious community, he is overwhelmed with hisses and objurgations, denounced as a heretic, or ostracized as an agnostic or an infidel. This is in no sense a reflection upon the honest Christian, or an attempt to vindicate infidelity; but it is an attempt to say a word for principle, for truth, for honesty.

Jesus Christ stands before the world as the most beautiful character in human history; as a pattern for our best efforts of personal progress. And I am quite ready and willing to join the few or the many in the adoption of this pattern as a system to be followed in all sincerity; but I must be excused from passive allegiance to that arbitrary law of orthodoxy which dictates an absolute belief in something which we know nothing of, except by means of guesses, and history, tradition. The exponent of orthodoxy may say this is inconsistent; and here I suppose we must agree to differ. It *may* be erroneous, but it is not inconsistent. As the science of human life is yet in a stage of progress, we can not assume everything for it, but it is thoroughly established that man has upward of forty different mental faculties. These faculties are our talents; they must

be used or lost. It is not necessary to multiply words to illustrate this. The command is obvious, to conscientiousness, do right; to benevolence, love your neighbor as yourself; to veneration, worship God; to spirituality, believe in Him; to hope, be assured of a happy result of diligence and obedience. There is nothing inconsistent in this, or that can be disproven.

The existence of these five moral faculties, inherent in the human constitution, is a proof that immortality and the existence of a supreme God are not to be really demonstrated, not to be really seen from a finite standpoint. Yet, on the other hand, assuming that these same faculties *can not* be a random freak of creation in the human constitution, their existence points with the finger of irrefutable philosophy to their immortal counterparts in a future state, and to the existence of the infinite God. To me all this looks reasonable. We can not *see* ahead. We know not what a day may bring forth. We are only finite mortals, and this limitation of our vision and knowledge is undoubtedly wise and beneficent. If we could see and know we would be impatient with anticipation or unhappy with anxiety and dread. The superlative joys of a glorious hope and the wonderful peace of a sustaining faith would be canceled, and the present possibilities of the soul's expansion would be unknown. Instead of a direct view of the future we have this innate hope on which there is imposed no limit; this intuitive sense of the Infinite, whose wisdom and power and love are not circumscribed by the standards of men.

These assumptions, so far as they are true, are sacred beyond any so-called work of inspiration which has only the sanction of time and the mysticism of history to render it sacred; not sacred because it can be *substantiated*, but because it can not be *supplanted* by any contemporary or earlier record. I do not mean to

offer anything that is wearisome and worthless. The subject of religion should be neither, and the foregoing remarks clearly bring it within the realm of science. Without trying to connect the links of argument too closely with a finer thread of logic, it may be assuming, first: that every scientific fact is of divine origin; second: that this blending of religion and science into a new philosophy, instead of being after the tradition of men, or the rudiments of the world, so far as it has been revealed to us, is really a *divine revelation*; and, third: that those people, whether orthodox or heterodox, who close their eyes and ears, or turn their backs on this new philosophy, are verily repudiating the wisdom and majesty and goodness of the infinite God. To me the subject is not circumscribed within conventional boundaries. It is probably not for us here and now to set a limit to the progress that shall be permitted to the human race in that future to which we have not yet been admitted. Our jurisdiction is here. Luke, xvii-21, says: "The kingdom of God is within you." The inference to be drawn from this is that we are to *cultivate that kingdom* by a continuous effort of personal improvement, as the embodiment of all duties toward man and all obedience toward God.

S. B.

"I venture to point out * * * the best temperament, namely, a combination of the * * * apprehensive and the resolute. Such is the temperament of great commanders. Secretly they rely upon nothing and upon nobody. There is such a powerful element of failure in all human affairs, that a shrewd man is always saying to himself, 'What shall I do, if that which I count upon does not come out as I expect?' This foresight dwarfs and crushes all but men of great resolution."

ARTHUR HELPS.

CHILD CULTURE

HOW SHALL WE EDUCATE OUR GIRLS?

By KATE WESTON.

EVERY girl who can spare the time should cultivate the fine arts if it recreates her, or perhaps her life work is chosen from among them. We need the beauty and graces as well as the simply necessary. Right here I will say a word on dress :

Every girl or woman should pay particular attention to her dress, study her style, and dress as well as her pocketbook will allow, as becomingly, as tastefully as she can arrange.

Like the setting to the diamond, or the frame to the picture, is the dress of a woman, and she is unwise who neglects the same. A well-dressed woman is a fair picture; if she yields nothing more, she has been good to look upon, one of the Dahlias of life.

When to the beauty of comeliness are added the graces of mind and spirit, then the roses bloom, the violets nod their heads, the lily smiles a recognition, and the heart of nature is glad.

We must teach our girls the value of time; every hour should be made to pay in something. Society, of course, has its claims on the young girl, and a good school it proves to be, where she learns how false and hollow is much she first deemed so fair. It becomes her duty to decide whether she will act a part, or be what she seems. I would have her dare to be a nonconformist where hours are frittered away to less than no purpose. She should demand something for her time spent socially. We must get and give, may be in fun and

frolic, in games or dancing, or in exchange of thought. Something must come of it, else we are defrauded, and bankrupt with the unfruitful hour.

Every girl should take plenty of out-door exercise, of sleep, and of recreation; make acquaintances without number, yet have a very few friends, and learn to depend on none. She should cultivate self-reliance and be strong to endure, able to think things out of tangle, without calling a council of friends. I think it a good plan to advise the young, but beware of striving to control their thought, as each one is an entity differing from every other, comparatively speaking, a responsible being, and each must decide upon matters from their point of view. Realizing how much depends upon them, they will learn to act with care as to results. Having learned the importance of a healthy mind and body, how to think and to execute, what more is expected of the girl of to-day?

Now, let us for a space consider the most important part of the education of the girl, for wifehood and motherhood, the crowning glory of womanhood. If a girl is sweet, interesting and fair to see, at sixteen, passing from the bud to the flower, from dreamland to knowland, how much more complete the picture, in the dawning of love's morning, with heart and soul aglow with the divine fire.

Twofold are her emotions. To be a companion in a home with the chosen one, with all its tender meanings, and the patter of little feet, com-

pletes the beatific vision of the dreamer. How will she enter the Holy of Holies? With downcast mien and faltering steps? No; a thousand times, No! If she cannot enter joyously, counting nothing lost if a happy home be hers, she had far better remain as she is, for only with uncovered head and uplifted heart should she dare to enter the creative sanctuary of life.

In view of the results of marriage too much care and forethought cannot be taken that the race shall be benefited.

Here we have the proper pupil for the higher education which shall fit her for the duties of the new life.

There should be schools of training for those about to enter the marriage state. Lectures should be given by competent teachers on all subjects which pertain to housekeeping, proper ventilation, cooking and serving. Also lessons in sewing and mending, hints concerning the receiving and entertaining of friends, and an orderly conduct of affairs generally. There should also be earnest and careful physicians to teach the duties and privileges of marriage, showing what course to pursue which will make for health and harmony in the parents, thus making a good condition for motherhood.

Some objectors are fond of quoting the adage, "A little learning is a dangerous thing." But, admitting that partial knowledge may occasionally be misapplied, is it not infinitely worse to encourage the destructive influence of the prevailing ignorance?

After entering the sacred state, life is full of new meanings to the earnest young woman; her work seems just begun. While the duties of the wife are great and imperative, and her part to play in life's drama full of joys and triumphs, she wears the crown indeed when she becomes a mother. The sacred robes of motherhood should be kept white with pure thoughts, just deeds, earnest aspirations and holy desires, so much of

the weal or woe in her offspring's career she is responsible for.

I would not have the love and sympathy of the mother become entirely centered in her household and its treasures, as that feeling would soon merge into selfishness. The far-reaching, larger sympathies which broaden the mind and awaken the heart to measures which shall bring justice and opportunity to all, is a part of the higher education for woman.

No matter how attractive the view from where we are, there are greater heights and grander sights for to-morrow. Who would not be glad she was a woman, with her quick intuitions, her power to help, to love, to cherish, to be true, to be a friend, a wife, a mother? We need the quickening power of women who feel the joy of being a factor in creation, who feel the importance of living, who are ready and glad to use their strength and powers to help make a higher and more just civilization.

Much good work has been done by those who tread alone life's pathway, but the woman centered in home life and its joys, surrounded by love and sympathy, has her part to do. She is quick to see the needs of humanity. By the blessings she enjoys she is alive to the unhappy condition of others. Out of her joy and sunshine shall spring the seeds of kindness, to blossom in other homes; out of the wealth of her spirit will blossom the flowers of justice, the sisterhood of the race.

Knowing the joy of being full to overflowing in life's blessings, she will enter heart and soul into humanitarian plans for the emancipation of the race from all that hinders the highest expression of spirit. Every earnest, thoughtful woman is longing for the girls of America to awaken to a sense of their high privileges, and demand to be educated in that which shall make them happy mothers of the race.

SCIENCE OF HEALTH

WHAT IS DISEASE?

BY DR. J. H. HANAFORD.

WHAT we ordinarily call disease is but an outward manifestation of an internal, unseen derangement, the symptoms being intended as warnings, denoting internal disturbances, nature's efforts to remove such disturbances, really curative. If true, we may reasonably infer that the curative efforts of nature—aside from the obstructions thrown in her way by quacks, learned and unlearned, would prove effective in the cure of all of our sicknesses, just to the extent that the system is put in its best "working order" by the strict observance of the laws of our being, as well illustrated by her success in the cure of slight wounds, as cuts, scratches, burns, etc. In the case of nausea, followed by vomiting, this is not the real disease, but the evidence of a foul stomach. To prevent the pollution of the whole body, nature selects the most available channel for its ejection, thus preventing a general contamination. The same is true of the derangements of the bowels, nature always acting on the line of improvement, cure. The physician, therefore, who administers opiates, thwarting the merciful, curative efforts of nature, either does so ignorantly, or for the purpose of subserving private interests. It is to be hoped that ignorance is the cause of such an unnatural course, rather than unpardonable selfishness! (The great and lamented Dr. W. A. Alcott told me that, in a consultation, he asked the attending physician why he did certain things, who replied, "How in the d—l could I run up a bill, if I

had not done so?) Nature resorts to general eruptions, as the measles—particularly in childhood—abscesses and similar means, including even cancers, as means of ridding the system of putrid and more or less poisonous accumulations, for the purpose of avoiding still more serious conditions. While such discharges are natural, palliative, and, to a certain extent, curative, they should always be promoted, continued till all of the putrescent accumulations have passed off, and never checked, as they too often are by the application of astringents. When they are checked, intentionally or otherwise, nature, not ready to be foiled in her merciful efforts, produces internal fevers or inflammations, for the purpose of consuming such accumulations by actual combustion, to that extent raising the heat of the body, a prominent feature of all fevers. These purifying, curative processes are usually preceded by a sudden closing of the pores, retaining an unusual amount of effete matters, the perspiratory process being among the most important means of purification. In fevers, the action of the heart, lungs and the circulation of the blood are increased, an unusual amount of blood being sent to the lungs for purification, rapid breathing purifying the blood at a rapid rate. When nature is the only physician—unless the attending physician is willing to co-operate with her—it is probable that the "run" will be considerably shortened, in part by allowing the digestive powers to rest, as an unusual thirst is substituted for

hunger. If the demands of nature are heeded—they were not in the past—the patient satisfying such thirst by a free use of water, the pores will soon be open and free in their action, so carrying off the effete matters as not to demand a continuation of these internal fires. Fasting until the suspended appetite indicates the propriety of taking some form of simple food, in moderation, satisfying the thirst with water of a reasonable temperature, an abundance of pure air and sunlight, frequent washings of the whole body, or the applications of wet cloths to the head, etc.—more effective than the baths—will reduce fevers at least one-half, particularly with good nursing. It is safe and profitable always to co-operate with nature, never prolonging sickness by unnatural conflicts with curative processes.

HYGIENE IN THE MORE SERIOUS MALADIES.

IN a report of treatment made to the New York Medical Society, Dr. Simon Barsch gave details of treating several cases of serious disease, among them one of incipient phthisis or pulmonary consumption. The doctor said of this:

Mr. S., æt. 26, consulted me on July 29, 1892. Looks pale, emaciated, has been losing flesh and coughing seven months, had no appetite. No hereditary ailment. July 31 I ordered Hydriatic Institute treatment. He weighed (nude) 106½ pounds, and received a hot air bath until warm, to enhance his reactive powers, followed by a rain bath of 95°, reduced gradually to 80° for forty seconds under ten pounds pressure, gradually increased; then spray douche at fifteen pounds pressure, gradually increased to thirty pounds for four seconds at 70°. This was repeated daily. He gained 1½ pounds in ten days. Dr. E. G. Jane-way pronounced him phthisical, and advised him to leave the city at once

and ordered creosote. As he was improving under hydrotherapy and disliked to leave, I advised continuance.

Sept. 8.—The hot air bath, followed by rain bath, 80° to 70°, and spray douche, 70° to 40°, have been continued until to-day; patient weighs 114 pounds, a gain of 7½ pounds.

Sept. 19.—Hot air baths (170°) three minutes; rain bath, 80°, reduced to 64°, one minute, from which he reacted well. Cough troublesome; spirometer test shows 190 before and 200 after treatment, which is 20 above the average for his height.

Sept. 20.—Dr. J. S. Ely reports tubercle bacilli in small numbers.

Dec. 30.—With occasional interruptions and losses of weight, patient has progressed well, and to-day weighs 121½ pounds, looks well, coughs but little, no temperature, and is anxious to go home.

“Although I am not as optimistic as you are regarding water treatment, I must acknowledge that the improvement in this case is remarkable!” writes Dr. Freudenthal, who treated his larynx.

Jan. 21, 1893.—Patient is to-day almost free from cough, has good appetite and digestion, weighs 122½ pounds (a gain of sixteen pounds), and five pounds in excess of his average weight in health. Dr. Van Giesen found no tubercle bacilli in seven slides.

There having been no change made in the patient's diet, mode of life and treatment, this case is a clear illustration of the utility of judicious hydrotherapy in improving nutrition in cases that usually thwart us. Clinical evidence of its value in phthisis is accumulating so rapidly that I need only refer to the cases I reported to the State Medical Society last February, to show that phthisis offers next to nervous diseases the most fruitful field for hydrotherapy.

In a case of advanced chronic interstitial nephritis (Bright's disease)

he reported: Mr. A., æt. 60, a foreman at a lead trap factory, applied May, 1891. Has suffered from lead colic and severe headaches several years ago. Pronounced swelling of feet and ankles, breathlessness on exertion, morning nausea, headache, double vision and vertigo; urine with a large proportion of albumen, abundance of hyaline casts; sp. gr. 1,020. Diagnosis, chronic interstitial nephritis. Ordered 10 grains of calomel, tartrate potass-lemonade, one minim of one per cent. solution glonoin, every three hours until flushed. He also received hot blanket-packs of one hour, morning and evening. Urine is reduced to 22 ounces.

Dr. Edward S. Peck diagnosed homonymous diplopia, amblyopia and albuminuric retinitis.

Blanket-packs were given once a day, by means of a blanket thoroughly wrung out of hot water laid upon another blanket; patient was snugly tucked into the hot blanket and afterward covered by other blankets. He remained in this one hour or more until he perspired very freely. Gradual improvement ensued.

In September his urine presented but a trace of albumen, he was free from all unpleasant symptoms, was strong and had resumed his duties at the factory, where he worked without interruption during the entire Winter, until August, 1892. He went to Hackensack, N. J., and was attacked on the 16th of August by apoplexy and hemiplegia, from which he died.

Dr. St. John states that prior to his illness the urine presented no casts and but little albumen.

Cases like this should give us confidence in the value of hydrotherapy in the mild cases of Bright's disease. There are also *a priori* reasons for such treatment, but the results of empirical demonstrations doubtless afford the most satisfactory kind of evidence.

EDITOR P. J.

HEALING BY FAITH.

WE all remember, says a writer in the *Am. Medical Journal*, the old trick of making a man sick by persistently telling him how badly he looks, and how ill he appears, until he actually believes it himself. The contrary of this is making a man well by inducing him to believe himself well, and as some people can be persuaded into the belief that they are not well, so some people can be persuaded into the belief that they are well, when, probably, there is some actual ailment present. Pathologists will limit the area of this persuading process to the province of functional disease; but we are not sure that they are justified by scientific facts in making this limitation.

There is no miracle in healing by faith, but it would be miraculous if the organism, constituted as it is, with the laws of life as they are, if healing by faith, under favorable circumstances, could not be accomplished. The *vis medicatrix nature* is a very potent factor in the cure of disease, and every physician must recognize that fact. If he proposes to ignore this fact, or work contrary to it, he will find obstacles and perplexities upon every turn. The living principle of nature, if allowed fair play, will, upon certain occasions, perform wonders, but perhaps no miracles, as the cures are in perfect harmony with the laws of pathology and physiology. It is a fact in pathology, that if the function of an organ can be maintained, or restored, much of the destructive metamorphosis due to proliferation of connective tissue, fatty deposit, or even certain forms of atrophic change, in which the nuclei of cell-life are demanded rather than destroyed, may be arrested and to a certain extent restored.

As a rule, the exercise of faith suspends the operations of adverse influences, and appeals strongly through the consciousness to the inner man, often overriding phys:

and stimulates the underlying faculty of vital force. There are many intractable cases in every doctor's practice which might be cured by faith. It is well these poor persons should be benefited by some means, and it matters little what; if they can be healed by faith we ought to be very thankful. In many cases it may be as though the blind led the blind—it don't matter as long as they can keep out of the ditch. We should remember that our brains are not mere organs of the mind. The brain is the chief centre or series of centres of the nervous system by which our bodies are energized, and by which the component parts are governed and regulated.

MICROBES IN BUTTER.

The *London Lancet*, in a recent issue, calls the attention of its readers to the fact that butter abounds in "bacilli," and that in eating a slice of bread and butter, one actually swallows more germs than there are people in Europe, and that the more *genuine* the butter is, the more germs it is likely to contain; that is, pure butter is certain to contain a larger number of germs than oleomargarine, since the latter is made chiefly from fat and tallow, which are sterilized in the process of separation, while pure butter, being made from cream, contains vast quantities of microbes, which, falling into the milk from the body of the cow, afterward develop into great quantities in the lacteal fluid, and rising to the surface, are skimmed off with the cream, and by the process of churning, are separated with the fat globules, and so retained in the butter.

The *Lancet* says: "By all means, boil your butter." This advice is good, so far as germs are concerned. Butter, as a rule, is unfit to be taken without being boiled, but, unfortunately, the boiling of butter not only kills the germs, but sets free fatty

acids of a toxic character, which may be exceedingly deleterious to digestion. It is well known that the cooking of fats adds greatly to their indigestibility, and for that reason "rich" pastry, puddings, etc., if much indulged in, are likely to produce dyspepsia.

RICE A STRONG DIET.

This appears to be the belief of the Japanese, and there seems to be good evidence for it. A traveler in that far-off country says:

"The Japanese have made a race of giant men—a race of wrestlers. These wrestlers often weigh 200, 300, and 400 pounds. At the Imperial hotel, in Tokio, they brought their champion wrestler to my room. He was prodigious in size and as fat and fair as a baby. He was a Hercules in strength, but looked like an overgrown cherub of Correggio.

"What do you eat?" I asked.

"Rice—nothing but rice."

"Why not eat meat?"

"Meat is weakening. Beef is 70 per cent. water. Rice is 80 per cent. food. I ate lean beefsteak once, and my strength left me. The other man ate rice and threw me down."

"My courier said: 'This wrestler is the Sullivan of Japan. No one can throw him.'"

That rice, which every chemist knows to be mostly composed of starch, should possess such elements of force appears almost incredible. If we had been told that these wrestlers lived on wheat, or corn, or barley, we should be quite ready to accept it. Yet the strong porters of South America are said to live much on rice.

But if meat is really so essential in the generation of strength as is popularly supposed, how shall we account for the extraordinary physical endurance and longevity of the rhinoceros, the hippopotamus, the elephant and the horse?

NOTES IN ANTHROPOLOGY.

The Origin of Card Playing.—Playing cards were introduced into Europe from the East about the beginning of the fourteenth century, borrowed, it is said, from the Arabs or Saracens. This was natural enough, because the Arabs were the Orientals whom the Europeans most often met during the Crusades or when trading in the Mediterranean. But the Arabs, it is well known, borrowed their arts and sciences from Persia. Now the Persians themselves were keen borrowers of ideas from China and India, countries with which they were in communication from very early periods. But, like all men of genius for originating talent, they borrowed not to imitate, but to assimilate and reproduce in their own way. According to East Indian tradition, cards were invented by the Brahmins far back in the very glimmering dawn of history. The Chinese, on the other hand, claim that there is a distinct record of the invention of cards in the reign of their king Seun-ho, 1120 A. D., for the entertainment of the royal concubines. Probably, whatever may be the case with Chinese cards, the Persians caught the idea from India by way of Cashmere, at an age prior to the conquest of Persia by the Arabs in the seventh century, and that the game was at first played with painted Keranni tablets, something like the tablets on which records were stamped at a later period. When they brought paper from China, which they called Cambaln, from the name of the city described by Marco Polo, bringing also the art of illumination from the north of India, in the time of the Mogul invasion, they combined the Chinese material and the Indian art to produce the cards which are now used in Persia, and which have been used there for ages. Card playing in Persia is essentially a game for those who are possessed of means. A set is never cheap, while some sets cost from \$50 upward. They are, however, played some-

times in the tea-houses along with backgammon and checkers, the tea-houses of Persia being like the Turkish coffee-houses and the German beer-gardens. Some of the noted artists of Persia have not disdained to display their talents on the designs of Persian playing cards, and no two artists have ever made them precisely alike; nor are the different sets of any one artist precisely identical. Each card of a suit differs slightly from the others. The artist of Persia, until very recently, has depended on his own skill for every article used in the making of his picture, whether it be a decorative design for a mirror case or a pack of playing cards. His studio or workshop is an open booth in the bazaar, where he sits on his knees on a rug, with a cushion behind him, and toils with a real love for his vocation; or he works in a porch of his home where the murmur of running water blends with the dreamy rustling of the leaves; or perhaps he works under the trees in his own garden or in a square of the marketplace. If successful and overrun with commissions, he employs one or two chagirds or apprentices who block in his designs and otherwise aid him, while they are learning to be artists in turn. He makes his own pasteboard and brushes, prepares his own colors and varnishes by secret processes of his own, especially the varnish or jacquer which holds an important place in Persian art, and he is therewithal content, for it costs little for the middle and lower classes to live in that delightful clime, and I have never seen artists anywhere less mercenary and more imbued with a love of art for itself than the artists of Persia.—*S. G. W. Benjamin in Once a Week.*

A Strange Tribe in the Island of Bangney.—The governor of British North Borneo, visiting the Island of Bangney, found there a tribe of Duseins differing in language, religion and customs from other tribes bearing that name. Among one of

these people, called Jagir, spirits are believed in, and also the power of a priestess to keep them in order; "for she is acquainted with their ways, and knows the future as well as the past." She nominates and trains her successors, but they must wear black robes and carry wooden knives. The priestess thanks the chief spirit, on behalf of the tribe, at the harvest festival when the paddy crop has been successful; but the people never appeal to the spirits, or practice any religious ceremony in connection with births, deaths, sickness or marriages. Marriages are performed without public gatherings or feast, in the forest in the presence of the two families. The rite consists in transferring a drop of blood from a small incision made with a wooden knife in the calf of the man's leg to a similar cut in the woman's leg. After marriage the man takes the bride to her home, where he resides in future as a member of the family. These people have long hair, secured with a wooden pin at the back of the head and cut short on the forehead. Their only covering consists of a scanty fragment of bark. They use for fire-making both flints and a pointed friction stick, which differs slightly from the one generally used in the archipelago. The tribesmen are honest, trustworthy and industrious.—*From the Popular Science Monthly.*

Egyptian Women.—According to Richard Harding Davis, the life of an Egyptian woman is not an enviable one. In a recent article on Cairo, in *Harper's Weekly*, he writes: "The women of Egypt are as much slaves as were ever the negroes of our South. They are petted and fattened, and given a home, but they must look at life through barriers—barriers across their boxes at the opera, and barriers across the windows of their broughams, when they drive abroad, and barriers across their very faces. As long as one-half of the Egyptian people are enslaved and held in bondage, and classed as animals, without souls, so long will an army of occupation ride over the land, and insult by its presence the khedival power. No country, in these days, can be truly great, in which the women have no voice, no influence and no respect. There are

worse things in Egypt than bad irrigation, and the harem is the worst of them. If the Egyptians want to be free themselves, they should free their daughters and their mothers.

The women in Egypt are of but two classes. There is no middle class. The poor are huddled up in a black bag that hides their bodies from the crown of the head to the feet. What looks like the upper end of a black silk stocking falls over the face from the bridge of the nose and fastens behind the ears, and a brass tube, about the size of a spool, is tied between the eyes. You see, in consequence, nothing but their eyes, and as these are, perhaps, their best feature, they do not at all suffer from their enforced disguise. The only women whose bare faces you can see, and from whom you may judge of the beauty of the rest, are the good women of the Coptic village, who form a sort of sisterhood, and the dancing girls, who are not so good. Some of these have the straight nose, narrow eyes, and the perfect figure of Cleopatra, as we picture her; but the faces of the majority are formless, with broad, flat noses, full lips, and their figures are without waists or hips, and their ankles are as round as a man's upper arm. When they are pretty, they are very pretty, but those that are so are so few, and so covered with gold, that one expects they are very much the exception."

Ruins in New Mexico.—Mrs. Elisha Jones writes the following in the *American Antiquarian* about prehistoric ruins in New Mexico: "Within a radius of five miles from a certain point in Socorro County have been discovered several hundred ruins of the habitations of prehistoric man. The walls of these ruins are built of undressed stone laid in cement. Remains of huge cisterns, walls of fortifications, queer implements of bone and stone, beautifully designed and carved, also painted pottery, together with odd and artistic pictures, characters and symbols cut upon rocks in neighboring cañons, all excite in the beholder wonder and admiration. These ruins are formed generally on high ground, and are composed of ancient buildings, containing from a few to several

hundred rooms, averaging about eight by ten feet and six feet in height. In some cases the buildings have been two stories high. There has been a side entrance to all of these rooms, but those openings have been walled up. On the surface the walls of some of these ruins are well defined and can be easily traced, while others show only irregular piles of stone. They buried their dead in the ground floor of their rooms, with the heads toward the East, and, as a rule, their pottery, trinkets and personal ornaments with them. One paramount wonder of these ruins is their great age. Huge pine trees, three or four feet in diameter, and 100 feet in height, flourish upon the walls and in the rooms of these habitations of forgotten man. On digging down beneath these giant trees we pass through from six to ten feet of vegetable mold, which is estimated by geologists to increase on an average of about one foot in eighty years. We then encounter from one to three feet of clean mashed sand and gravel, then a solid earthen floor covered with ashes, charcoal, bones and fragments of broken pottery. Yet still below this are skeletons of human beings, surrounded by their war weapons and ornaments of stone, copper and bone. Little can be known of this race of people. They were sun worshippers and well advanced in the arts of carving, painting and building, and in agriculture. They flourished many centuries in Arizona, New Mexico, Colorado, and Central and South America, and were exterminated by famine, flood, disease or volcanic action at least a thousand years ago. In the eastern part of Socorro county are the ruins of a city known as Luivira, covering an area two miles square. Its walls in some places are eight feet thick, forty feet high and several hundred feet long. A great aqueduct conveyed water to the city, but to-day there is no running water within forty miles of this ancient wonder. The city was in ruins at the time of the conquest. When and by whom it was built was a mystery to the Mexican people more than three hundred years ago.

The Hottentots and Bushmen.

—In the *Edinburgh Review* for April is the following reference to the Hottentots and

Bushmen, of whom the population of South Africa in 1652, when the Dutch arrived, was mainly composed: "The Hottentot belongs to quite a different race from the Bechuanas, Kaffirs, Zulus and Basutos. The latter are branches of the great Bantu family of mankind, covering all Southern Africa below the equator. The Hottentots, with their yellow or coffee-colored complexions, small figures, oblique eyes and strange agglutinative dialects, full of varying clicks, reminded the early Dutch settlers, as they have reminded later travelers, of the Chinese. The growth of the hair in small, isolated tufts is, however, unlike that of any Asiatic race. The Hottentot and Bushman are probably remote branches of one original stock, and have much in language and in physical peculiarities in common. Neither of them has any racial resemblance to the negro, except the intolerable odor of the first, from which it is said the Bushman is free. There is little doubt that both races came originally from the Northeast, and the Bushmen have traditions of a yet earlier unknown race which preceded them. The religious ideas of the Hottentots, though vague and few, are like those of the Bantu. Their deity, *Heits Gibib*, lived in 'a great hole in the North;' they prayed also to their dead fathers, and sang rude hymns to the lightning; and their superstitions as to the mantis or walking leaf are well known. A peculiar physical conformation among Hottentot women, called the *tablier Egyptien*, is said to connect them racially with the ancient Egyptians. They are also fond of adorning their bodies with red lead and the hair with black lead; and this kind of painting was common among the earliest races on both sides of the Mediterranean. The Hottentot physique is not unlike the earliest pure Egyptian type, but the language is not recognizably connected with that of the Delta. The Hottentots were a brave, cheerful, lazy and dirty race, often most faithful to their white masters, but who have suffered for centuries from ill-usage and degradation, from brandy and injustice. The Korannas in the East have been almost entirely exterminated and the Namaquas driven into the Western deserts. They have behind

them a considerable Grigna population, born of Dutch fathers and Hottentot mothers. The little Bushmen have always created much interest among anthropologists as representing man in his earliest condition as a mere hunter. Whether they were from the first ages diminutive or have decreased in stature through the hardness of their desert privations is unknown. They resemble the Hottentots, and the *tablier* is usual among their women, and believed to be a mark of race. They are said to resemble closely in physique the Andaman Islanders, but their history is unknown. Although from their paintings found in many parts of Bechuanaland it is concluded that the race has been widely spread, now the Bushmen are found only in the Kalahari, to which wilderness stronger tribes drove them out. They are remarkable for their untamable love of a wandering hunter's life, for their skill in mimicry, and in painting forms of men and beasts in red, yellow and black clay daubed on rocks as well as for their strange legends of animals, and their arrows poisoned from the spurge or venom of snakes. At one time they were shot like game by the Boers, and they are rarely found in settled lands."

Expression in the Insane.—Dr. John Turner in the *Journal of Mental Science*, writes in regard to expression in the insane as follows: "The doctrine of evolution, with its corollary of dissolutions of the nervous system, enables us to give a perfectly intelligible and rational description of insane expression, and to account for all its numerous peculiarities and divergences from expression in the sane. For instance: Darwin looks upon swearing as one of the most curious expressions which occur in man; he considers that it reveals his animal descent, and he looks upon it as the survival of the habit common in animals of uncovering the canine teeth before fighting. As met with among the insane, it often seems to have little or no evident relation to the mental states with which it occurs in the sane. Some expressions common in the adult insane are normally peculiar to childhood. These are (a) Pouting; (b) Weeping as displayed by children. The former is much the less commonly noted, but we must

recollect that it is rare in children, and probably never seen in sane adults. Darwin remarks on pouting that it prevails throughout the world. It is not common with European children, but commonly and strongly marked with most savage races. It is noticed in adult Kaffirs of both sexes, and very frequently with the women of New Zealand. He thinks it results chiefly from the retention during youth of a primordial habit or from an occasional reversion to it. Under these circumstances the fact that we get such an expression spontaneously called up occasionally among the insane is significant, showing apparently that actions, habitual or useful to us in the past, are not readily forgotten. In the course of time and under varying conditions there is a heaping up of fresh centres on those already existing, whereby the lower ones have their workings hampered or stopped, yet the tendencies of these lower centres to react in certain specific directions still remain. Very probably, properties inherited are never entirely eradicated, however long they may remain dormant, and if so, each individual will contain the latent instincts of the whole series of his progenitors, only the more remote his station from those progenitors, so much the more will he have developed other centres and other properties whereby his earlier and lower centres will be smothered beneath the accumulation of later mechanisms. Thus it is that under the influence of dissolution he first reverts to infantile and then to savage and animal customs. That such is the state of affairs is exemplified by a study of the insane, both as regards their expressions and general behavior. And so, also, we find that the more rapid and superficial the culture of a race, the more readily they revert to primitive ways, a well-organized fact which has become proverbial."

Elephant Worship.—The sacred white elephant of Siam has greatly degenerated. He is said to be at present a mangy, scraggy, wild-eyed creature, with nothing white about him but his ears, which seem to have leprosy. His keepers are dirty, he is not bound with golden chains, and the only thing royal about him is his bad temper.



*Ex fronte, ex capite, ex vultu, etiam
in ipso oris silentio natura loquitur.*

PLATO.

NEW YORK,
September, 1893.

SYSTEMATIC MORAL EDUCATION.

FIFTEENTH PAPER.

THE FUNCTIONS OF CONSCIENTIOUSNESS.

Naturally and reasonably this moral power is referred to an original principle in the mental constitution. The genesis of this principle we will leave to the metaphysicians for continued discussion, and concern ourselves with the state of affairs mental that now exists. Call it as we may—with Dr. Thomas Brown a “vivid emotion,” or with Dr. Hutcheson a “moral sense”—we know that the principle exists that inspires desire for right action, and, according to its training or culture determines the virtuous or vicious character of actions. Dr. Brown discerned the nature of the operation of this quality in the expression of the sentiments with greater clearness than most of his contemporaries, for in Lecture LXXXII. of his “Philosophy of the Mind,” he says: “It is not the moral principle which sees the agent and all the circumstances of his action, or which sees the happiness or misery

that has flowed from it, but where these are seen, and all the motives of the agent divined, it is the moral principle of our nature which then affords the emotion that may afterwards, in our conception, be added to these ideas derived from other sources, and form with them compound actions of all the varieties of actions that are classed by us as forms of virtue or vice.”

The term applied to this principle is conscience; more properly, conscientiousness. According to its strength is the disposition of an individual toward the performance of duty and obligation in his relations with his fellows. Its simple expression is necessarily rare, and the character of the expression varies similarly to the variation shown in the expression of other faculties—race, family, special heritage, environment, etc., imparting their formative and modifying effects.

We have shown in previous papers the influence of certain faculties in character. For instance, Self-esteem and Approbativeness have been discussed as important factors in the mental life, and essential to well-balanced and harmonious conduct. Conscientiousness, however, seems to occupy a higher place in the fabric of mind, and contributes more than they to the perfection of human character. What is understood as belonging to integrity finds its chief inspiration in this sentiment which, like a mentor, stands in the midst of the faculties approving or condemning their action.

Assuming for it a proper efficiency in the life of a person, it may be said to regulate the operations of the different faculties, curbing propensity and desire when prone to excessive expression, stimulating to activity when needed the sympathies and emotions, prompting

intellectual effort, and rendering the man or woman faithful in meeting the demands of occasion. Thus Conscientiousness "gives consistency to the conduct; because when every sentiment is regulated by justice the result is that 'daily beauty in the life' which renders the individual in the highest degree amiable, useful and respectable. It communicates a pleasing simplicity to the manners which commands the esteem and wins the affection of all well constituted minds."

Society as a whole is prompt to recognize individual integrity, and to yield respect to the possessor of it, yet, strange as it may seem, the faculty most essential to integrity receives less consideration in the way of positive training from parent and teacher than other sentiments. The child that indicates a tendency to be dishonest and indifferent to duty is regarded as naturally vicious, and so unfortunate in mental endowment. Then, too, inconsistently enough, the great majority of people seem to think that such a child may outgrow the disposition, and that without any set effort on the part of parent or guardian for its correction. No one expects a faculty of intellect to develop in right lines without careful training; no intelligent father would expect his son to become a capable business man or his daughter a skillful musician or artist without years of special instruction, however clear and active the peculiar endowments were that adapted them to the chosen pursuit. Yet the faculties of the moral nature are treated as if they were exceptions to the rule of mind evolution, whereas the same law of action governs in the nerve centres that subserve their function, as in the nerve centres of the other powers. Were this not true the reform schools

organized by some States for the correction of vicious and perverted youth would be but a useless annex to our penal system.

These institutions accomplish some good; but their attempts to redeem the character of youthful law-breakers make a large drain upon the public treasury, inasmuch as they must needs encounter conditions of moral degeneration that have become chronic, not only an unfortunate birth but years of constant exposure to pernicious associations having established in most cases habits of vice and a sullen indifference to personal obligation.

As one in the group of moral properties conscientiousness appears as an active influence in mind development later than the physical instincts, but the time of its appearance varies in different types of organization, some children indicating by nature a sensitive appreciation of rightness or wrongness much earlier than others, while careful attention to or neglect of their manners and habits necessarily affects the development of the faculty. It should be borne in mind, therefore, that very young children do not discern the essential morality of conduct, but speak and act in the spirit of their environment. As they are taught, disciplined, indulged, prompted by parent, nurse, teacher, companion, they tend to form habits that may be correct ethically or the reverse. In no respect is the child more imitative of its elders than in the expression of the feelings, an ordering of nature at once most conducive to the formation of harmony and purity of character, or to the development of passional and selfish traits that may end in perversity and ruin.

That the play of feeling should be

directed in right lines needs, then, no argument. With the earliest intimation of intelligence the training of the child with this end in view should be commenced, and whether in sport or in serious moods the conduct and speech of parent or attendant should be frank, sincere and truthful.

In a sense, all habits and mannerisms of life have their moral side, according as they are suitable and proper or otherwise, so that to permit a child to take on a habit, trivial enough in the seeming, that must be unlearned or corrected later, is to produce an impression upon its plastic intelligence that is confusing to its grasp of what is correct action. When the child's habits, say of eating and sleeping and play, are in accordance with generally recognized health standards, and it is encouraged to be sincere and truthful, i. e., accurate in his statements so far as his limited power of observation and speech permit, a great preliminary step has been taken toward the establishment of moral stability. The dawning sense of right, conscientiousness, finds in the child's habits a source of rapid growth, for they already have prepared the soil that conscientiousness needs for its strong expansion. The child that has been trained in obedience and deference from the cradle can best understand the moral significance of the sentiment of veneration when that faculty comes into existence. So the little one trained to correct habits by counsel and imitation best understands the meaning of right, duty, and truthfulness, the essential elements of conscientiousness, when that faculty unfolds in the mental organism.

The rudimentary formulæ of arithmetic, with the exercises in addition,

subtraction, multiplication and division, may appear dry and meaningless to the boy of six or seven, but their mastership is insisted upon by the prudent teacher, for he knows that when the more or less complex procedures of mathematics are taken up the pupil will perceive the significance and application of his elementary knowledge. The training of the perceptive faculties in careful and accurate methods of observation, as instanced by the simple, yet direct processes, of notation, have a moral value. Not that a mathematical computation has in itself anything of sentiment, but there is in the error or correctness of the result obtained something that appeals to the sense of fairness or truth in the young mind, and so may be a help to the development of conscientiousness. "Figures do not lie;" they are either right or wrong, so with the impressions of conscientiousness, the rightness or wrongness of a thing in its relation to the personal life is usually discerned clearly. Where doubt exists with reference to the proper course we may predicate either inexperience or imperfect development of the moral judgment.

Upon a foundation, then, of natural susceptibility, moral character can be built, and this building demands of us no more attention and solicitude than are required in the training of the intellect and other powers deemed essential to usefulness and success. The seed of the good grain is in the mind-soil, and it has a growth of a kind. Judicious culture imparts to that growth the strength and influence it should have in the manifestation of mind, in the production of self-sustained and honorable manhood and womanhood. The wrecks of character

and life that are encountered on every hand are due, as most of us mutely acknowledge, to ignorance or gross neglect of duty as individuals or society in ministering to the more important needs of the child mind.

(*To be Continued*).

TO THE PHRENOLOGICAL SOCIETIES.

The reader has noticed, perhaps, on another page the announcement of the organization of a phrenological society in Springfield, Mo. The number of such societies in the United States has become considerable, and as the tendency is strong toward their increase, we have one of the most convincing evidences of a growing interest among the American people in practical mental science. The editor of this magazine would take occasion to say that he would be pleased to receive a monthly report of the proceedings of these societies from their respective secretaries, for the purpose of giving them a representation in the magazine. From the Washington, Chicago, St. Paul, Baltimore and other societies occasional reports come to hand, but not with that regularity that should be the case. The systematic reader of the *JOURNAL* is interested in all phrenological movements and will welcome any bit of news from a quarter that intimates activity in matters phrenological. A suggestion that should be put into effect by these organized groups of students is that of intercommunication. They should communicate with each other, exchanging words of good will and scientific opinion, and thus render themselves mutually helpful. It seems to us that the friends and students of phrenology should constitute a guild for the promotion of each other's men-

tal welfare, and the instruction of the public in the beneficent principles of this science. Is it not time that effort in so important a line assumed the form of associative or organized? There are combinations of all kinds to day, secular and ethical, why should not the phrenologists, lay and professional, cooperate for the advancement of the truths they know to be so helpful to the individual and to society?

A PARTING KICK.

A certain clerical gentleman has seen fit to leave one denomination for another, and for so doing publishes as his pretext certain shortcomings of the Church of his youth that are, to use the pet adjective of many young women, "awful." For instance, he says with a peculiar openness of accusation, that "without a parallel in history her parish system stands as the most stupendous and ridiculous monstrosity in Christendom." He intimates that her successful rectors are poor dumb slaves of rich, ignorant, officious, and sometimes immoral vestrymen.

A contemporary weekly properly says that from such assertions as the above "the Episcopal Church was not a suitable field for the further development of Mr. Adams' ministerial gifts, and he has done well to leave it." But it certainly appears to us that the extraordinary denunciation in his parting shot reveals a spirit that may not be altogether acceptable in his new ministerial relation.

We heard that not long ago this same gentleman took occasion to say some uncomplimentary things about the science of phrenology, and in such terms that indicated more phlegm than familiarity with the topic. Nobody seemed disturbed, however, by the

reverend gentleman's aspersions, and they were permitted to pass without comment. The good taste exhibited by the recent kick had its precedent in the impertinent and indiscreet fling at our subject.

We think that the "Personal" editor of *Harper's Weekly* has treated this Adams *déclat* appropriately, while the monitory humor of the method must strike the reader as very close to the vein sometimes indulged by the regretted Curtis. He remarks, for instance: "When the colt determines that it is time he was weaned, and that the grass in another pasture suits him better than any sustenance his dam can provide, by all means, if the fence is not too high for him, let him jump it and be off. But, after all, if his dam has done her best by him, let him neigh to her a kindly farewell, or at least leave her unmolested. To make the meadow resound with a parting salutation of his hoofs against the maternal ribs seems a little ungracious."



DARWIN'S HEAD.

There is an account of a significant incident on page 112 of this number of the *JOURNAL*, in the "Memories of Darwin," which we hope will not escape the notice of our readers. It is in regard to the development of Mr. Darwin's extraordinary perceptives. When the great naturalist made the celebrated voyage on the "Beagle," he was almost constantly engaged in the exercise of his observing and knowing faculties, being impelled in his researches by a phenomenal intensity of purpose, which is shown by the height of his central top head, on a line with the ears. Indeed it would be difficult to find a more remarkable illustration of

predominant firmness in combination with the perceptives. But the fact that his conspicuous "brows" never attracted the attention of his father until immediately after his return from that expedition of discovery, is of value as a corroboration of the phrenological doctrine that special activity of any portion of the brain, if continued for a few years, or even months, will produce an unmistakable alteration in the form of the skull and the condition of the integuments.

The so-called "skeptics" would do well to consider whether there is not a causal relation between the well known character of Mr. Darwin and the peculiarities of organization to which we have just referred. Surely the merest novice in the observation of heads cannot fail to appreciate these developments. The narrowness in the temples agrees also with the regret expressed by the naturalist in his latter years, that his devotion to science had benumbed his musical sense to a very serious degree. The deficient anterior top head is also in perfect accord with his very practical ideas concerning religion. However, he was a sincere lover of truth, and in his devotion to his life work he was a model of moral integrity.

The personality and intellectual endowments of Mr. Darwin have often been falsely pictured in the popular mind. For instance, there was a great deal of unsuspected femininity behind his rugged looking head and beard. He had a woman's fact-gathering talent, and his Philoprogenitiveness must have been excessive. Indeed, there can be no question that to the influence of this tender, maternal instinct may be traced the love of plants and animals which made him a naturalist.

Our Mentorial Bureau.

To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

MATRIMONIAL BUREAU.—*Question.*—There are a number of matrimonial bureaus in both Western and Eastern cities that publish matrimonial papers and do a flourishing business. Do you know of any such bureau conducted on the phrenological plan, or by a competent phrenologist? Would such a bureau be of any benefit to the public? A. J. A.

Answer.—We do not know of any matrimonial bureau conducted by a phrenologist, and as to the benefits of such an institution, we think if it were managed intelligently and honestly it might be of very great usefulness. At present, however, society is still under the bondage of the old idea that caprice and accident are better than common sense and science in solving the problems of heredity, so that several years may yet have to be bridged before there will be much encouragement given in this direction.

PEARLY TEETH.—*Question.*—What physiological lesson is to be learned from small, pearly-white teeth? A. H.

Answer.—The teeth vary in size, form

and quality, as the result of inherited tendencies, and are also largely affected by the habits of the individual. But the simplest classification of their peculiarities may be based upon the temperaments. In the motive constitution, where the osseous system is strong, the teeth are large, yellowish in color rather than white, and very durable. In the xanthous phase of the mental temperament, or in the combination known as the nervous-sanguine, the teeth are likely to be small and brittle. Hence the mental characteristics to be inferred from "small, pearly-white teeth" would be such as accompany some form of the mental temperament; chiefly sensitiveness to impressions, a poetic fancy, imagination, philosophical taste, sympathy, a trusting disposition, probably vanity, deficient practical talent and an amiable character, though scarcely capable of ever becoming great.

LANGUAGE.—*Question.*—Does the faculty of Language give the ability to select words with appropriateness as well as fluency?

T. D.

Answer.—No, it does not, except in a very indirect manner. In so far as it leads the mind to the use of words in general, it tends to the acquisition of information bearing upon grammar, rhetoric, etc., which favor appropriateness of expression, but do not insure it. As Alimentiveness impels the intellect to obtain food, but is in itself incapable of selecting that which is wholesome, so the faculty of Language simply desires to express, and gives the love of words, without regard to accuracy or propriety. If Causality is very large, Language will be likely to accumulate a vocabulary of dry, philosophical terms. With large Destructiveness there will be facility in the use of what the Germans call *Kraftausdrücke*, strong expressions, such as may be heard on the street, for instance, but which are not supposed to ap-

pear in books. However, Comparison is the chief factor in the talent for using appropriate words, because it compares all the circumstances and determines the fitness or aptness, congruity or incongruity of words with regard to the occasion as well as to the nature of the thought *per se* which is to be communicated.

THE MATTEI CURE.—*Question.*—What do you think of the so-called Mattei cure for cancer? S. D.

Answer.—From a recent report of the British Medical Association committee, assisted by Mr. Stead of the *Review of Reviews*, we gather the impression that the Matteists are a lot of impostors, and their much-vaunted cures of cancer but arrant pretensions. Such cases as came under the observation of the committee showed no improvement whatever as a result of "proto-electromatteopathy."

THE HEBREW TYPE.—A. L.—The purity of the Hebrew type of race has been a subject of wonder. Yet in examination into the history of the Hebrew people it is not so very remarkable. The Jews of modern times have found it expedient to live in rather close relations, owing to the unfriendliness of other peoples. Their racial loyalty and religious practices, on the one hand, and the prejudices of non-Semitic peoples, on the other hand, have operated to keep them apart. Were it not for the latter often too strongly expressed feeling, we are of opinion that the Jews would have mingled and co-operated with other races, among whom they found it to their interest to dwell. We should expect in this case that their peculiarities of physical and mental constitution would have been impressed upon succeeding generations, and so perpetuated because of their remarkable strength. In the Jew those elements that impart to character its most striking phases are as strong, if not stronger, than shown by any other nation.

THE FIRST AMERICAN PHRENOLOGIST.—*Question.*—Who first introduced phrenology into America? M. K.

Answer.—Dr. Charles Caldwell is said to have had that honor. He attended Gall's lectures in Paris, while studying medicine there.



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

A SOCIETY AT SPRINGFIELD, MO.
To the Editor of the *Phrenological Journal*.

DEAR SIR: It gives me great pleasure to inform you that a Phrenological Society has been organized in our city bearing the name of Springfield (Mo.) Phrenological Society. Several of us became interested in the study of Phrenology through the influence of Mr. Parker about one year ago. We had talked some of organizing, and when Mr. J. B. Harris visited our city and spoke of forming a class we recruited quite a number from among those he had examined. He promises to meet with us while in our city and help us all he can.

We have spoken to Mr. Parker and he has promised to meet with us once a week and also to furnish us with a fine collection of busts, skulls, reading matter, etc. So with two graduates of the Institute at hand, we expect to make considerable progress. The society would be pleased to have any one who may stop in our city to visit us, if interested in the study of our subject. We meet at the Y. M. C. A. Hall every Thursday evening. Also we should be pleased to have a list of other like societies so that we may compare notes with them during the coming Winter, and know what progress they are making.

Respectfully yours,

JOE T. MCADOO, Sec'y and Treas.

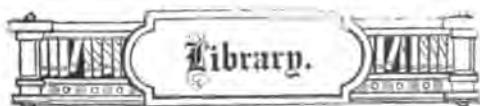
CHAS. H. WRIGHT, President.

GENTLEMEN:

Will you please send me a copy of your catalogue? I am arranging a preliminary Medical Course, and have added Physiognomy to it. My mental bias took me into medicine 30 years ago, and the intellectual head of Hahnemann gave me a leaning toward Homœopathic Therapeutics. I want the students of the National Medical College to know all of the sciences, including Phrenology. My teacher of physiology, the late Prof. H. P. Gatchell, M. D., taught me that there was truth and science in the fundamental principles of Physiognomy and Cerebrology.

Yours very truly,

T. C. DUNCAN, M. D.



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

TRANSACTIONS OF THE NATIONAL ECLECTIC MEDICAL ASSOCIATION OF AMERICA, FOR THE YEARS 1892-3, INCLUDING THE PROCEEDINGS OF THE TWENTY-SECOND ANNUAL MEETING HELD AT THE CITY OF ST. LOUIS, MO., June, 1892. Vol. XX. Published for the Association by Eclectic Book Concern, New York.

In acknowledging receipt of a copy of this large and neatly published volume from Dr. Wilder, the efficient secretary of the association, we should express our appreciation of the high value of the reports, papers and essays it embraces. Certainly the book shows one thing in a marked degree, that "eclectic" medicine is essentially practical in its aims and methods. Frankly we must confess our inability to perceive much difference between one doctor who is governed by rational principles in his treatment of the sick, and yet affiliates with "allopathy" or homœopathy, as they may be called, and another doctor who calls himself "eclectic." The latter uses the medicine and the manner he deems suitable for the occasion: the pellet, the drop, the bath, the massage, the enema, the stomach-lavage, etc., etc., respectively coming into service as judgment may determine. Does not the rationalist, whatever his other name, do the same? And does he not, too, avoid as far as possible the "exhibition" of corrosive poisons, mineral or others? Well, one of Dr. Wilder's type would probably reply, "Haven't we eclectics done something toward the growth of this professional rationalism in other medical bodies?" And candor would compel the answer Yes, and the trend of the growing army of eclectic physicians is

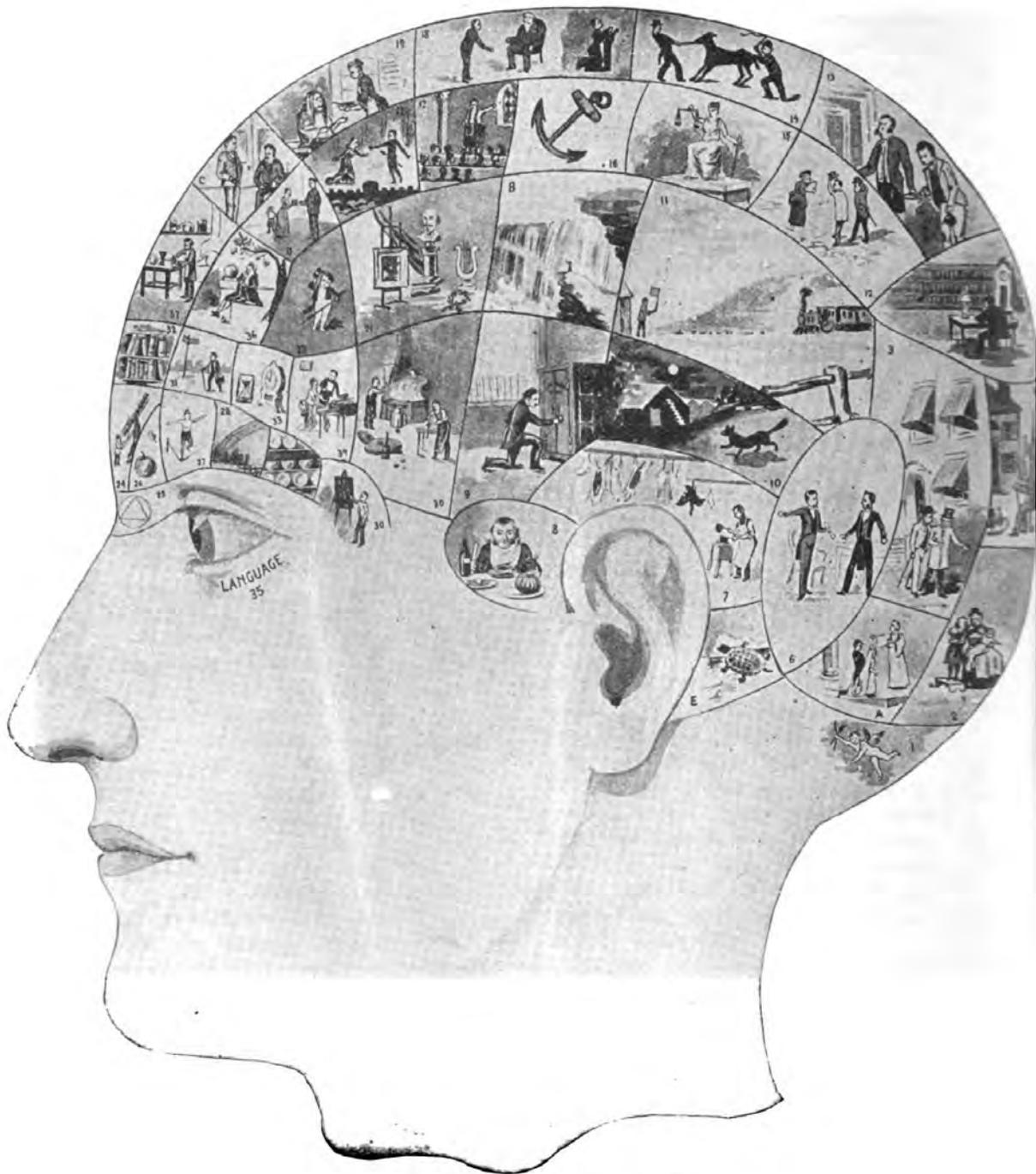
likely to do more toward rendering American medicine liberal and practically progressive. In placing this Report in our library we add one volume to our medical list that we are sure will be useful. The papers it contains are concise and to the point, while their literary quality will compare with any other similar publications.

PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, for the Forty-first meeting. Held at Rochester, N. Y., August, 1892.

The permanent Secretary, F. W. Putnam, Esq., Salem, Mass., sends us as usual a copy of the discussions, etc., in voluminous form. The growth of science in this country is well evidenced by the character of the papers read and the number of talented men and women who take part in the discussions. We are pleased to note especially the increase of interest in Anthropology; that department begins to assume the importance that properly belongs to it. The absence, however, of more names that rank high in American Archæology, strikes us unhappily, yet those that do appear, viz., D. G. Brinton, W. H. Holmes, Joseph Jastrow, etc., contribute high value to the report.

A CHAPTER ON CHOLERA FOR LAY READERS: HISTORY, SYMPTOMS, PREVENTION, AND TREATMENT OF THE DISEASE. By WALTER VOUGHT, Ph. B., M. D., Medical Director and Physician-in-Charge of the Fire Island Quarantine Station, Port of New York; Fellow of the New York Academy of Medicine, etc. Illustrated with Colored Plates and Wood-Engravings. Small 12mo. Price, 75 cents. Philadelphia: The F. A. Davis Co.

In the state of expectancy that people maintain regarding a cholera visitation, it would be well for them to possess some authentic information concerning its nature and the means for its prevention; prevention in this case being the chief remedy, and a not very difficult thing for the intelligent to apply. This little book condenses in a clear fashion the facts of its topic, and gives sound and practical advice. It should be said that the circulation of such a book will do much toward relieving society of vague and unreasonable dread.



SYMBOLICAL HEAD.

THE
PHRENOLOGICAL JOURNAL
AND
SCIENCE OF HEALTH.

VOL. 96. No. 4.]

OCTOBER, 1893.

[WHOLE NO. 658.



DAVIS H. WAITE.

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DAVIS H. WAITE, GOVERNOR OF COLORADO.

THE Governor of Colorado, as he appears in the portrait, would not impress one with the idea of his possessing eminent mental capacity, but qualities rather of a steady, substantial nature. Upon a strong physical foundation a rather sturdy character has been evolved. From childhood he has exhibited an individuality, no doubt, that has rendered him noteworthy as being unlike other men. He has cultivated a habit, we think, of looking at matters from a point of view quite his own. We would not say that his originality of opinion would command much respect for any brilliancy of comprehension or suggestion, but it would be likely to excite attention in his community for the hearty air of conviction and sober earnestness with which it was delivered. The Motive temperament is very marked in his organism, and percolates through the fibre of his mental structure, giving him a positive and deliberate poise of disposition that is rare. Such a man is very hard to be persuaded to change his opinion. He is not a fit target for criticism or sneers or ridicule. The common weapons of enthusiastic partisanship, when directed against him, glance off like bullets off the plates of an alligator. He is a man who sees and knows for himself and never pins the creed of another to his coat sleeve before trying it well for himself and becoming perfectly satisfied of its soundness.

First impressions have virtue in his thinking, and accepted they become convictions, especially when they are confirmed by such study of the related facts as he is disposed to give. We should not regard Mr. Waite as an aggressive man, but rather a man of views and convictions which he deems good enough for his advocacy, and if these views and convictions have a better practical use than those advocated by others—so far as he can see—he will defend them, or hold to them with all the

power of his strong centralized firmness and independence. His head is rather of the narrow order, especially in the region of the temples, so that the stimulus of personal gain, or selfish ends, cannot be said to exercise much influence in his councils. He has ambition to control in the domain of his social and political relations, but would not be known, we think, for a policy of a conservative nature. He would be likely to take up the cause of those who surrounded him, if he saw that its apparent effect was to promote their welfare. The intellect does not impress us as being broad and far-reaching, capable of understanding the varied interests of a nation, and the bearing of intricate economic questions. He is disposed to liberality, but it is the liberality of a man who would be known for kindness and good will toward his fellows, and is in the habit of regarding the enterprises of the moneyed class as only fit objects for censure and disparagement. He was not organized for business operations or manufactures, but in some moderate department of intellectual life he would have found his field. As a teacher, missionary, librarian, chemist, or a student of some other scientific field he would have done fairly well.

David H. Waite was born and reared in Chautauqua County, New York, and obtained his schooling at the Jamestown Academy. The family is a respectable one in that region. Mr. Waite came to Colorado from Kansas, and in 1881 "packed" a printing-office plant into the mountains to Ashcroft, near Aspen, which was then the newest mining camp in the State, and began to issue a little weekly paper called the Ashcroft *Herald*. He moved to Aspen when it began to be evident that that town was to be bigger than Ashcroft, and for a time edited the Aspen *Times*, then a small weekly paper. It is now issued as a daily, and belongs to Governor Waite's son-in-law, B.

Clark Wheeler, who is a State Senator, and a man of some influence in the Populist party.

Mr. Waite added somewhat to his income by practice as a lawyer, doing an office business principally, and became interested also in some mining property. In Aspen, he was somewhat noted for his opposition to drunkenness, gambling, and other forms of vice, and as Justice of the Peace he was especially severe upon offenders. He was also noted as a bitter anti-Romanist. In politics he was a Republican, and took such part in campaigns as a country editor and lawyer naturally would.

As Governor, Mr. Waite's record has been in the main good; he has evidently tried to do his best for the welfare of the State as he sees it.

His utterances at the Silver Convention not long ago appear to be in the line of a habit peculiar to him, of saying eccentric or extreme things, for the sake of effect, doubtless, and because prompted by the excitement of the moment. His address then was carefully prepared and written out beforehand, in order, as he said in prefacing his speech, that he might not be misunderstood or misrepresented by the newspapers. He read closely, interpolating apparently not at all; and the now notorious closing sentence about wading in blood to the bridles of the horses was word for word in his manuscript.

The address would not have attracted so much attention but for the fact that a zealous Populist on the floor moved that it be adopted as the sense of the Convention. The discussion of this motion took two hours, more than half of which was occupied in howling down, and was finally adopted on a rising vote by an application of the previous question, after a lightning count by the secretary, who included among the ayes all the spectators who were standing up in the rear of the hall because they had no chairs to sit on.

The writer in *Harper's Weekly* is right in saying that Mr. Waite in private is not a bloodthirsty man, and perhaps he introduced his gory perora-

tion simply to give a rousing rhetorical finish to his address. Such utterances have not been at all uncommon in Populist speeches, and nobody has supposed that they really meant anything serious. The Governor has made a great many stump speeches, and has got used to the employment of vivid and extreme language to emphasize his devotion to the silver cause. It is not altogether probable that he meant seriously to advocate the secession of the silver States from the Union, or the invasion of the East by an armed body of Populist cavalry.

It is only fair to say, however, that the feeling about silver is intense in Colorado. The majority of her people really believe that silver was demonetized by a conspiracy, and that the present stringency was brought on deliberately by "Wall Street" in order completely to demonetize silver and defraud the people by raising the value of gold as compared with all commodities. They believe that silver has a God-given right to free coinage, and that this question is therefore not simply one of economics, to be argued academically, but a moral question, and the gold monometalist is not only wrong-headed, but a traitor to the Constitution and a criminal before the moral law. They are not in the mood to listen to argument. In fact, they stand on the silver question just about where Southern Democrats stand on "negro domination."

Mr. Waite was elected Governor of Colorado on the silver issue, Mr. Cleveland being at the time considered a foe to free coinage of the white metal, the Democrats, however, of the State having no nomination in the field.

The eminent physiologist, Virchow, is in favor of giving German youth a sound training in studies that concern practical life. He says:

There are mathematics, philosophy and the natural sciences; they afford the young mind such a secure foundation that it can easily make itself at home in any family. On the development of these three sciences rests the whole of our western culture.

MEMORIES OF CHARLES DARWIN.

BY LOUISA A'HMUTY NASH.

(Concluded.)

HIS life-work did not debar him from the pleasures of home. Home was his experiment station; home was his laboratory; home was his workshop. So that when his family saw that he needed rest and change they would persuade him to leave all for a few weeks. Home never had a more united family circle than this. The children had been delicate when young, and had not been sent away to school, but had had tutors and governesses at home. In winter time, when the weather was inclement, the whole house had been their playground, with the exception of their father's study. I remember once when discussing the bringing up of children with their wise and gentle mother, she said to me: "When we were young, Charles and I talked over together what we should do. The house had been newly and expensively furnished—shall we make the furniture a bugbear to the children, or shall we let them use it in their plays? We agreed together that, as they must be within doors a good deal, and five of them were boys, we would not worry about things getting shabby. So chairs and other necessaries used to get piled up for railroad coaches, just as the fancy took them." She added further: "I believe we have all been much the happier in consequence."

Mr. Darwin used to tell a delightful story against himself. He suddenly appeared at the drawing-room one day to see Leonard, the second boy (now an officer in the Royal Engineers), jumping up and down on the new springs of the sofa, at which he said to the child: "Leonard, I thought that was the one thing you were not to do in this room!"

Then looking at him archly and determinately, the little fellow quietly replied: "If that is what you have to say, father, you had better make haste and go out of the room." Whereupon the father beat a hasty retreat. He used to tell, too, how his eldest daughter, when she was a child, beat him at natural history. She ran into his room one day and told him with great glee that "pussy had some little kittens," adding: "I should like you to tell me what other animal has kittens?"

"Why only the cat, of course," answered her father in an absorbed way. "You are wrong then," said the child, "because the beaver has kittens, too!"

These indulgent parents invented a charming stair-case toy for their children—just a board about fourteen inches wide, and seven or eight feet long, with a little parapet board of a few inches fixed on either side. This, placed on the sloping stairs, made the most delightful slide imaginable. Another was a rocking boat—a segment of about a third of a circle, wide enough to hold a child's seat at either end. These two toys, the remnants of their childhood, were brought out in the after grown-up days, every summer when the parish school children had their annual "tea and frolic" on the Darwin's lawn. Swings were put up, games were started and superintended, candies were scrambled for, and nothing was forgotten to make the little ones thoroughly enjoy their gala day.

I have heard Mrs. Darwin say, she never used to thwart the children needlessly, but would remark, "You seem to care very much for so and so. I don't care about it at all, and when you are older you won't, either; so you may have it now."

When those children were all grown up, the chief family characteristic seemed to be their deference for each other's opinion. If one felt like contradicting another, it was only in the form of "don't you think" so and so? In fact, that was the great charm in their father's conversation. "Have you ever noticed this?" proceeding to tell you of some unique observation of his own. Or, "don't you think this the reason for that?" whatever it might happen to be, putting thus his listeners on a par with himself both as an observer and a reasoner. The courtesy of his manner seemed to spring from the true simplicity of his nature, together with an innate regard for others. Wherever he saw a spark of the naturalist's soul in a young person, he knew how to fan it into life. This was the case with Sir John Lubbock, when a lad living in an adjoining parish. Mr. Darwin used to meet him on his country rambles, poking over living things. He encouraged these boyish researches, and that boy stands to-day, in his line, one of the greatest scientific observers of the world.

Mr. Darwin was always very much alive as to what the world said, not of him, but of the Evolution theory, and anything that appeared in the public prints Mrs. Darwin would collect and read aloud to him.

I remember once when we were sitting under the garden verandah—the peculiarity of which was a glass roof, that all the timid rays of the English winter sun might be enjoyed—Mr. Darwin told us he had lately received a letter that had given him more pleasure than he had experienced for a long time. It was a letter in Hebrew from a Polish rabbi. He added: "You know I can't read Hebrew, so I had first to get it translated. The rabbi thanked me for my work, and said it was the best elucidation of Genesis that he had ever come across." Mr. Darwin remarked on this: "It is the best bit of praise I have ever received." He went on to say how religious people found fault with his theory, but "I tell them I only state scientific facts as

I have discovered them, and leave it to theologians to reconcile them with the Scriptures; that is their province, not mine!"

A common friend, a philosophical authoress, sent Mr. Darwin a copy of her latest book, while we were living at Down. This was as much Hebrew to him as the letter from the Polish rabbi. He said: "Miss H—— says she has given the world my theories from the philosophical standpoint, but for the life of me I can not understand what she is driving at, she makes it all so intricate."

During the last years of his life there entered a bit of bright sunshine from out a heavy, dark cloud. His son Frank, his untiring helper, and later his biographer, lost his wife at the birth of a little boy, and this boy became a precious legacy in the home.

In front of the drawing-room fire might be seen a stretched-out sheet, and on it clean, soft sand for the child to play with. Strange to say, he called his grandfather "Bâ-bâ," and himself "Aberada," and strange conversations these two would have together in what sounded like a foreign language. Mrs. Darwin would say she never allowed "Aberada" to have his meals at the same time with his grandfather, because he would give him so much sugar. The dear old man would excuse himself by saying, "It is a good thing to make him like sugar, for then he won't mind taking medicine in it!"

Of late years Mr. Darwin rarely walked out beyond his own grounds. They were pretty home meadows, with good dry paths, which he had carefully measured, so that he knew when he had walked a mile, which, in his failing health, he considered a good "constitutional." It was rare that there was not some member of the family ready for a walking companion. On one side the land sloped up to the Cudham Woods, where the orchids used to be hunted up,—on the other side down to the vale of Keston, where the great painter Millais lived in his youth. In the distance was the

highland of Sydenham hill, with the shining towers of the Crystal Palace. To the right beyond the vale, rose the old trees of Lord Cranworth's park. On the public footpath on top of the hill, there is a stone seat with this inscription: "Under these trees, overlooking the vale of Keston, Wilberforce and Pitt had their memorable conversation, which led to the abolition of the African slave-trade."

In the lashing strictures on Charles

Darwin's faith because his system appears to upset the old idea of an instantaneous creation, their writers have overlooked one little sentence of his. It runs like this: "When through successive evolutionary developments the body of man was prepared for his spirit, it required another creative fiat to implant the soul within that body." It is for this little sentence that the infidel scientists, such as Bastian, disown him as a brother!

RACE STUDIES.

II.—Italy.

BY FELIX L. OSWALD, M. D.

IN Rome and Naples *entrepresarios nuziales*, "wedding managers," as we might translate the phrase, furnish gala dresses by the day or half day, and grace the festive board with enormous roasts, which before the dawn of another morn will be sold in sections to an accommodating market-butcher. "Why, I thought you didn't do business on Saturday?" remarked a New York reporter, when a Baxter street pawnbroker offered him a silk hat for fifty cents. "My frent," replied Mr. Izaak, "to let you haff dat hat for half a dollar, is not bissness; it's charity." But a still more plausible Genoese usurer, who had charged a young nobleman fifty per cent for a week's loan of a small sum, justified the transaction on the plea that he had deemed it below the dignity of his customer to deal in anything less than gold coin. Venetian dandies twit their Roman rivals with their preference for moonlight promenades in order to prevent their inamoratas from noticing the patches on their high-heeled shoes; and only the simple-hearted Savoyards would be likely to appreciate the Spartan candor of that President of the "Aragon Society for the Encouragement of Immigration," who requested his colleagues to postpone the session for a day or two because his only shirt was in the wash.

Myriads of the winged wanderers, crossing the Alps in quest of a mild

Winter climate, fall victims to the snares of the Italian fowlers, who swallow the very swallows, and angle black-birds as our sportsmen would black bass. "Our poverty, but not our will, consents," and the same economists who deny themselves the luxury of a ball game for fear of injuring the pasture grass of an old field, will share their last crust of polenta bread with a beggar, and, as in Corsica, will ask a tramp to take a seat, or call again at supper, rather than burden their conscience with the reproach of a flat refusal. In the Corsican highlands that hospitality is carried to an ultra-chivalrous, and certainly ultra-Arabian degree, and the traveler Chamisso collected a mass of documentary evidence in reference to the otherwise almost incredible episode of Mateo Falcone, who shot his own son for betraying the hiding place of a wounded outlaw. The fugitive, crippled by a rifle ball, had taken refuge in Mateo's barn, during the temporary absence of the proprietor, and only a few minutes before a troop of mounted police galloped through the gate. "What became of that robber?" asks the leader of the pursuers, when Falcone's little boy confronts him at the entrance of the barn. "I don't know; I have been asleep," says the boy. "Then I'm going to search this place," growls the catchpoll, "but you had better tell me

the truth. You can't have been asleep; that shooting a minute ago must have waked you. Let me get in here."



MARQUIS DI RUDINI.

"You had better mind what you are about, or you might hear the crack of my father's rifle," quietly remarks the little mountaineer. The bailiff hesitates, and after a short consultation with his deputy, takes the boy aside, and by increasing his offer from a silver ring to a silver watch, finally persuades him to point to a stack of straw in a corner of the barn. The bandit is dragged forth and clapped in chains, when the owner of the hill-farm appears on the scene, and prepares to call the trespassers to a stern account, but is struck with horror on learning his boy's complicity in the outrage. The little fellow is his only son, the general pet of the neighborhood, but the moment the rangers have left the premises, Falcone collars the youngster, marches him to a wooded dell behind the garden, and shoots him dead, after stamping the tell-tale watch into a thousand fragments.

Yet the history of the Mafia records

scores of similar vendettas, brothers murdering brothers, and lovers their sweethearts, to "avenge a betrayal of the cause of the poor," as the manifestoes of the assassins significantly express it. Scores, nay hundreds, of Sicilian conspirators have died in tortures rather than violate the trust of their comrades, and their devotion needs only a better cause to achieve triumphs of patriotic heroism. Joaquin Murat used to convulse his companions in arms by anecdotes about Neapolitan recruits, who excused their absence from roll call by the unusual length of the morning mass, or who, during drill, stepped out of the ranks, yawning: "*Ma, quando finisce la storia?*"—"how long is this sort of thing going to keep on?" But under Garibaldi, those same featherbed soldiers became vigilant, invincible and indefatigable guerillas, proving again that their lazzaroni kinsmen lack the motive, rather than the capacity, for patriotism.

There was a time when the Grecian colonies on the coast of the Tyrrhenian Sea were so numerous that Magna Græcia—"Great Greece"—had become a synonym of southern Italy, and the art-in-



CRISPI.

stinct of those Grecian ancestors still assembles crowds of admirers about the

workshops of Neapolitan sculptors, and swells the audience of gifted stump-speakers and clever improvisatori. Nor is that instinct confined to the well-to-



do classes. In the midst of a Pennsylvania miners' riot an Italian merchant contrived to conjure the wrath of a mob of swarthy desperados by quoting a facetious line from the carzonet of a popular poet, and in more than one American seaport town I have seen Italian immigrants besieging an art dealer's show window with passionate comments on the merits of a painting which the artist's own countrymen had

honored only with a passing glance. "*Comer como un perro*," "dining like a dog," our Spanish-American neighbors call it to finish a meal without a little

dessert of fruit or cake, and the poorest Italians will admit no excuse for the barbarism of a neighbor who has failed to decorate his cottage with a bit of art work—a gilded plaster-of-paris nymph or a flower-wreathed cigar label, if the price of a chromo should happen to exceed the resources of the home-maker. "An artist lives not on bread alone," Prof. Winkelman wrote from Florence, "and naturally feels most at home among a nation who need no Nuremberg funnel to appreciate the charm of art," and that beauty worship, together with the amiable modes of its expression, was perhaps the magic that lured Landor, Byron, Shelley, Goethe and Powers across the Alps, and blinded their eyes to the political evils of the picturesque peninsula, and the manifold foibles of the metropolitans whom Edmond About preferred to call *Italiens de Rome*.

Græco-Latin subtlety, superadded to the discretion of a subjugated race, seems to have developed that peculiar talent for satire and irony masquerading in the guise of profound respect, in which the latter-day Italians surpass even their French contemporaries. "Heavens, what a lot of bombs," said an adjutant of King Murat on his first visit to the city arsenal of conquered Naples. "*Tutti per servir la Eccellenza*," replied his cicerone with a profound bow, "all at the service of your Excellency," and a few months ago, when a representative of King Humbert ven-

tured to reproach the Archbishop of Turin with want of reverence to the memory of Victor Emanuel, the prelate respectfully assured him that his accusers were laboring under a mistake, the truth being that never since the coronation of his present majesty had he ceased to lament the death of his late sovereign.

There is a story of a Mexican lady whose country seat had once been visited by a troop of Texas cowboys, and who was asked to state her opinion of Uncle Sam's nephews. "The Americans," she said, "are said to claim great merits in the cause of freedom and literature, but, I declare, they should not crack their whips night and day."

With a similar hastiness of generalization some of our countrymen base their opinion of Italian race traits on the characteristics of the unkempt nomads who travel our turnpikes with cargoes of cere-cloth and mousetraps. It is true that the lodgings of these peddlers are palaces compared with the hovels of the Sicilian lepers, but it is equally certain that many hundreds of Italian scholars and patriots can take rank with the truest noblemen of the Caucasian race. Scores of South Italian families have sacrificed princely fortunes on the altar of freedom; scores of North Italian *litterati* have braved chains and exile in the service of science and reform. Italian artists, with all their jealousies, are free from prejudice; Italian authors are tolerant of national creeds, but withal the keenest critics of national fallacies, like the poet Leopardi, who instinctively recognized the improbability that Shakespeare could have intended his Desdemona to fall in love with a negro,

and rejoiced to find that the English word "Moor" (the Spanish *Morisco*) was formerly used as a synonym of Arab or Saracen.

And the best summary of Italian character traits is perhaps that of the Italian patriot, Silvio Pelico, who held that his countrymen have improved the talents and graces, but can not rival the virile virtues of their Roman ancestors.

I cannot repeat too often that no man struggles perpetually and victoriously against his own character; and one of the first principles of success in life is so to regulate our career as rather to turn our physical constitution and natural inclinations



CARABINEERS.

to good account, than to endeavor to counteract the one or oppose the other.

BULWER.

FIGHTING THE INEVITABLE.

BY KATHARINE H. TERRY.

“Talk is cheap,” we often think, and cheap it is, and sometimes makes as little impression as a brass band booming before a deaf mute asylum; but now and then somebody will drop a casual remark which will cling to us for life, trifling though it may be. Woven into every fibre of my memory are these words: “It is useless to fight the inevitable.”

They were addressed to me when in great distress of mind, by a woman of unlimited experience and rare good sense. As the words fell upon my ear, it seemed as if every muscle and nerve in my body relaxed. Until then I had, in a sense, been holding up the sofa on which I sat; but immediately the sofa held me, and my hands fell limp at my sides.

There comes a time to all when some immovable barrier stands between us and that certain amount of peace which every human nature craves. Some pet ambition over which we have spent untold energy may be frustrated at the very point of culmination; we may be called upon to follow our nearest and dearest to that little plot which is the dividing line between here and hereafter; or, worse still, bury our friends alive in asylums for the insane; we may be suddenly reduced from affluence to penury; the one we most loved and trusted may have violated our confidence. These are but a few of the many “inevitables” common to human experience; and to bear these vicissitudes with reasonable fortitude is a science which the untried will do well to cultivate.

Those whose hearts have never been scathed with the furnace-heat of pain will invariably fret over trifles. I think this is true of ninety nine out of every hundred. Reversing facts, a sweet temper and a broadened soul—a soul whose sympathies are not wholly confined within its own domestic circle—result from the stern school of trial, unless they be hereditary gifts.

It seems to be in human nature

vastly to underrate the value of any comfort until the favor is removed.

The world is overcrowded with nervous people, and manufacturers of so-called nerve tonics wax fat from the result of their enormous sales. This alarming increase of nervous diseases may be the result of one or a multitude of causes; fretting and worrying materially assist in developing this disorder, and all the quack nostrums in the universe will not cure or quiet a mind predisposed to chafe at the decrees of fate.

A lovely old lady once said to me: “I always thanked God that I was born before nerves were in fashion.” I think I commented upon her wonderful equanimity with something like this for a rejoinder: “Well, I look at matters in this way. If I am in trouble and can find a way out of it there is no use fretting; if I cannot, it would still be useless to fret. In that way I get along over many a jagged rock, and if I am not happy, I may at least not debar other people from any pleasure they may find.”

Warring with fate is as useless as it is disastrous, and works no end of mischief to our physical, mental and moral natures. I have often witnessed its havoc and need no further experience to realize the ills that result from it. There are leagues of difference between the person whose lack of refinement of feeling renders him insensible to grief, and the person overwhelmed with sorrow, whose feelings are so controlled that no outward sign indexes them. To be elated or depressed by joy or sorrow is but natural; but when some trouble appears over which you have no control, do not waste any ammunition upon it. Do not fight the inevitable!

It is an uncontroverted truth, that no man ever made an ill-figure who understood his own talents, nor a good one who mistook them.—SWIFT.

HOW TO STUDY STRANGERS

BY

TEMPERAMENT, FACE AND HEAD.

BY NELSON SIZER.

CHAPTER X.

BALANCED TEMPERAMENTS.

THE proper balance of temperament, or that which is desirable, is secured when all the temperaments are strong as well as equal. The best results in life come from harmonious conditions of temperament or constitution, with organic vigor enough to make each temperamental element amply effective in the make-up of character and results.

Some kinds of ore make iron that is hard but brittle; other kinds are tough but not hard. In making car wheels, which require hardness in the "tread" and toughness in the spokes or plates, hard iron, which can be "chilled" in the process of casting, is mixed with tough iron, and the result is safety and success. Spring steel is soft while being wrought, but the process of tempering makes it hard, elastic and useful. The same is true with edge-tools—tempering gives the requisite hardness for the cutting edge. It is rare to find an ax which will not break from too much hardness, or bend from being too soft, if used in hemlock knots.

When all the mowing was done by hand, an uncle of mine reluctantly bought the last scythe in a store at twenty per cent. discount, because, being defective in form, it had been rejected; and it was so excellent in quality that it carried an edge nearly all day without being whetted, to the gratification of the owner and the wonder of all others. In its structure the right material was heated, hammered and tempered in such a manner as to make the best scythe, perhaps, ever produced; and for ease of using

and lasting qualities it was worth any dozen scythes ever made. In constitution and temperament that instrument was to common scythes what Milton Shakespeare, Alexander or Napoleon were to average manhood.

A balanced human temperament, or a balanced horse temperament, is the one that is most desired. All the modern struggles for superiority in horse flesh, paying as much as forty thousand dollars for a single horse, means that there is a difference in the quality of horses; that ten hundred pounds of horse does not mean the highest order of quality or constitution; but when the highest order of quality or constitution for given purposes in the composition of a horse has been reached, then the price, among knowing men, goes up. The qualities combined in the game chicken, in the race horse, in draft horses, in horses for courage and endurance, always aiming toward the desired result, are examples of constitution or temperament. Horses are wanted for speed and for endurance, and then the horse also needs to possess the kindly spirit, docility, integrity and intelligence.

Most men who attain to distinction reach it through some specialty of mental development or of temperament. Some men have the temperament of strength; they can lift or run or fight masterfully; others have the temperament of mentality, the power to think and invent and to do mental work; another has the sentiment, the pathos, the goodness, the love, but not so much courage, force, or even talent. But an all-around person with a perfect

temperament or constitution represents the motive or framework, the vital or nutritive, and the mental in harmonious proportions; and, as we have said, these proportions may be harmonious, but not strong. They may be equal in their force, but with not enough force in each of the components to make the sum total grand, and the quality high.

The best temperament undoubtedly is the one which so represents each of the three great temperaments that a keen observer can hardly say which is the better, the stronger, the superior; each quality must be seen, must be evinced in each person so that it is distinctly observable, and yet the other two temperaments backing and sustaining it so that it is difficult to say which is the stronger; and this being reached, then the question is, how much power is there in each temperament, and in all combined. Human success comes by a harmonious combination of the temperamental elements joined with enough of each and of all to be in the highest degree powerful.

Washington has been regarded as a model man; writers have hunted for words of adulation; perhaps patriotism had something to do with the reverence which he called out. Possibly a sharp analysis of Washington temperamentally might indicate more of the motive than of the mental; being more than six feet high, he had a powerful frame, and was all his life noted for physical agility and strength. Some of his contemporaries were his superior in intellect, but perhaps none of them in self-control and that dignified integrity, which in him elevated principle above profit or fame. Franklin was a better thinker. Hamilton had more versatility and mental brilliancy; Jefferson probably more of the astute logical powers, but Washington, in many respects, made his own fortune and fame by his harmonious character and conduct. He could wait and economize his force, and win by wisdom and prudence joined to courage and fortitude.

We introduce a few portraits which

have a leaning towards harmonious temperament.

Fig. 92. Chief Justice Chase, had a magnificent brain; the Mental temperament was amply and vigorously manifested; the smoothness which pertains to the outline of figure and features, show abundant vital or nutritive power; and he had a vigorous frame and ample muscle, showing a good Motive temperament. His body was strong and full, and at the same time tall and well proportioned.

Salmon Portland Chase, was the son of a farmer in New Hampshire, and was born Jan. 13, 1808. His ancestors were English and Scotch. His father died suddenly, and Salmon at the age of twelve was committed to the care of his uncle, Bishop Chase, of the Protestant Episcopal church who lived near Columbus, Ohio. The boy divided his time between farm work and hard study in the Bishop's academy. His uncle next placed him at school in Cincinnati until 1823, when he returned to New Hampshire and taught school, meantime preparing himself for Dartmouth College which he entered in 1824, and graduated two years later. He went to Washington to take charge of a school, which numbered among its patrons Henry Clay, Wm. Wirt and other distinguished men. During his leisure he studied law under Wirt's supervision, and settled at Cincinnati. He was opposed to slavery and acted with the Free Soil Democrats. On Feb. 22, 1849, he was chosen United States senator, and labored for the Pacific railroad, the Homestead Law, Cheap Postage and Reform in Public Expenditures, and in slavery debates took a commanding position. In 1855 he was elected Governor of the State of Ohio, and re-elected in 1857, and in March, 1861, he was elected United States Senator for a second term, but was appointed Secretary of the Treasury. In 1864, Mr. Lincoln appointed him Chief Justice of the United States. He died May 6, 1873.

As a legislator, as an executive officer in the Government during its trying period as Secretary of the Treasury,

and as Chief Justice of the United States, he filled every position grandly; the fulfillment of duty. He had fine fiber; he had ardor and endurance;



FIG. 92. CHIEF JUSTICE SALMON P. CHASE.
From Carpenter's "Emancipation Proclamation."

there was the right quality in him, and he had a manly face, a noble head, and there was abundance, muchness, for a commanding frame.

Fig. 93, Lucius P. Robinson, was one of the most efficient, wise and successful Governors of the State of New York, and that is saying much. In that face the framework of the Motive temperament is strongly marked; in that face and form the abundance of

tendency in their specimens to shade a little more toward one temperament than the others; but in this head and body and face, the temperaments are strongly marked, with perhaps a trifle advantage in favor of the Motive. Capacity, intelligence, integrity, stead-



FIG. 93. GOV. LUCIUS P. ROBINSON.

the Vital temperament is adequately represented; and the largeness of the brain shows the Mental temperament. Chief Justice Chase shows a little more smoothness, and perhaps a little less hardness. Observers will find, if they undertake to select a perfectly balanced temperament, there will be a constant

fastness, power and efficiency mark his life and his work.

Fig. 94, Gerrit Smith, was a masterful man and a many-sided man. His head was enormously large, but he had three hundred pounds of manly development to give it support; more than six feet high, he walked as a ruler, recognized

among men; in his presence men felt small in more senses than one. What a face! How the Motive temperament shows in it! Then the fullness is difficult to say which is the better represented. He was born in Utica, N. Y., the 6th of March, 1797; inherited large landed estates from his father;

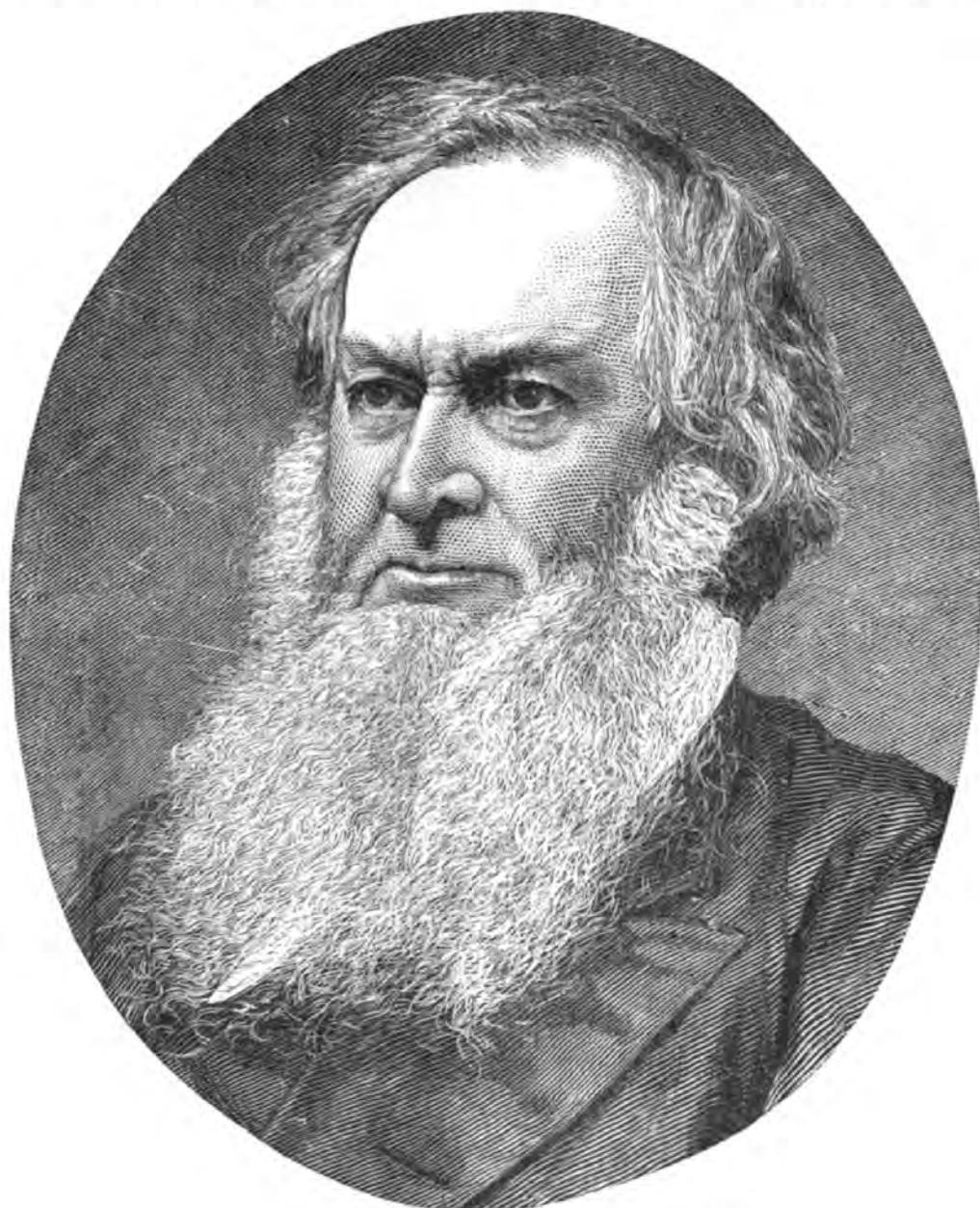


FIG. 94. GERRIT SMITH, PHILANTHROPIST.

and plumpness and abundance of the Vital gave smoothness and largeness and fullness to his face and body. His amplitude of brain represented the Mental temperament; and it was a graduate of Hamilton College, and was constitutionally a philanthropist, inclined to benefit all who suffer, and mitigate misery everywhere. In early life, the characteristics of plumpness of

the face were manifest, and only became exceedingly heavy from the progress of years. He was one of the brainy men of his age, and one who sought to do good. On some points he was called fanatical, but the fanaticism had a basis of kindness, and the sentiment of justice as he studied justice.

he is capable of a great deal of work, and his biography shows that he is the worker of his church in this country. Without being especially robust, he is electric, sharp, positive, practical, clear cut and harmonious as a thinker.

He should be known for energy, briskness, good nature and kindness.



FIG. 95. CARDINAL GIBBONS.

Fig. 95, Cardinal James Gibbons, was born in 1834. This picture was made for him when he was about fifty years of age or a little less. In its study as a harmonious organization, we see the refinement of the Mental temperament, especially in the form of the nose and eyebrows and in the set and expression of the eyes; we see the Vital in the smoothness and comparative plumpness of the system; we see the phases of the Motive temperament in the compactness and moderate angularity of the organization. His features and his organization impress us with the idea that

Few have his even poise of will and ability to meet and overcome difficulties and annoyances. The face shows culture, not the one-sided training that is too often found in men of the professional callings, especially clergymen, but a harmony of development that belongs more to the man of affairs than to one engaged in a special line. He should be a good administrator or manager, with so many signs of practical talent in the forehead and sidehead, and with so much versatility he could be at the head of an institution or of a system,

and organize and direct its operation, however many sides there might be. Activity is the marked part of his nature, and in varied activity he finds his best means of usefulness and success.

much of each of the temperamental elements. In this head we see also large Combativeness, and this, joined with his practical talent and firmness and self-hood, would lead him to feel that he could overcome any difficulty



FIG. 96. JAMES E. EADS.

Fig. 96, James B. Eads, the eminent engineer, had the three temperaments handsomely and well represented. The first impression is that he had a predominance of the Mental; the largeness of the head, the smoothness of his development, the accuracy and almost classical elegance of his features serve to show it; and then his height, his endurance and hardihood, and the length of his features, and the length of his head and face indicate the Motive temperament. Probably the Mental temperament slightly predominates; but the temperamental constitution has

which could be mastered. He could have become a great military commander had he been thrown into that line of duty; he might have been a great statesman and scholar; he had inventive talent, mechanical originality and a great deal of that faith, which, working with the inventive, tends to reveal new processes and new fields and methods of achievement. His Hope was large, hence he was liable to magnify his prospects, and perhaps startle the world by his hopeful projects. To him, however, they seemed clear and

certain; and with his ingenuity to plan, and his force to energize endeavor, his achievements took a high rank. He is known and remembered for his improvements at the mouth of the Mississippi River, and for his construction of the St. Louis bridge across the Mississippi River. He was born 23d of May, 1820, a native of Lawrenceburg, Indiana, and was a resident of St. Louis from thirteen years of age.

ness of the face shows the Vital, the delicacy of the structure indicates the Mental, and the power and endurance embodied in his constitution show the Motive. His type of talent was intuitive rather than philosophical; hence he is a man adapted to emergencies, rapid and prompt to follow old rules and to make new ones according to the circumstances. We see in his history and in his make-up something of the



FIG. 97. SIR GARNET WOLSELEY.

Fig. 97, Sir Garnet Wolseley. His services in the British army and his campaigns in Egypt and other parts of Africa show the caliber of the man and the confidence reposed in him by his country and government. The whole aspect of this portrait indicates mental and physical activity, positiveness, intuition and force. The plump-

dash of Custer, the pluck of Sheridan and the steadiness of Grant. The elevation of the crown of the head shows not only the Motive temperament, but that masterful dignity and power of command which such an organization is expected to evince. On the return of Sir Garnet to England, he received the thanks of Parliament, and a grant of

twenty-five thousand pounds "for his courage, energy and perseverance" in the conduct of the Ashantee campaign, and was also knighted and presented with a sword, and with the freedom of the city of London.

Fig. 98, Rev. Morgan Dix, D. D., the son of General and Governor John A. Dix, was born in the city of New York in 1827, a graduate of Columbia College in 1848, and from the General Theological Seminary in 1852. At thirty-five, in 1862, his character and talent had won for him the Rectorship of Trinity parish, New York. His face and head indicate clearness of thought, resoluteness of purpose, definiteness of integrity, persistent thoroughness and a clear sense of what he deems to be his duty; and he is a thorough disciplinarian. Perhaps he inherits some of that spirit from his father, which, during the war, gave the order, "Whoever pulls down the American flag, shoot him on the spot." In this head the organ of Firmness is very largely developed, and that, working in conjunction with his Conscientiousness, renders his mind decided and positive, and even absolute. When he has reached a conclusion with his well-defined intellectual development, his Conscientiousness and Firmness combine to render that decision final, and so he will often be felt to be independent even to severity.

His Self-esteem is also well indicated in the face as well as in the head; and that which his own faculties reach as a result, his Self-esteem gives him a consciousness of the worth of his own work, so that he readily comes to feel as well as to think that his plan is the right one, and his method that which ought to be adopted and perfected. Then, he is cautious, but not timid; it makes him conservative and guarded and safe, and sometimes slow in reaching a point of progress and reform; he inclines to conserve everything that is worthy of being saved and protected and to concentrate and consolidate the facilities

which he holds, rather than to dissipate his strength or his skill or waver in his administration. If he had taken engineering as a line of effort, he would have been accurate and excellent in doing carefully whatever is nice in its needs and responsible in its uses. While some men are not keen thinkers, are not persistent and decisive and are inclined to do the ex-



FIG. 98. REV. MORGAN DIX, D. D.

terior, loose work where niceness is not required, as a cabinet-maker requires a nicer touch and a keener eye and a sharper perception and better Order than the man who fells the forest trees and works them into rough lumber. In a financial pursuit, a commercial or manufacturing business, he would have shown traits that would have made him a master in such fields, and with his culture in the way of scholarship, his training in the rules and regulations of a systematic hierarchy, he would build up his cause and make close joints and firm work.

Fig. 99, Eugene W. Austin, has a plump, well-nourished body, a full, manly face without hardness of expression; he has a good-sized brain and well balanced, and his temperaments are so blended that he is able to carry himself with courtesy where it is a trial

admirable development of the perceptive organs across the brow indicate ability to make himself acquainted with the external world and the details of duties and particulars regarding business or scholarship. He has a good memory of things and persons.



FIG. 99. EUGENE W. AUSTIN.

to do it, with courage and earnestness when necessary, and with a clear intelligence always. He is urbane and smooth in his manners, earnest in his purposes, and yet manages to achieve without jostling other people or making his life and efforts offensive to others. It would be troublesome to tell what temperament were the more manifest in his make-up.

In this portrait we have not only a large head, but one that is harmonious in development and fully brought out in several prominent particulars. The

He remembers facts; is apt and successful in relating that which transpired within the range of his knowledge, and he tells an anecdote in a manner that makes it entertaining and memorable. He is orderly and systematic in his work, critical and definite in his ideas, and arranges his plans and his efforts with relation to his other knowledge, and so he becomes a critic and a careful inspector of affairs. He has human nature well developed and reads strangers readily, and with his smooth and pleasant methods of

address and his easy conversational power and his cordial sociability, he can make friends wherever he moves, and secure the sympathetic assistance of others in the furtherance of plans and purposes that minister to his own pleasure or profit. He has the power of friendship and the ability to make that friendship apparent and effective and efficient. Sociability, politeness, wit, good talking talent, and the power to adapt himself to circumstances and individuals will mark his career and conduct.

We now turn with pleasure to the feminine physiognomy, phrenology and constitutional endowment.

Fig. 100, Evelyn Haight. This is a strong and harmonious temperament, to represent which, a figure for our purpose might have been hunted for among thousands of people without success; and when a friend of ours brought her into our office and introduced her, our first impulse and impression was a decision that we would solicit her picture for this purpose. We have read of "love at first sight" among young people, but this was an absorbing physiological, temperamental *impression* at first sight, for which we felt very thankful.

She has a strong chest, square shoulders, ample frame, firm and expressive features, massiveness of brain, power of constitution, joined to good vitality and mental susceptibility.

The head measures twenty-two inches, and the weight is one hundred and forty-eight pounds. The figure being of good height, five feet eight, has also fullness and smoothness; the hands are plump and well nourished; the face is strong and smooth and at the same time expressive; the brain is amply developed across the brows; intelligence, memory, reasoning power, and moral sentiment, force of character, and affection, are among the strong traits; and then the temperament being harmonious, her physical and mental life, health and vigor should

carry her to eighty-five years of age with a clear head and a steady hand.

The excellent representation also of



ROCKWOOD PHOTO.

FIG. 100. EVELYN HAIGHT.

the Motive temperament, in harmony with the other temperaments, gives her more strength of countenance and firmness of build than is often found among women. One might look a long while for a better temperament or a more harmonious constitution, or one whose capacity for duty, usefulness and happiness are better provided for in the organization.

Fig. 101, Mrs. R. B. Hayes (Lucy W. Webb); had a strong face; the nose, the chin, the cheekbones, the arched eyebrows and breadth of the face just forward of the ears, indicate the Motive temperament. The altitude of the head at Firmness and Self Esteem represents that temperament; then there is a

was most amply endowed. Her Firmness and Conscientiousness, and her Motive temperament to sustain her in her positions, were manifest in the strength of purpose which she adopted during her residence in the White House. Some people thought her fanatical in some of her moral notions, but



FIG. 101. MRS. RUTHERFORD B. HAYES.

smoothness in the structure of the figure, the face and the head, which show the Vital temperament; her manners were mellow and gracious; she made no enemies; had a conciliatory spirit, and was personally welcome and attractive; and she had brain enough to show a marked amount of the Mental temperament; so that she had harmony of temperament, and it puzzles a critic to tell in which of the temperaments she

she had the firmness and the steadiness to carry them out.

The portrait exhibits a large development of the perceptive organs, which gives that great prominence and intelligent expression to the lower part of the forehead.

The fullness of the eye indicates abundant language, and there is in the whole lower half of the forehead an expression of observation, quickness of

perception, and sharpness of criticism and excellent memory. The upper part of the forehead indicates good common sense, but not a broad philosophic turn of mind. She was the scholar rather than the thinker, the brilliant conversationalist with power to gather up facts and information, and have them ready for use. The crown of the head was well elevated. She had strong determination, ambition, pride, self-possession. Every feature was instinct with intelligence, energy, determination, and positiveness.

wherever she moves. Perhaps the Vital temperament would seem to be more manifest than the other two, when she says nothing and does nothing; but the moment she begins to act, the ardor, the executiveness, and the power, evince the Vital, the Motive and the Mental temperaments.

This face represents power, self-reliance, thoroughness, health, good perception, and decided force of character, and with her ample physique she can put into her professional work as an elocutionist a great deal



FIG. 102. MISS HELEN POTTER.

Fig. 102, Miss Helen Potter, lecturer and personator; a brilliant woman, a woman of power and positiveness, courage, fortitude and force; hearty, zealous, healthy, plump, impassioned, brave, with a relish for wit and humor, a capacity for the dramatic, and an impulsive, loyal friendship which carries weight

of force, fire and soul. Her personation of John B. Gough was a marvel of imitation, embodying sympathy, intensity, tenderness, pathos, power, and all that made Gough master of his audiences. Another of her characters was Lawrence Barrett in "Julius Cæsar." She recited the

text while dressed in costume similar to that which Mr. Barrett wore in playing the part, and many people thought the imitator surpassed the

representation until she cried. Miss Potter has intense realism in her personations, and sometimes outdoes the original.



FIG. 103. MADAME DE LESDERNIER.

model. Oscar Wilde was another of her characters, and it was astonishing to see how she could go from the impassioned Gough to the peculiarly mellow pliancy and smoothness that belonged to Oscar Wilde, and she has just the kind of wit and sarcasm combined that enables her to caricature gently while she merely proposes to imitate. Susan B. Anthony attended one of her representations in which she herself was portrayed by Miss Potter in dress, manner, tone and voice in one of Miss Anthony's masterly speeches, and some said that Miss Anthony laughed at the

Fig. 103, Madame De Lesdernier. This lady was amply endowed with the three temperaments—Motive, Vital and Mental. She stood nearly five feet ten inches high, had a large frame, strong and expressive features, indicative of the Motive temperament; her hair was nearly black and abundant; her eyes were dark and magnetic. Her plumpness was such as to give her about 160 pounds in weight, and, for her height and frame, that was as nearly right as art and fancy could wish it. Her intellect and all her mental make-up evinced the Mental temperament, and she was a very fine dramatic reader.

CHARACTER STUDIES, No. 3.

BY NELSON SIZER.

GEN. MARSHALL C. WENTWORTH.

THAT the reader may fully appreciate the history and condition of the following examination, it is proper to state that in the year 1879 we received two photographs of a gentleman for phrenological analysis and also of a lady (without a name), with a request that a written statement be made of the gentleman and an opinion of the adaptation of himself and the lady for marriage. The work was dictated to a reporter and a typewritten copy sent. In 1891 General and Mrs. Wentworth called at our office and gave us the opportunity of a personal examination, but said nothing relative to our previous examination by photographs.

In the Summer of 1893 I stopped a few days at Wentworth Hall, their well appointed and popular hotel, in the White Mountains. The guests having learned my profession, desired a lecture, and in the delivery of which I called several persons forward and commented on their temperaments, talents, dispositions, resemblance to parents and the nationalities from which they sprang. I referred to General Wentworth as strongly resembling his mother, who was probably from Welsh stock. He instantly stated to the audience that he strongly favored his mother and that she was from Welsh stock.

The next day he brought and showed to me a written description I had made for him from pictures in 1879, with remarks relative to his wife, and this was the first intimation I had that I had ever given such a description of them from pictures.

I then proposed to publish his portrait and biography and copy the description verbatim which was thus given from pictures, and have also solicited and procured a photograph of himself and one of his excellent wife.

The reader now has before him the description then given of Mr. W. and his presumed intended, but who had

been his wife for nearly nine years, and also a carefully prepared biography of him.

M. C. WENTWORTH AND LADY.

(Described from Photographs, January 22, 1879.)

"You have a very fine quality of organization. The hair particularly is as fine as that of a child, and we judge the skin to be of a similarly fine quality; and you have constitutionally more harmony than falls to the lot of the majority of men. You are intense in your mental life, your feelings are exceedingly keen, are particular to have everything as nice as it ought to be. You always do your best in everything you undertake, and are not satisfied unless you secure ample success, not only in a pecuniary sense but in the work that you do. In some of the old temples of antiquity there were niches in which statues were set, and they were so high up that no critic could see anything except the front. When the temples were thrown down by time and decay, it was found that these statues were as carefully cut, and all the anatomical outline as faithfully portrayed in the back of the statues as in the front. And there is a legend that when the artists were making these, they were told that there was no necessity for cutting the back of the figures nicely, because they were utterly out of sight, they would never be seen by mortal man. The reply of the artists was, "The gods will see them." Now, we believe that you want to do things as nicely as they can be done if "none but the gods see them." And you will excuse us for saying that we think you are a little whimsical on some of these topics; that you sometimes take more pains than there is any necessity for; that you exact of other people more particularity, nicer work, and they sometimes grumble when your back is turned because you are so capricious about niceness, or old maidish, as they sometimes call it.

You inherit pretty largely from your mother, and we should think that she was from Welsh stock. You have her forehead and her back head, and her features in the main, except that the nose is a little too large for the mother, but, being a man, you have a right to increase the size of that.

You are quick in your intuitive judgments, sharp in your sense of what is right and true. Your first opinion of matters and things is generally your best. If you were driving a team and it got frightened, or the harness were to break going down hill, you would seem to know exactly what to do at the very first flash of thought. If things got mixed up and out of order, you have an intuition to judge what is best to do under the circumstances, and you come to results readily, and rarely have occasion to regret your opinion or decision.

You gather knowledge rapidly. You would acquire scientific information easily. You could become master of a fine style of composition in literature. There is a certain exactitude in your cast of mind, a certain criticism which knows what it doesn't want, and is satisfied when it gets the right thing.

You are a first rate judge of human character, and enjoy biography almost better than any other kind of reading, for if it be well written it involves philosophy, history of affairs, and matters that have more or less logic in them, and it is that which you like particularly and above all—the delineation of human character, motive and purpose. If you were to undertake that literary branch, namely, biography, you would excel in it.

You have faith in things spiritual, you have reverence for whatever is venerable and elevated and refined. You have firmness enough to give you perseverance.

You have caution enough to make you watchful, guarded and prudent. You are a good manager in financial matters, but you always carry yourself in such a way as not to give the impression to people that you are illiberal and grasping.

You are ambitious to be respected. You would suffer if you were degraded or disgraced, and if people were to come about your house in a way to bring discredit upon it, you would be more troubled about it than most men. You feel in duty bound to live in the community in such a way as not to incur the disapproval of the better class of people.

You have a fair share of self-esteem. You appreciate your own worth and talent, have a desire to carry yourself in an influential way. With your large brain, you ought to be master of the situation; with that fine quality of organization, and that intuitive sense of truth, your mind ought to be very influential in the community where you live.

You have large social organs. You are fond of children, fond of friends, and very fond of woman; are capable of winning her affection, and of carrying yourself toward her in a way that will be consolidated into abiding affection.

You have a great deal of power when you get it aroused, but you are not one of the kind that is quick to wrath, or inclined to wrangle. You have more thoroughness and severity when you get it provoked than you have of the tendency to warm up and take sides.

With your large brain and your ample size and weight, you ought to take and maintain an excellent rank. You have body enough to support your brain admirably, and your brain, measuring twenty-three inches, is large, and with this fine quality you ought to make for yourself a good name and a good place in the community.

You ought to have studied for a profession. If you had been educated to medicine, you would have made a fine lecturer on the subject. If you had been educated to law, you could have taken a good rank in that field. If you had been educated for an editor, you would have written vigorous articles, and those which would have an influence in the community.

You have smooth methods. You are

capable of taking hold of life by its smooth side, and of commending yourself to the favorable regard of men who have thought, and respectability, and culture.

If we had you back to fifteen, we

father's side. That wideness and strength of face between the eye and the mouth, that height of head from the opening of the ear upward, show that the father's constitution is more largely represented than the mother's.



FIG. 3. GENERAL MARSHALL C. WENTWORTH.

would say, by all means become a classical scholar, educate yourself as well as may be, and enter one of the learned professions.

THE LADY

whose likeness is sent without name, evidently inherits strongly from her

She is a strong character, not naturally so fine in quality as the gentleman, but there is a certain dash and daring, a certain straightforward earnestness which will co-operate with his fineness and susceptibility admirably. Her hair is stronger, her temperament is rather favorable than otherwise. She has

excellent development of the vital and muscular systems. We think she is strong and straightforward, energetic, thorough, enterprising, proud-spirited, ambitious, honest, prompt, practical, a good talker, knows what she is about, balances herself on her own center, and is capable of moving in society with ease and influence. We see nothing

duty, and if we may use the term, trot in double harness with her husband, and keep up her end of the evener, or doubletree. And she is not one of the women that want an advantage, that want a long end of the evener. She inherits enough from her father naturally, so that she is able to take her position and fill it, and carry her duties



FIG. 4 MRS. M. C. WENTWORTH.

in the temperament and constitution, general build of head or expression of face of this lady which would render her otherwise than a good match for the gentleman whose likeness accompanies hers. She is not one of those weak women who need petting and fostering, but she can take hold of

strongly and independently, and when she finds out what is the best way to accomplish a desired purpose, she weaves it into her plan, and does not compromise or modify—she doesn't feel the need of protection and support. She could go out into life and earn her living. She could find a place in a

store, or in a school, and make her own mark, find a place to work, and make friends, pay for her seat in the church, buy what she needs and pay for it, and carry her head up, and win respectability and confidence.

She is a woman who would be likely to have healthy, vigorous boys, and if they take after her, they will be worth raising. We think, so far as we can judge from the appearance and the temperaments and constitutions of the parties, there would be congeniality, provided, of course, the woman had a fair show. If a man were to undertake to manipulate everything that she had occasion to do, to supervise her in all respects, and try to keep her a kind of underling, she would, perhaps, make it sultry for all the crowd; but, as we said before, if she has her rights and interests and duties, she will fill her station, and fulfill her duties without help, without much assistance or counsel. She is a strong character, and we see no reason why she should not be thoroughly worthy."

BIOGRAPHY.

GENERAL MARSHALL CLARK WENTWORTH, son of William H. H. and Mary (Clark) Wentworth, was born in Jackson, N. H., Aug. 16, 1844. He descends from a noble English line through Elder William Wentworth, the emigrant, who was baptized at Alford, England, in 1615, and when a young man accompanied Rev. John Wheelwright to America in 1636, and settled at Exeter, N. H., where he eventually became the beloved pastor of the Congregational Church, and continued many years.

William H. H. Wentworth, the seventh in descent from the Rev. William, was born at Jackson, N. H., 1818, died 1864, succeeded to the homestead of his father. The environments of his youth did not give the advantages of education and culture, and the hard work of farm life debarred him from extended communication with the world, yet he was a kindly, courteous gentleman, with a good word and a good deed for every one in need of

them, and having many friends. His wife, Mary Clark, was of sturdy Welsh stock, strong and vigorous, mentally and physically. She was a native of Maine and a capable teacher.

Marshall C. Wentworth passed his childhood years at home developing a healthy physical organization by his labor on the farm, and receiving from the instruction of his mother a stimulation to his natural desire for knowledge and a taste for learning and reading. To attend the district school he walked eight miles daily and also assisted in the farmwork. Such zealous efforts could have but one result. He was intelligent, alert, keenly attentive to and anxious concerning everything transpiring in the country, and devoured with avidity all information he could secure regarding the great subject which at that period overshadowed all else—the preservation of the Union. He saw the war-cloud rising, and when the storm broke upon the country and the Union was imperiled, his patriotism led him to become a soldier. His parents reluctantly consented, and he enlisted as soon as possible, going to Bethel, Me., for that purpose. He was one of the earliest soldiers, enlisting April 27, 1861, before he was seventeen years old, as a private in Company I, Fifth Maine Volunteer Infantry. This was a fighting regiment, did much active service and won high honors. Marshall was never absent from the regiment during his three years' service, participating in its many memorable engagements. When his term of enlistment expired he returned to Jackson to visit his parents; while there his father was ill, and he remained to care for him till his death. After the burial rites were over, our soldier re-enlisted, January, 1865, in the First New Jersey Cavalry, and served until June, 1865, the close of the war. He was engaged in twenty-seven actions in both enlistments, among them the first and second battles of Bull Run, the seven days' fight on the Peninsula, South Mountain (his brigade making the famous charge at Crampton Pass), first and second battles at Fredericks-

burg, Salem Churchyard, the battles of the Wilderness, Spottsylvania, Mine Run, Five Forks, and Gettysburg. May 10, 1864, his regiment (Fifth Maine) was one of ten regiments selected to break the rebel lines at Spottsylvania. This they did and took many prisoners. In the first Winter of his service, while on picket duty with three companions, they were attacked by twenty rebels; one of the four was killed, two were captured, but Marshall, although wounded, escaped. At Five Forks he received a wound in the foot from which he still suffers. He had offers of promotion and promise of a commission, but preferred to remain in the ranks with his companions, who said, "A braver soldier never fired a gun."

After the war was over, and a visit made to Jackson, Boston and other places, he was for a few months conductor of a passenger train running between New York and Elizabeth, N. J. Later he returned to Jackson, where he married, May 30, 1869, Georgia A., daughter of Captain Joshua and Martha P. (Meserve) Trickey.

Captain Trickey was at this time building the Thorn Mountain House for his daughter, and here the young couple commenced their long and pleasant career as host and hostess. They did not sit down with folded hands to await the coming of prosperity, or delegate the conduct of their hotel to servants. They worked personally, early and late, taking pleasure in the thought that success must come to honest, well directed labor. Far off in the distance they saw their ideal of a hotel, and their desire and ambition was to realize this: to introduce every pleasant and æsthetic feature of home-life into their establishment in such a manner that people of the highest culture would experience delight at finding every want anticipated, and artistic harmony prevailing in their surroundings. The General's plans have been bold and original, Mrs. Wentworth has cordially co-operated with him, and every step taken and every building constructed has been endorsed by both.

They have made the entertainment of their guests their lifework and study, and have been phenomenally successful. They were the originators of the new system of artistic houses, decorations, and effects in mountain hotels, and the lovely village of Wentworth Hall and Cottages at Jackson, N. H., realized their high ideal. In addition to Thorn Mountain House they have built Arden Cottage, in 1881; Wentworth Hall, at an expense of \$25,000, in 1883; Thorneycroft, in 1885; Glen-thorne, in 1885; Elmwood, in 1886. In the Winters of 1884, 1885 and 1886, General Wentworth was manager of the Laurel House, Lakewood, N. J., where he made many and permanent friends.

General Wentworth has not sought for office. It is due to him to say, however, that when his name was once presented to his townsmen he ran forty-two votes ahead of his ticket, evincing his personal popularity. He was quartermaster general on the staff of Governor Charles H. Bell from 1881 to 1883, and a member of the Republican Electoral College in 1884. He is a member of Mount Washington Lodge, F. and A. M., North Conway; Greenleaf Chapter, R. A. M., Portland, Me., and Saco Valley Lodge of Odd Fellows, North Conway.

General Wentworth has the superb physique, the courtliness and grace of manner and kindness of heart which were characteristics of his ancestors, possesses a winning magnetism, and is kind and courteous to all, the patron and the servant, the acquaintance and the stranger. He is ever foremost in public improvement, and has an enthusiasm which carries others with him. He was the chief promoter of the centennial celebration of the settlement of the town, and the founder of the public library. The development of his hotel interests has been a wonderful boon to Jackson. With far-seeing sagacity he discerned the opportunity and way, and convinced the most conservative that he was right, and placed the care of guests upon the highest plane. By the enlarged facilities he has given his townsmen, by

the employment he affords to hundreds, by his liberal and extensive generosity, he has accomplished much good, and is a public benefactor; by his unvarying courtesy to his guests he has won the title of "prince of landlords." The sunny spirit and practical intelligence of his excellent wife have borne their part in his success and been most important factors in the household economy. Their natural culture has been broadened by extensive travel in both continents. Their hostelries have been visited by many distinguished and cultivated people, and who comes once will be likely to come again and again.

lieve all he says of his amiable and helpful consort, and that what was said of her picture in 1879 was peculiarly true, that she would, indeed, "trot in double harness with her husband and keep up her end of the evenner."

"JACKSON, N. H., Sept. 2, 1893.

"MY DEAR PROF. SIZER: I hardly know what to say about myself as it is difficult for me to remember anything that I have done that has been of special importance. I have always received more than I have given, and have been appointed to fill places that some other person could have



THE RAYMOND. CAPACITY FOR 350 GUESTS.
300 feet front, wings 100 feet each.

Desiring something relative to his relations with the hotel "Raymond" at East Pasadena, Cal., I wrote to Gen. Wentworth asking about the facts, and received from him the following plain, friendly statement, which, seeming to cover the ground, I insert in his own words. He does very scant justice to the influence of his genial, magnetic words and methods towards guests, helpers and neighbors. One might live long and search widely to find his equal in his chosen work, and in acceptable social control of others, and we can well be-

done much better than I, but I believe I am blessed with a band of angel friends who are interesting themselves in my behalf. I can account in no other way for the good things which come into my life so abundantly. Mrs. Wentworth is a most extraordinary woman. Her intuitions are remarkable. She appears to know everything that it is necessary for her to know in all times and places intuitively. She has been my guiding star. Without her I should have been dead several years ago without having become known among all the

good people who know me now. She is brave, honest and true, and never did a thing in her life that she did not believe right and true. I need not tell you about her character, because you know that, having examined her phrenologically. In our business we have worked together, hand in hand, heart to heart, mind to mind. Every success I have attained to and all prosperity which has come to me has been through her and the other angel friends.

"In the Autumn of 1891 Mr. Walter Raymond (of the excursion firm of Raymond & Whitcomb), who owns 'The Raymond,' at East Pasadena, Cal., engaged me to manage his hotel for the term of two years at a handsome salary. At the end of the first year he made a contract with me for an additional three years. I take with me to California all my employees, 140 in number. I take them from New England and find it one of the sources of my success. Since assuming charge of 'The Raymond' I have been very successful, last year doing the largest business the house has ever done. I

have been offered the management of other large hotel establishments, but prefer to spend my winters in the most delightful climate in the world. I have decided to retain my connection with The Raymond. I think I may truthfully say that the hotels with which I am connected are kept on a high level. There is no pleasure for Mrs. Wentworth and I except in doing the highest class of work. Keeping a hotel is a high calling. People who travel leave behind them elegant homes, with all that that word means in the way of comforts, decorations, artistic effects, and so forth, and the hotel man who can supply these things to them so that they will not miss them has accomplished a great work. This I believe Mrs. Wentworth and I have done to quite an extent.

"I find it most difficult, my dear friend, to write about myself, from the fact that my life has been so happy and uneventful that really there is nothing to speak about.

"Faithfully yours,

"M. C. WENTWORTH."

LABOR AND REST.

BY ISAAC H. JULIAN.

The end and the reward of toil is rest:
Be all my prayers for virtue and for peace.

—BEATTIE.

Oh ye who live by toil!
Though blest your privilege, your calling
high,
Beware! sloth does not win the only spoil
From man's integrity!

Beware, lest lucre's chain
Bind you away from heaven's own blessed
light,
Clog the soul's pinions, free, without a
stain,
And stay its upward flight!

Not for incessant toil
Were manly limbs and graceful forms
designed,
Quenching the generous thought, the win-
ning smile,
The brightness of the mind!

Turn, restless mortals, turn,
Oftener to the Eden of your home,
Restored by heaven; from its blissful
bourne
O cease to wildly roam.

Mark lovely nature's face,
The grace and beauty beaming from her
air,
Where rest and labor hold alternate pace,
And pleasure conquers care!

Pause oft 'neath Summer's shade
To muse, or by the genial Winter fire,
Hold converse with the high immortal dead,
Or turn the poet's lyre!

O turn aside betimes
From the frequented, dusty paths of life,
Where rest fair fancy's, reason's, virtue's
climes,
Redeems from empty strife!

Thus shall your spirits know
That lucre's and ambition's eager train,
Chasing their phantoms madly to and fro,
Are toiling all in vain;—

Thus shall a life more blest
Be yours, till from earth's toils you find re-
lease,
And lead you gently to your final rest,
In virtue and in peace!

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

BY CHARLOTTE FOWLER WELLS.

REV. SILAS JONES.—ISAAC H. JULIAN.—JONATHAN KIDWELL.

SILAS JONES was a gifted and versatile man. He was an eminent lawyer in early life, and later became a Swedenborgian minister. For many years he was a lecturer on Phrenology, and finally was appointed superintendent of the Blind Asylum of New York. Mr. Jones was the author of an instructive book entitled "Practical Phrenology." During George Combe's first course of lectures in New York, in 1838, Mr. Jones was very active in creating an interest and was on the committee which presented complimentary resolutions to Mr. Combe on the conclusion of his lectures.

Mr. Combe, while in New York, visited the Asylum for the Blind, then under the charge of Mr. Jones, and thus describes the latter gentleman:

"Mr. Jones has a large head, ample anterior lobe, large Benevolence and love of Approbation, with a sanguine nervous-lymphatic temperament, and is the very picture of joyousness and health. He practices Phrenology in his teaching and selects his domestics by their heads. We heard the pupils examined, and were gratified to observe their attainments in education and the comfort which they enjoyed. They are good musicians, and take great pleasure in playing in concert. They weave rugs and mats, and make baskets and other articles of simple construction."

Mr. Jones contributed several articles to the early numbers of the *PHRENOLOGICAL JOURNAL*, among them being "Philosophical Analysis of Cautiousness," "A Brief History of Phrenology in Boston," "Phrenology in New York," "Remarks Upon the Scripture Doctrine of Regeneration," "Cases of Spectral Illusion Confirmatory of Phrenology."

ISAAC H. JULIAN, poet, author, editor, lawyer and patriot, was born

June 19, 1823, in Centreville, Indiana. The Julian family is of French extraction on the father's side, and dates back two hundred years in America. Prior to the Revolution, the progenitors resided in Maryland, Virginia, and North Carolina. Isaac Julian, father of the subject of this sketch, and third of that name in regular succession, was a native of the State last named, and removed in 1808 to that part of Indiana Territory now known as Wayne County. The year following he was married to Rebecca, a daughter of Andrew Hoover, a member of the society of Friends, also from North Carolina.

Mr. and Mrs. Julian endured all the privations of pioneer life during the war of 1812, when Indians and wild beasts were among their frequent visitors. In the Fall of 1823 the family removed to what is now the County of Tippecanoe, where Mr. Julian died in the December following. His widow and young family returned to their relatives in Wayne County. In consequence of their bereavement, their subsequent lot was a hard one. The opportunities for obtaining an education were limited to the log school-houses, and a few sessions in these comprised the school attendance of Isaac Julian, Jr. But this was supplemented by self-education. In the intervals from farm labor he accomplished quite an extensive course of reading in the departments of history and general literature, and early manifested considerable poetical talent. Mr. Julian resided in Iowa from the Spring of 1846 to the Fall of 1850. In 1848 he became deeply interested in the great political and social upheaval of that period, more especially in the anti-slavery cause, which gave inspiration to many of his subsequent poems. Heretofore his poetic effusions had been rather casual and desultory. Later he studied law, and in 1851 was admitted to the Bar, but found the practice so

distasteful that he did not long engage in it.

In 1854 he went to Fort Wayne, and for a short time edited the *Standard*, of that city. In 1857 he prepared and published an interesting pamphlet on

lication of the *Free Press*, from which he retired in August, 1890. His wife died a few months after their arrival in Texas, leaving a family of young children to his care.

After many years of engrossing anxieties with an exacting business and severe domestic trials, Mr. Julian has, we trust, found peace and happiness in a second marriage, which occurred at Austin, Tex., on the 18th of July last.

For the foregoing biographical particulars, we are indebted to *The Magazine of Poetry*. Mr. Julian's connection with phrenology is as follows:

When a youth of seventeen years of age he became a contributor to *The Philomath Encyclopædia*. Among his articles is a series entitled "Illustrations from Phrenology," so that he may be ranked among the pioneer writers on that subject in America. He had at that time never heard of Calvert's work of a similar title, so the resemblance was accidental. His effort was of quite a different character, being a series of original essays drawn



ISAAC H. JULIAN IN 1859.

the "Early History of the White Water Valley." In 1858 he bought a newspaper called the *True Republican*, at Centreville, and removed it to Richmond in 1865, afterwards changing the name to the *Radical*, and continuing its publication to the fall of 1872.

He was postmaster at Centreville during President Lincoln's first term, and at Richmond from May, 1869, to July, 1871. He was married in 1859 to Miss Virginia M. Spillard, of College Hill, Ohio, by whom he had five children, three of whom are now living.

Because of his wife's failing health, he removed in the summer of 1873 to San Marcos, Texas, and began the pub-

lication of the *Free Press*, from which he retired in August, 1890. His wife died a few months after their arrival in Texas, leaving a family of young children to his care.

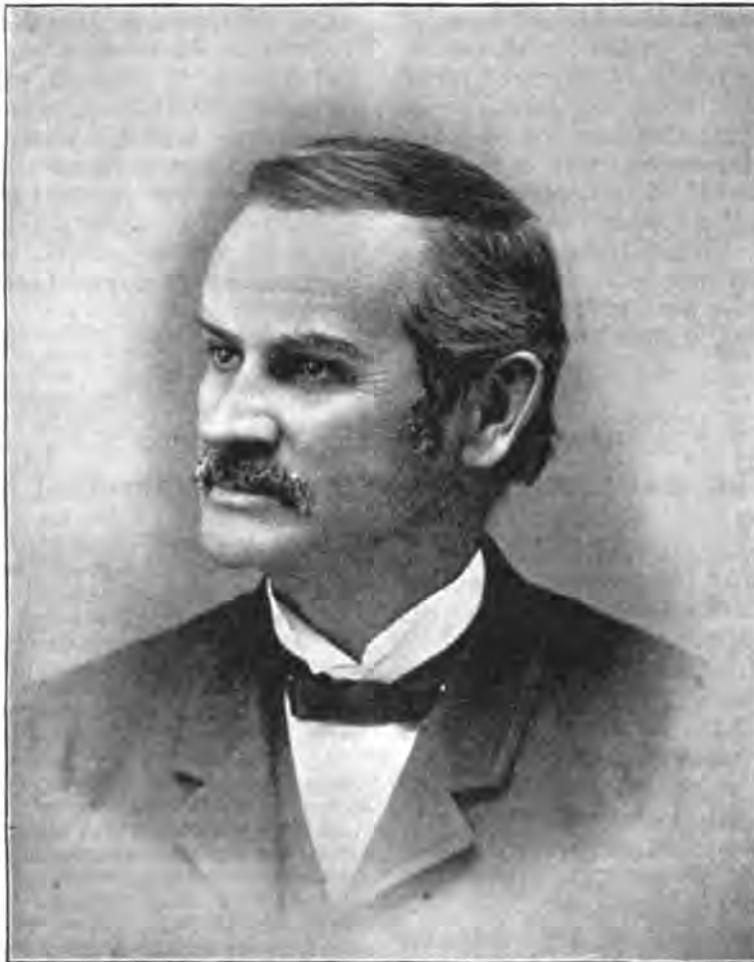
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my elder brother, George W. Julian,* that I first became acquainted with the subject; also in the same way with Spurzheim's "Phrenology" and some of his other works. Both my

Both Mr. Isaac Julian and his brother were particularly distinguished for diligence and indomitable perseverance, amounting almost to obstinacy, in the path of mental improvement, or



ISAAC H. JULIAN IN 1889.

brother and myself thereby became indoctrinated with phrenological philosophy and literature, and have ever since retained an interest in those subjects."

Many of our readers will remember Mr. Julian's poem on Spurzheim, which appeared in the *PHRENOLOGICAL JOURNAL* of December, 1885.

* A highly gifted man, a prominent politician, member of Congress, &c., &c.—C. F. W.

in whatever they deemed they ought to accomplish.

JONATHAN KIDWELL was a man of great natural ability and a pioneer Universalist preacher. He was a native of Kentucky, but came north of the Ohio at an early day, and was for a number of years editor-in-chief of *The Sentinel and Star in the West*, a leading journal of his denomination at Cincinnati. In 1833 the place of publication was at Philomath, Union County, Ind.

Here was located a Universalist academy known as "Western Union Seminary," and here Mr. Kidwell started, and continued for over a dozen years, "The Philomath Encyclopædia," a monthly publication devoted mainly to polemic discussions and scientific topics. Meanwhile he preached, or, as he more properly styled it, lectured, rather extensively. From the start, the exposition of the doctrines of phrenology and their defence was one of the leading features of his magazine, so that Mr. Kidwell performed an important part in the dissemination of phrenology at that early day.

As ranking next to Mr. Kidwell, the name of Dr. Nathan Johnson, late of

Cambridge City, Ind., should be mentioned. He went there from Ohio in the early part of the century, and died about twenty years ago. He was a man of rare learning and goodness, and a believer in, and an active disseminator of, the truths of phrenology. Henry V. Johnson, M. C. elect from Indiana, and Robert V. Johnson, one of the editors of *The Century*, brothers, are his grandsons. Both Dr. Johnson and Mr. Kidwell took great interest in fostering and training the youthful mind. Mr. Kidwell died about forty-five years ago at a good old age, after a long, brave struggle with penury and other adverse circumstances.

OPENING OF THE ANNUAL SESSION

OF THE AMERICAN INSTITUTE OF PHRENOLOGY.

The twenty-eighth annual session of the American Institute of Phrenology was held in the Hall of the Institute, Tuesday afternoon, Sept. 5, 1893. While the present class is not as large as in previous years, owing to the unsettled financial condition of the country, it does not lack in quality, for there is in attendance a good number of interested students. There were also present at the opening a number of former graduates and friends of the Institute. We give below a synopsis of the addresses made by the President of the Institute and others of the faculty:

PROF. NELSON SIZER:

We come, my friends, to the commencement of a new session, and to some of us a new era. We come to study the most important subject that can arrest human attention or interest human intellect, or hope, or fear. We come to talk about human nature, mind, character and motive. Most people prefer to study other things, and some spend a lifetime patiently hunting in the labyrinth of nature to find something strange and curious; they tax the forgotten realm of Herculaneum, and if they can find a piece of pottery that might have been a child's porringer, eight or ten hundred years ago, they rejoice over it as if they had found a human hope, or a joy that was im-

mortal. We daily throw pottery away in this city which, if it were buried long enough, the curiosity seekers of the future might make as much ado over it as we do over all these old things the archæologists dig out. People study everything but human life and human character; they study outwardly; they study away from themselves.

A young man who commenced his public life as a reporter for us went to Chicago and became the official stenographic reporter of that city; it was less than now in size and in consequence, and he made with a soap box and some cheap lenses a telescope of his own with which he could study double stars, and he has become the savant of double stars for the world. But the stars are cold; they are far away; I don't think that it makes much difference to the human race whether the stars are double or single; it took many centuries to find out that there was such a thing as a double star. He has measured and registered them, and he has become so distinguished that his services have been wanted at the Lick Observatory; and when the sun takes a notion to be eclipsed, if visible only in some far region, the Government sends him and others there to observe what nature is doing in the outside worlds. And so men study almost everything but themselves. And yet among a few, the study of human nature is an old one; some of the most distinguished men in the world have spent their lives in trying to find out the difference between "perception" and "conception," "instinct and reason," their nature, qualities and limitations;

and they have made what the world calls systems of mental philosophy. But not one of all these "systems" has ever enabled a man to stand up and look at a stranger and say: "You have conscience or you lack it; you have fear or lack it; you have sympathy and benevolence or lack it; you have wit and humor; you have poetic skill, dramatic talent, mechanical ability, hope or hatred." Yet some people shut their eyes and judge introspectively, that a man has certain mental forces in him, but without knowing whether they are located at the top of his head or the bottom of his feet; he has hope and fear, but some people have thought the latter was located in the legs, because when a man was afraid, he ran away; other people thought when a man had fear it started something that made him fight; but they did not know where to locate either.

Dr. Gall studied the human brain; he was a physician, carefully cultured, and high in his profession. He was "physician in ordinary" to the Emperor of Austria. When he began to study brain he found that it had intimate relationship with all parts of the body, and that if you touch the toe, the brain somehow gets a notion that there is an enemy invading. He studied from the brain outward, and found one man with a tall crown of head, who had the most supreme dignity, and yet he was a beggar in rags; he stood with his head aloft and came begging; and Dr. Gall saw that it was such a peculiar form of head that he took a cast of it. And he asked the man why he did not work. He replied, "I, work?" He was above work; several of his kind are living yet. A man that can make two dollars a day by begging says he won't work for a dollar a day; he can't afford it. A man must have a good deal of self esteem to lift him above the disgrace of such a line of life and stand forth and take alms and feed his lordly hunger.

The brain is the organ of the mind. That is the first idea of Phrenology; and the second is that there are more faculties than one. It is presumed by most men who write on metaphysics to-day that the mind is an individual entity which has to be consulted on all points; that is to say, that the whole of the mind devotes itself to mechanics; the whole of the mind devotes itself to reasoning, to memory, fear, love, shame or hatred. But Phrenology teaches that there are different faculties. If the mind is but a single faculty or power, then a man ought to be equally gifted in all things, and we know that that is not the case. One man is a genius at one thing and almost an idiot in some other things. There are men who have no idea whatever of wit; others have no idea of poetry or elegance; there are men who have no idea of mechanism, and yet they have sound

reasoning power. They can make a logical argument, but they cannot see the relationship between one thing and another in the way of mechanism; and so there are some idiots who don't know enough to take care of themselves who have genius in certain things. There was in Huntsville, Ala., fifty years ago, a colored boy who was called an idiot; he could not even bring in wood or fetch water, but he could tell how much three hundred and fifty-three times five hundred and ninety-six are; he could multiply any three figures by three figures, and do it quicker than an expert penman could write the figures that express the method and result. He was a genius in arithmetic, but not in anything else.

Now, if the whole mind is employed in the prosecution of every undertaking, a person should be equally gifted in everything; but everybody knows that that is not the case. Here in this audience some of you are keen in some things and wish you were equally keen in other things. Phrenologists study mind on a different basis from that which has occupied the attention of metaphysicians from the earliest days down to the present time. Phrenology classifies faculties into groups. There is, for instance, the social group; its location has been established. There is the executive group, which gives force and courage, policy, economy and appetite, and thus ministers to the wants of the body. This we find in the side head, as the social is in the back head. There is the group of ambition, located in the crown of the head. The organs of the moral sentiments are located in the top head; and when you see a man with a full top head you may know he has some relation to moral life; and when we find a man's top head is very low and narrow, the moral elements are deficient. The intellectual development is in the front head.

Would you think it strange if I were to tell you that some of the ablest clergymen in this city and Brooklyn, who have a wide reputation, whose names are known in all the land to-day, do not believe that the brain has anything to do with reverence, faith, love, hope, joy, ambition, enthusiasm? They think the brain has something to do with the intellect. Old Professor Porter, late president of Yale College, wrote a book on the "Human Intellect," as if that were the whole of man. One of our students at the last term was talking with a clergyman in this city, and spoke about the faculty of faith. "You don't pretend to say that the brain has anything to do with faith, do you?" "Certainly." "Why, I thought faith had to do with the heart."

My brethren, the heart is a good thing. It is made to circulate the blood, and has about all it can do to do that. But a man may have a weak, tremulous heart, and

have as sound moral faith, or as sound hope, or as sound veneration, as the greatest saint that lives. The brain has, indeed, something to do with faith; it has everything to do with every faculty of human character. The fact that people of the metaphysical school do not give the brain credit for a connection with other faculties than the intellectual, shows that they have not studied the whole subject as they ought to have done. Therefore, let it be understood at the start that when you study brain and mind here, you take hold of the agency through which is manifested every emotion, aspiration, hope and hatred, affection and love, pride and ambition, intelligence, talent and tact. You are at the citadel of the intellectual, moral, social and æsthetic life. In this respect our mode of studying differs from the old school.

The advantages of Phrenology are many, and one of the chief is that it teaches people self-knowledge. John Hecker, of this city, now deceased, was interested in Phrenology, and he got a cast of his own head taken in plaster, and told me that he set it down on the table before him objectively. "Now, John Hecker," he said, "you are under my hands, and I am going to criticise you just as I would a stranger; I am going to score you where you deserve it, and praise you if there is any place to praise." That is the way he studied himself. One day he brought something wrapped up in a newspaper and laid it on my desk. Said he, "I wish you would look at that." And there was an old skull; chunks of earth were dropping out of the eye sockets and elsewhere; it looked as if it had been buried thirty years. Said he, "I wish you would tell me what you can about that." "Where did you get it?" "Some men are making excavations in the east part of town and I saw the skull, and asked the men if they would let me bring it up here and see what you would say about it."

Now, I want you to understand, I am talking about what Phrenology is able to do, and what you are going to be able to do yourselves. I said, "This is the skull of a German, the skull of a man who died at about seventy or seventy-five years of age, who was remarkable for his ingenuity; he had inventive talent, mechanical power; he was remarkable for his tendency to make money; he was fond of property, looked out well for financial matters. He was severe, and if he had children that did not toe the mark, he would bring his hand around and hit them on the side of the head and knock them right off the chair; he was rough with the children." And I looked somewhere else on the skull, you can guess where, and I said, "but he was as honest a man as ever lived, true as

steel." There I was, talking with all earnestness and ardor about a skull brought from some old burying ground. Do you think I talked that way because I felt nobody could contradict me? Wait a minute. I looked around at Mr. Hecker. He was a man six feet high, and weighed about 250 pounds; he had a dark shining eye, and it was full of tears and smiles at the same time, anxious to hear what I said about the old skull. "What do you know about that skull?" I asked. Said he, "That is my father's skull. I am overhauling the old burying ground, putting in a new tomb where the men are making the excavations, and I asked them to permit me to carry it away and let you see it. My father was, of course, a German; he was seventy-two or three when he died, and I am running machinery now in my mill and bakery that my father invented. Many a time he swung his right hand around and hit this little Dutch head of mine and knocked me right off my seat; but it does a Dutch boy good to be knocked." He was not willing to scandalize his father. "I think my father was as honest a man as ever lived."

Now, look at it! Taking that old skull, revealing its character, and reading the family history in that off hand way. All the metaphysicians from the most ancient down to the present time, including the late President Porter of Yale College, could not take a skull, or a hundred skulls, and in an hour infer correctly as much as I did in two minutes. That is the difference between what we are trying to study and teach, and what other people are trying to prove belongs to human nature, but which none of them can apply to any person.

We have had a good many students in the last twenty-eight years, five or six hundred of them, and some of them have made a high mark in the world. They might have made their mark if they had not come here, though in other lines. I remember one minister who wrote to us from a Western State, about 1870, to know if he could come on special terms. We finally arranged it so that he could come. He was preaching to a small congregation. Perhaps he seldom had as many people in his church as we have here to-day—a few people that believed in certain things and did not think as other people did in certain other things, and so they separated themselves. He was preaching to them—whether he got four hundred dollars a year, I don't know, probably he didn't—and he had preached there seven years and had not had a day of vacation. And he told me: "I was worn out utterly; I didn't know what to say; I had preached from the best texts I could, and there was nothing to produce variety; I was drying up; I was yearning to see something new. I had read THE PHRENOLOGICAL JOURNAL and

wanted to come to the Institute, but I didn't care to tell my brethren where I wanted to go. So I told them I wanted to go to New York or Philadelphia, or both, and see the museums and mingle with new people, to get some new ideas. Finally they concluded to let me off for six weeks." And he came. I don't know whether he borrowed money to come with or not, but he came, and when he got through and went back, he looked at his congregation and wondered whether they had been transformed while he was gone, they looked so different to him. "Is it possible I have been paying respects to this man when he does not deserve respect? Is it possible I have neglected that man, who is a gem in the sight of God and in the light of Phrenology?" It revolutionized his thought about his old parishioners whom he thought he had known well for years; and he began to preach with new knowledge. He could see right through a man, and the result was that they began to hear of him all over town—that little, poor neglected sect. They began to fill up his chapel, and brought chairs from home and camp stools, and soon the place was too small. They heard of him at the Capital of the State and he went up and preached, and in a few months he was settled there over a large congregation, on a salary twice as large as he had before. It made a new man of him, and he is now president of a college on the Pacific slope.

And we have had many other men here to attend our lectures, who have doubled their power to do good. They have obtained that which widened their sphere, enlarged their income, blessed the world, and so commenced a line of influences that will never cease.

But I hope to lecture to you fifty or sixty times hereafter, and talk to the point, and tell you as well as I can what I know, and how to find out these things and practice them yourselves.

MRS. CHARLOTTE FOWLER WELLS.

It is reported that Solon, one of the wisest of the ancient philosophers, said that science was based on facts; so the science of Phrenology is based on facts. Dr. Gall proved the truth of every organ which he discovered. His discoveries were founded on observation and experiment, so that there is no going back from what he established. It is true. It manifests itself. Thus you students have come, not to learn mere theories, but what has been demonstrated and proved beyond a doubt. You need have no fear that what you study will be useless. It will be helpful to you through life. We shall do our best to give you that which it has taken us so many years to learn, and we will put it into such language that you will understand it more readily than we did, so that when you

leave us you will then know much more than we learned in the same length of time; but remember that fact is the foundation, as there is no science without facts.

I have talked with you several times during the session, and will not try to tell all to-day.

DR. H. S. DRAYTON.

LADIES AND GENTLEMEN:—I traveled a hundred miles or more this morning in much hurry to reach this place in order to have a word to say to the students who have come to attend this session of the Institute. You may infer, then, that I am in excellent order to make any remarks. In fact it is only some old points that occur to me as expedient for consideration, especially as the president and Mrs. Wells have taken the cover off the stew and let out the flavor, and given you an idea of what good and sweet things there are awaiting you.

I look upon this occasion as a time of mutual introductions; that we, who act in the capacity of tutors, and you, who come as students, may look at each other and form some impressions as to whether or not we shall like each other. After all, you know there is something divine in physiognomy, the divine element of intuition, that helps us to read somewhat of each other's character. Some are pretty strong in that element of character reading; and it may be well for us that the impressions that they obtain at this first meeting are favorable to us.

I have been in the habit of saying that I am very glad to meet the students who come to the Institute, for the reason that I know they are serious in their desire to pursue the study of human nature. Long ago they may have taken it up more or less connectedly, and have learned the principles of mental science, and now come here to finish off. They come with the idea—most of them—that they are going to complete their education at a kind of normal institute, and that when they shall have graduated they will go out prepared to meet the world and stand upon any platform and talk about brain and mind extendedly, and so teach the universe. But while I do not wish to say a word that is at all discouraging, it has been notable what a change takes place in the minds of our students in the course of the session. At the end they usually say, "We have only begun to know something about this matter, and we should like to attend a term or two more; we feel that we have only started in the course, our minds have expanded so far, especially as concerns taking in the importance of the subject."

Now, it must be understood that society has grown in its knowledge of human nature and mental science in the past forty or fifty years. Phrenological lecturers have had a

great deal to do with that, you know, and, of course, the teacher of intellectual philosophy in the schools has had a good deal to do with it; so that the man who poses on the platform before the public as a teacher of practical mental science must have something more than a merely superficial glimpse of the structure of mind. I insist, as I have more to do with the technical relations of the brain to the centres of mental function, that students should have a good knowledge of anatomy, physiology, and psychology, and I am very anxious that every man and every woman who goes before the public shall be well informed and prepared to meet any reasonable questions that may arise. The audiences that are met now by the instructor in Phrenology are intelligent, are well informed and very critical.

A year or two ago I asked a student, a bright fellow whose general education was rather limited, what he would do were he asked by some one who knew a little about the brain, "What is the function of the hippocampus major?" The student replied, "Well, I think that I should say, 'Will the gentleman be kind enough to step upon the platform and explain to the audience what his meaning is, so that the audience can understand what he is driving at?'" A very neat way, perhaps, of evading, but it would be very much better for the lecturer to answer questions in a brief and intelligent way, for that course is creditable to him, and meet the expectation of his audience.

We are somewhat emphatic in insisting that this matter of teaching people to know themselves should be associated with a good, thorough knowledge of selfhood by the teacher. That is fundamental, as Professor Sizer has said already. When a distinguished Greek philosopher visited the East some fifteen hundred or more years ago, he went for the purpose of gathering what information he could from those distinguished sages who were supposed to live in more or less isolation, and yet who posed as the hierophants or instructors of their kind in the higher knowledge. Attending a circle of the Mahatmas, the philosopher asked, "I am told that you sages of India know all things; is it true?" The answer came, "The Mahatmas of India know all things, because they first have learned to know themselves." I think there is a late poet with whom we are more or less familiar, who has voiced the same thought in saying,

"Know then thyself, all wisdom centres there."

There is great hope for the man, whatever may be his line of study, who has a good knowledge of himself; that is for him a tremendous start in the race of life. It is those unfortunate, cast-down, dejected fellows whom you meet

in the world, who have gathered a good deal, we may say, of Schopenhauer's grim philosophy; who are pessimistic in their notions, who are reading the dark side of life, glancing constantly at the unfortunate phases of human nature, and so carrying anything but sunshine wherever they may go; who, when you come to examine them, show they do not understand human nature fundamentally, and especially do not understand themselves. Just as soon as you have enlightened a man or a woman with regard to their personal constitution, you give an impetus to their desire to know more of self and to grow. They take for their motto, "Excelsior!" and declare, "I do not intend to stand long where I am, to remain on this plane of being; I am going to rise out of it; I have powers given me by my Creator, by the exercise of which it is intended that I shall grow, that I shall be more and more a man, more and more a woman, and do something for the world as well as for myself." It is easily seen how, from a knowledge of self, adaptation to the world around evolves, and how more readily we learn from that adaptation to love the sphere that we can fill.

The work of the phrenologist is a glorious work, and missionary essentially. The man who understands what he has to do in that line can accomplish much good, if he will work diligently in the place where he finds himself when the light comes.

I shall not attempt in this connection to outline what I may say in the course of this session. As I remarked in the beginning, this meeting is an occasion mainly for mutual introductions, and I congratulate those who have come to be with us as students, and I hope that at the close of the course we who act in the capacity of tutors shall be congratulated for having done our duty in the relations that have begun so pleasantly.

DR. NELSON B. SIZER.

I want to say a few words, ladies and gentlemen, this afternoon in reference to the scope of the course which we shall in the future take up. In times past, many phrenologists, and other people who have done live work in the world of reform, have run against a great many "snags;" one of which has been indicated by my friend Dr. Drayton. With the increase of general information among your audiences, you must expect questions to arise, and perhaps that is an advantage, as the sailor said when asked what church he preferred to go to. "Well," he said, "I prefer to go to the Church of England." "Why?" "Because the congregation has a chance to talk back, instead of having to take it all down, whether they like it or not." Now if you are able fully to reply to their interrogations, that is something which an audience will like, and many

times, even if they are not asked for questions, they will themselves request the privilege of asking them. I have known some lecturers, who otherwise were good men and pretty well informed, but were unfortunately lacking in some controverted points which they should have known. That is one of the reasons why you are to have a thorough course of elementary instruction on the structure and functions of the human body and of its different parts. You need to understand physiology; you need to understand anatomy, and how the body is made up; you want to understand physiology, how the different parts of the body act; in that way you will understand more about questions of health as they come up, the dressing of children, ventilating rooms, especially sleeping rooms, etc. These are things that will be asked you very often, and if you do not understand them, people will think you do not know very much. Then you may run across physicians who will ask you questions which may puzzle you.

Now, this year I propose to adopt a little different system. The Institute certifies by its diploma that the students have had an opportunity, under proper instruction, of learning certain things. Now, once in a while, almost every year, there have been one or two students who have not had quite as much interest in these technical lectures as they ought to have, and although I have tried to be as interesting as possible, there have been students who have taken no notes, and who have known too little on my branches, so this year I propose to adopt a different method. The first five or ten minutes of the hour I shall use in quizzing on the previous lecture, so if you expect to show what you know I hope you will listen.

I congratulate you all in coming here; I am sure you will never regret it. The only trouble is that the time is so brief in which to tell you so many things. I hope you will hear all you can remember and perhaps more.

DR. EDGAR C. BEALL.

I am very glad to add a word of welcome to the class, and also encouragement, if any one really needs to be encouraged in such a grand work as I consider phrenological teaching to be.

I certainly agree with the remarks of Dr. Sizer in regard to the advantages of technical knowledge of anatomy, physiology and various other branches not usually included in the definition of Phrenology. But, still, I would not discourage the students with that idea to the extent of making them think that a very profound knowledge of those sciences would be necessary in the practice of Phrenology. I am unacquainted with any other science or any other subject which can be applied so

successfully and satisfactorily with a little knowledge. That is, I mean to say that various branches of learning may be of very great value in the study of human nature; but when it is not possible to acquire a variety of collateral information, if one has a fair degree of judgment, a great deal of usefulness, a great deal of benefit, may still be derived from a very meager knowledge of Phrenology. You are all familiar with the old adage, that "a little learning is a dangerous thing." I do not think that that applies to Phrenology, unless those who practice it are weak-minded. There are some sciences in which—no matter how bright you are—you can do scarcely anything of consequence until you have mastered the subject. For instance, in stenography, until you have acquired sufficient skill and rapidity of execution to take down an address or a dictation, you can make comparatively little use of it; and yet you may be perfectly familiar with the principles, with all the word signs—in fact, all the technique, so to speak, of the subject. In music, it is necessary to acquire considerable skill before one is willing to play in public at least; but in Phrenology, if you are naturally intelligent, and you only discover how to estimate one element of character, such as Conscientiousness, Benevolence, or Acquisitiveness, or any peculiarity of the intellect, such as the philosophical type, or the perceptive, or practical, you can apply that one thing in very many affairs of life to great advantage. A lack of sense is more dangerous than limited knowledge. But I say, learn as much as you possibly can.

People frequently give a very narrow definition of Phrenology, and then ridicule it, thinking that they are casting obloquy upon the science itself, when, in reality, they are simply making sport of their own ignorance. There is entirely too much error current in regard to this point. The majority of people think Phrenology is simply a method of reading character by what they are pleased to call protuberances or bumps upon the surface of the skull, and that its whole purpose and value depend upon the skill of professional character readers. For my part, I take pleasure in giving a very much broader definition than that. When we speak of reading character, or applying Phrenology in that way, the subject may be included in the term physiognomy. Phrenology in that sense may be said to be the physiognomy of the head; but that it is a very superficial idea of the great discovery of Gall.

The first thing to keep in mind is that Phrenology gives us a standard of human nature, a model which we can hold up before the world, and which we can all use as a guide; something which we should

follow, and something to which we should make all our institutions conform. To present that idea a little more clearly, I will say that the mind as shown by Phrenology, has about forty-three faculties, so that if a person is deficient in any one of those faculties, he is deficient in something which goes to make up a complete man; and if society establishes an institution without considering that faculty, that institution is wrong just to that extent.

As a further illustration, a medical man is supposed to know a great many things besides *materia medica*. We are not accustomed to speak of a physician without thinking of him as familiar with anatomy, physiology, chemistry, etc. In other words, the term medicine covers the ground of anatomy, physiology, chemistry, surgery, histology, pathology, and many other branches.

Now, I should like to have the idea familiar to this class, that there is something more in Phrenology than simply being able to say whether a man is stingy or generous; whether he is conceited or fond of praise; whether he is good or bad, etc. The science has infinite applications, and I consider it the supreme or crowning department of anthropology, to which the whole field of medicine is subordinate.

To the students here, as a graduate of

the Institute myself, I wish to say that I have tested this thing in many years of careful investigation and practice. I have applied it and tried it on all sides. I have not made simply a theory of it, but I have had experience enough to say to you that it is a grand subject, a noble subject, one that will help you, whether you make much money out of it or not. To be sure, there may be some difficulties in the way. You may be ridiculed at times; you may be considered ignorant; but remember, that wherever you go you will have truth with you, and you will find truth a good and great and glorious companion.

I assure you I shall be glad to do all I can in the Institute to communicate to you as much as possible that will be of benefit.

On the following day the regular course of instruction was begun, and will continue until the last of October. The annual meetings of the Alumni Association will be held on Monday, October 30, when important papers will be presented and discussed. The graduating exercises will take place Tuesday afternoon, Oct. 31.

CHILD CULTURE

TEACHING SELF-CONSCIOUSNESS.

IN *Good Health*, Mrs. Mary Wood Allen discusses this matter with much force. She says:

The child who is taught to "show off" before company is being made vainly self-conscious, and perhaps exceedingly disagreeable. Comments in the hearing of children in regard to their "smartness" often develops very unpleasant traits. Not long ago I was a guest in a home where was a boy of ten, who was introduced to me as "our little mathematician." The child at once put on a sullen and offended look, and made no response to the introduction. During the meal the fond father dilated on his son's ability, and the boy grew

more and more restless. When the father offered to show me some of the lad's work, he muttered, "I'll tear it up." "No you won't," said the father, "I wouldn't take two dollars for it." The father's motive was good, but his method was bad; and as I observed its results, I could see that the boy was becoming so conscious of self that he was constantly unhappy. As yet, the praise had irritated him; later, I have no doubt it will make him vain.

A timid, shrinking little girl was made so conscious of her looks that the meeting of strangers almost made her ill. Daily comments were made on her "shovel teeth" and "reeled

onion eyes," until in desperation she veiled her face whenever she went out, and always sought to sit in the shadow when making or receiving calls, and shrank with real pain if a pair of observing eyes were fixed upon her, feeling sure that they were taking account of her blemishes.

Constant faultfinding will either result in awkwardness, or in an arrogant, defiant manner, both of which are expressions of self-consciousness. Children may be made conscious of their personal appearance either by repeated prohibitions in regard to amusements that might soil or tear their clothing, or by the continual calling of their thoughts to the subject of dress by the lavish expenditure of time and money upon elegant garments to adorn their little bodies. There is something pathetic in the child who stops to consider her clothing when the question is one of child-like amusements. There is something pitiful when a young girl refuses to go to a party because she has not a new dress. In both cases self-consciousness has been developed until natural instincts of sociality have yielded to vanity.

To the thoughtful parent, the subject will present many phases not mentioned in this article, and, indeed, that will be the best evidence of its value if it prove suggestive beyond its own definite limits.

"IF I WERE A BOY."

Some excellent advice is given on boys by Dr. Vincent, of Chautauqua fame, under this heading.

"If I were a boy with my man's wisdom, I should eat wholesome food and no other. And I should chew it well and never 'bolt it down.' I should eat at regular hours, even if I had to have four regular meals a day. I should never touch tobacco, chewing gum or patent medicines: never go once to bed without cleansing my teeth, never let a year go by without a dentist's inspection and treatment; never sit up late at night,

unless a great emergency demanded it; never linger one moment in bed when the time came for getting up; never fail to rub every part of my body with a wet towel, and then with a dry one; never drink more than three or four tablespoonfuls of ice water at one time, and so forth, and so on. But all this takes will power, and that is all it does take.

"If I were a boy I should keep my own secrets, except as I revealed them to my father and mother for the sake of securing their advice; I should never speak a word to any one who might be worried by it; and speak kind words of others, even of enemies, in their absence. I should put no unclean thoughts, pictures, sights or stories in my memory and imagination, and no foul words on my tongue; give no smiles, but give the rather black frowns and prompt and fierce reproof, to any comrade who dared, in my presence, to utter a filthy speech. I should want to say, as the pure-minded and noble Dr. George H. Whitney, president of Hackettstown (N. J.) College, can say: 'I have never pronounced a word which I ought not to speak in the presence of the purest woman in the world.' I should treat my little folks kindly, and not tease them; show respect to servants; be tender toward the unfortunate—and all this I should strive to do for the sake of being a comfort to people, a joy to my parents, a help to the next century, and in the seventh decade of it should hope to be a wise and cheerful old man, who learned, when he was a boy, to govern himself, to be firm in right willing and to keep up the terraces in God's garden on the hillside.

"If I were a boy I should play and romp, sing and shout, climb trees, explore caves, swim rivers, and be able to do all the manly things that belong to the manly sports; love and study nature; travel as widely and observe as wisely as I could; study hard (with a will) when the time came

for study; read the best literature—works of the imagination, history, science and art, according to my taste and need; get a good knowledge of English; try to speak accurately, and to pronounce distinctly; go to college, and go through college, even if I expected to be a clerk, a farmer, or a mechanic; spend my Sundays reverently; try to be a practical, every-day Christian; help on every good cause; never make sport of sacred things; be 'about my Father's business,' like the Boy of Nazareth; 'use the world and not abuse it'; treat old men as fathers, the younger men as brethren, the elder women as mothers, the younger as sisters, in all purity; and thus I should try to be a Christian gentleman, wholesome, sensible, cheerful, independent, courteous: a boy with a will; a boy without cant or cowardice; a builder of terraced gardens on the hillside—man's will and wisdom in them, and God's grace, beauty and blessing abiding upon them."

A "DON'T CARE" BOY CORRECTED.

"MY son, you are wasting your time playing with that kitten. You ought to be studying your lesson. You'll get a black mark if you don't study," said Mrs. Mason.

"I don't care," replied the boy.

"You ought to care, my dear," replied the lady, with a smile.

"I don't care," said James.

"'Don't care' will ruin that child," said Mrs. Mason to herself. "I will teach him a lesson he will not forget."

When noon arrived her idle boy rushed into the house, shouting:

"Mother, I want my dinner."

"I don't care," replied Mrs. Mason. James was puzzled. His mother had never treated him so before. He was silent awhile, then he spoke again:

"Mother, I want something to eat."

"I don't care," was the cool reply.

"But recess will be over, mother,

and I shall starve if I don't get some dinner," urged James.

"I don't care."

This was too much for the poor boy to endure. He burst into tears. His mother said:

"My son, I want to make you feel the folly and the sin of the habit you have of saying, 'I don't care.' Suppose I did not really care for you, what would you do for dinner, clothing, for a nice home education? I hope, therefore, you will cease saying, 'I don't care.'"

James had never looked on this evil habit in this light before. He promised to do better, and, after receiving a piece of pie, went to school a wiser and better boy.

ADVICE IN A COLLEGE MAGAZINE.

The boys and girls both should read physiology, phrenology, hygiene and the laws of life, instead of the nauseating, morals-corrupting, and brain-destroying novels and weeklies that are by the million published and bartered by those who value gold more than they do the good of the human race.

Present and future self-interest, and the welfare of future generations, demand that both should know the functions of the heart, lungs, liver, stomach, and all the internal organs of the system; also the laws of nature by which their action is controlled. With the information gained through these studies they will be able to prolong life and increase their happiness; to account for the superiority of physical and brain capacity; to comprehend why the child that lives in the sunshine of God, labors from "early morn to dewy eve," and eats plain, simple food, is so often superior, physically, mentally and morally, to the child who lives in close rooms, where fresh air is scarce and sunshine unknown, and who is brought up in luxury and fed on rich pies and cakes washed down with coffee, tea and wine.—*Soule College Courant*.

NOTES IN ANTHROPOLOGY.

The Chinese Military.—The Chinese army is large. Its ordinary fighting strength is about 1,200,000 men, though it is not possible to make an estimate with accuracy. Each province supports its own military force for keeping order, for the protection of its own territory and for national defense in case of need. In time of peace the regiments are skeletonized. Corruption pervades the service as it does every branch of public affairs in that country. The regular infantry of the empire numbers somewhat more than 500,000. There are less than 100,000 cavalry. There is also an hereditary and privileged soldiery composed of Manchus and Mongols with many Chinese descended from those who joined the invading Manchus in 1643. These "banner men," as they are called, are supposed to inherit a strong devotion to the present Tartar dynasty. In twelve provincial cities, they and their families are assigned to special fortified quarters in order to isolate them from the other inhabitants as far as possible, thus securing the purity of their patriotic stock. Sixty-thousand of them are at Peking, where there are 160,000 troops in all. The capital city has somewhat the aspect of a vast intrenchment camp, being under military rule and protected by a series of double and triple walls. The regular infantry is armed with Russian muzzle loading rifles, swords and shields, spears, bows and arrows, and all sorts of queer mediæval weapons. They are instructed in European tactics to some extent. Some battalions are provided with huge matchlocks six feet long—one for every two men. When such a gun is to be discharged, one soldier stoops with his hands on his knees and serves as a rest for the muzzle of the piece while it is fired by his companion. The Chinese cavalry is armed with carbines, chassépot, matchlocks and short swords. Most of the guns used by the artillery are small brass cannon with smooth bores of Russian manufacture. They also have small iron cannon, which are fired from wooden tripods or

benches, shooting projectiles that weigh from four ounces to a pound. Nearly all of the artillery practice is done with blank cartridges—a method not calculated to promote proficiency in marksmanship. The troops employed for the protection of the distant frontiers are equipped with matchlocks, bows, cutlasses and spears. German army officers have been employed during the last four years to give instruction in tactics and the use of various arms as well as in torpedo service and engineering. At present 400,000 of the soldiers have had more or less teaching, and modern arms are being introduced to some extent. The methods of warfare hitherto practiced by the Chinese have been the most primitive imaginable. Having thrown up intrenchments and posted their men to slaughter an enemy in front, they have regarded an attack on the flank as low-minded and cowardly. When they fought with the British they were astonished to discover that their tiger-faced shields and the clangor of the gongs, cymbals and other strange instruments, played by their regimental bands, failed to terrify the European enemy. Their long-respected books on tactics prescribe, with illustrations, certain specific grimaces which must accompany each attitude with the gun or spear in drill, in order to frighten the foe. At Canton, where arms of American pattern are now being manufactured, the Remington and Spencer rifles have been enlarged to a calibre of one inch, with barrels six feet long, to give them "a more formidable appearance."—*Philadelphia Times*.

A Bellamy Colony in Paraguay.—The Bellamyites may take heart again. A communistic settlement is to be seriously undertaken, on a somewhat important scale, on a site already famous in the annals of Paraguay, and in the pages of Muratori. It is not a little curious that the movement should have started in Australia, the title of the community being "The New Australian Co-operative Settlement Association." The declaration of

principles contains the familiar complaints against the tyranny of society: "Whereas, so long as one depends upon another for leave to work, and so long as the selfishness induced by the uncertainty of living prevents mankind from seeing that it is best for all to insure one another against all possibility of social degradation," etc., etc., for all which evils it is proposed to establish a settlement, with common ownership of land, and equal division of expenses and profits, "without regard to sex, age, office, or physical or mental capacity." Absolute equality of the sexes is one of the fundamental principles. The community is to maintain the children, under the guardianship of their respective parents. No religion is officially recognized, and "the individuality of every member, in thought, religion, speech and leisure, and in all matters whatsoever whereby the individuality of others is not affected, is to be held inviolable."

In effect the plan of organization involves the maintenance of a state within a state. To this arrangement the Paraguayan Government has consented. The community is responsible to the government as an individual and is bound to obey its laws, but the members are directly responsible to the directors of the association, who are to be elected annually. A grant of land comprising 100 square leagues, equal to 450,000 acres, has been obtained near Villa Rica on the Rio Tibicuari, 110 miles from Asuncion. As an earnest of good faith, the association has deposited with the Paraguayan Government a substantial forfeit, agreeing to establish 400 families within two years from January 7, 1893, and to plant a colony of 800 families within four years from that date. There are no promoters seeking profit out of the enterprise; it is divorced from politics; the members are plain workingmen and women, who are thoroughly sincere, and who are setting out to improve their own condition, not to further socialistic reforms or to prove any original theories of government.—*The N. Y. Evening Post*.

Ornamented Teeth.—Among the interesting objects brought from Copan last year by Messrs. Saville and Owens of the Peabody Museum of American Arch-

æology and Ethnology, are several incisor teeth, each of which contains a small piece of green stone, presumably jadeite, set in a cavity drilled on the front surface of the teeth. The museum had before received from Yucatan human teeth filled in a peculiar manner, and now it has teeth from Copan filled in the same way. This is of particular interest in adding one more to the several facts pointing to Asiatic arts and customs as the origin of those of the early people of Central America. At most striking resemblance to Asiatic art is noticed in several of the heads carved in stone; one in particular, if seen in any collection, and not labeled as to its origin, would probably pass almost unchallenged as from Southern Asia. These may prove to be simply coincidences of expression of peoples of corresponding mental development, brought about by corresponding natural surroundings and conditions.—*Popular Science Monthly*.

The Oldest Book.—The only complete work that without question can lay claim to being the oldest book in the world is known as the "Papyrus Prisse." It was presented to the Bibliotheque Nationale by a Frenchman of the name of Prisse, who discovered the Papyrus at Thebes. The tomb in which it was found contained the mummy of one of the Entews of the eleventh, or first Theban dynasty. The date when the manuscript was written cannot therefore have been later than 2,500 B. C. But if the exact age of this identical copy should be doubtful we know precisely from the text itself the date of its composition, as it states it was compiled by one Ptah-hotep, who lived in the reign of King Assa. The full title runs: "Precepts of the Prefect Ptah-hotep, under the King of the South and North, Assa." As this king was the last but one of the fifth dynasty, Ptah-hotep who flourished in the reign of this Pharaoh, and held the distinguished office of "Prefect" must have compiled his work about 3,350 B. C.

Divided into forty-four paragraphs or chapters, the work is something very much more than a mere literary curiosity. It is written in the Egyptian hieratic character; it is rhythmic if not poetic; is addressed to the educated classes, and embodies through-

out high and noble principles for the regulation of individual life and conduct, and for the maintenance of good government. The man in authority is enjoined by this very ancient writer to labor at all times to be a true gentleman, lest from his own defects of character he suffer the authority given him by the favor of the Supreme Being to be weakened. An Egyptian Prefect was the highest dignitary in the land, second only in authority to Pharaoh himself. It was the office held by Joseph in the Biblical story. The holder of the office was at once the Egyptian First Lord of the Treasury, Chancellor of the Exchequer and Lord Chief Justice. All our greatest Egyptologists bear testimony to the extraordinary civilization of ancient Egypt.

This work of Ptah-hotep fully confirms this position. It testifies to a height of culture and refinement obtaining in Egyptian society 5,240 years ago that to our Western circumscribed notions of modern superiority are simply inconceivable. Ptah-hotep urgently enforces on rulers the cultivation of "Ma," an Egyptian dogma, comprehending "the true, the beautiful, the good." "Ma" is the principle of order and harmony in everything; it is the steadfast pursuit of wisdom, knowledge and obedience—obedience as the best of all. Although, as in modern expression, we should say, "extremely liberal" on many subjects, politically, Ptah-hotep displays an Oriental horror of innovators and innovations.

In sixteen different instances in all of which Ptah-hotep mentions God, he does so in the singular number—an argument happily no longer needed to establish the monotheistic character of the Egyptian religion. He ends by saying: "I have reached one hundred and ten years of life, blessed by the favor of the king, among the first of those who have exalted themselves by their works, doing the pleasure of the king in an honored position."

The "Precepts" reveal throughout the mind of one who all his life has been accustomed to the higher walks of society in a well-ordered state.—J. H. MITCHNER, in *Knowledge*.

Chinese Newspapers.—In the

Popular Science Monthly is the following account of Chinese newspapers: The Chinese Government instituted an official journal at a very early date, the *Pekin Gazette* having existed since B. C. 740. It was at first printed upon engraved wooden blocks, but now movable wooden characters cut in wood are used.

There are three regular editions of the paper, of which only the official edition is printed in this manner. The second edition is printed with waxen plates in which the characters are cut, and the work being done in haste, is not very legible. The third edition is in manuscript. The official edition is printed on one side of ten or twelve very thin doubled leaves, is eighteen centimetres high and ten broad, and is divided by lines of violet ink into seven columns, each containing fourteen ordinary characters. It appears every morning.

The manuscript edition is usually a little smaller than the official edition and appears several days before it. Its price is many times higher, and it is largely used by foreigners. The journal furnishes a real panorama of the official and social life of the Chinese. The reading of it is very entertaining for we may find in it among other documents, the day which the emperor has decided upon for changing from the winter hut to the summer hut; that six of the candidates for the license were more than ninety and thirteen more than eighty years old, illustrating the fact that one is never too old to be examined in China. This *Pekin Gazette* was the only journal published in China until about twenty years ago. Since then some five journals have arisen at Shanghai, Tien-Tsin, at Canton, at the instance of the English with the co-operation of Chinese literati. The *Chin Pai* of Shanghai which was started in 1885 is an illustrated weekly journal, with eight doubled leaves and a red cover, the engravings in which are done in Chinese style in outline. In one of the numbers of this journal, the last conflict between the French and Chinese is represented with the French commander Fournier in the costume of an English admiral. All the journals together publish not more than fifteen thousand copies.



*Ex fronte, ex capite, ex vultu, etiam
in ipso oris silentio natura loquitur.*

PLATO.

NEW YORK,
October, 1893.

SYSTEMATIC MORAL EDUCATION.

FIFTEENTH PAPER (CONTINUATION).

CONSCIENTIOUSNESS.

In primary training the work of the teacher should be earnest, not so much to obtain rapid progress or brilliant recitations as to promote a habit of accurate statement on the part of the pupil. We regard the service of a teacher in this regard as most important and necessary to offset the common negligence of parents in requiring exactness of statement from their children. The "new education" has for its object mainly the cultivation of the observing faculties, an object laudable enough, since the full development of these faculties is fundamental to complete maturity of the intellect and to symmetrical reasoning; but such training must lose more than half its value if the impressions or intelligence taken in by these faculties is not made useful in a true sense through accurate reproduction.

The two things still go hand in

hand—observation and recital. In-
sistance at the start upon accurate
statement prompts the child to close
and deliberate attention to what he
sees and hears, and naturally in re-
sponse to the demand made upon them
the senses and the "sense-faculties"
(if I may be permitted so to name the
perceptives) become more and more
powerful, and capable of intense con-
sideration of the subject or thing that
may engage their notice, thus absorb-
ing in a brief space a great amount of
detail. The memory at the same time
is strengthened in about equal
measure.

Why should not the same policy be
applied in relation to whatever the
child speaks of from the point of real
interest, as governs in his arithmetic
or geography? Precision is demanded
in these, no departure from the strict
order of the formulæ being permissi-
ble because the results will be false
necessarily. So departures from ex-
actness of statement regarding other
things necessarily involve error and
misconception. The truth can not be
told unless the child sees and hears
clearly, and has been practiced in the
simple reproduction of what he has
seen and heard.

There is so much looseness and
negligence in the home-talk of most
people that when we meet a child,
whose language is precise and clear,
it is a very agreeable variation from
the ordinary current of juvenile talk.
Some years ago our attention was
drawn to a boy of nine or ten,
whose reputation among his play-
mates was high for quarrelsomeness
and mischief. We were much
impressed by his language, it being
remarkably well pronounced and defi-

nite. The answers given about his little experiences in school and out were so direct and clear that we felt almost embarrassed about our own language. An acquaintance with his parents later solved any uncertainty that we might have entertained concerning the source of his peculiar superiority over other children of the neighborhood. Both mother and father were thoughtful and judicious in their use of language. Especially were they careful in their talk with their children, never indulging in "baby talk," or words of love or doubtful meaning, and also requiring them to state in their best manner whatever they had to say. This had been the practice from the first, and parents as well as children had been profited greatly by it. It was a system of mutual culture that produced admirable fruitage, and that in children not above the average in intellectual endowment.

The writer has met with children under nine or ten years of age whose perceptive faculties had been cultivated by the study of botany or entomology in nature. They showed capacity for describing the structure and habits of many plants or insects that, to those unacquainted with the effect of methodical study, would appear extraordinary, yet the exhibition was nothing more than should be expected. Children are easily interested in the study of natural objects, and the judicious teacher finds no great trouble in gradually overcoming a disposition to superficial and vacillating notice of this and that thing as shown by the ordinary child, and rendering him later even scrupulous in his desire to learn all he can about an object.

The relation of the intellect to the emotional nature, as recognized by the psychologist, is that of the informer and guide, and, therefore, the impulse or energy of motive as supplied by the feelings is dependent upon the data of observation. Imperfect observation must affect the feelings in a way to produce their improper expression, and the degree of that expression is manifested in conduct, the unhappy character of which we more or less lament. The moral feelings differ in no respect from the other feelings or instincts in dependence upon the intellect for guidance or instruction, and hence, as it has been shown in other terms, their influence upon conduct is governed by the character of the data supplied. If the information be imperfect and inexact the impulses of conscientiousness can not have effect upon the action other than to render it improper and wrong to the extent, at least, of the imperfection of the data.

"How can we reason but from what we know?" asks the poet. How can we act except upon the basis of our intelligence? A strong endowment of conscientiousness giving its impulse to motive, in circumstances demanding vigorous action, may lead a man to do great wrong simply because his intellect—not having been furnished with the facts—proves a "blind guide" to sentiment. History is full of the mistakes of men eminent for moral force. In private and public grave errors of judgment and of misapplied zeal are committed because the moral nature has not been sufficiently enlightened through careful and thorough investigation of the

facts involved. Wars and persecutions, especially those for "conscience sake," have caused terrible sorrows to peoples and nations that an intelligent perception of the situation, political and social, would have averted. Zeal for a cause is largely founded on the sense of duty, but its intemperate and harmful exercise is due to imperfect intelligence and consequently wrong inferences.

Nothing so strengthens a child's moral sense as confidence in his parents' knowledge of a matter that interests him. This is a point generally lost sight of in home training. It is not appreciated that the little things that occupy the attention of the urchin are very important to his limited understanding, and if in his pursuit of knowledge his inquiry of father or mother is met with scant attention or rebuffs, he becomes indignant at the treatment and later mistrustful of their ability to give the desired information. Yet it is not so much the thought that the parent does not know everything that impairs the confidence of the child as the thought that he is quick to form from the indirect treatment of father or mother that they are untrue to him. This thought once impressed upon the tender plastic faculties may evolve lamentable results of perverted morality in the later life.

An excellent object lesson, so far as it goes, in moral conduct, was that which Mr. Morton, now Secretary of Agriculture, gave his sons. He is a widower. When his wife died Mr. Morton raised a stone to her memory bearing the inscription: "Caroline French, wife of J. Sterling Morton and the mother of Jay, Paul and

Mark Morton." A little while afterward he took the three boys thus named to the cemetery and showed them the inscription, spoke of the noble qualities of their lost mother, and said in earnest tones, that if they ever did anything of a discreditable character he would erase their names from the stone.

The example of a true and noble mother is one of the most potent incentives to upright and noble conduct. A child can understand the meaning and spirit of the acts of such a mother when the conduct of other grown-up people is beyond his grasp. Need we say that there is a bond between mother and child that does not exist in any other human relationship, and that its moral impressiveness is deep and lasting?

We regret to say that as domestic society is constituted the children of the vast majority of families do not receive that regular and continuous training of the moral faculties which is essential to their development in lines of positive integrity. But in the schools, especially the primary, systematic methods may be introduced that will go far toward correcting the abuses of home life. Associating textual instruction in ethics with exemplary illustration in the conduct of teacher and pupils should not be a very difficult undertaking. The sincere and upright teacher, we are sure, would be deeply interested in this work, and no one should be employed to teach the young who is not sincere in desire to bring out their moral sentiments and make them permanently influential in their every-day career.

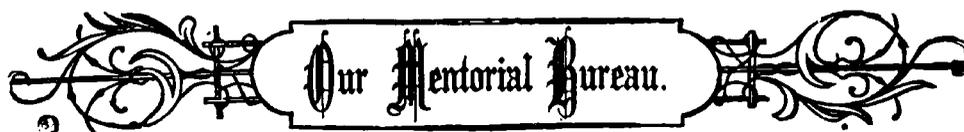
(To be continued.)

THE PARENTS' ASSOCIATION OF AMERICA.

ONE outcome of effort in the line of what the editor of the JOURNAL has been discussing for years is the new organization with the title at the head of this paragraph. We are greatly pleased to mention its formation, and to be able to say that it is officered by men and women who earnestly appreciate the necessity of enlarging the minds of parents and teachers with regard to their duty to the young. The safety of society, of the principles on which our nation was founded, depends upon those who are growing into manhood and womanhood. They must be trained for a proper development, physically and mentally, or the germs of civil disorder and moral degeneracy now widely disseminated in our population will grow into vigorous life and introduce a most unhappy state of affairs, social and political. There are clouds in our horizon that every serious eye can clearly discern,

and it is also the duty of every loyal son and daughter of America to cooperate toward their dispersion. In the present financial crisis, the severest of our nation's experience since the civil war, we hear mutterings of discontent and malice that have a most dangerous augury. To the children and youth of our American population is committed the grave responsibility of meeting and mastering the later outcome of spite and crime which these mutterings forebode.

We hope that the Parents' Association will increase in numbers and strength rapidly and do the needed work of counteracting and neutralizing the evils and abuses that are growing with a weedy growth in our midst. We are very sure that if the educated and cultivated in our larger towns and cities were to give this matter proper attention the vicious influences that cause our apprehension would soon be destroyed at their very source.



To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

COQUETRY.—*Question.*—What faculties combine to make a flirt?

Answer.—A mativeness is the basis of the interest the sexes feel in each other, and if it is large, with Conscientiousness, Continuity, Self-esteem, Conjugality and Friendship small, there will be a tendency to trifle in affairs of the heart. The sanguine-vital temperament is also an influential element in a fickle character.

Laura BRIDGMAN.—A reader asks "how a person who is deaf, dumb and blind can be educated?"

Answer.—We knew her, have examined her head and talked with her through an interpreter. We can not tell how she was educated so that any person could repeat

the process. Her educators could have described it. As we understand it, certain well-known facts, such as bread, meat, fruit, heat, cold, hunger, thirst, understood alike by the deaf and blind, can be represented by certain signs made by the hands, in the deaf and dumb hand alphabet. The letters made by the hands which spell w-a-t-e-r, b-r-e a-d, h-o-t, c-o-l-d, are learned, and then the words, eat bread, drink water, etc., can be easily understood, even by the blind and deaf. It was a slow process, but Dr. S. G. Howe, of the Boston Blind Asylum, mastered the task. Laura, with her hands, would surround the hand of the one who made the signs, and she would thus catch the discourse. I was introduced to her as "Mr. Sizer, Phrenologist." She brightened up and spelled instantly with her hand, "Dr. Spurzheim examined my head," and she suited the action to the words by placing her hands on her head as Dr. Spurzheim did. Then I examined her head and her friend translated my words to Laura, and she enjoyed the interview as keenly as any one who could hear, see and speak. I never had a keener sense of the superiority of mind over matter and the marvel involved in the teaching of the soul through impaired external senses than on that occasion. Her sense of touch and taste were the only senses left to her, yet the soul caught and enjoyed the truth most vividly. N. S.

CONTINUITY.—Can the organ of Continuity by continuous exercise be so cultivated as to show the culture by external growth?

Answer.—Every organ of the brain is susceptible of cultivation, and we frequently meet persons of whom we say "this organ has evidently been increased in growth within a few years." The reply is, "I was told six years ago to cultivate the organ and have done so, and feel sure I have succeeded. It is stronger in my character, but I did not know that it would appear larger to the examiner."

INTUITION.—A. E. A. F.—By this term you probably mean those impressions that seem to rise spontaneously in the mind with regard to the current affairs or the unusual in life. The philosophical significance of intuition is that

power of mind that enables one to recognize directly or immediately the state of affairs in a given instance—i. e., without reasoning in a mediate process. The term has obtained application with regard to future occurrences, as when one conceives an impression that something is about to occur, and it does. We may suppose, in this case, the co-operation of several of the faculties, with the experience of the intellect, the mental action being started by some suggestion received through the senses. People who have "impressions" of this kind are usually well developed in the sincipital region, having large Wonder, Human-nature, and rather large reflective organ associated with a sensitive temperament.

THE ESQUIMAUX.—A friend asks us what we can say of these people, who are described as agreeable, honest, and truthful. And yet their heads, as shown in the *Illustrated American*, do not seem to warrant the character attributed to them. As the heads are all covered by bulky caps, the real heads can not be carefully studied. These people have very broad faces, which give a brutal look, but we should like to see and examine their heads before passing an opinion. The organization of the western Esquimaux is in many respects similar to that of the Indian, but they are, in fact, a much more good-natured and industrious race, and far less warlike than the Indian of the United States.

SLEEPING AFTER EATING.—*Question.*—Is it healthful to sleep immediately after eating?
M. E. S.

Answer.—As a rule it is best not to sleep soon after meals, especially if there is any tendency to congestion of blood in the brain or any of the other viscera. In cases of anæmia, however, when there is very little blood, and that of a very watery consistency, a meal may be followed by a nap without injury. The question should hinge upon the predisposition to congestion. The best rule is to take a nap before eating, and very gentle exercise, such as a walk and a talk for a short while afterward.

DEAFNESS.—W. H. O'N.—Your affection is probably due to a catarrhal condition, the treatment of which would require general

systemic and local measures. The idea of its being due to a "humor of the blood" partakes of ancient medicine, very vague yet involving a degree of truth. Improve the general tone of your organization by such diet and living that are in accordance with hygienic rule, and you would, after awhile, hear better, we think. You may receive more particular suggestions by addressing the medical department of the JOURNAL.



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

THE QUESTION OF FAITH.

To the Editor of the Phrenological Journal:

IN the August JOURNAL there is an article in which the writer, after referring to a previous article in the May JOURNAL, says: "Now, to a careful reasoner a few questions are here suggested." Then follows a host of questions, but he does not attempt to answer any of them. However, it is intimated that we should not have faith in prayers because they do not always seem to be answered. Now, is it reasonable that we should not believe in prayer on such grounds?

In prayer we ask for something of a supernatural relation, and if this is not brought about, should we expect with our natural powers to understand the reason of it? That there is a supernatural power there can be no doubt. Nature is simply a series of causes and effects. A little acorn falls to the ground, germinates, and grows to be a mighty oak; it dies, decays, and sinks to the ground once more, to be gathered up again and formed into another tree. The same substance may have existed in numerous trees, for Nature never created anything nor destroyed anything. Therefore, if Nature is not the cause of matter, *there must be a supernatural power.*

As it is supposed that our universe revolves within a still greater universe, is it not reasonable to suppose that Nature is a power revolving within a still greater power—the Supernatural? And as in Na-

ture the same condition that causes a certain effect at one time will always cause the same effect at another time, so with the Supernatural, may we not reasonably suppose that the same condition that brought about a certain effect will always bring about a like effect?

A man becomes sick; he is sinking lower and lower—it is simply the work of Nature. The doctor is called, and by nursing or medicine he brings the man back to health. He does not change the power of Nature; he simply guides it. In prayer we invite the aid of the Supernatural power in bringing about something we wish done. The doctor's efforts to save the sick man sometimes have no effect whatever; although it may be beyond human intelligence to know why, we still reason that the conditions required to bring that man back to health were not supplied; so when our prayers are not answered may we not reason that the conditions required to bring about what we asked for are not supplied?

J. J. BUTLER.

LAKE GEORGE, N. Y.



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

DREAMS OF THE DEAD. By EDWARD STANTON. 16mo, pp. 268. Paper, price, 50 cents. Boston: Lee & Shepard, Pubs.

Simply put as No. 15 of the "Good Company Series," this volume invites special attention because it is in many respects unlike the thousand and one volumes thrown upon the market by the American press. Its dealing with the supernatural is in the manner and style quite unique, yet the ideas, to the student of Oriental psychology and of the occult, are not altogether novel.

We catch glimpses of the philosophies of Buddhism, of Zoroastrianism, of Christianity, Oriental magic and of Theosophy. Referable to visions or experiences of the night, when mortals be in slumber wrapt, the author attempts the unfolding of many mysteries pertaining to the "other life," and does it in a way that very effectually commands our attention. The suggestions that here and there engage our thought appear to accord with monitions of a reason enlightened by an expectant yet not extreme faith. As one has said, "We can not read the book without being impressed with the thought that as 'the body is fearfully and wonderfully made' so the spirit is fearfully and wonderfully endowed, and without realizing as never before, that 'there are more things in heaven and earth than are dreamt of in our philosophy' or in our religion."

The teachings of the book, it must be admitted, whatever opinions may be of its "supernaturalism," are excellent, and followed practically would advance the moral character of the world well on toward that millennium so much desired by some ardent natures.

PAULA FERRIS. By MARY FARLEY SANBORN. 16mo, pp. 267. Boston: Lee & Shepard.

A novel with more or less of attempt at sensational incident. The heroine is a married woman who indicates sundry tendencies to irregularity in her fealty to the man she had sworn to love and cherish unto death. Probably the author would like to be considered in the French manner, as to her writing and imaginings, and she certainly is, we think, when her work is considered from the moral point of view. We may suspect, however, that the plot, etc., proceed from a motive to advocate the notions of those who affect to be advanced with regard to domestic and marriage customs.

HOW TO JUDGE A HORSE. By CAPTAIN F. W. BACH. 12mo, pp. 180. New York: William R. Jenkins, Publisher.

A neatly gotten up manual for the use of the horse fancier or one who would be provided with an equine friend. It is notorious that in no other line of common traffic is there more crooked dealing than in horse

trading. The commercial axiom, *causar emptor* (let the buyer take heed), has a sharp application therein. And if the owner, in prospect, of a horse would be certain of getting a fine specimen from the general market, he should arm himself with a tolerable amount of information on the constitution and appearance of horses, good and bad. In a brief and fairly clear style Captain Bach has set out the qualities that constitute a sound animal, giving at some length the anatomical structure and proportions of the various parts, with illustrations of normal and faulty points of constitution.

The chapters on training, driving, harnessing, etc., are very full, and we should say, quite sufficient for the average owner who seriously wishes to treat his horse kindly and discreetly, and get from him that faithful service which the intelligent animal is sure to render his considerate master.

THE MIDNIGHT ELOPEMENT; OR, ROBERT WAYNE'S CHOICE. A sensational novel.

By EMMA SANDERS. J. S. Ogilvie, Publisher, New York.

The character and quality of this story are quite clearly indicated by the title, although the incident of the elopement is by no means the most dramatic feature in the narrative. On the whole, it is rather better than its name, and will doubtless please many readers.

THE WHAT AND HOW OF VOCAL CULTURE.

By Mme. F. ROENA MEDINI. Edgar S. Werner, Publisher, New York.

This book is the outcome of long study with Francesco Lamperti, and of much experience as a singer and a teacher of singing. The exercises with their analyses have been arranged to be of practical help to those who would improve and correctly use their singing voices. There are eighteen chapters, discussing, among other things, "The Power of Imagination," "Breathing," "The Emission of Voice," "Enunciation," "Accent," "Long Life of Singers and Speakers," etc. There is also an elaborate analysis of voice-production, with the author's special and original marking of the well-known song, "Last Rose of Summer."



From a rare old Print.

FRANCIS JOSEPH GALL, M.D.

FOUNDER OF PHRENOLOGY.

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JEAN MARTIN CHARCOT.

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DR. J. M. CHARCOT.

THE EMINENT PHYSICIAN OF LA SALPETRIERE.

THE world of science in general and of medicine in particular has been much moved by the sudden death, on the 16th of August last, of Dr. Charcot. He had been before the world for many years as a pioneer in a field of high importance, that of nerve diseases, and his philanthropic work in connection with the poor of Paris had given him the character of a benefactor. The great hospital of La Salpetriere and Charcot had become almost synonymous in the language of Frenchmen, for there he had accomplished most of his successes and demonstrated the value of his methods. He was organized in brain and faculty for an important service to mankind. The strong lines of his head and face, and the grand uplift of brow and head, declare the leader and master among men of his own class.

Born in Paris Nov. 29, 1825, Jean Martin Charcot had scarcely reached his sixth-eighth year when he was suddenly called to another sphere. While on an excursion with some friends in the country he was attacked suddenly with spasm of the heart, and died in a short time. His father was a mechanic, of moderate income but of ambitious aims. He desired that one of his three sons should be well educated and enter upon a professional career. And one day he said to them, "I am not able to educate you all, but the one who will have done the best work at the end of the year shall go on with his studies." It proved to be Jean who won the choice and was later sent to Saint Louis Lyceum. Selecting medicine, he was later registered at the University, and

in 1853 received the doctorate. He was fond of referring to the fact that while an interne of the hospital he gave private lessons in order to mitigate the sacrifices that his education had imposed upon his family. In 1862 Dr. Charcot became chief of the staff at La Salpetriere, where he had been previously an interne, and remained in that relation until the last. There he found work suited to his taste and particular type of talent, and in the start entered upon his duties with vigor and earnestness. At the beginning he organized the service of the hospital with the view to securing a current record of the cases under observation, so that their progress should be followed minutely and the results obtained made of value in other cases. It is chiefly since 1870 that Dr. Charcot gave so much attention to nervous maladies, especially of the hysterical class; his opportunity in relation to the latter being unusually favorable for such investigations as he set on foot. Becoming in 1877 interested in hypnotism he applied it in the treatment of hysteria, epilepsy, mental disturbances, etc. His associates and students, taking their cue from their leader, were enthusiastic in following the order of observations that he marked out. The methods produced, it should be said, have been characterized by calmness and impartiality, Dr. Charcot indicating in this field of study as in others a mind open to the reception of new facts and ideas, yet not disturbed by unexpected developments or prejudiced by results however brilliant. He displayed at all times for the most part a cool, calm demeanor, and was prepared to meet

even extraordinary manifestations of nervous sensibility.

The studies made at La Salpetriere relate chiefly to cases of hysterio-epilepsy and hysteria-major, as it appeared to Dr. Charcot that upon subjects of the hysterical class the best results were obtained—but his teaching on the subject of hypnotism has furnished the source of a flood of discussion and publication, with not a little misrepresentation. His name has been invested with a kind of hypnotic aureola, because of his interest in this matter, but a review of his career would show to the surprised reader an amount of labor in other walks of medicine that very few distinguished medecists can rival.

The great forward extent of Dr. Charcot's intellectual organism intimates extraordinary powers of observation. He was a keen-eyed looker into the physiological and pathological, and a subtle analyst of conditions. His spirit of industry seems to have been fortified by a very strong instinct for information. He wanted to know, and yet not for the mere sake of knowing, but for use. The practical employment of a thing gave it value in his esteem according to the extent of that employment. He had unusual capacity for manipulating the data of observation.

Clear and ready in the scrutiny of things, facts organic or inorganic, inert or vital, he possessed great powers of discrimination and reasoning that had grown with his opportunity. Hence, in the more intricate fields of diagnosis, he was a recognized master. Conditions that escaped ordinary minds were easily detected by him. The great reach of the lower forehead from the opening of the ear, as shown in all profile portraits of Dr. Charcot, intimate earnestness and thoroughness of application. He could not but love investigation. He was in a large sense a man, *i. e.*, the qualities of a full manhood expressed themselves on occasion very strikingly. Strong-willed, positive, manda-

tory, he was also very kind, sympathetic, generous. Not so much of the social man, perhaps, as we expect the average Frenchman to be, for his devotion to his chosen calling probably had modified what might have been his original inheritance in that respect. He was of the scientific type, with an environment that tended to bring out the kind and tender side of his nature, and that in its turn softened the expression of his energetic and positive temperament.

He had unusual powers of expression in language and manner. Few men in the medical profession have shown as great facility to instruct others. His verbal capacity was not only large, but it was employed in such a manner that his discussions of questions that were constantly arising in the current of the treatment of obscure nerve disorders were marked by great clearness of statement. This feature of his clinical instruction made La Salpetriere a central point of interest to the medical profession of Paris, especially to those who were drawn to the study of affections of the nervous system.

We are not aware that Dr. Charcot contributed any new principle to the philosophy of hypnotism, but his boldness in its application to the treatment of hysteria and allied affections, and the success that he obtained among the thousands of unfortunates that thronged the wards of La Salpetriere properly gained for him an enviable reputation. The great accumulation of data that his method of observation has furnished the pathologist and physiologist should render his name memorable in the history of scientific medicine.

Dr. Bourneville, the distinguished editor of *Le Progrès Medical*, well said: "Science has lost in Charcot one of her most eminent and most noble representatives. France has lost one of those men who brought her added honor and contributed to her greater reputation throughout the whole world." D.

THE ORGAN OF WEIGHT.

BY JOHN W. SHULL.

"Sense of force or resistance, excited by or belonging to external objects." ("Brain and Mind.")

"It is the function of this faculty to give the sense of resistance."—*Hoffman*.

"Conception of resistance in general."—*Sir G. S. Mackenzie*.

"Perception of perpendicularity."—*Edmonston*.

"Power of adapting motions to the laws of gravitation."—*Simpson*.

"Sense of weight; judgment of momentum and resistance in mechanics; statics probably belongs to it."—*G. Combe*.

"Balancing capacity; intuitive perception and application of the laws of gravity, motion."—*O. S. Fowler*.

"Control of motion; balancing."—*Sizer*.

I believe all these definitions apply with more or less pertinency to the organ of weight. They cover its function broadly, and yet they irresistibly remind me of Saxe's "blind men who went to see the elephant."

There is one field in Phrenology still open to mind students—the analysis of the faculties. I am satisfied with the general function and location of the organs as set forth in the literature of the subject, and tabulated on the busts. I believe, too, that this rests on a firm basis of fact, and ought to command the respect of students. I can consent, too, that the practical application of the science, as it is, to business, social, and educational uses, is, in a sense, more important than further studies in mental analysis; and yet I am not satisfied with the statement of the function of a number of the organs, and feel almost a personal interest in rendering the definitions clear, the analysis keen, and if possible ultimate.

Our conception of "faculty" is the mind acting through a given brain-center or organ, in the production of

a *sui generis* class of functions. *Sui generis* implies *different* functions having an *essential* similarity. To illustrate: Faith, trust, belief in spiritual existence, love of the marvellous, wonder, love of novelty, constitute the *sui generis* class of functions ascribed to Spirituality. They are different from each other, yet there is an essential similarity which might be stated as "belief, acceptance or delight in the unknowable or the hitherto unknown." This essential similarity is to be found by eliminating from the different functions given, all the elements not found in all, and retaining only that and all that which is found in all. I conceive that this essential similarity constitutes the primal function of a faculty, and our analysis is ultimate only when that is reached. This method of analysis should be applied to all the faculties now that the broad facts of mind expression are firmly established.

A paper on the "Organ of Weight," presented by Dr. J. I. Capen, before the Institute Alumni, at New York, at their last meeting, led me to make a close study of this faculty, and the results of my researches and study are here embodied.

One of the cardinal doctrines of Phrenology is that the intellect has one faculty for each quality, condition, or relation, under which object-objects (external objects known through sense perception), or subject-objects (states of mind known through consciousness, or subjective perception), or relation-objects are presented to the mind for recognition. After exhaustive studies, I believe this doctrine unassailable.

All "object-objects" may be considered under twelve distinct aspects:

(1) As a thing, as an object distinguished from other objects, but without reference to qualities or relations;

- (2) as having extension;
- (3) as having form or configuration, as being limited by boundaries;
- (4) as being supported *in equilibrio*, stationary (statics) or moving (dynamics);
- (5) as having color;
- (6) as composed of parts, or an indivisible unit, with special reference to number;
- (7) as holding a definite place, or order in a series, or a definite location, in an arrangement of physical objects;
- (8) as having location or position, without reference to series or arrangement;
- (9) as acting, or being acted upon, existing;
- (10) as existing in time, or continuing in time, or following or preceding other objects in point of time;
- (11) as being like or unlike other objects, identical or not identical;
- (12) as causing or being caused, as producing or being produced.

According to the above stated doctrine, there ought to be twelve intellectual faculties, related wholly or in part to object-objects. Since weight applies only to material things, we omit the discussion of the other two classes of objects usually known as subject-objects and relation-objects.

Such is the case. We have corresponding with these twelve aspects the following faculties:

- | | |
|--------------------|------------------|
| (1) Individuality, | (7) Order, |
| (2) Size, | (8) Locality, |
| (3) Form, | (9) Eventuality, |
| (4) Weight, | (10) Time, |
| (5) Color, | (11) Comparison, |
| (6) Number, | (12) Causality. |

Omitting Weight, as the organ under discussion, and taking the remaining eleven faculties as they are defined in all the books, we find them corresponding perfectly and fully. This correspondence is the more remarkable, since Gall and Spurzheim did not sit down and tabulate metaphysically, as I have done, the aspects under which objects might be known, then name a faculty to correspond with each. Nor, having done this,

did they take a bust, and laying down a region about the brows, appropriate it to intellect because so nearly related in position to the five senses, and especially sight. On the contrary, they had no insight into the real consistency and beauty of their system until years of observation had established most of the organs by locating them and determining their function. This result was reached by induction, which is the only sure road to truth in any of the natural sciences. This is presumptive of a similarly perfect correspondence of Weight, with the remaining aspect of bodies—their support.

Given equilibriums in statics and dynamics as the aspect of bodies, what is the essential or primal function of its corresponding faculty? What is the intellectual sense or power which appreciates this condition?

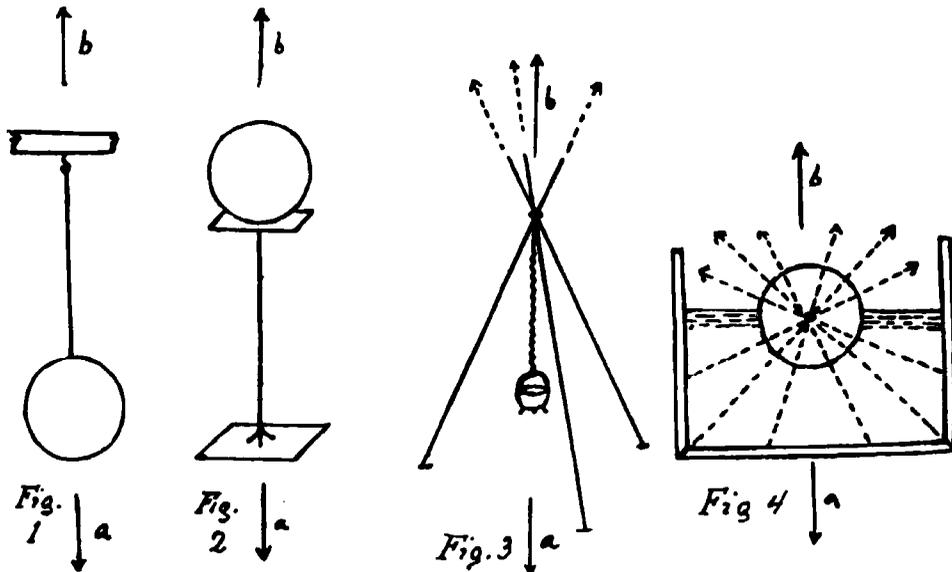
To understand this subject one should have a clear knowledge of the principles of statics and dynamics. Bodies, in regard to their support, may be considered under two conditions, as *stationary* or as *moving*.

In stationary bodies, the forces exerted upon them are balanced and neutralized as shown in Figs. 1, 2, 3 and 4, in which *a* represents the line of gravitation and *b* the line of support. In Figs. 1 and 2 the forces are represented as simple. In Figs. 3 and 4 they are composite, and the line *b* represents the resultant of all the forces exerted in the direction of the dotted lines.

In moving bodies, the forces exerted upon them are not decidedly opposed, and therefore neutralized, but act in different lines, which leaves a degree of force to produce motion. In the inclined plane, Fig. 5, *a* is the line of gravitation, *b* the line of resistance offered by the plane. Not being in the same line, they are not neutralized, but unite in producing motion in the resultant line *c*. In the pendulum, Fig. 6, at position A, *a* represents the line of gravitation, while the

corresponding line *b* represents the restraining force of the suspending wire. Not being neutralized by acting in the same line, they result in motion on the line *c*. Passing the

powers of the several forces. Thus, a force whose quantum of power is (1) acting in the line *a*, Fig. 8, in conjunction with a force whose quantum of power is (2) acting in the line *b* would



center, the momentum carries the ball forward in the line of its arc, but it is now opposed by forces in the lines *a* and *b* in position B, which result in an impeding force in the line *d*. Thus the ball is stopped; but since the resisting forces are not neutralized, they result in the reverse sweep in the line *c*. In the planetary system, Fig. 7, the mutual attraction of sun and planet acts in the line *a*; the tangential force of rotation in the line *b*. Not being neutralized, they result in motion in the orbital arc *c*.

Men and animals when at rest or in motion must conform to these static and dynamic principles or laws. Every act of balancing, which means placing the body in such a position that all forces excited are neutralized, implies a sense or perception of the direction of the forces. But these forces are frequently the resultant of several forces acting in convergent lines. Resultants are not found by striking a mean direction, but by striking a line which would be a mean of the

result in motion in the line *c* and *not* in the line *d*, which bisects the angle of the component lines *a* and *b*. From this consideration it would appear that balancing requires something more than a sense of the direction of forces. We adapt ourselves to several forces at once, which implies an intuitive perception of the *quantum* of power which the several forces exert upon us.

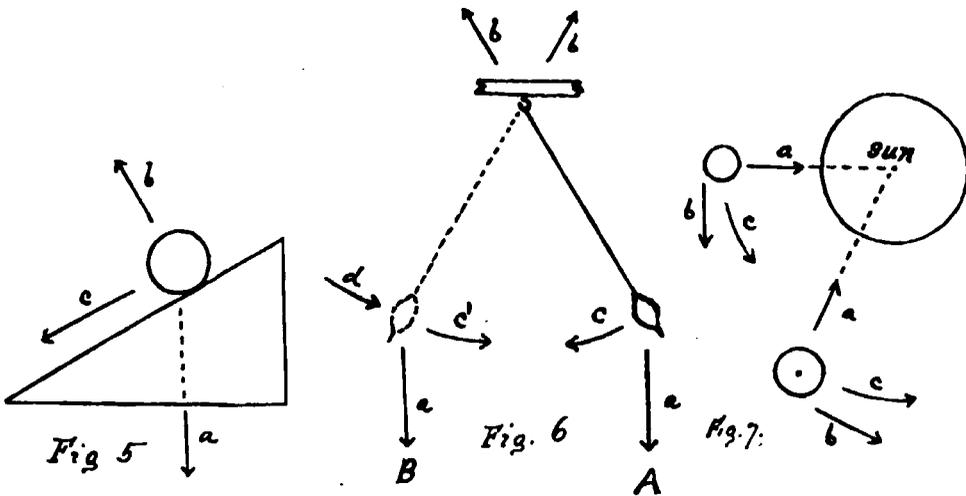
This, then, is the simplest possible definition of the faculty of Weight. It is the intellectual power which gives a *sense of the direction and power of forces*. After much study, I believe this to be the central and essential principle of all the functions usually ascribed to this organ; the essential similarity of the *sui generis* class of functions tabulated as control of motion, sense of resistance, sense of perpendicularity, sense of weight, skill in mechanics, delight in acrobatic feats, throwing, sharpshooting, quoit-pitching, circus-riding, etc.; therefore the primal func-

tion of the faculty; and this, the ultimate analysis.

To understand the whole function of any intellectual faculty, we must know the different modes of action belonging to Intellect and common to all of its faculties. Every intellectual faculty perceives, and, in perceiving, discriminates or judges; then remembers; then conceives; then abstracts; by its activity in any of these modes, it confers an intuition, and by means of muscles confers skill in the application of those mental products. Weight, then, being one of the intellectual faculties, should have for its whole function the perception of the direction and power of forces whether excited on self or some external object, and the discrimination and comparison of forces and movements; the power of recalling or remembering these experiences or observations; the conception in the concrete of the moved, the resting, the stable, the

should confer skill in rope-walking, grace in riding, wheeling, walking, dancing, hand-writing, skill in operating moving machinery, trapeze flying, acrobatic sports, balancing coin on watch crystals, ball-catching, jugglery, billiard-playing, quoit-pitching, etc., all of which involve motion and judgment of the power and direction of forces.

In reviewing past definitions of this function I am forced to think that most of our observers have allowed themselves to set up a part for the whole. The "sense of perpendicularity" regards only the line of the force of gravitation, while we most certainly are compelled to adapt ourselves to the force of winds and waters, the movements of vehicles and horses, of accidental jostlings among our fellow-creatures, of earthquake shocks, etc. Sense of the *direction of force* is universal and includes perpendicularity as a quality



poised, the impelled, the repulsed, the pressed, the resisted; the formation of the abstract conceptions of motion, rest, stability, force, resistance, weight, gravitation. It should in all these modes of action confer an intuition of all things and especially self, being subject to a play of forces and especially to the force of gravitation. By means of the muscular system, it

of the direction when gravitation is the force in question. This also omitted the sense of power. "Sense of weight" was equally deficient, for it referred only to gravitation, weight measuring the power of that force. *Power of force* is a universal term, includes weight, and is the term which corresponds to weight when applied to other forces than the earth's attrac-

tion. "Sense and conception of resistance" gives no hint as to the direction of it or the amount of it. Resistance is an implied factor in the balance or poise of bodies, which is the result of neutralizing both the direction and the power of forces.

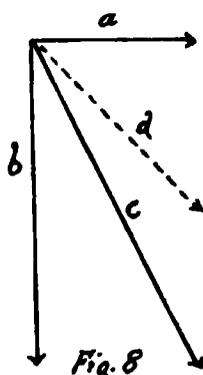


Fig. 8

"Power of adapting motions to the laws of gravitation," as a definition, leans to the skill side of the function, and overlooks the ordinary mental processes of perception, memory, conception, abstraction, intuition, except as they are implied in exercising skill in movement. "Control of motion"

is extreme in its neglect of the purely intellectual side. Neither of these last makes any attempt at summing' up briefly the essential functions of the organ.

In the manifestation of this faculty in talent, its two-fold character must be borne in mind. The same caution might be given in regard to most of the perceptives. It is first simply intellectual; then through a trained muscular system it passes into skill. As a consequence, a large endowment of this faculty may not confer skill in balancing or circus-riding, quoit-pitching, etc. It may be of the purely intellectual type, giving wonderful insight into mechanical movements, clear conceptions of the motions of the heavenly bodies, and power of combining and controlling forces in general. On the other hand, if the general type of mind leads away from the intellectual, and the muscular system is pronounced in quality or size, the faculty is likely to express itself in skill of all kinds which depend upon the sense of poise and the control of motion.

However, we must not ascribe too wide a sphere to the faculty. Many of the feats in which "Weight" ex-

presses its skill absolutely require other elements of skill to insure success. In billiard-playing, quoit-pitching, shooting at mark with the long bow, the element of distance is added. The object must be propelled to the mark; this requires the force and direction to be adjusted to the distance traversed. If there is not an equally true estimate of the distance, all the projectile skill in the world will not meet with success.

Skill in walking, riding, dancing and other functions of a muscular nature have another source of disturbance. The muscles may be well developed and skillful in some lines, and yet ungraceful attitudes will be assumed and ungainly movements made because daily occupation may have given little time for pedestrian or equestrian exercises. When we talk of the skill side of this and other perceptives, we must remember that the question is complex, and one factor being deficient may defeat success as fully as the one broken lute string.

In estimating the weight of objects as of merchandise or live-stock, Weight is not the only faculty concerned. We do not intuitively perceive weight or the power of forces in avoirdupois pounds. This is altogether an arbitrary and conventional means of expressing the comparative power of forces, and especially of the force of gravitation, to which all things are subject. What we do perceive is the quantum of power exerted on an object as measured by the muscular resistance necessary to support it. In holding a metal sphere in the hand we are conscious of a certain degree of resistance necessary to support it. This is equivalent to the quantum of force exerted on it by gravitation. We take a larger sphere, or a lesser sphere, of the same density, and we are conscious of a certain degree of resistance again, but another element is present, i. e., we are conscious that this resistance is greater or lesser than in the former.

Thus we arrive by experiment at the notion of comparative weight. But we have not arrived at a definite relation of weights, nor is it possible to do so without assuming an arbitrary standard. The metric system assumes the gram, the weight of a cubic centimeter of distilled water at the temperature of melting ice. The *avoirdupois* assumes the pound, equivalent to 27.7274 cub. in. distilled water at 62 deg. Fahr. Having assumed this, we learn by experiment the amount of resistance necessary to support the unit of weight. We must acquire by continued muscular experiment the power to sense the degrees of muscular resistance corresponding to the different multiples of the unit of weight. In this way, by lifting them, we acquire an ability to judge the weight of bodies in pounds or grams. Does this reduce the faculty to an acquired power? Certainly not. It is original and underrived, but its primary power, so far as it is concerned in judging weight, is only a sense of comparative resistances. Attaining facility in applying this sense to our arbitrary methods of measuring weights, is what requires the process of experiment.

In passing, we might here note the possibility of being endowed with a large organ of Weight, and having a fine skill in balancing or an excellent understanding of the laws of motion and applied mechanics, and yet not possessing an ability to guess the weight of bodies in pounds.

In estimating the weight of live stock, or grain, or merchandise in bulk, other elements are required—indeed, are more necessary than Weight. The chief thing is to recognize the cubic contents or volume of the pound or gram in the class of goods to be estimated. Then, by a power of comparing this standard pound or gram volume with the volume or bulk of the goods to be estimated, we arrive at an estimate of the weight. The faculty related to volumes, Size, is most concerned

in this. This is the method employed by the men who can go through a herd of cattle and estimate their average weight to within a few pounds. They have learned by weighing cattle to link together a certain bulk and its equivalent expression in pounds. Their work of estimating is then simply a comparison of bulk. Weight would hardly be needed by an expert cattleman, if it were not for the differences of solidity or compactness among stock. Size would confer the chief element of their talent.

From this observation we might infer that one who can guess weight in bulk, in which case the sense of resistance is not at all concerned, need not manifest any skill in balancing feats or have a very clear notion of applied mechanics, nor even take delight in viewing feats of balancing. All in all, the talents related to Weight are so varied that a practical examiner, when he has found a large organ, must be careful not to ascribe every kind of talent to its possessor, but to look further into his physical and mental make-up, to determine his talent in these lines. If the organ is small, of course all of these types of skill will be wanting, except the last, which may be present if Size is large.

Dr. Capen questioned the location of the organ, but he was led to do so, I think, by relegating it from the intellect to a mere co-ordinating muscular sense, which would certainly be more rationally placed in the cerebellum or the basilar ganglia than in the frontal lobe of the cerebrum. Having shown it to be as essentially intellectual as any other knowing faculty, it having, like the rest, a given aspect of objects to perceive and judge, I think it only fair logic to presume its location to be in the frontal lobe of the brain, a companion to the other perceptives. Besides this, I think that sufficient observations have been made to confirm its location there.

EXPERIENCE AND BRAIN GROWTH.

THE objection has been made that Phrenology is weak in respect to the determination of individual experience. It is said that we cannot know the history or environment of a man from the shape of his head, and that therefore we must be unable to form a true estimate of his character. This criticism, however, like all others made by the so-called skeptics, is simply an evidence of superficial acquaintance with the phrenological doctrine. In considering this subject there should be a sharp distinction between Phrenology as a philosophy and as an art. When viewed from the philosophical side, an objection like the one in question can have no bearing, and in applying Phrenology as an art, it is not asserted by the intelligent members of our profession that we can determine every detail relating to the life of a stranger submitted for examination. This is neither possible nor necessary under ordinary circumstances. For example, if a man of thievish proclivities comes under our hands, and we learn from the form of his head that he is inclined to steal, we conclude at once that in our dealings with him we ought to be on our guard. We see the danger there would be in giving him a chance to rob us, and thus we may be enabled to prevent him from doing us harm. Now if we accomplish this, could we do any more if we learned from the man's history or experience that he had stolen ten, twenty, or a thousand times, in amounts of ten cents or ten dollars? We should simply be impelled to watch him in either case.

Let us take another illustration. Suppose we wish to employ a man as an accountant, and we discover that he is as deficient in Calculation as was George Combe, the author of the "Constitution of Man." Do we not instantly conclude that he would be unfit for such a position? What if he has had experience in the performance

of such duties? George Combe studied mathematics seven years, but even then he could not remember the multiplication table, and hence he was not, and never could have been adapted to a mathematical profession. A fair statement of our teaching is that usually the general fact of the possession of a talent or moral quality, or a knowledge of its marked deficiency, will prove sufficient for our purposes, just as a similar knowledge of other sciences may serve us. Astronomy has not counted all the stars, nor has bacteriology discovered all the microbes. If an intelligent man learns that prussic acid is a powerful poison, he is likely to handle it carefully whether he knows its history, uses or exact chemical composition or not.

However, there are doubtless certain circumstances under which it will be of advantage to know the experience or education of the individual under examination. But in such cases, to the extent that the experience modifies the character, it will also modify the brain, and be so apparent in the form of the skull, or at least in the condition of the cranial integuments, as entirely to relieve us of any embarrassment.

If a man has been accustomed to long-continued exercise of a certain intellectual power, let us say of Causality, the effect will be very perceptible in a peculiar tension of the skin upon the upper forehead; a certain definiteness and fullness of the area allotted to that faculty, which, if the surrounding organs are only moderately developed, will appear as a veritable protuberance; and lastly, the sensitive fingers of the experienced examiner will detect the great activity of the brain within by the emanation of a subtle aura or vital current, which is as different from the doughy or leathery condition of an imbecile forehead as the touch of a living hand is different from that of a corpse.

E. C. B.

HOW TO STUDY STRANGERS

BY

TEMPERAMENT, FACE AND HEAD.

BY NELSON SIZER.

CHAPTER XI.

TEMPERAMENTS NOT BALANCED.

IN a crowded city a person may hunt for a month to find a well-balanced temperament. The term temperament means a mixture or combination of constitutional qualities useful and necessary in the make-up of manhood or animal life. There are all grades of balanced temperaments from strong to weak, as there are of wagons, from the heavy truck to the light road wagon, all parts of each made proportionate to the other parts, like Dr. Holmes' "Wonderful one-horse shay," which lasted "A hundred years to a day," and became worn out at a given moment and broke down into a worthless heap.

Balanced temperaments being rare and seldom found, either at par or at any other grade down to harmonious weakness, it follows that the important study of the temperaments becomes, for the most part, a study of departures or variations from the true standard of development.

Observe with something of a tailor's admiring criticism a company of cadets or soldiers on parade, and see how few, notwithstanding some padding of the breasts and sleeves, have satisfied you. Go to a gymnasium or to an athletic or calisthenic club, where exercise is done publicly and where the clothing does not, by puffing or padding, obscure the form; or go to the bathing beach, where the crowd of sparsely clad pleasure-seekers tempt the restless waters and display the structural form of their constitutions, and how few there are in a hundred whose figure is satis-

factory. And those who chance to have a favorable temperament for health, grace and power, how joyous does the man or woman seem in the display of it! If one with thin limbs, narrow shoulders, flat chest and weak structure generally, starts for the surf, consciousness of deficiency, not modesty alone, is expressed in every timid motion, till the kindly surf defeats criticism; whereas any one man, woman or child, with faultless figure and ample endowment of vitality and power, will walk with ease, graceful self-possession and evident pride.

We have, in Chapter VII., discussed the Motive temperament; in Chapter VIII. the Vital temperament, and in Chapter IX. the Mental temperament, showing and describing parts of the constitution which belong to the different temperaments respectively. In these discussions, we have aimed to show how much the Motive temperament covers of the constitution, what part of the organization it is that makes up that temperament, and so of the Vital and of the Mental. When these temperaments are equal and harmonious, we call the temperament balanced, and we have discussed, in Chapter X., what the general appearance of the constitution is when the temperaments are harmoniously and strongly developed; and with these expositions of the several temperaments and of the temperaments in harmonious combination before the reader's mind, he will be able, all the better, to understand that which now remains to be done in reference to

temperament, namely, the unequal developments of the temperaments, or the "temperaments not balanced." And we wish the reader here to dismiss from his mind the idea that a balanced temperament, whatever its grade of power, is all that is required. It needs to be strong as well as harmonious. Houses are built with light timbers, scanty covering and improper fastening, but it is the same from top to bottom; it is all alike; it is harmonious but not strong.

The discussion now before us relates to structures that are not harmoniously developed, or where the qualities are not of equal power and influence.

The reader goes out into the world and begins to study temperament; as a person approaches him he says to himself, "Now, I will see whether the Motive, the Vital or the Mental temperament predominates; sometimes he can readily see it and feels satisfied; sometimes he sees evidences of each of the temperaments; but then he is puzzled to know how much there is of one and how much proportionately there is of another, how well the balance is indicated?"

If he cannot tell which of the temperaments is most adequately endowed or most prominent in its development, the inference will be that it is a balance of temperament; but balanced temperaments are so scarce, one will tire himself in hunting to find one. We wish the reader to be so well versed in the matter, that whenever one appears, he will know it as quickly as a draughtsman would know a perfect circle, or an astronomical observer a moon that was perfectly full, not phased at all.

In the portraits that we present under this head, we wish to say in advance, if we happen to get a portrait of any man who is almost as well balanced and as strong and perfect as might be desired, it is an object lesson to the reader; he may carry it in his mind to contrast with some other less perfectly balanced and less vigorously endowed. And

though the portrait is inserted under the head of temperaments not balanced, it does not mean that whatever illustration we may give is therefore unbalanced; it will be seen, and we will be careful also to state the fact if we think the temperament is well balanced.

Fig. 104. In this portrait of Cyrus W. Field, the father of sub-marine telegraphy, there is distinctly seen evidences of the Motive temperament; the long, strong nose, the height of the person, and the height of his head in the region of the crown. He stood six feet high, was a man of strong frame and he had also in connection with these evidences of the Motive temperament, a great deal of natural mental excitability, so that the Motive-Mental temperament would be the title we would give his organization. He was born in 1819 in Stockbridge, Mass., and was one of the hardest workers in the world. He had toughness and endurance originating in the Motive temperament; he had also a fair share of the Vital and a high degree of the Mental temperament. Hence an active development of mind proceeding from such a constitution rendered him prompt, determined, persistent, alert, keen and earnest, and he had a kind of magnetism about him that commanded attention and respect, as evinced in his wonderful achievement connected with the disappointments and delays in laying the Atlantic cable. In 1856 he organized in London the "Atlantic Telegraph Company," and he subscribed for one-fourth of the whole capital of the company. By personal effort he procured from the British and American Governments aid in ships, and accompanied the expeditions which sailed from England in 1857 and 1858 to lay the cable across the Atlantic Ocean. Twice the attempt failed, once in '57 and once in '58. The third attempt was successful, and in August, 1858, telegraphic communication was made across the

ocean. It worked a few days and became silent; the public lost faith and resisted; the project now became more difficult than ever, but its chief promoter, Mr. Field, renewed his efforts, crossing and recrossing the ocean scores of times during seven weary

to the Western shore. Mr. Field had the prophetic sagacity to see what ought and could be done, and the courage to make the effort, the iron will and the persuasive wisdom which could lead, govern and co-ordinate the mental, financial, legislative and



FIG. 104.—CYRUS W. FIELD.

years, until at last in 1865, a better cable and better appliances were prepared, and the ship, "Great Eastern," a marvel of unwieldy folly except for cable laying, took it on board and sailed west, and after paying out twelve hundred miles the cable broke and was lost. The ship returned to England defeated. In 1866 another expedition set out and was successful. The Great Eastern returned to where the year before it had lost the cable, found it and spliced it with one which she had on board for the purpose, and carried it

popular forces requisite to begin, manage, and finish such an undertaking, which qualities in any one man might not again be found in a century. John Bright pronounced him the Columbus of modern times. At the age of thirty-five he devoted himself to the great untried task, and at forty-seven he had realized his hopes and won the perpetual gratitude of the human race. He was one of four brothers, each being pre-eminent in his sphere of effort. Judge Field being one, and David Dudley Field was another. He died in 1892.

Fig. 105. In temperament, George Law was in some respects a contrast to Cyrus W. Field; each man was a power and a success in his way. What sturdy features! What a strong, full, massive development, indicating the Vital temperament! What broad

at the bottom of the ladder, namely, as hod carrier, and worked thirty-three days and earned thirty-three dollars. In the Winter work failed, and he studied arithmetic, geography and bookkeeping. In the Spring he went to work as a mason and



FIG. 105.—GEORGE LAW, A MIGHTY MAN.

cheek bones, showing that the Motive temperament was amply developed! What a broad and masterful chin! What projecting eyebrows! What wealth of black, wiry hair! His voice was bass and terrible when aroused; his will was the law where he had a right to rule. He left the farm and became a builder, starting

bricklayer. His employer failed and he lost his Summer's work; but nothing daunted, he walked twenty-two miles to a job, earned the same wages per day, and walked back and paid his landlord. He rose to be a sub-contractor and finally a contractor; and before he was thirty years old he had made a fortune,

married, and was the father of a little family. He bid for, and obtained some sections of the Croton Aqueduct, and to him was awarded the contract for the building of the High Bridge over the Harlem River for the passage of the Croton Aqueduct, and it was the execution of this work which made him a millionaire. He was a natural mechanic, a good inventor, and he contrived ingenious plans for saving labor on this great job, so that, although he took the work at a very low estimate, he made it immensely profitable by means of the labor-saving apparatus which he invented for the purpose and used. The High Bridge across the Harlem has been for fifty years the wonder of visitors to New York City; but recently when making the new Croton Aqueduct, as they approached the Harlem River, instead of crossing it, as George Law did, by a very costly bridge, a shaft was sunk in the solid rock vertically below the river; it was continued horizontally under the river, and an upward shaft was made to bring the water back to the original level, and then it was sent on under ground through rock to the city. The steam drill and electric light made this possible and profitable. This serves to mark the change in engineering methods since 1840.

George Law, having made a fortune, engaged extensively in ocean steam navigation, having at one time not less than sixteen large steamships. To him belongs the credit of the Panama Railroad; though he did not originate the idea, without the aid of his capital and energy the road could not, at that time, have been built. In 1855 he was much talked of as a candidate for the Presidency. He was a mighty man, bodily and mentally; he weighed heavily, was solid, hardy and enduring, was tall and brawny as a giant, and he had a strong, practical brain to match, and he was a law unto himself and always a law to all whom he employed. He knew what ought to be done and

how, and would brook no delay or deficiency. He was rough in his manners when annoyed. His integrity and efficiency were recognized, and what he laid his hand to was expected to succeed. He would be master of his affairs. A captain of one of his steamers ordered some repairs without consulting Mr. Law, and when the bill of \$250 came in he declined to pay it. "But Captain Ward ordered it." Then said Geo. Law, "Let Captain Ward pay it." When the captain refused to pay it the claim was renewed and a suit threatened. Geo. Law replied as roughly as language could be framed. The suit was brought and a verdict taken by default, and Geo. Law paid the execution. Capt. Ward and the other fifteen captains, when in the home port afterward, asked the owner's consent to spend any considerable amount on a steamship. Geo. Law must be recognized as master of his own business if they were captains of his ships.

In George Law there was a high degree of two of the temperaments, the Vital and Motive, and a strong manifestation of the Mental, and Combativeness, Destructiveness and Self-esteem enough to master resistance.

Fig. 106. The temperament of Mr. Longfellow indicated a full degree of the Motive, a large degree of the Mental, a good share of the Vital temperament; and the Vital and Mental combining rendered his feelings and character smooth and pliable, and his language was sympathetic rather than coercive. He was affectionate and hopeful rather than dominating. He had very large perceptive organs, which rendered his mind fertile in description. His Language was amply developed, so that what his Perceptives recognized or his imagination suggested was presented in smoothness of diction and with a rhythmical harmony. He was a poet of things as well as of sentiment, and if one will read his "Hia-

watha" and note the thousand and one things which he draws into his lines, and by reiteration renders them rhythmical and musical, it will be seen how his large Perceptives and knowledge of things enabled him to

Hawthorne and John G. Whittier. His style was smooth and musical, his sentiments pure, elevated and genial, and his charming melody is loved and appreciated alike by scholars and those not favored with critical culture.



FIG. 106.—HENRY W. LONGFELLOW.

do that which, in the hands of a poet like Moore or Poe, might have suffered. They were poets of sentiment, and outside of the realm of sentiment and imagination not great. Longfellow was born in Portland, Maine, February 27, 1807, and died at his residence in Cambridge, Mass., March 24, 1882.

Mr. Longfellow was conspicuous in that brilliant galaxy of genius which included James Russell Lowell, Dr. Oliver Wendell Holmes, Nathaniel

The genial Dr. Holmes is the only one of that gifted circle now left, and though he has passed several of the milestones beyond the four-score, his mind seems as bright, his inner life as young, his social spirit as cordial, and his wit as keen and playful as when no gray messenger of time had ventured to touch his honored locks. Mr. Longfellow was born in Portland, Me., Feb. 27, 1807, and died at his residence in Cambridge, Mass., March 24, 1882.

Fig. 107. Thomas A. Edison has a temperament indicating a predominance of the Mental and Vital. The Motive temperament is not specially marked. Physically he is not to be thought of in connection with such men as Cyrus W. Field or George Law. Mr. Edison has the Mental temperament highly developed, and a full degree of the Vital temperament to give it nutrition; but he works smoothly, silently, patiently, is always busy, never tired, never in a hurry and never idle. He was born at Milan, Ohio, Feb. 11, 1847. When a boy running the streets he would get old clock-works and make structures with great ingenuity. He became a telegraph operator in the West, and was known to a few as one of the very best.

His advent to the East has been humorously told among the experts in the art, and may not be out of place here.

A leading man in a large telegraph office in Boston was offered a situation elsewhere, and the manager inquired of him if he knew a person who could fill his place; he told him he knew of but one man, and that was Thomas A. Edison, and he was in Chicago. He was telegraphed for, and when he reached the city he had a misshapen straw hat which had seen service and become pyramidal; he wore cotton clothes, and looked, after his long journey, anything but attractive. When he quietly announced his name to the manager all hands in the office looked upon him with contempt, and laid a plan to "roast him out," and placed him at the instrument to "receive"; that is, to hear and write out the matter as it came over the wires from Washington; the operator at Washington having been secretly requested by some envious operator in the Boston office, to "shove" the one who was receiving. He sat for four hours thus receiving, with a row of men standing with open mouths, watching his marvellous speed and accuracy. The machine clicked faster and faster, in-

creasing the speed beyond precedence, and still there was no outcry from the receiver to "repeat," and finally the operator at Washington, who knew of Edison in Chicago, inquired over the line, "Who have you receiving? It must be either the devil or



FIG. 107.—THOMAS A. EDISON.

Tom Edison." The man with the dilapidated straw hat quietly responded over the wire: "It is Tom Edison at your service," and that ended the extra speed, and convinced all the observers that the man under the straw hat was not to be despised; and several other people have since found it out.

Mr. Edison is known as the inventor or improver of the Telephone, of the Electric Light, and of the Phonograph or talking machine; also of the duplex system of telegraphy. He is modest and commonly silent, never boasts, but quietly works his way on to victory. We suppose he has made an ample fortune; he has doubtless done the world a thousand times more service than his fortune amounts to, and his name is yet to be elevated and more widely known. His work is but just begun, and his usefulness and fame, like that of Franklin and Morse, will broaden and brighten by time.

Beneficent invention is the sure passport to perpetual gratitude and fadeless renown.

Fig. 108. Mark Lemon.—This portrait indicates a man very highly endowed with the Vital temperament. He was large, heavy, plump, and as

There was in that development, a tendency towards intemperance in eating, in other words, over-nutrition. He could digest twice as much as he needed. Obesity was therefore his bane; though he was a man of wit and brilliancy, his temperament was



FIG. 108.—MARK LEMON, EDITOR OF "LONDON PUNCH."

he became older, was fat and unwieldy. He had hard, strong hair, large bones, and a very solid and substantial muscular development; hence he was Vital and Motive, more strongly Vital than Motive. If such a man would live temperately and exercise abundantly, he would be likely to attain to a great age. He evidently resembled his mother, from whom, probably, he obtained his Vital tendency. His forehead indicates practical talent and excellent memory and ability to use all he knew to a good advantage at a moment's notice.

a temptation to degeneration in tone and character.

Fig. 109. James B. Richards had a remarkably fine quality of organization, was tender, gentle, sensitive, susceptible and exceedingly sympathetic. He had large Mirthfulness and was witty. He had large Ideality and was poetical. He had large Language, and was one of the finest delineators of tender and touching and sympathetic subjects that I ever knew, personally. He was broad in the region of the temples. With large Ideality, Mirthfulness and Self-

esteem, he had rather large Constructiveness; he had good perceptive intellect, wonderful order and patience that knew no fatigue, persistency without parallel. He was an assistant of Dr. Howe, of Boston, who educated Laura Bridgeman, the

years ago he died of pneumonia, and I remember that George William Curtis sat at the head of the coffin at the funeral, showing what one cultured, thoughtful, gentle nature thought of James B. Richards.

Mr. Richards was a natural mis-



FIG. 109.—JAMES B. RICHARDS, TEACHER, ESPECIALLY OF IDIOTS.

deaf, dumb and blind girl. Mr. Richards astonished the world by educating idiots that seemed to be utterly helpless and senseless; and in the progress of time, calling out the feeble spark and culturing it so that one such boy repeated the Lord's Prayer after three years of training, and a distinguished bishop said, with tears trembling in his eyes, "I never heard it better recited." Mr. Richards had a school in New York for feeble-minded children which I often visited, and it was a marvel to witness from time to time the changes that he would make in the condition of those that had been neglected and despised. A few

missionary. His father and mother were among the first American missionaries in the East. They went there directly after their marriage and commenced together to study the manners and customs of the people and also to study the language of the country. At the same time that they were studying and becoming pupils of the heathen, they were preparing and exercising their faculties in gaining access to the thoughts and giving instruction to the people in a religion to them new, and of course strange; and while thus engaged in this peculiar work of student life and teacher life at once, they became parents of James B. Richards. The parents

had made themselves teachable in learning this strange language, and at the same time had mellowed themselves to habits which brought them clear down to the comprehension of the people who were learning from them new thoughts, new ideas; and their child inherited this faculty to teach and this teachable spirit, and probably since time began there was never a child born under circumstances so favorable to make him a teacher of those low down in comprehension, and in respect to whom there is great difficulty in minifying the truth, in other words, grinding the whole corn so that the little chickens can eat it.

Thus he was eminently qualified by his parentage and their peculiar condition to become a teacher of the little ones. He would go to a family where there was an idiotic child or a child that was remarkable for weakness or imbecility, and he would want the parents to say nothing to the child and let him be in the room alone with it, and he would get down on the floor with the playthings and commune with the child at its own level, and thus learn its status, its grade of mentality.

So he commenced with one idiotic child that was considered as senseless as an oyster; he lacked even the bodily perception of touch, so little was his nervous system developed and cultured. The boy was brought to Boston for Mr. Richards to deal with. He was not dressed, simply wrapped up; he lay on a pallet on the floor; and made no intelligent noise. Mr. Richards lay down by the side of him, and drew his hands over him gently, magnetically; and then he would take a Greek book and read aloud, and he had a peculiarly sweet and sonorous voice. He read to him that way an hour a day, of course, read merely to occupy himself and keep himself posted in Greek and to busy himself and be near to the child, eight years old. After six months' reading daily to him an hour while

lying on the floor, he thought he would remain in the chair and read, and the child began to express displeasure, discomfort. He would lift one shoulder and partly roll over, and manifest by a noise he made, a kind of moan, that he was not quite satisfied. Mr. Richards watched him and read some more, and a repetition of the discontent was made. And it occurred to him that perhaps the child wanted him to lie down as before and read to him as he had done. He lay down by the side of him and commenced to read, and the boy drew a long breath and gave an expression of contentment—uttered a sound of satisfaction—and this was the first dawning of that child's intellect, the first manifestation of choice or preference; and the teacher was so delighted with such slow success, even of such small measure that he ran to Dr. Howe in the institution, dancing with delight, and he said: "Eureka! Eureka! I have found it! I have found it!" And this was the boy that recited the Lord's Prayer in the presence of the Bishop after three years' training.

Fig. 110. This portrait of the Indian Chief is a contrast to James B. Richards. The face is coarse and powerful, a great bony nose, strong cheek bones, a heavy, hard upper lip, large development across the brows in the region of the perceptives, which constitute mainly the Indian's intellectuality, with a moderate development of the upper part of the forehead, where the reasoning and creative faculties are located. The base of the brain was large, showing severity, cruelty, and the qualities that go with rude, savage life. Two generations of culture of the children of such a person, separated from the wild, rough usages of the life of their ancestors, would increase the upper section of the brain, would soften and harmonize the features, and would tend to equalize the development of face and brain and body and modify the tem-

perament. The Motive temperament is the strong one in this organization; the Vital is second in strength; the Mental is only medium. I once saw this Indian in New York on exhibition and shook hands with him.

If the reader will turn to Figs. 27

and deficient in these Indian portraits, while in Caleb Cushing and other cultured and civilized men, the tophead and upper part of the forehead, especially, are more broadly and amply developed. Across the brow, Red Cloud and Black Hawk are amply developed, and their culture



FIG. 110.—RED CLOUD.

and 28, and study the head of Black Hawk in connection with that of Red Cloud, of the same family of mankind, he will have a vivid sense of the difference between the wild man without civilization and culture which never rises above the mere acquisition of the means of subsistence, and a member of the Anglo-Saxon race as presented in Fig. 111, Caleb Cushing. Red Cloud and Black Hawk have a narrow and pinched top head; the reasoning intellect, shown in the upper part of the forehead is narrow

and deficient in these Indian portraits, while in Caleb Cushing and other cultured and civilized men, the tophead and upper part of the forehead, especially, are more broadly and amply developed. Across the brow, Red Cloud and Black Hawk are amply developed, and their culture

in the study of things and mere external phenomena and the confining of their minds mainly to the objective, the practical, have brought out the Perceptive development in the Indian race in a remarkable degree. As that is almost their sole dependence in respect to knowledge and the means of meeting and mastering difficulties, they are exceedingly keen in their observations and wonderful in their memory of things.

Another contrast between Fig. 111 and the Indian's head, is the enor-

mous difference in the development of the middle lobes of the brain above and about the ears, in which region are located the organs of animal propensity and force. The Indian is Combative, and especially Destructive,

from that of Figs. 109 and 111 as the forms of the heads vary, and these furnish a broad and intensely interesting study by way of contrast both of temperament and mental organization.



FIG. 111.—CALEB CUSHING; STATESMAN AND JURIST.

secretive and cautious. With those who live under law and have the protection of person and property by laws established by the commonwealth, the need of personal protection and defence is so mitigated that the organs involved in these functions need not be so strong as in the wild man, whose might is in his right arm, and whose security is largely promoted by his cunning and prudence.

The temperament as indicated in Figs. 27, 28 and 110 is as different

Fig. 111. This portrait exhibits a predominance of the Mental temperament with a full degree of the Vital temperament, and an average degree of the Motive. He was a lawyer and orator, a member of Congress, a Senator and a Judge; was one of the finest intellects of his time. As a jurist he was subtle, clearheaded, highly educated, and well informed. What a contrast this head and face gives us with Red Cloud, Mark Lemon or George Law!

CHARACTER STUDIES. No. 4.

BY NELSON SIZER.

PHRENOLOGICAL CHARACTER OF

B. B. TYLER

(Dictated to a reporter, the subject being a total stranger with no hint as to his name or pursuit.)

YOU have a large head, measuring as it does $23\frac{1}{4}$ inches in circumference and 15 inches from the opening of one ear to that of the other, over the top. We suppose a man who carries a brain as large as that ought to weigh 180 pounds as a rule; as you weigh 175 pounds and are not very tall, we will call it a balance between head and body. The chief temperament in your case is the Vital. The Vital temperament is made up of the nutritive system which manufactures food into sustenance for brain, bone and muscle. There are many persons who lack this temperament, they have not much vitality, they lack power to execute. We once had a man under our hands whose head measured 24 inches and he gave his weight as 125 pounds. He might have been pre-eminent as a bookkeeper, he might have served his day and generation admirably in that business, but he could not stride through the mountains and buy timber by the forty acres to be used in large enterprises. He could not prospect for iron and copper among rugged regions. But he could keep accounts in a rolling mill, in a foundry. The bookkeeper does not care, it makes no difference to him whether it is a trip hammer he is writing about or a bank-note printing press; it is iron in both cases.

Your Motive temperament is fairly developed, you are not lacking in bone or muscle. We judge that you are more like your mother than like your father, because you have comparatively small features. You have a long body which gives room for the Vital apparatus; you have small feet and rather small hands; you sit tall

and stand short; these are indications that a boy resembles his mother. Now with your large active brain and your good body you have a bank of vitality on which you can draw for supplies and your drafts will be fully answered and honored. In other words, when you want to work with the hands or with the brain there is something somewhere that comes to the rescue and brings the steam; it does you good to work, you think it is wholesome.

You have broad cheekbones which indicate large lungs. You have a pretty broad face outward from the mouth which means good digestion; those are a part of the Vital machinery, to make blood and aerate it. You have a fine quality of organization. As I draw my finger carefully across the forehead it seems like satin instead of like canvas. Therefore the quality which you have, and the susceptible nature, as well as the strength of character, show that you are acute as well as masterful. Some men are like a great sledge-hammer, they have wonderful power but they do not do very smooth work.

You have large Perceptive organs which give you the ability to gather knowledge and appreciate its peculiarities. The Perceptive faculties as we study them take into consideration the sample existence of things. One faculty, Individuality, sees things as things, without knowing what they are for, but it recognizes. The organ of Form studies the shape; if it is a rose, an acorn, if it is something long and sharp, something broad and square, Form tells what the thing looks like. Then the faculty of Size takes into account magnitude, weight, bulk, density. Color gives us pleasure in the harmony of beauty, shades and tints. Order comes in and says how the things shall be arranged, sees

the apples on trees and other things on the ground; regulates everything, and expects to find it there when it comes back. Calculation counts, sees the multitude and the infinitesimal. Then Eventuality is well de-

veloped. You are a chronological man. You like to hear a man say, "In the year 1833," such a thing happened. If he says it was the 18th of October, it makes it all the better. You are very likely to put the dates in. If you had



FIG. 4. REV. B. B. TYLER.

veloped, that remembers the history of things. Locality remembers places; where you have been, where you want to go; it is a geographical faculty. No two things occupy the same place at the same time, consequently one must be in one place and another in another place; Locality takes account of it. Time, periodicity, chronology, is another fact of human life; beyond this life if there are no clocks, no sunrise or sunset to keep tally by, we may have an unvarying sweep of light, life and joy, and we will not care to have it cut up into pieces. If we do not need to sleep we shall not need the night. But Time is large in you.

letter-heads you would have printed on them 189 , then you would put the three or the four in when the time came; so your letters would all be dated, whatever else they might contain. These are footprints in the sands of time. You like to fix the day. To you it seems a part of the truth. If a man can say, "On the 6th day of October, 1850, I sailed in the sloop Mary Jane from Boston for New York," you are ready to believe all the rest of the story; if he remembers so much why not all?

You do not like to open a book and have it commence with, "Once upon a time," such a thing happened,

Henry James used to say, "On a sultry Summer afternoon in the month of August, 1837, a solitary horseman might have been seen climbing the western slope of the Alps." When he gets all that fixed, he may imagine as much as he likes afterward, it seems to you as if he knew about it. In other words, you are a statistician, dates, places and time seem to be pleasant to you. An English clergyman will write a letter and date it at such a "Rectory," naming his parish; somehow it looks as if he belonged somewhere. They speak of the Duke of Bedford; that locates him. Now, these things to a person who does not study mind as we do, at first sight, may not seem important; but when we come to take account of what has been, where it happened, by whom it was done, all this data that the Perceptives take in is no mean part of literature and knowledge.

Then your Comparison is large. You compare one fact with another, one thing with another, one man with another; therefore you are a critic. You hold each fact in the thought, and you try it by some yard-stick, some scale of measurement or estimation. If you know what a diamond is, and another stone is presented, you take the diamond for the means of criticism, to see whether the other is a diamond or not. We see the difference between apples; when we want an apple, and it is very important we should have a good one, we take one out of the number one pile; those in number six pile may do for the boys who have but a penny to buy with. They are all apples and may have grown on the same tree, but there is a difference in them; and Comparison takes account of the difference.

You have large Causality. You ask questions, and you do not feel satisfied till they are answered. You make an effort, and you did when you were a child, to tell the why as well as the what. I suppose a milkman's horse knows every house in the whole

row as well as the man does, and he insists upon stopping sometimes after the customer has dropped out; but he does not know what they go there for. The dog also knows all about the what, but he does not know what the transaction is for; the reason he does not get hold of; but he knows the facts and places as well as the master does.

You are a good judge of strangers. You appreciate motive, character, and disposition. You have a sense of what people are; it is instinctive; it is possessed more or less by the lower animals. If a man comes in with a frown on his face, his dog is demure and waits for any orders that may be given. If the man comes in with a smile on his face, the dog smiles too. He knows the mood. I have sometimes thought a dog knows when he is lost and wants a master, which man out of twenty to make up to; he will hit the right one. You have the spirit which leads you to try to make what you say and do acceptable to people; it is the faculty we call Agreeableness. You are not often mistaken in a stranger; then you have the power to make yourself acceptable; and when you are among total strangers it is easy for you to see who would be a pleasant traveling companion, and you would move up and give him a place beside you; and you would find him a delightful person to talk to, and he is pleased also with you.

Benevolence makes you pity a good many people who might think they did not need pity. You pity people because they do not know any better; because they do not behave as well as they should. People may have plenty of money, a good education, and they might wonder why you took the trouble to be sorry for them; but you are sorry for them if there is any reason for it.

Your power to copy, conform, adapt yourself, to do as others do, is well marked. You could go to Spain, or any other foreign country, and learn

readily to do as well-behaved people there do. You would take on their ways of expressing astonishment by shrugging the shoulders, lifting the eyebrows; you would do it unconsciously. Imitation is an educator. A little girl watches to see how her mother handles the baby, and she goes through the same ceremonies with her doll. A boy watches to see his father drive the horses, and he takes two chairs and harnesses them and plays horse; and the mimic method he adopts is the fun of it; and in that way he learns to do the work of life.

You have a good development of Hope, and are inclined to look on the favorable side. If people come to you with their troubles and feel that their prospects are dark, their hearts are almost broken, you have something like this to say to them: "It is always the darkest just before day." "It is a long road that has no turning." You would have some comforting words to make a person feel that they were not clean gone to despair. In regard to your own affairs, you shake off trouble a little as a bird shakes off the rain, so it will not soak in.

Conscientiousness renders your mind firm in its sense of righteousness. You believe in duty and obligation. If you give a person to understand that you think this or that, that you approve or sustain any line of action that is under discussion, you feel in duty bound to do so, especially if it comes to grief and somebody loses. You probably in your time have offered to pay in such cases, where a man had lost by acting upon your advice or approval. He might have said when you offered to pay it, "Oh, no; I was not obliged to take your suggestion; you were honest in it; I do not blame you." But you would feel as if you ought to pay it; and if you were wealthy you would always insist upon doing it; so nobody could ever say that you had ever taken tacitly responsibility, then slipped out from under it.

You would wield justice if you were on the bench, but you would temper it with mercy. You would sometimes suspend judgment and give a boy who ought to know better and do better a chance to try again; by suspending his sentence you would give him an opportunity to reform, but it would be with the understanding he could be called in again for this at any time. If people will try to do right hereafter you will try to forgive them for the past; but you feel the full weight and enormity of whatever is wrong in others as well as in yourself.

Your Self-esteem is not quite as large as I would model it if I could. If you had a little more of that calm, cool selfhood that can rise above criticism and censure and not suffer too much I would give it to you. You are more sensitive about what people think, say and feel relative to you than most men. You do not want a child to move away from you, as much as to say, "I do not know about it." If a dog acted as if he were afraid of you you would wonder if you had made a motion that made the dog think you were ready to strike him or kick him. If you became vexed with your horse and gave him one or two sharp cuts with the whip, and found out afterward his harness was tangled in some way and that he was not to blame for not responding, you would feel conscience smitten; then your Approbativeness would come in and you would feel that you must apologize to the horse; so you would get out of the wagon, fix the harness and pat the horse till he felt that his master was really his friend; then you would get into the wagon when it was settled and go on your way rejoicing. To be approved is a great fact for you. If you had a little more Self-esteem it would be better for you. I think it has grown, responsibility has probably developed it; but all your life you have been a little short on that, the power to assume or adopt a mandatory method when it is required.

You sometimes take a soft method of righting wrongs when a mandatory, stern method would be a means of grace to the other man, and easier for yourself if you had the material to work out in that way. You have the organs which give force, economy, prudence, ingenuity and taste well developed. Combativeness and Destructiveness give people the courage to meet difficulty, and severity to punish that which deserves it, and to control affairs though others may have to suffer. For example, Destructiveness is necessary in the dentist though he may be gentle, polite and kind. He may tell a little boy when he gets fairly hold of a tooth that he will not pull it till he gives him notice, he only wants to see how it is; he need not be afraid that he will pull it till he gives him notice; and when he is ready, he says: "Now," and he gives the boy a slap on the shoulder at the same time, and that shock is a part of the general shock and the boy does not know the tooth is out. That is merciful severity. A surgeon has occasion to do the same thing sometimes. We are obliged to do some things that give our children pain sometimes as a means of reformation. I suppose when a person sends a child into a dark room because he is in discredit the parent may suffer more than the child. A man or woman who has Destructiveness and Conscientiousness will have a steady hand in the administration of righteous judgment, even though the sympathies and affections may pull the other way. "Whom he loveth he chasteneth and scourges every one whom he receiveth."

If you had been trained as a business man you would have been very efficient; you would have been thorough and earnest in starting for the field of work, and you would have pushed the cause you had in hand. You would not get tired as soon as most men; as long as something remained to be done you would feel the

strength requisite to do it; but when you got through and had reached home, taken your seat at the table, you might feel hardly able to replenish the inner man. In other words, you have the energy to work up all your steam when the occasion demands it; therefore you are a good worker, a willing worker.

You have the elements of economy, financial wisdom. You could manage to get a good deal of comfort out of a small income. You could manage to make a small, poor farm do more to support a little family than most men who are blessed with such an inheritance. If you were used to farming you would mow closely and rake cleanly; but you would not rake the hay for yourself to eat; you would want a tight roof to keep it nicely till cold zero weather had come, then every spear of grass so saved would be carefully and generously fed to the hungry stock waiting for it. You economize that you may have wherewith to give.

You have large Constructiveness. You would have made a good mechanic if you had been trained to it; a good engineer. You take an interest in what people are doing. If they are sinking great flat stones twenty feet below the surface of the street on which to build piers to put a ten-story house on, you like to watch them; you appreciate the durability of such a structure; and when you see the building after it is finished you know what it is built upon. You enjoy music. You enjoy mirth. You appreciate your food. You enjoy physical life better than most men do. You enjoy society. You are an ardent lover. You are fond of pets. You are a good friend. You put your palm into that of another man and look him in the eye as if you felt he was a brother beloved. You can impress people who are not related to you with the feeling that you are nearer to them than most men are. Some men shake hands with us as if the hand were a wet rope, and we do not adhere to them except with aversion. The fam-

ily circle like you. You are welcome to your young people, and though your hair is white people do not think that you are old; and when you have lived twenty years longer, if you maintain your health, you will have an enthusiasm that will make people feel that you are not as old as other men of the same age. You get this from your mother, the vitality, the mirthfulness, the sympathy, the affection, the friendship and the domesticity, and probably you get your economy from her. I think her bureau drawers were full of rolls of linen and cotton cloth that might be wanted in the neighborhood somewhere in the case of sickness if not in the house at home. The poor people missed her when she got through; the rich could do without her, they would mourn in the abstract, they would not mourn as the poor would.

You ought to be a man who can be useful. I can hardly think of a place that an organization like yours could not go into and fill well. If you were at the wheel of a ship in a storm, and knew how, you would hold out well. If you were a quarryman the granite would seem more lenient under your blows than under some lighter ones. You might have been a good builder, a good architect. You have such an admiration for a house that is contrived to be handy and convenient and solid, you cannot help studying architecture when you are in a house that is well appointed.

You are not a stranger a great while to people who might be acquainted with you. You are approachable, available, you can make yourself useful to most people. You would do well in literature. You would do decidedly well in science, you would make an impulsive and earnest speaker. You would never induce an audience to feel that you were a kind of a professional saint at a distance admonishing another class of beings. They would think you were an elder brother who had come

to help them. You would be more acceptable to people than you would if you had a high crown of head, a hard physiognomy, and said things in a more mandatory way.

You are a clear thinker, an accurate and definite writer. You would do well in the lecture room, at the bar, in the pulpit or in the school room. Your earnestness of character would back up your intellectual work.

BIOGRAPHY.

BENJAMIN BUSHROD TYLER was born near Decatur, Ill., April 9, 1840. His parents were native Kentuckians, the father tracing his ancestry to England and the mother to Ireland. The religious training of both was according to the theology of the Presbyterian Church; but in early life they united with the Baptists in Kentucky, and Mr. Tyler was ordained to the Gospel ministry by the Baptist Church, in Fayette County.

The Tylers left Kentucky at an early day, and located in Sangamon County, Ill.

Under most favorable domestic influences the subject of this notice was reared in early life, and at the age of nineteen years, under the instruction of his father, he was induced to become a Christian, and was accordingly baptized by him in the Sangamon River on Aug. 1, 1859. Young Tyler immediately turned his attention to acquiring an education for the Gospel ministry, and entered Eureka College, Illinois, the following month. He had spent two years at the college, when the war of the Rebellion broke out, and it became necessary that he should leave school and turn his attention to some means by which he might accumulate funds, and so return to college. But he never returned. His marked ability in persuading men to become Christians was immediately so apparent that his brethren generally decided that the education he had already received, in view of the constant success attend-

ing his ministrations, was sufficient for an introduction to the life work for which he seemed specially adapted; and accordingly, on Sept. 4, 1861, at the State Convention of Disciples at Eureka, the young man was regularly ordained to the Gospel ministry.

In December, 1862, Mr. Tyler was married to Miss Sarah A. Burton, the daughter of a prosperous merchant in Eureka. Of this alliance he says: "A better wife a preacher never had."

In 1864, Mr. Tyler was engaged as pastor of a church in Charleston, Coles County, Ill. In 1868 Mr. and Mrs. Tyler made a tour through the Eastern States occupying four months.

In 1869 Mr. Tyler located at Terre Haute, Ind., and continued until 1872, when Mrs. Tyler's failing health suggested the propriety of going South; hence, in that year on the first of May, he commenced his labors in Frankfort, Ky., continuing in this work until April, 1876, when he was called to the First Christian Church, Louisville, Ky. The pastor's work here, during the six years he remained with it, was, by reason of heavy mortgages on its property, largely of a business character.

After Mr. Tyler's resignation of the pastorate in Louisville, he made a visit in May, 1882, to the Church of Disciples, then located on Twenty-eighth street, New York, and subsequently accepted an invitation to become the pastor. Consequently, the Twenty-eighth street property was sold and a new and better located edifice was erected on West Fifty-sixth street, near Eighth avenue. This was completed and occupied in 1883, since which time to the present Mr. Tyler has been the pastor. The title D.D. was conferred on him in 1892, by Drake University, located at Des Moines, Iowa.

Dr Tyler has for years been the regular correspondent of the *Christian Standard*, published at Cincinnati.

He is also a member of the International Sunday School Lesson Committee. He is prominent among the leaders of the Christian Endeavor work, is a member of the Board of Managers of the American Bible Society, and of its Committee on Versions. He is president of the Chautauqua Union of New York city.

Dr. Tyler's natural endowments for his life work have been ample. In physical proportions he is about 5 feet 9 inches high and weighs 180 pounds. His voice is of great power and he controls its wide compass with excellent skill, suiting its inflections judiciously to the nature of his theme, and uttering every articulation with great distinctness but with little apparent effort, so that one seldom tires in listening.

It is only on extraordinary occasions that any manuscript is before him-- he is fluent in the use of language, and often excites strong emotional contrasts in his audience by translations from the gay and humorous to the sober and serious in his own sympathies. Under his pulpit ministrations in New York it is seldom that a week passes without additions to the membership of the church.

M. C. T.

THE CHILDREN'S HOUR.

- " God wants the happy-hearted girls,
The loving girls, the best of girls, the
worst of girls—
God wants to make the girls His pearls,
And so reflect His holy face,
And bring to mind His wondrous grace,
That beautiful the world may be,
And filled with love and purity.
- " God wants the boys, the merry boys,
The noisy boys, the funny boys, the
thoughtless boys—
God wants the boys with all their joys,
That He as gold may make them pure,
And teach them trials to endure ;
His heroes brave He'll have them be
Fighting for truth and purity."

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

BY CHARLOTTE FOWLER WELLS.

SAMUEL KIRKHAM.—DR. CHARLES A. LEE.

SAMUEL KIRKHAM, the eminent grammarian, was born in 1796. He was, in the fullest sense of the term, a self-made man, of great industry and unbounded perseverance. His parents were too poor to give him more than a common school education, yet he contrived by working days and studying late at night to acquire sufficient learning to teach a country school. He early manifested skill as a grammarian, and produced a work on grammar which commanded an immense sale, sometimes amounting to over 30,000 in a single year.

His peculiar combination of faculties was of great assistance to him in the preparation of this work. His Causality was very large, and he was full of new ideas, improvements and contrivances; in fact, he never did anything as anybody else did it. It was this faculty, in conjunction with large Comparison and Language, which rendered him so eminent as a grammarian. The work was more plain and practical than any of its predecessors, and enabled scholars to learn grammar without the aid of teachers.

After he became a teacher this inventive Causality, already mentioned, sought out new, plain, concise methods of teaching grammar, and these he embodied in a work in the form of familiar lectures, which, with indomitable exertion and perseverance, he introduced in person in many parts of the country, and thus created a market for it. His Language was large, so also were Form, Ideality and Comparison; these gave him his ability as a writer. He was an excellent verbal and logical critic, a good speller, a good writer, and it was the combination of these qualities that induced O. S. Fowler to allow him to revise and criticise "Fowler's Phren-

ology." (He had offered to criticise the work in order to learn Phrenology.)

Kirkham ran his pen through much of the manuscript, erasing some words, punctuating and spelling (the extra k and u being his interpolations), the grammar, pointing, etc., throughout being his, while its subject matter was the joint production of my brothers, O. S. and L. N. Fowler. Some of the prefatory remarks concerning the external senses were Kirkham's, because he knew as much about them as the authors, and so were the remarks on Language, because they bordered on a subject with which he was familiar.

The following is my brother, O. S. Fowler's account of how Mr. Kirkham became interested in Phrenology:

"On my first visit to Baltimore, in 1835, Mr. Kirkham was introduced to me and examined, without my knowing his name or character. Till then he had not been a believer in Phrenology. That examination, so correct, so pointed, together with that of his wife and niece, and the contrast drawn between them, confounded and astonished him.

"An invitation to dinner followed. He also made frequent visits to my rooms, to hear the characters of his fellow citizens delineated. The result was that he became fully convinced of the truth and importance of Phrenology, and commenced its study. The next summer, in order to become still further inducted into its facts and principles, he invited me to take a trip with him in his carriage through Central Pennsylvania, he to lecture on grammar and elocution, and I to lecture on Phrenology, one of his main objects being to hear heads examined and learn practical Phren-

ology. After nearly two years' study, and considerable private practice, he commenced lecturing on Phrenology and examining heads, professionally, in which he was very successful financially, principally at the South, where he is well remembered as a Phrenologist. He reached an order of minds which few Phrenologists could well reach—the scientific and the learned. He always had dignity, and committed few mistakes, though he was not quick or very skillful in examining heads. His Individuality and Eventuality were both small, and he felt and lamented the difficulty occasioned thereby very much."

Mr. Kirkham's organization was very prominent, in regard to both the features of his face and the general construction of his body, and in his phrenological developments and mental characteristics. His temperament was motive-mental, and indicated an unusual degree of strength and activity of both body and mind. He was never idle; he undertook too much and, in fact, shortened his life probably several years in consequence, first, of excessive application in introducing his grammar, and afterward by lecturing on Phrenology, superintending the erection of buildings, etc. The consequent enfeebling of his body, besides hastening his death, rendered his literary labors less complete and efficient, and his life less useful than it would have been if he had not broken down by over exertion.

Mr. Kirkham possessed indomitable perseverance and determination of character. In this respect few equalled him. Nothing could discourage, nothing turn him. Once set upon an object he knew no change, but held on through any amount of opposition until he succeeded. The organ of Continuity was large; if he began to talk upon one subject, he would dwell upon, amplify, expound and fully present that one subject in all its various bearings. He also insisted on fin-

ishing whatever he undertook, putting on the last touches, working it up into one great and complete whole.

He also had great dignity, manliness, self-reliance, and confidence in himself. He cared little what was said about him, for he was conscious of his power and confident of his correctness. He could seldom be convinced of an error in anything.

For several years before his death he was evidently afflicted with an internal fever, which slowly but effectually burnt up his vital energies, and threw his whole system into a state of high and morbid excitement; he then became one of the most irritable and fretful of men. Nothing went to suit him. This irritability continued to increase till within some four weeks of his decease, when he became peaceable, resigned and contented. He then seemed satisfied with everything around him, and, above all, manifested perfect resignation to his impending fate. His religious feelings greatly increased. He was glad to receive religious instruction, and expressed perfect resignation to the will of God. He retained his faculties to the last, and till within a few weeks of his death continued to improve his mind by reading and reflection and hearing others read even while taking his meals.

Mr. Kirkham was one of the most generous and self-sacrificing of men, and though he used every exertion in his power to acquire property, and had a good income, he was almost a prodigal in the use of his money. He was kind to his friends beyond his ability, and at the time of his death involved in pecuniary embarrassments for their benefit. He was often heard to say that he could never enjoy life while he saw his friends poor.

Mr. Kirkham died of pulmonary consumption in New York City, May 19, 1843, and was buried in Trinity cemetery, a few miles north of the city. He willed his skull to his wife, and at her death to his son, and at his death to the Phrenological Society of the City of New York.

DR. LEE, who held a professorship in the University of New York, and at another time in the Geneva Medical College, N. Y., was the author of a work entitled "Human Physiology," published in 1841, by the American Common School Union. This book passed through several editions and contained a full and correct exposition of Phrenology. It was popular with the young and extensively used as a text book. Dr. Lee was a popular practicing physician, and attended Mr. O. S. Fowler during an attack of small pox in 1841. He was the editor of "Pereira on Food and Diet." The following extract will show how clearly and correctly the principles of the science are presented in Dr. Lee's work on "Human Physiology": "The actual meaning of the term Phrenology is 'a discourse about the mind' or 'the doctrine of the mind.' It professes, indeed, to be a system of mental philosophy, and as it is founded in nature

and supported by facts, it certainly is not beneath the attention of the candid inquirer after truth.

"The chief doctrines which Phrenology claims to have established are the following:

"1. That the moral and the intellectual faculties are innate.

"2. That their exercise, or manifestation, depends on organization.

"3. That the brain is the organ of all the propensities, sentiments and intellectual faculties.

"4. That the brain is composed of as many particular organs as there are propensities, sentiments and other faculties, which differ essentially from each other. These four propositions may be said to constitute the phrenological doctrine, and they are sustained by such numerous experiments, observations and facts, that a large proportion of enlightened physiologists of the present day acquiesce in their correctness." Dr. Lee lived a useful life to a good old age.

CYRIL TYLER, THE BOY SOPRANO.

A PHRENOGRAPH FROM A PERSONAL EXAMINATION.

BY EDGAR C. BEALL, M.D.

THIS is a typically musical head. The diameter at the temples is so great that only a modicum of ability to measure distance is necessary to perceive it in the living subject, and it is almost equally noticeable in the accompanying portrait. The calipers show a width of five inches at the location of the musical centre, which is only half an inch less than the measurement of Paderewski's head at the same point. Yet this is a child, only twelve and a half years of age. His weight is ninety-seven pounds, which is not remarkable, but the circumference of his head is twenty-two inches, the full size for an adult.

In the marked expansion at the sides of this forehead, not only at Tune,

but also at Constructiveness and Ideality, we have an illustration of nature's method of giving the essential or most important faculties a central location, while the qualities which embellish the mind, being super-additions in the course of development, are placed in the lateral, upper or outermost regions. Accordingly we observe that in the low, unæsthetic races in tropical countries, where little or no ingenuity is required to maintain an existence, the forehead is narrow. On the other hand, the Germans, who, as a nation, in the three departments of music, mechanism and poetry, have doubtless achieved the highest results ever reached, are characterized by a greater breadth of forehead than any other

people. Of course the foregoing statement applies especially to music. But whatever opinions one may hold as to the relative merits of their literary or mechanical art, it cannot be denied that the Germans are the most profound musicians, and that as a rule they have the organization which corroborates the great discovery of Gall.

In all really eminent composers of any nationality, the forehead is wide. This is particularly true of Mozart, Beethoven and Wagner. Still, we must caution students of phrenology not to be impatient over failures to estimate musical ability, for there are sometimes difficulties in the way which only experience and a thorough knowledge of the temperaments can overcome.

This wonderful boy is of an American family, although he was born in Naples, where his parents were studying music, and on this account the circumstances are especially interesting on the score of heredity. But whatever the golden skies or balmy breezes at his native city may have had to do with his endowments, he certainly has the fineness of fibre, the exuberant imagination and thoroughly artistic instinct which we can hardly imagine as a product of any northern clime. In this organization there is also the condition of which phrenologists speak as high organic quality. His hair is so beautiful that it would attract attention on the street, in a car or wherever there might be eyes to see it. It is light brown, very abundant, and as different from the kind we usually encounter as silk velvet is finer than woolen cloth. The skin is clear and firm, and there is a brightness in the eyes which means more than mere activity of the brain. It signifies a degree of exquisiteness in the feelings and tastes which people in the ordinary walks of life can hardly understand. His features are as yet undeveloped, and still it is not difficult to see that they are now and are likely always to be delicate and refined.

His back head is very much like that of a girl. The cerebellum is not large, but his charming manners, personal magnetism, precocious intellect, musical genius, and extraordinary beauty are quite sufficient to render him very fascinating to the opposite sex. His tastes also are such as would not be likely to find gratification in the society of ordin-



CYRIL TYLER.

ary boys, although he is by no means a book worm, or indifferent to sunshine and outdoor amusements. His whole mental life is simply on a more poetic and artistic plane than that of the masses around him, so that for this reason alone it will be natural for him to reciprocate the regard shown him by his fair admirers. He is tender and affectionate in a high degree as a result of the love of young. This is developed so as to extend the occiput backward on a line with the top of the ear, like the head of the typical woman. This

form of brain is a very frequent accompaniment of the artistic temperament.

Friendship is also large. This will make him sociable and add to his popularity. Continuity is small. His thoughts and feelings unrestrained and disjointed flash out in all directions, like the sparks from an anvil. Unless he is trained to use his faculties coherently, and made to form habits of completing one thing at a time, this may prove a serious fault. He is now so impatient that he inclines to talk in a kind of stenophony—if we may be permitted to coin a word. That is, his speech is abbreviated like shorthand writing. He would certainly prefer the French language to any modern tongue if he understood it, for he seems to love to telescope three or four words into one after the Gallic fashion. However, this nervousness and dislike of everything tedious is a peculiarity to be expected in a nature so highly wrought, and it is fortunate for him that he can learn by such rapid processes as to be comparatively independent of the concentrating faculty.

The desire to accumulate is weak, and the element of secrecy is also very deficient. The distance from the opening of the ear to the top of the head is short. Firmness is wanting, and the same is true of the sense of selfhood. This boy should be encouraged to have more independence and dignity. He is very charming at present on account of his age, but if neglected in this respect he will be almost certain to disappoint his friends when he reaches maturity. He will then show a lack of what is popularly called character. He will be too easily led by the shifting currents of public opinion, and too readily disposed to imitate his associates. Such a sensitive mind needs the most favorable environment, both physical and mental.

Approbateness is his dominant sentiment. His ambition never sleeps, and it is not likely ever to suffer dis-

appointment so long as he retains his exquisite voice. But as to whether he will become selfish and vain, remains to be determined in the future. Perhaps it is ungenerous to expect an artist to be philanthropic in the usual sense of the term. His mission is to elevate by suggestion—to impress us with images of the pure and beautiful, that we may be led to love the true and good. We do not demand of an exquisite flower that it shall contribute to our food or shelter, or that it shall give its life for us. If we may behold its form, its lovely tints and graceful curves, and enjoy its sweet presence and perfume, we are likely to be content. If the artist does as much, no doubt we should be satisfied with him.

Cyril Tyler is a phenomenon in more than one respect. His intellect is astonishing. His power to comprehend causation is above that of the average man. He has the upper forehead of a philosopher, and the side head of a poet. His love of mechanical work is so intense that he spends a good deal of his leisure in experimenting with clocks and other complex machinery. He is endowed with a soprano voice of rare sweetness, and he sings a repertory of difficult and classical music in an almost faultless manner as regards both technique and interpretation of the sentiment.

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Phrenology is a science pregnant with more important influences than the revelations of Galileo, of Harvey, or of Newton; making known as it does, the material instruments of mentality, unfolding as it does, the moral and intellectual constitution of man, and exposing as it does, the secret springs of thought and action; furnishing man with a middle term, which will enable him, as it were, to throw his own and external nature into one mighty syllogism. and educe human duty and human destiny.

BOARDMAN.

CHILD CULTURE

A FUNDAMENTAL NEED OF OUR CIVILIZATION.

By EMILY M. SEGSWORTH.

THE greatest need of America today is a "perfect motherhood." We must have mothers who in every sense are worthy the name, or our dearly loved Republic will totter and fall. The motherhood of the nation is the fountainhead from which flows a stream of sweet waters or bitter. Waters defiled with the deformity, physically, mentally, spiritually, of our children, our citizens, our statesmen; or waters clear as crystal, evolving for the nation's salvation—men with pure bodies, healthy brains, and spirits that create an atmosphere of purity all about them. Realizing the importance of this truth, those who are using all the influence they possess to bring about a better state of things in this direction are appalled at the vastness of the work before them, and feel well nigh helpless to stem the tide of ignorance and ill-health that is sapping the vitality of our American mothers, making them less and less fit to bring forth children who shall be an honor to them and to their country, by filling nobly the place assigned to them in this great commonwealth.

There is so much to contend against in this line of work; so much apathy and superstition—the feeling of false modesty inherited from their mothers and grandmothers, which makes them feel that a thorough knowledge of their own reproductive organism is in some strange way vulgar and impure—on the part of the women themselves; and so much indifference, and oftentimes opposition, on the part of the fathers. Men are very much interested in improving their farm

stock, horses, cows, and even pigs; but when the possibility of improving their own children is brought to their notice, they either believe the whole subject is "nonsense," or shake their heads learnedly (?), and say they don't believe in "going against nature." It reminds us of the little girl who, after hearing of the trouble that had been taken with a certain horse to prepare it to take the prize at a "fair," ruminated in her small wise head as to whether it were not much better to be a horse than a boy, deciding that when she grew up, if people would allow a woman to have anything to do with the management of such things, she would give a *prize for boys*.

How seldom, even in this latter part of the nineteenth century, when knowledge of all kinds is within the reach of all; when the best thoughts of our best and most scientific thinkers on this, and kindred subjects, are poured forth like water through the press and from the platform; when to be ignorant is a crime against ourselves and our children, do we see both fathers and mothers earnestly striving to understand the great laws of their being, that they may give to their country children who shall be an honor and a blessing to it.

Instead, we see the mother fulfilling the function of motherhood, ignorant of either a child's needs or her own; making no effort to understand the influence for good which proper duties, sanitary conditions, sunshine, fresh air, simple diet, baths, and last, but not least, elevated thoughts and companionship have on the unborn

babes. She is also usually full of suffering, tormented with nervous disorders, which in their turn act and react upon her moral nature disastrously. Added to all this she rarely receives the sympathy and support from her husband which she needs, and which is her inalienable right. Indifference to her ailments, impatience with her fretfulness, is the usual order of things, which only tends to irritate still further the already abused nervous system. What wonder that babies by the thousand are born with weak vitality and fretful disposition; what wonder that the mother, too weak and irritable to care for her tiny offspring, feeds it with soothing syrups which still further vitiate the weak nervous system; what wonder that babies thus born and bred grow up to perpetuate their own miserable lives, and make the redemption of humanity appear a more hopeless task; what wonder that in view of the crisis that is dawning upon our nation, we look around us and ask, almost in despair, "where are the men who shall rise up in the grandeur of a perfect manhood and deliver this nation from the evils that threaten to engulf it?"

O fathers and mothers, awake! awake! Your country's need is upon you; your own honor is involved; your children's health and happiness are in your hands. The deterioration or elevation of the human race lies in your power. The Great Father of the universe calls you to arise to a sense of your responsibility and glorious privilege. Say not these things are beyond your reach; that an overruling Providence determines whether your child shall be sickly or healthy, an idiot, or a man of broad intellect. The great plan of human reproduction is governed by laws as natural, simple, yet inexorable as those which govern the lower animals and vegetable kingdoms. These laws, unheeded, set at naught, produce degeneracy of human species, just as truly as if applied to

the lower orders of animate nature. While on the other hand, these laws obeyed mean improvement in kind, and health and happiness in proportion to the improvement. *Always*, God stands *behind* and works *through* nature, and those who would be co-workers with Him in the redemption of the world, must first in their own beings live near "Nature's heart."

IS IT CATCHING?

BENNIE BLAINE is a bright, clever boy of fourteen years old. He has just left school, and his father was asking the principal the other day if he could recommend Bennie to a situation.

"Well," replied the master, "I do know of a place that I believe he would like very much and where he would just about suit, but, you see, his stammering would stand so very much in his way. He *must* get over that impediment before I should be able to do anything for him. No one would take a boy who cannot talk."

How grieved was Mr. Blaine on hearing this, and how mortified did Bennie feel when his father told him. He had not always stuttered. When he was quite a little fellow he could speak as clearly and easily as anybody, but he once spent a month at the seaside with a cousin who had an impediment in her speech, and he used to imitate her. Not in derision; he was too kind a boy to do so mean a thing as that; but "just for fun." People warned him that if he picked up this sad habit he might not find it so easy to lay down again. But he thought differently, and only laughed at the idea. Now he is sorry enough, for it has grown upon him so that every year he gets worse. His parents, too, deeply regret that they ever allowed him to be so much in Lucy's company. Whether or not he will ever be able to speak plainly again no one knows.

But, bad as stammering is, it is not the worst habit that a girl or boy may learn of a companion. Some have

learned to cheat, tell falsehoods, to gamble or use bad words simply through association with those who do so. Evil of every kind is so terribly catching.

If you knew that among a number of young people in a park or field where you were playing, was one barely recovered from scarlet fever or small-pox, I think that none of you would choose him for your companion, walk arm in arm with him, or sit close together on the same seat. I think you would give him as wide a berth as you possibly could without seeming unkind. But wicked ways are more dangerous than any infectious fever, for they hurt not the body only, but the soul, and their taint is more difficult to get rid of.

It is so much more easy to fall into the bad habits of those about us than by our good example to get them to do better; and it is rarely safe for young folks to remain in the society of those whom they know to be badly behaved with the idea of possibly helping them to improve. If God so places us that we can not escape from sinful company without running away from our duties, we may trust Him to preserve us from contamination. But if we seek it carelessly, let us beware; and if we find we are beginning to like, or even tolerate it, let us flee as we would from the ancient plague, for that is a sure sign that we are in what a doctor would call a susceptible state. If we have not already "caught" the disease, we are on the verge of doing so, and nothing but immediate escape into purer air can save us.

We have written "Evil communications corrupt good manners" so often in our copy books that perhaps all we think about the maxim is that we must do a bold capital E at the beginning without getting the "manners" cramped at the end. But the truth of the saying is as fresh as ever. If ever you are tempted to think you may consort with those who do wrong without imitating them, or imitate

them without being hurt by it, remember Bennie Blaine. J. C.

DIRECTION IN AMUSEMENTS.

SINCE the world began, says Harriet Marsh, in *Popular Educator*, children of every age have demanded amusement as an absolute necessity of their well being, and whenever there is failure in the recognition of this fact on the part of parents or guardians, the child tries invariably to meet the need for himself, and the sad consequences of his rash attempts in this direction are only too well known to the teacher: it follows, therefore, that since amusements must be had, we can do our pupils inestimable service by aiding and directing them in this most important matter. "We are not employed to amuse our pupils," I hear some one say. "Our work already taxes our strength to the utmost!" All of which is only too true; but the most important and loving service mankind ever receives is that for which no recompense is ever offered, and a few moments at the end of each day, or each week, spent in well directed and systematized effort in this direction will not only give more important returns to the result sought, but will also be largely instrumental in helping to govern many a wayward boy, whose mischievous pranks drive his teacher to the verge of distraction, thus saving care rather than adding to her burden.

Take five minutes at the close of each day, or if this can not be afforded, devote a little time Friday afternoon to a confidential chat with your school, and question them in regard to their plans for Saturday; generally, children respond readily to any attempt of this kind, and you have ample opportunity to make your suggestions.

There is the collection of pretty leaves (each one of different kind and color), to interest one child, while another may delight in gathering and

arranging bits of moss, lichens, acorns, etc., etc., into quaint little pictures, for which artistic frames may be fashioned out of twigs and varnish. Then there is the collection of starfish and sea-weed and bright-colored shells, for the pupil who lives near the sea, and last, but by no means least, come the bright-winged bugs and flies and beetles, which so many boys long to study and prepare as specimens; in this connection, the teacher can not discourage too strongly the barbarous custom of impaling the unfortunate insect on a pin, until death puts an end to its suffering. Remember that a cruel boy makes a cruel man, and the child who learns to look upon the sufferings of any animate object with indifference or pleasure, is not apt to feel keenly the woes of his fellowmen at a later age; so, for the sake of humanity, teach the children to prepare their specimens with due regard to the infliction of physical pain, and as we dare not recommend any dangerous compound to be used by inexperienced fingers, it may be sufficient to tell the little naturalists that a few drops of cotton seed or sweet oil, applied with a brush to the entire body of the insect, destroys life in a few seconds.

Teach the children to collect and prepare their material and lay it away, and then, in the long Winter evenings it will furnish delightful occupation for busy brains and fingers; all sorts of pretty articles, useful as well as ornamental, can be fashioned from the inexhaustible treasures gathered during the Autumn Saturday afternoon rambles, and the Christmas present for mother arranged by clumsy little fingers will do much to teach their owner consideration and love for the home circle. Do all this and more, and when another Spring comes to gladden the inmates of the school-room, they will be ready to begin their study and collection of specimens with the first warm days.

Let us in the year now commenc-

ing, try to bequeath this great boon to our little ones; the boon which is theirs by right of inheritance; talk to them of their rambles, let them feel that you are interested in their small plans, and try not to look disgusted when some much soiled urchin shows you a wrinkled, blinking toad, which he has adopted as a pet. All children, particularly all boys, should be encouraged to keep pets; it is an important need of child-nature to love and cherish some animate object, and, in justice be it said, that the hardest, most depraved little specimen of our race is nearly always ready to love and keep very tenderly any small member of the animal kingdom that he is allowed to call his own.

THE COMMON WAY.

Scene in a library—gentleman busy writing—child enters.

“Father, give me a penny.”

“Haven't got any; don't bother me.”

“But, father, I want it. Something particular.”

“I tell you I haven't got one about me.”

“I must have one; you promised me one.”

“I did no such thing—I won't give you any more pennies; you spend too many. It's all wrong—I won't give it to you, so go away.”

Child begins to whimper, “I think you might give me one; it's really mean.”

“No—go away—I won't do it, so there's an end of it.”

Child cries, teases, coaxes—father gets out of patience, puts his hand in his pocket, takes out a penny, and throws it at the child. “There, take it and don't come back again to-day.”

Child smiles, looks shy, goes out conqueror—determined to renew the struggle in the afternoon, with the certainty of like results.

Scene in the street—two boys play-

ing—mother opens the door, calls to one of them, her own son.

“Joe, come into the house instantly.”

Joe pays no attention.

“Joe, do you hear me? If you don't come I'll give you a good beating.”

Joe smiles, and continues his play; his companion is alarmed for him, and advises him to obey. “You'll catch it if you don't go, Joe.”

“Oh, no, I won't; she always says so, but never does. I ain't afraid.”

Mother goes back into the house greatly put out, and thinking herself a martyr to bad children.

That's the way, parents; show your children by your example that you are weak, undecided, untruthful, and they learn aptly enough to despise your authority and regard your word as nothing. They soon graduate liars and mockers, and the reaping of your own sowing is but the natural consequence.

A little fellow rushed into the street recently to look at a monkey that accompanied an organ grinder who was playing in front of an adjoining block. Never having perused the “Origin of Man,” he gazed in wonder and admiration a few moments, and then, rushing into the house, he met his grandmother, to whom he addressed this inquiry: “Grandmother, who made the monkeys?” “God, my boy,” replied the old lady, in her candid way. “Well,” said the excited boy, in rejoinder, “I'll bet God laughed when he got the first monkey done!”

Private schools conducted in dwelling houses are often far from being suitable places to send children, particularly at the beginning of school life. The rooms should be large and not overcrowded. The ventilation and heating should be up to the standard, the light good and if possible fall over the left shoulder of the scholar.

WHEN GRANDPA WAS A LITTLE BOY.

“When grandpa was a little boy about your age,” said he

To the curly-headed youngster who had climbed upon his knee.

“So studious was he at school, he never failed to pass;

And out of three he always stood the second in his class”—

“But, if no more were in it, you were next to foot, like me!”

“Why, bless you, grandpa never thought of that before,” said he.

“When grandpa was a little boy about your age,” said he,

“He very seldom spent his pretty pennies foolishly;

No toy or candy store was there for miles and miles about,

And with his books, straight home he'd go the moment school was out”—

“But if there had been one you might have spent them all like me!”

“Why bless you, grandpa never thought of that before,” said he.

“When grandpa was a little boy about your age,” said he:

“He never stayed up later than an hour after tea;

It wasn't good for little boys at all, his mother said;

And so when it was early she would march him off to bed”—

“But, if she hadn't, maybe you'd have stayed up late, like me!”

“Why, bless you, grandpa never thought of that before,” said he.

“When grandpa was a little boy about your age,” said he;

“In Summer he went barefoot and was happy as could be;

And all the neighbors 'round about agreed he was a lad

Who was good as he could be, except when he was bad”—

“But 'ceptin' going barefoot, you were very much like me.”

“Why, bless you, grandpa's often thought of that before,” said he.

—St. Nicholas.

SCIENCE OF HEALTH

REST FOR THE CONSUMPTIVE.

IN the *Medical and Surgical Reporter* a writer of experience makes an emphatic declaration in this line which most hygienists, we are sure, will approve:

The idea of exercising the consumptive for strength is a fallacy of the worst type. It is based on the assumption that because, in health, exercise gives strength, therefore the invalid must derive the same benefit. Nothing can be further from the truth, and to illustrate this I can do no better than to draw another example from the field of failure. It goes without saying that money makes money. The banker puts his money on interest; or, in other words, he exercises his capital, and by so doing he increases his financial strength; but the poor man has no money to put on interest, and he struggles along from year to year for the purpose of making a decent living. This parallel holds good between the man in health and the consumptive. The former has a sufficient amount of reserve physiological capital which he can expend in physical exercise, and we all know that physiological activity not only brings strength, but builds muscular tissue. Hence, by doing this he enhances his normal resources; but the latter has no reserve capital whatever, and so, as has already been said, he is on the brink of physiological dissolution. In his exhausted state he lives from hand to mouth, for he consumes all the force which he obtains from his food in carrying on the functions which are necessary to a bare existence. Exercise in his case is therefore meaningless in a physiological sense, and

can leave no other than a disastrous effect on his already drained and devitalized constitution.

In the practical application of rest in phthisis much of our success will depend on whether we adopt it properly to the needs of each individual. No ironclad law can be laid down in this matter. Whether it is best to place a patient on absolute rest, or whether to allow him to exercise under proper restrictions, are questions which must be decided by his condition. The cardinal principle to be followed in choosing between the two plans is as to whether the former or the latter, or a mixture of the two, will place him in the best possible position in which he may regain his lost flesh and strength, and have his bodily expenditures reduced to the lowest point consistent with life. His physical state and power of resistance will help us much in determining this problem. If the disease in the lungs is trivial, if there is only slight constitutional disturbance, moderate fever, and not too great a tendency to become tired on exertion, there is present a greater power of resistance to disease than if there is a great deal of lung mischief, or much constitutional depravity, combined with a persistent sense of exhaustion. A patient in the latter condition must be placed in complete repose on his back; while it is probable that one in the former condition may be treated successfully with a less rigid observance of the rest treatment. It is a safe rule, however, to place all such patients in bed at the very outset, and allow them to sit up or walk about as soon as they are able.

Their ability to do these things can only be found by testing it. One of the best indices in governing our action here is the state of the temperature. If this is persistently above 100° in the evening, or rises on slight provocation, they are not fit to undertake those ordeals. It is astonishing often how readily the temperature is disturbed in such patients. I have observed, on a number of occasions, that if they take a brisk walk, run up stairs, or swing dumb bells for five minutes, the temperature will rise from a degree to a degree and a half in the course of a short time, even though it had been at or near the normal point before.

Finally, in thus advocating the great value of rest in the treatment of pulmonary consumption, I do not mean to say that exercise is to be universally condemned, but I do wish to lay stress on the fact that we are too prone to apply it too early, and, therefore, improperly, and that it is a measure which is more applicable to the management of the convalescent than to the active stage of the disease.

THE TREATMENT OF DISEASES.

Disease is simply the absence of health, or ease, more of a negative than a positive state, indicative of a condition in which the recuperative forces are unable to sustain the integrity of the system. Our diseases are the legitimate, the necessary results of the violations of organic laws, personal or otherwise, in no sense accidental or "mysterious." Indeed, our health is as much and as certainly under personal control as our business or employments. There is no more occasion, no more necessity for dyspepsia, gastritis, or torpidity of the liver, than for intoxication, the one being the result of improper eating and the other of the use of intoxicants. Prevention, by abstinence in both cases, is easier and surer than cure. The most prominent factors, unquestionably, in the production of

our diseases, are connected with our eating and drinking habits, modified by indolence, uncleanness and vicious and unnatural habits, such as are never formed by the lower orders of creation. The treatment of disease—more especially in the dark past—has been marked by ignorance, superstition, frequent changes indicating failures, disappointment, and a lack of fixed and definite principles, with an almost utter disregard of the laws of the human constitution. Indeed, we need not look beyond the present century, or, perhaps, the present time, to find the adherents of the motto, "*Contraria contrariis curantur*," which is about equivalent to advocating a treatment in direct opposition to nature's efforts (God in nature) for the removal of diseases, in accordance with the Scripture, "Forget not all His benefits, who forgiveth all thine iniquities, who healeth all of thy diseases," etc. In accordance with the principles of this system the most virulent poisons are used, well illustrating the playful remark of the late Dio Lewis, that "Disease is a rat in the body, and a terrier must be sent in to kill the rat," the drugs often being more destructive of human life than the terrier is of the rats. It is difficult for me to discover any philosophy or common sense in the employment of such destructive drugs for the supposed purpose of killing the disease, while it is possible that the patient is often destroyed instead of the disease. While we are surprised at the vagaries of the past, connected with the treatment of disease, our successors may be equally surprised that, in the last part of the nineteenth century, drugs were used in the attempt to remove disease by the weak and enfeebled, which might endanger health and produce disease if taken by the robust and vigorous. Science and common sense teach us that the healthy and robust are better prepared to resist the effects of such poisons than the sick, those whose vital powers are scarcely able to sus-

tain life. If used as stimulants—nature increasing her activity in the attempt to eject the intruder as soon as possible—it should be remembered that all stimulants, food stimulants excepted, perhaps, are practical debilitants, really wasting vital force.

Among the most effective and reliable means of removing diseases and establishing health are the removal of their causes, the establishment of correct habits of living, the cleanliness of the surface, increasing the activity of the circulation of the minute vessels, thus purifying the blood; breathing an abundance of pure air, by night as well as by day; securing an abundance of sunlight, proper exercise of the body and mind, preserving their natural relations, with a due regard to all of the laws of our being.

It is important and judicious to select simple, nutritious and easily digested food, taken regularly and in moderation, thoroughly masticated, without drinks; the supper being still lighter, as a mush made of Fould's wheat germ meal—which has ample nourishment, and which we have long used daily—thus securing sound and refreshing sleep, with no "horrid dreams."

Our health being so largely dependent on our food, the importance of a careful selection can scarcely be overrated, while the grains—standing the highest in point of nutritive value—should be prominent, with a free use of the fruits, these very properly taking the place of butter during the warm weather, as the sweets and fats are prominent among the "heaters."

DR. J. H. HANAFORD.

CLINICAL HYDROTHERAPY.

FURTHER notes from the observations of Dr. Barach in the treatment by water of diseases commonly regarded as intractable are the following:

A CASE OF DIABETES.

On March 7, 1892, he was consulted by Mrs. S., æt. 63, suffering from lassitude, loss of appetite, depression of spirits for several months.

Urine has 6 per cent. sugar, sp. gr. 1040; quantity for twenty-four hours, 81 ozs. Weight under 253½ pounds. Prescribed anti-diabetic diet and systematic walking exercise. Although the former was rigid for four weeks the latter could not be accomplished because walking two blocks "put her out of breath," and exhausted her. To reduce weight and invigorate the nervous system, a carefully regulated hot air bath until free perspiration, once a week, followed by spray douche at 90° for one-half minute, and at 80° for ten seconds, and massage was ordered. Five times a week she received a tonic hydriatic procedure with the dry pack for one-half hour to fill the cutaneous vessels, followed by a gen-

eral ablution at 70° and good friction. By April 15 she had lost 61 pounds and felt able to walk six blocks twice a day.

April 22.—Urine, sp. gr. 1045, sugar 5¼ per cent. Wet packs forty-five minutes, sheet wrung out of water at 50°, followed by hot air bath, ten minutes, at 85°, sponge ablution on back at 70°, with active friction in tub, massage fifteen minutes to increase tissue change and improve the circulation in the muscular tissues.

June.—The jet douche at 75° was added as a tonic and for contracting the muscles. The result was ability to walk four miles per diem. The diet being rigidly adhered to, a rapid decrease of sugar was evident every week from the date of the first half-mile walks.

Since July 1 she has been entirely free from sugar until the present time, frequent analysis having been made until the 1st of December, 1892. In this case the diet alone pursued for five weeks made no impression, but as soon as the patient was able to oxidize her sugar by means of muscular exercise, improvement became

pronounced. No medicinal agent could have accomplished this change in the nervous, muscular and vascular structures in so brief a time.

A case of

ANGINA PECTORIS

is interesting. Mr. D., æt. forty, of robust appearance, gives a history on the 24th of September, 1892, of having suffered for several months from agonizing pain in the præcordial region whenever he attempted to exercise much. He was disabled from business and much depressed; all function normal. Dr. Janeway, as consultant, diagnosed angina pectoris. Mr. D. presenting a decidedly gouty diathesis, urine loaded with uric acid, etc., he was put upon a non-meat diet and a daily wet pack for one hour, and a continuous wet compress around left side of chest; glonoin and strychnia. After three months' treatment, during which pain diminished in frequency and intensity, Jan. 21, reports himself entirely free from pain, although he has done more work than ever in his life and passed through the excitement of seeing his factory burned down and reconstructing it.

Another case of peculiar character—complicated—is

HYSTERIA AND EPILEPSY.

July 16, 1892.—A. F., æt. fifteen, was brought to the Hydriatic Institute by his father, who says on the 31st of March, 1892, on the day of his daughter's burial, the boy fainted. Ten days later he fainted in school and again two days later. Dr. S. P. Cahen diagnosed the attack as "a form of epilepsy." The boy was kept from school and put on bromide potassium. The attacks becoming more frequent, Dr. George W. Jacoby was called in consultation; the same treatment was continued. He continued to have attacks every day and very often twice a day, lasting from five to ten minutes. Dr. Jacoby was again called in consultation and made

an unfavorable prognosis. Several neighboring physicians who had been called during the attacks gave him hypodermics of morphine. Face pale, covered with acne, eyes restless, hand tremulous, gait unsteady, appetite fair but capricious, gastric oppression after meals. Patient appeared to be brominized.

Treatment.—Resorcin 3 grs. in one-half pint of hot water before meals. Wet pack, sheet wrung out of water at 70°, reduced daily two degrees, followed by rain bath 90° 25 pounds pressure, gradually reduced during 30 seconds to 75°.

Sept. 30th.—Patient has called on me several times, reporting steady improvement. He was discharged cured. Up to this date, Jan. 1, 1893, no further attacks have appeared.

If the few clinical histories that have been offered will induce practitioners to utilize water more frequently as one of their remedies, Dr. Baruch will feel himself well compensated for reporting them.

THAT CONSTANT COUGH.

TO an inquirer we would say that most of the hacking coughs of which so many people complain are due to a chronic catarrh that affects the mucous membrane of the pharynx and glottis. Either the membrane itself is in an abnormally irritable state through a subacute inflammation, or the secretion of the higher nasal passages passes downward and lodges upon the membrane and excites it reflexly to effort for the purpose of dislodging the unwelcome visitor. In either case the hack or cough is due to the presence of offensive matter. People usually take "cough stuff" for relief, or what the physician calls an expectorant mixture, which either promotes the flow of mucous or reduces the sensitiveness of the nervous apparatus in the throat membrane. Most of the mixtures, like Dr. Stokes' famous prescription, contain a variety of ele-

ments both expectorant and sedative. The effect of these is to afford temporary relief from the nervous irritation. But the true principle in treating these coughs is to dispose of the fundamental cause—the irritable condition. Proper applications to the nose and throat will render the membrane more nearly normal in function, provided the patient modifies those daily habits of eating, dress, activity, etc., that have much to do with maintaining his catarrh. An improvement of the constitutional state, supplemented by simple local measures, are usually effective in banishing the disagreeable cough. D.

COARSE AGAINST FINE FOOD.

BY coarse food I mean such articles as contain a limited portion of nutriment to the amount of bulk. On the contrary, fine food consists largely of pure nutriment, such as eggs, sugar, starch, etc. When a person subsists chiefly on eggs, fat meat and bread and cake made of bolted flour, unless he or she is strong and robust and the daily employment insures much active exercise in the open air, it will scarcely be possible to maintain good health. The intestinal action will become greatly impeded and this condition will give rise to a thousand other ills. When the food contains a good proportion of the coarse elements supplied by nature, the excrementitious matter is carried out of the system much more promptly, these coarse particles acting as a vehicle for the transportation. Besides, the most richly flavored elements in fruits, and the most nutritious portions of the cereals are largely adherent to the rind or hull.

When an enemy in the form of any substance is introduced into the stomach, and the digestive powers cannot manage it, congestion soon occurs, and the vital action ceases. To illustrate: I have in mind a young woman, strong and robust, who ate an enormous quantity of ripe cherries, and immediately afterward drank as much milk as she could swallow. In less than twenty minutes she was dead. A post-

mortem examination showed that the milk had filled all the interstices among the half-masticated cherries and had curdled, so that the entire contents of the stomach consisted of a ball of cherries and curd. The digestive fluids could not manage such a quantity of food in that condition, hence the fatal congestion.

A friend recently sent a messenger to me with the intelligence that he was prostrated by illness and feared he would soon die. His physician had assured him that if he ever recovered he could not expect to leave his bed for two months. I went to see him, and conjectured that it was only a case of severe constipation. His principal food, for a long time, had been eggs, fish, cheese and white bread. The small amount of waste matter was so soft, fine and adhesive that the peristaltic action was of no avail. My long experience in managing dumb animals induced me to believe that he needed no medicine but coarse food. So I supervised the making of a little mush out of the genuine Graham flour, to be eaten slowly, and without drinking at meals. I suggested that they put the doctor's medicine away on a shelf, which they did. In two days my friend felt unusually well and was able to go to his place of business. Coarse food cured him.

When a bullock is fed on Indian meal, to fatten him, why does he consume large quantities of poor straw (if he has no hay or grass) even when he gets as much meal as he can eat? Animal instinct teaches him to swallow large quantities of coarse and bulky food, so that there may be no congestion of the bowels. When a horse is fed on nothing but oats he will sometimes devour his dirty and unpalatable bedding. When swine are fed chiefly on Indian corn, or mush, they often gnaw the pen or trough, or eat charcoal if they can find it. They need more bulky food, and as they do not get what they want they take what seems to them the next best thing.

To conclude, instinct teaches the dumb brutes a lesson we can apply to advantage. Instead of so much meat, butter, sugar, fine flour, etc., there should be a more liberal consumption of coarse vegetables, fruits, and coarse cereal preparations.

ESS E. TER.

NOTES IN ANTHROPOLOGY.

Poverty in India.—In the *Fort nightly Review* is an article on the condition of the poor in India, Japan, and America, by the Rev. S. A. Barnett, who considers the state of the poor in America as worse than in India, where it is sufficiently discouraging, and only in Japan does he find their condition somewhat less sordid and miserable. He says: "In India we had been depressed by the hopelessness, in China by the ugliness, and in America we were to be depressed by the wickedness which accompanies poverty; in Japan we found the poor touched by friendship into hope, and real sharers in the national life. What is the reason that Japan has no poverty problem? One reason is probably to be found in the land system, which has given to every worker a holding and encouraged him to supply his wants by his own labor. Effort has thus been developed, and wants are limited. Another reason lies in the national taste for country beauty. Nowhere else are parties formed to visit the blossom trees, and nowhere else are pilgrimages simply for the sake of natural beauty. A country life has therefore its own interest, and men do not crowd the cities for the sake of excitement. There is, too, in Japan a curious absence of ostentatious luxury. The habits of living are in all classes much the same, and the rich do not outshine the poor by carriages, palaces and jewelry. The rich spend their money on curios, which, if costly, are limited; and the most popular agitation is that against the big European houses which ministers build for themselves. Wealth is thus not absorbed, and is more ready for investment in remunerative labor. The last reason which occurs to the mind of a traveler with comparatively few opportunities for forming opinions, is the equality of manners in all classes. Rich and poor are alike courteous. It is not possible to distinguish employer from laborer by their behavior; all are clean, all are easy, all are restrained. The governor lets his child go to the common

school and sit next to the child of the casual laborer, certain that his child will pick up no bad manners and get no contamination in thought or in person. This equality enables rich and poor to meet as friends, and gifts can pass without degradation. The rich nobles in the country, just as the university men whom we met in Tokio, are thus able to give to those whom they know to be in need, and friendship becomes the channel of charity. The question is, will this survive the introduction of the industrial system? It is possible that some may, and that Japan may teach the West how to deal with the poor."

Ancient Civilizations.—In the *Edinburgh Review* is a most interesting résumé of the conclusions to be drawn from study of the Tell Amarna tablets from which we quote the closing sentences: "Civilization not only existed in these regions (Western Asia) in the time of Moses, but it can be traced back to 1700 B. C. in Phœnicia, and in Babylon, the granite statues of Tell Loh carry back the arts of monumental writing and of sculpture to the very days of Abraham, while in Sinai and at Memphis we have also existing remains of Egyptian culture, which are equally ancient. We know for certain that, although the alphabet was yet to be evolved, the art of writing was commonly practiced throughout Palestine before the time of Joshua. We no longer see any anachronism in the early mention of written Epistles in the Bible or in the discovery of a Babylonian garment in the tent of Achan. We no longer wonder at the Midianite merchants, who carried spices to Egypt, when Joseph was led down as a slave. We no longer doubt that chariots may have fetched Jacob to Goshen, or that the Canaanites possessed chariots of iron two centuries after the time when the Tell Amarna tablets were written. The Hittite and the Amorite stand before us on the monuments vividly portrayed with all the racial characteristics and differences of

dress which distinguish their distinct nationalities. We learn the names of their chiefs, and we even, perhaps, read of the Hebrew conquest of Judea. We see that it would have been quite possible for Hebrew history to have been committed to writing on tables of stone or bricks of clay even before Moses was born; and that instead of living in some remote corner, assavages unacquainted with any useful arts, the Hebrews came in contact with an advanced civilization, in Palestine itself, the moment they left the deserts of Edom; that they found a country full of corn, wine and oil, with 'cities walled to heaven,' and 'out of whose hills thou mayest dig copper.'"

The Botocudo Lip Ornamentation.

The Botocudos are a rapidly disappearing tribe of Brazilian Indians. They inhabit the country along the upper portion of the Rio Doce, about three hundred miles northeast of Rio de Janeiro, and the region lying along the borders of the States of Bahia, Espirito Santo, and Minas Geraes, especially between the Rio Doce and Rio Pardo, and along the Sierra dos Aymorés. Although they are now in contact with civilization and fast yielding to and dying out before its influences, it is not many years since they and the various branches of their great family occupied a large portion of Southern Brazil, and were justly looked upon as the most ferocious of all the wild tribes of that country. But few travelers have seen anything of them and these have observed only the straggling outskirts, as it were, of their tribe. Even to this day the latest and best maps of Brazil have written broadly across the vast region referred to, "But little known and inhabited by Indians." In these dense and almost impenetrable forests, they spend their lives, seldom or never visiting either the campos of the interior or the coast. To judge of the stage of civilization of these Indians, it is worth while knowing that they cannot count, and that their reckoning is done by using the fingers and toes, and that even this does not go beyond twenty. The children are dirt-eaters and are sold for slaves, often for the merest trifles. Formerly these people wore no clothing at all; nowadays, they are coming more and more

to use it. Their straight, deep-black hair, high cheek bones, flat noses, complexion and stature are all suggestive of the Mongolian race types. An ancient custom among them is that of wearing large and broad lip and ear ornaments. The opening in the lower lip is made when the person is quite young by piercing it with a long, slender thorn that grows on a kind of palm-tree; this is enlarged with the point of a deer's horn, and a stick or a small stone is inserted and wound greased with salve. These openings are gradually enlarged by forcing bigger and bigger plugs into them until the desired size is reached. It was formerly the custom when the young men were old enough to bear arms that the openings were enlarged and the green stone labrets inserted. The lip ornament is of two very different forms, one broad and stopper-shaped, the other long and rudely T-shaped. Several writers tell of the use of stones for labrets. Jean de Lery speaks of polished bone, white as ivory, used by the big boys, and replaced when they are grown by green stones. Many are made of clay and formed like pottery, while the ornaments in most common use now are made of wood. The ear ornaments are not essentially different from those worn in the lips. The plugs are of the same materials, size and appearance. They differ only in that they are worn in openings made in the lobes of the ears instead of in the lower lip."—*Popular Science Monthly*.

Memorial Columns Ancient.

The custom of erecting columns which were commemorative of the departed is as old as history and as widespread as the human family. It began in prehistoric times with the earliest race, but has continued into historic times, and still survives as the custom among all nations. The pattern or style of monument varies with different nations, but perhaps the earliest style is that which developed into the standing stones of Great Britain, Northern Europe, Western Asia and India, and which still survives in the gravestones and monuments which are found in our cemeteries everywhere. There were other styles which appeared at a very early date, perhaps as early as the standing stones, and

which spread over the different continents from a common centre. It is an interesting task to study the different types and to follow out the lines along which they were transmitted. There were three different lines of transmission: one by the Aryan, the second by the Semitic, and the third by the Turanian race. We can hardly tell which was the earliest, though the simplest type is seen to the northwest part of Europe, where we find the standing stones and other commemorative monuments of the widespread Aryan or Indo-European race. We trace the same custom in its transmission through the Semitic art, which spread into Egypt and Phoenicia and many parts of Western Asia, and still resulting in the various monuments, commemorative columns, obelisks and sculptured stones of the Mediterranean coast. Another line will be found in the Turanian race, who were ancestors of the great Mongolian race, and perhaps also of the Malay race, although there is some uncertainty as to the identity of these two. The Turanians have been regarded, however, as the so-called ground race. The custom of erecting mortuary columns was the basis of the art of all these races, and it may be that we shall yet trace the lines of transmission back to a common centre, making the Phoenician and Hittite monuments the outgrowth of the same custom prevalent among Egyptians, Assyrians, Chaldeans, Chinese, Malay and the widespread Indo-European races, thus proving not only the unity, but also indicating a connection between the races of the West and those of the East in prehistoric times.—*American Antiquarian*.

The Criminal a Social Product.

—Mr. Wm. M. F. Round, secretary of the National Prison Association, believes that too much stress has been laid upon heredity as a predisposing cause of criminal life. He is convinced that environment and training are the most potent factors in the development of the criminal classes. He says in his article in the *Forum*: "I want to put myself on record after a study of the criminal, and contrary to my previous utterances, as going squarely back to the doctrine of free will, as laid down by our fathers, and I wish to be understood dis-

tinctly and squarely to hold the doctrine of moral responsibility as applying to every sane individual; at the same time making all allowance for such physical conditions as may weaken the will, and in some cases destroy it. I do not believe for a moment that crime is a disease, nor by any necessity the result of a disease; though I do believe that it may be the result of disease in some instances. I do not believe that crime and disease are identical, and I am almost afraid of the analogy between them, lest humanity's heritage of freedom of will be misunderstood. Of the seven hundred criminals I have examined I have found that more than five hundred had a clear motive and a sane motive, though a perfectly understood dishonest one and a criminal one; that in the conduct of their affairs they showed intelligence, and in the pursuit of their avocations a determined and controllable will. I do not believe that one-fifth of this number were ever in a condition when they could not have been turned around had they determined to do so, and led virtuous and upright lives."

In regard to corrective measures Mr. Round says: "To reform the man make him feel the pressure of the law so severely and so persistently that he shall come to understand that the mere chance of a reward for criminal practice is only to be got at a tremendous risk; to train him to the habit of honest labor so that his mind will be fixed on getting an honest livelihood in an upright manner rather than by criminal practices; to cultivate in him an ethical sense and a spiritual impulse for righteousness; to raise him, as far as possible, to such a bodily condition as will remove depressing physical influences from his life and will overcome the effect of inherited physical taints that might reduce his power of resistance to evil." In conclusion, Mr. Round gives the following abstract of his views: "1. A criminal is like any other man. 2. Too great importance has been attached to the matter of heredity both in the judgment of criminals and in their treatment. 3. Moral traits are not inherited except in so far as they are directly traceable to physical conditions. 4. The ratio of punishment to crime is so small as to

give the criminal such a chance of escape, as he distinctly counts to his advantage. 5. The criminal is a criminal of his own volition, and feels that he has an adequate motive for being a criminal. This applies, of course, to the professional criminal, who commits crime against property and only incidentally against persons. 6. We cannot reduce the criminal population until we can remove the motive for crime. 7. The criminal, when he becomes a ward of the State, must be treated with severity, but under an intelligent method, making wholly for his

reformation. 8. We cannot reform the criminal until we reform our prisons. 9. We cannot reform our prisons until we take them out of politics. 10. We cannot take our prisons out of politics until special civil service rules are fully enforced in our prisons, or so long as any prison office may be filled as a reward for political service. 11. In conclusion, to purify our prisons, to save ourselves from criminals, we, as Christian citizens, must throw our prayerful interest into the matter of purifying our politics and saving ourselves from politicians."



*Ex fronte, ex capite, ex vultu, etiam
in ipso oris silentio natura loquitur.*

PLATO.

NEW YORK,

November, 1893.

SYSTEMATIC MORAL EDUCATION.

FIFTEENTH PAPER.

CONSCIENTIOUSNESS AND ITS
FUNCTIONS.

THIS faculty, Conscientiousness, supplying the instinct or sense of right, justness, fairness, stands in the relation of a monitor to the other moral feelings. An attempted category of its influence with respect to them would include the following:

First, as to veneration or respect for greatness, goodness, superior authority, established practice and habit in social life, etc. Conscientiousness promotes regard for the exercise of this sentiment as a proper

and necessary expression of human feeling. In the conduct of children toward parents, teachers and those older than themselves it promotes obedience and deference, and because it helps toward the appreciation of worth and nobility of character it renders children respectful toward each other, and disposed to accord the measure of right consideration to which they are individually entitled.

In the uplift of the spirit toward a divine source of being, in worship and acknowledgment of dependence, whatever may be the form or cult of religious expressions the sentiment of duty and justice approves the mental action, nay prompts it as a natural instinct of the human economy. There is no more beautiful trait in child character than ready, reverential obedience that reposes in convictions of duty and truth. And as a factor in the development of a harmonious mind such a trait is of the highest importance.

Second, as to firmness or steadfastness of opinion and purpose. The sense of right and obligation occupies the place of a mentor or guide. Should one's impressions or convictions be held staunchly against opposition, criticism and ridicule? Should one pursue the course he has chosen, although it expose him to peril and opprobrium? The sentiment of duty and honesty, enlightened by knowledge of the facts involved will de-

termine the action. Simply the question, Is it right? answered, and the way is clear. Obstinate, unreasonable action that takes little note of objection or protest, that insists upon having its course, rarely consults conscientiousness, but is due mainly to an overgrowth of the selfish nature, the impulses of which find a support in a strong unregulated firmness.

Third, as to self-esteem. To be strong in reliance upon one's self, to feel that one has capabilities that make him equal to the requirements of his place and profession in society, and to believe that his conduct and work are creditable when compared with those of his contemporaries, are very desirable elements in one's personal consciousness. They conduce to mental poise and an easy confidence, when the man is surrounded by his fellows. But without the controlling or modifying influences of other moral feelings self esteem may inspire the man with arrogance and a haughty overbearing nature and render him an object of great dislike to others. While veneration, benevolence, and social feeling may soften and temper the quality according to their development, the sense of fairness and obligation has a special effect upon its manifestation, reining it in where disposed to be excessive, and at the same time imparting a color of dignity and evenness to the expression. The bearing of one who firmly and calmly sustains a cause that he knows to be just always commands admiration and respect, even from bitter enemies. The teaching that does not encourage self-reliance in the young is defective in a cardinal element, but it would be as defective if it did not associate in the instruction given to that end the virtue of fidelity to truth and justice.

Fourth, as to benevolence. The exercise of sympathy and kindness is natural and spontaneous in the child whose flow of feeling has not been dammed at the source by harsh,

selfish and cold associations. Conscientiousness appears to sustain a very near relation to the kind and tender instinct encouraging its action in all the interests that bring men and women into association. While, however, the sentiment of obligation prompts us to be kind and sympathetic, it also sets bounds to generosity and charity, and suggests possible results of harm to those we would benefit and to ourselves by excesses of kindness. Charity well applied may cover, or provide compensation for, "a multitude of sins," but prodigally given may make matters worse. The faculty that inspires the recognition of justice and its correlative honesty, is needed to illuminate and regulate our alms-giving and our expression of humanity, that we may not be wasteful of our means and sympathies or apply them in unworthy directions.

Fifth, with regard to the sentiment known as the love of approbation. Conscientiousness puts its seal upon the rightness of seeking the favor and good opinion of others. In children this sentiment is early developed, and for the purpose, it would appear, of performing a part by no means small in the growth of character. It has a marked influence in promoting those higher qualities, respect, deference, obedience, sympathy, kindness, steadfastness, and even self-reliance; but when its exercise becomes excessive, foolish and vicious acts being done to obtain praise and notice, the sense of duty and justice is necessary to curb and regulate its operation. The vain and airy child, when seriously and frequently admonished that his conduct is not only wrong, but sure to bring consequences of ridicule and loss, is not likely to persist in it.

The fun-loving child is usually very strong in the approbative faculty, and sees in the mirth his pranks elicit in friends and companions a very satisfactory reward for them, and encouragement to greater effort; but the wise counsel of a friend will not

always be lost who endeavors to impress upon the young lover of applause that conduct in which truth and honesty are chief factors is always honorable; while that which leaves only a desire for personal gain or a temporary pleasure, and has no sound moral basis, will never bring a return of enduring satisfaction.

The love of approbation is commonly styled a selfish feeling by the writers on mental science, and properly so, because its action, when considered by itself, tends to gratification of self or the promotion of ends chiefly of a personal nature. Its relation to the purely moral sentiments, however, is so close, as we have seen in the more extended consideration of the faculty given in a former paper, that its effects may be deemed an appurtenant of moral life. Consider for a moment the influence of this faculty in one relation:

The great lack of deference and respect for the aged and learned so conspicuously shown by young people, which is as much an outcome of their neglected training in the line of obedience as it is to untrained conscientiousness. Approbativeness in its association with the sense of duty promotes consideration for the old and worthy, but alone, albeit that it may be excessive and indicated by inordinate vanity, the love of approval will not aid in the establishment of good habits of respect and a becoming modesty. In the walks of good society attention is constantly drawn to practices that tend to suppress the development of the sense of respect in children. Half-grown men and women, as well as those who have reached supposed maturity, speak in trifling terms of their elders, and make use of slang designations in their reference to father and mother. In their talk on affairs of business young men flipperily utter disparaging opinions of the methods of employers, and half contemptuously rate them as old fogey, or cranky, or behind the times.

This sort of talk, with its accompanying gestures, has a deplorable effect upon children; for they more eagerly copy the manners of the half-grown than of the full-matured men and women, because the vivacity and freshness of the former more naturally assimilates to the child-mind.

Sixth, as to imitation. Again it is becoming to emphasize the need of an active sense of right, for in the exercise of the imitative faculty great latitude is commonly permitted to the young. The essential moral quality of an action or a statement that a child reproduces in its play does not obtain the proper notice of parent or teacher, so that conduct mischievous in its effect upon the dawning sentiments is permitted, nay often commended by look and word. All the faculties in childhood develop through imitation—each being stimulated to exercise by, as it were, a reflex effect, akin to the response of a piano string to a sound that is of the same key. Grown people generally recognize the fact that our little ones grow in intelligence through imitation, and employ this aptitude for their instruction, but fail to appreciate fairly the moral value of the examples that they constantly offer. From this point of view alone it is apparent that upon grown-up people rests the weight of responsibility for a large measure of the tendency in children to untruthful and vicious conduct and speech. They but copy the manners of their elders in accordance with the natural prompting of their constitution, knowing in their innocence of wrong little of the dissimulation, inconsistency, subterfuge, hypocrisy and falsehood that such manners involve.

It is then for the parent and teacher and those who stand in the relation of friends to the child to scrutinize their own conduct and speech, and to try their expressions by the test of truth and honesty, so that the impressions received by the little ones shall be correct and worthy.

HELPING UPWARD.

One of the common experiences of the phrenological observer is meeting with people who have been "promoted" from a low sphere of life and work to one of usefulness and influence through study of phrenological literature. Such a case has just come to the notice of the editor. A gentleman now minister of a Methodist church in one of the larger cities of Central New York, writes to us that in early life he was a "common coal miner," in circumstances that were every way unfavorable to advancement. Yet through the reading of certain phrenological books that fell in his way he was inspired to effort. In the course of time he struggled through the schools, and made his way to the creditable position that he now occupies. Faculties were trained and rendered effective that "might have lain dormant forever but for a few hours' perusal of a treatise on Phrenology."

We can name several persons who are doing valuable work in the ministry of the Christian Church who received their leading toward such use of their mental powers through the adoption of the principles set forth in such authors as Spurzheim, Combe, Fowler, etc. Thus the high moral effect of the teachings of Phrenology is demonstrated, and the plea urged by some objectors that they tend to infidelity, atheism or agnosticism is practically refuted.

The above was written just previously to our notice of the able discourse by the late Bishop Thompson, published in the New York *Christian Advocate* of Oct. 5. In the course

of his remarks, the Bishop declares the incompetency of scientific or esthetic study and practice to render men virtuous, and mentions of the natural sciences physiology, hygiene and phrenology, as those that instruct us with regard to the laws of human nature, and inculcate obedience to such laws as essential to our best interests. Yet science, learning, education will not supply that moral culture that is necessary to make men spiritually pure and good: "We have not reached the way of saving men by education."

Granting now that phrenology is one of the natural sciences, it nevertheless has a relation to man himself that none other of the sciences has. It is the one thoroughly human science, and the careful study and following of its precepts conduces to the expansion and betterment of the individual in his tripartite nature. We are not ready to say that Phrenology supplies a religion, but we do say that it leads to the worship of the Highest Good, the Creator, and that the religion whose formulary and practice involve standards that meet best the need of the soul aspiring for spiritual development is the one to be adopted and encouraged.

The culture of the higher faculties of the mind of necessity prompts and strengthens the spiritual appetite. Hope, reverence and trust look upward, and find in the Divine only a fullness of satisfaction. If "the undevout astronomer is mad," certainly the undevout phrenologist is doubly so, by his obstinate disregard of the lessons clearly written in the tissues and functions of body and brain.

THE LATE SPECTACLE IN THE SENATE.

WHEN Mr. Matthew Arnold was in this country he had something to say regarding the danger of numbers, or the majority, to our political system. Lately we have had a striking illustration of the power of the minority to obstruct legislation on a question deemed of great practical importance to society at large. The Senate of the United States has been disputing for a long time over the Silver Bill, and at this time, despite the fact that the majority of the members of that body are in favor of its passage, the advocates of free coinage (or of the continued purchase by the Government of silver in large monthly amounts), a decided minority, have successfully, if not in the most dignified manner, prevented a vote. The sentiment of the mercantile classes in the country appears to have had little effect upon those silver men; they have heroically (!) stood in the breach, and defied every attempt to force a result. That the use of silver money is a public necessity, no one can doubt, but that the Government should be forced to purchase a certain quantity of it every month or every year is certainly wrong as well as inexpedient. We think that the rule of individual right applies in this case, and that in political controversy to-day almost as much as ever heretofore, the tendency to overlook individual right enters into State and national legislation. The cotton planters of the South or the silk weavers of the North have just as much right to an act compelling the Government to purchase so much cotton or silk fabric per month as the Colorado miner has to the silver

purchase act. Besides, if there be a demand for silver money on the part of the people, the Government could not properly avoid its coinage to the full extent of the demand. The very fact of the great accumulation of coin in the Treasury vaults shows that the people can get along without it, and without gold, too. The real issue does not involve the demonetization of silver, despite the effort of the silver men to make that a leading point in their struggle against the Repeal Bill, and we hope that the public at large will not suffer itself to be hoodwinked by any specious arguments in that line.

HOW MUCH WILL BE LEFT?

How much will be left when all of self
Shall be washed from the soul away?
How much will be left when nature's dross
With the gold may no longer stay?

How much will be left of ripened grain
When the tares have no longer place?
Shall we gather sheaves of golden wheat
Or life's field be a barren waste?

When the Master comes expecting fruit,
From the vine he has pruned with care;
Shall we be able of perfect growth
To present an offering fair?

How much will remain and stand the test
When the true from the false shall part?
When the light of God shall clearly shine
And its rays illumine each heart?

What we have valued as priceless gems,
And have classed with our jewels rare;
When the Lord shall come to claim His own
Will they count with the treasures there?

Ah! well may we ask in humble prayer,
That enough pure gold may remain,
When the furnace tries and melts the dross,
To inscribe the Father's name?

—A. E. W.

Our Mentor Bureau.

To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

WEARING FLANNEL UNDERGARMENTS.—
Question.—Are flannel garments next to the skin objectionable?

Answer.—We consider flannel garments as proper for next the skin use, on account of the respiratory nature of wool-fabric, it being superior to cotton or linen in that respect. For a sensitive, irritable skin good merino may be better, although a fine quality of wool-fabric can be obtained at some of the larger hosiery shops in the cities that will not irritate.

FAKIR DOINGS—D. H. H.—Wonderful things are told of the Oriental fakirs, but as yet we have not seen any well authenticated statements that would lead us to believe that any of those things are true. The "suspension in mid-air" business, climbing a rope that seems to be hanging from nothing, burial alive, etc., have a very romantic look, and are related in a way that does not appeal to the scientific mind. It is quite possible that in some cases hypnotism or magnetism is made to play a part, and they who may have asserted that they saw such and such won-

derful things, were under the control of a smart operator. A claim, indeed, of this sort has been made in circles of psychic color.

DREAMS OF FLYING—N. G. S.—This form of dream is not very uncommon, and probably is due to similar impressions made upon the persons who experience it. The faculties that have to do with imagination are largely concerned in its production, while those of the lower intellect are passive for the most part. It is not at all unlikely that impressions made upon the mind while in childhood by stories of angels or of mythical persons to whom the power of flight was attributed, may be revived in dreams, and have their effect.

STUDY OF PSYCHOLOGY—G. M.—Yes, the works of the later authors and observers in psychology may be associated in the study of mental physiology. Among those that can be commended are Prof. Wm. James' recent work, "Sully's Handbook," Todd's "Elements of Physiological Psychology" and Ziehen's "Introduction." The last named is an excellent treatise, taken as a whole, and furnishes a good idea of what the modern school of psychologists are doing. These books cost from \$1.50 to \$4, Ziehen's and Sully's being about the price first named.

LARGE BRAINS—S. P.—Occasionally the physician meets with cases of large brain, but unless he is specially interested in the study of brain function there is little of value to be obtained from his observations. A Pacific Coast physician refers to having met with two instances of brains of phenomenal size, upward of twenty-five years ago, while engaged in hospital duty. One was that of an epileptic, a woman, and weighed about sixty-eight ounces. Nothing is mentioned of its constitution aside from its great weight. The other was that of a Frenchman, of remarkable artistic aptitude,

which weighed sixty-five and a half ounces. The history of the owners of such brains would be of high value to cerebology, but it seems that little attention was given to its procurement.



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

AN ANSWER TO "THE QUESTION OF FAITH."

THE philosophy and reality of faith is as profound as life, yet as simple, therefore difficult to define within the scope of an article of this kind. Although Mr. Andrews was saved from death twice he may not be the third time he meets danger on the railroads.

To avoid all technicalities, I would say this woman's children had grown out of their physical or lower form into their spiritual or higher state. There are various reasons why human beings die in infancy. The normal cycle of life is said to be 100 and 400 years according to different doctrines. Through a material living few attain the full measure on earth. Through the neglect of some physical laws, accident, disease, or some inadvertency, the most careful mother may lose a child. Or, the child may have so developed for the next life that the season of trial here would be superfluous. I know not whether this mother prayed that her children be spared. She probably did. Doubtless she did not give them up without a struggle. "Though the spirit is willing the flesh is oft weak."

That which seems miraculous is not often repeated. It would not be in conformity with the universal law of cause and effect. Life must go on in its course. Death is but a natural change that comes to all; like the discarding and dissolution of an old garment the soul, chrysalis-like, breaks forth from its pent-up condition, going on to its destination. Death is a process of evolution. If miracles or the intervention of other agents were allowed to stop the action of life in every case, the

results would be retarded fruition; in other words, the effects would be removed from the causes.

I believe that God does the best for his creature in that He has endowed man with the capability of working out his own destiny. Whether he work in harmony with nature (this implies *all* nature) and God is his own choice. "Man is not a blind, irresponsible speck of dust swept along in the mighty tide of nature's progress." He may become a co-worker with God. It helps one to believe this. Inquire into all the sad pages of history, their sequence, and what at first seemed hard had a veritably good ultimatum. We cannot pick flaws in the allotments of human life by single instances. We must judge of the whole.

The lower pain of suffering wears away; at times it comes back, but with each recurrence anguish decreases. No ill of life warrants the displacement of faith. It were like a child to rail against the fiat of fate. Faith in the supernatural, or better termed, infinite good, does more than compensate for the loss of earthly friends when one realizes that the self-centered "runs counter to the onward and irresistible sweep of an universal current." While he who yields to these invisible but potent forces is in harmony with good.

A woman's faith would be put to a crucial test were she permitted to retain her child through any such agency as the correspondent suggests. Her natural instinct would be to preserve its physical condition. That almost divine love would, for the time being, well nigh extinguish every other emotion and thought, she would feel equal to risking her own well being for the child's sake. On reflection she would perceive that what under momentary stress seemed selfishness was a refined selfishness. The change from the physical to the spiritual is not detrimental to the child. Why, then, this anxiety? Was it not her own weak *desire* to have it with her that guided her? Could she affirm that by this detention it was irrevocably saved from ill? *No*. But during crises the human mind is prone to yield blindly to the strongest impulse regardless of the decrees of right and wrong; calm, cool reason comes afterward.

Aye, mothers love and lose without number. Yet who can say for ill? Though prayers were offered for Garfield unrequited, did it lessen the effect of his death? Was he not the more endeared to his people? Will not his memory and Lincoln's ever luminate the annals of American history? It was not lack of faith that prevented these prayers being answered according to human vision, but the decision of a divine will joined to an all-seeing penetration broad as the universe, as well as a natural consequence of physical inability to cope with death.

After all, questions of this kind can only be answered according to the individual dominant principle. When all good seems only inherent in earthly living and selfishness it is hard to be reconciled to the loss of loved ones. When the perfection of character, not temporary happiness, is the only adequate purpose and ideal of life, all pain means growth and worketh peace. Sorrow humanizes.

It is hard clearly to understand this matter of faith and death, so infused has religion become with dogma, and so obscure are the ends thereof; but a diligent search will reward one with an apprehension of the central truths of all that make up the fabric of life here and hereafter.

H. E. I.

A DEAD LOSS TO THEM.

H. B., of Sioux Center, Iowa, writes: "FOWLER & WELLS COMPANY:—On account of the slenderness of our family purse, our subscription to the JOURNAL has been allowed to run behind. I enclose one year's subscription, and ask if you can send all the numbers that we have missed. It has seemed, without the JOURNAL as if some one in our family had died, now that we don't get it."

PERSONAL.

A cast of Phillips Brooks's face was taken by the sculptor, Mr. Bartlett, immediately after the bishop's death. The resemblance of the mask to the original is good. The broad, placid face seems almost happy in its expression, and the closed eyes hint at naught but peaceful slumber. The mouth has just the slightest droop, but every line of character is retained. It is a

pity that the artist did not take a mould of the entire head, for the uses at least of science if not of art.

There are two vases in the Spanish section of the Manufactures Building at Chicago which show that Spanish women can sometimes accomplish remarkable things that have a use and culture. These vases are wrought in iron, ornamented with gold hammered in exquisite designs. One is Etruscan in style, and the other pure Greek. They are valued at \$30,000 each, and were designed by Felipa Guisasola, who was, until a few years ago, a humble working girl in one of the Basque provinces.

One may hear of the Tracy Sewing Machine and not know that it carries an important invention by a woman, Mrs. Harriet Ruth Tracy. The invention is a rotating shuttle whose bobbin carries over 1,000 yards of thread and it closes up each stitch without passing the loop through the needle. It is one of the most novel, simple, efficient, and ingenious devices in the World's Fair. Moreover, no winding of the lower bobbin is necessary, as they are furnished already wound. In addition to her sewing machine improvement a few of her other inventions exhibited are a parlor folding sewing machine table, and models of a passenger gravity safety elevator, with automatic platforms and a fire escape.

WISDOM ITEMS.

WIT is a good thing, but to display it often and try to get a reputation for it renders a man somewhat pitiful in the eyes of the sensible.

It seems like cheap sentiment, but it is nevertheless true that the good things we have greatly exceed the evil, and what seems injurious to our interest often proves at last to our advantage.

TO REMOVE INK SPOTS.—A simple way as we obtain it from an exchange is to take thick blotting paper, steep it several times in a solution of oxalic acid or oxalate of potassium. Then dry it. If there is a spot to be removed, all that we have to do is to apply the blotter, which has been prepared in this fashion, to the spot, and it is absorbed or neutralized.



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

A CONCISE DISQUISITION OF THE ENGLISH LANGUAGE AND A PLEA FOR IMPROVING ITS ORTHOGRAPHY. By J. P. GRUWELL, M. D., Alliance, Ohio. Price 10 cents.

An able pamphlet with a good scheme for phonetic spelling, that proposes no change in the language, in *sound* or vocal structure. The main idea is to have letters always stand for the same sound, thus rendering both spelling and pronunciation of words easy.

THE TEMPERANCE THIRD READER. For families and schools. By JULIA MCNAIR WRIGHT, author of "Temperance Arithmetic," etc. Price, paper 10 cents. National Temperance Society, New York.

Following up the system inaugurated in previous books, this "Third Reader" is well adapted to school instruction. The lessons are of stories and sketches attractively set in good type and manner for the young pupil, all telling the truth of temperance and intemperance.

A MAGAZINE OF POETRY. A quarterly review. No. 3 of Vol. V. Published by CHARLES WELLS MOULTON, Buffalo, N. Y.

We find some notable names and some admirably engraved portraits in this number, while the majority are to an Eastern eye quite new. This, however, is to be expected in a publication of the kind. As individuals we can but know a few amid the legion of versifiers.

BLOOD IN THE URINE. HOW TO DISCOVER ITS SOURCES, AND WHAT TO DO FOR IT. A short monograph by L. BOLTON BANGS, M. D., of New York.

This reprint of an excellent paper should be acceptable to many practicing physicians. Its suggestions relate to an important topic of pathology. Our present civilization appears to elaborate disease of the genito-urinary apparatus, and renders the work of the physician more complex, so that light from a source of special observation, like Dr. Bangs' laboratory, is of high value.

ADDRESSES — HISTORICAL AND PATRIOTIC, CENTENNIAL AND QUADRENNIAL, delivered in the several States of the Union; July 4, 1876-1883, including addresses commemorative of the four-hundredth anniversary of the discovery of America, 1892-1893. Edited by FREDERICK SAUNDERS, A. M., Librarian of the Astor Library, New York; E. B. Treat. Price, \$3.50.

The publisher of this volume has brought out a specially interesting thing, a book of service to every American, whatever his calling and station. We are pleased to give it this mention, and to advise the reader to add it to his home collection. Containing 1048 octavo pages, it is packed with addresses and orations by many of the best minds of the day. The names of most of the authors of these noble speeches are household words in every part of this commonwealth, and occupy a high niche in the world's temple of fame. For our young people—the girls and boys—this book offers interesting reading, and will contribute to that mind culture that is essential to true nobility of character.

THE FRUIT OF THE VINE. Fermented or Unfermented Wine. By JOHN ELLIS, M. D. 12mo, pp. 128. Price, 20 cents.

Dr. Ellis returns to a favorite line of discussion in this new pamphlet, and quite covers the field of the wine question according to Bible testimony. He reviews the various articles on the wine question recently published, and gives important facts as to the injurious character of fermented wines, beer, and alcohol as remedies. It is unnecessary to say that Dr. Ellis is competent to discuss this question, and we take pleasure in recommending this book as a valuable and interesting contribution to the literature already published by the National Temperance Society, New York.



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MADGE ROBERTSON KENDAL.

MADGE ROBERTSON KENDAL.

A PHRENOGRAPH FROM A PERSONAL EXAMINATION

BY EDGAR C. BEALL, M.D.

GREAT mimics rarely become great actors. As the highest form of art is that which most perfectly mirrors nature, so the finest actors are the most natural in feeling, the most spontaneous and unaffected in expression and most heartily in sympathy with the parts they play. This is well illustrated in Mrs. Kendal, for in her figure, dress, grace of manner, enthusiasm, emotionality, humor, pathos and all that renders her so charming on the stage, she seems to be the same woman whether her audience numbers thousands within a theatre or consists of but a single visitor in her boudoir at home. She is the personification of simplicity and candor. To portray a superb character she needs only to be herself.

But the most remarkable quality in this woman is her femininity. Notwithstanding her imposing physique, her imperial gait and the volume of her voice, she is as sensitive as a flower. Her skin is very thin in the literal sense as well as in the figurative, and it is difficult to fancy anything beneath it except a maze of nerves as fine as gossamer, quivering in a scintillant, crimson torrent, which, like rare old wine, embodies the condensed warmth of a whole summer's sun, and the mellow richness that can only come with mature years.

The artistic temperament is essentially feminine. The psychical life of the typical woman is no more to be squared or leveled by the sharp angles of logic or straightened by the plumb line of conscience than her physical contours are to be described in rectilinear forms. The ideal woman of the great painters, sculp-

tors, poets, and the consensus of both anthropological and popular opinion is softly rounded in figure, tapering always from the centres to the extremities, and of velvety, flexible texture. The same is true of her character. She is indirect where the masculine principle is direct. That which man expresses in the set terms of philosophy or science, woman conveys by the elastic language of suggestion. With her lips she only says "because," and you must read her reason in her eyes. Such is also the mission and method of art: to express in pictures a story which etymology alone could never tell, and it is this which Mrs. Kendal is so well adapted to do.

Her temperament is the *nervo-sanguine-vital*. She has indeed a large frame, but her muscles and bones are of such a consistency as to be little more than a trellis which keeps her in shape without adding very much to her strength. This constitution is favorable to ardor and impulsiveness in the feelings, brilliancy of intellect and fervidness of imagination. It is the temperament of orators, poets, musicians and actors, but is scarcely possible among the leaders of scientific thought.

Her hair is a beautiful golden, and very wavy. Her eyes are gray, and her complexion rosy, so that she neither requires nor employs many of the arts of theatrical "make-up." Her hands are rather large, but proportioned to her figure. They are also very shapely, and the fingers slightly incline upward at the extremities, which is a sign of frankness and generosity. Her head is twenty-two inches in circumference, and from ear to ear, over the crown, thirteen and

a half inches, which is the full size for a man, but it is of the long, narrow type, which is characteristic of her sex. There is a considerable development in the occiput. Friendship is strong, and her love of children amounts almost to idolatry. This latter quality she shares with most members of her profession. Her cerebellum, or "little brain," which is the seat of love for the opposite sex, is fairly developed, and with her combination of attachment, sincerity, reverence and phenomenal sensitiveness she will manifest a very high order of conjugal devotion. But her constancy is largely due to her peculiar normality, or the profoundly healthy quality of her mating instinct. She is a product of Scotch and German ancestry, and all students of racial peculiarities know that the Teutonic blood has furnished some of the most remarkable examples of monogamic love. Her mother's grandfather was a Jewish rabbi, which also accounts for much of her irrepressibility and loyalty to her family. There is but little evidence in her face of this Hebrew element, except in a certain width at the tip of the nose, which is only noticeable at intervals. On the whole the expression of her features reminds the comparative physiognomist of a lioness, and her disposition includes many characteristics of that queen of beasts, which, it should be remembered, is a singularly monogamic creature and passionately devoted to its young.

Mrs. Kendal was also fortunate enough to marry happily while young, so that her conjugal attachment has never been disturbed or interrupted in a way to render it weak or insecure. But behind and below the favorable circumstances of her life, she illustrates the activity of an instinct in her sex regarding the sacredness of the marriage relation, which Schopenhauer would describe as an expression of the will and the needs of the genus, the interests of which being infinitely greater than those of the

mere individual, can be served only by impulses which must sometimes appear in the individual manifestations as almost blind and unreasonable. This will account for the severity with which women usually judge their unfortunate sisters, and it is easy to see that this harshness is almost a necessary correlative to the conception of fidelity which the normal woman so intensely feels. The conditions which in woman's nature determine the quality of devotion, imply the subordinate influence of those elements of reason which effect changes of feeling and opinion. In other words, the essence of a profound devotion is somewhat antagonistic to those faculties of the mind which continually question and scrutinize, and thus find excuses, either valid or worthless, for departures from a given code.

Mrs. Kendal has the energy and force which come from her excitable, enthusiastic temperament, and also an extraordinary development of Combativeness in her brain, which is indicated by a very marked width or breadth of her head a little upward and backward from the ear. She is naturally intrepid and brave. She instinctively warms up in the defense of any one or anything she loves, and immediately takes sides. In the possession of this remarkable courage she also resembles her leonine prototype. However, she is not aggressive in her belligerency, and will manifest the phase of this propensity which we call self-defense.

With her sanguine-vital constitution, she has what is popularly known as a quick temper. And though she soon recovers from a burst of ordinary anger, she will be capable of deep and almost ineradicable enmity toward people who wrong her or those she loves, especially when her feminine sensibilities or affections are outraged. She could forgive and forget a man who had robbed her of her fortune, but woe to the thief who would dare to steal her child. She

has scarcely any Secretiveness. She is as open and transparent as the day. She seems to take positive delight in expressing her real sentiments upon all subjects, and she has but little diplomacy or policy. It would be a marvel if she did not make some enemies by her outspoken methods. And, as she is also deficient in caution and reflection, it is well for her that she is not dependent upon cunning or tact to make her way in the world.

Her sense of property, or the instinct to acquire and hoard up money is about as weak as we ever find it. At the seat of this faculty, which is located a little above and forward of the ears, her head is very narrow. And though in the estimation of some persons she has a sharp eye for business, she is, in fact, not only lacking in the love of gain, but practically very deficient in knowledge of finance. This is well illustrated by her own statement that when she first came to this country she was under the impression that our American dollar was equivalent to the English pound.

The diameter just above the ears, at Destructiveness, is much less than at the combative center. She is satisfied with victory, and does not seek to annihilate her foes. Continuity is moderate, which enables her to shift her attention from one subject to another with celerity and ease. Self esteem is of that subordinate activity which is characteristic of women in general, but not of the English in particular. Indeed, it is the rule in England, to which there are few exceptions, to find dignity, independence and pride conspicuous in both sexes.

But a more surprising peculiarity in the subject before us is the temperate degree of her vanity. Approbateness is not only a distinctively female trait, but among the women of the stage it is almost invariably the dominant quality. Mrs. Kendal is certainly far from insensible to applause and popularity, but if approval is obtainable only by the sacrifice of her

convictions, or the concealment of her opinions, she will dispense with it for a long time. Her Firmness is rather strong, and with her impulsive temperament she will probably illustrate the adage: "When a woman will, she will, you may depend on't, and when she won't, she won't, so there's an end on't."

As to moral sentiment and religion, she has strong Veneration, and a good share of Benevolence, but less Conscientiousness and sense of the marvelous. This is shown by the height of the top head along the median line, and by the downward sloping at the sides. She has high ideals of conduct, and loves to do the right because it promises the greatest pleasure to all her faculties. That is to say, it is not the rectangularity of justice which chiefly attracts her, but rather the utility of it which appeals to her intellect, and the sweetness of its aroma which delights her senses. She is not one of those who keep in the hard, straight highway of duty, but at the same time longingly peer into the flowery bypaths of sin. As the lioness is true to her mate from love, and not from a sense of obligation, so a woman may be loyal to all her ideals either with or without the lash of Conscientiousness, provided she is pure and healthy, and unperverted by a false education. Mrs. Kendal may not always be philosophically considerate, or wholly fair in her estimates of others, but one of the best things about her is her willingness to admit that this is true, and that she desires and hopes to attain a larger and richer charity in the coming years.

Her frontal top head is comparatively narrow at Imitation, the opposite of which is very noticeable in Nat Goodwin and other mimics of his class. There is also less Ideality than one would expect in such a gifted actress, but her responsive temperament accounts for her artistic taste and talent to a great extent. However, she would never by any possi-

bility manifest the phase of imagination which was so pronounced in Edgar Allan Poe or Lord Byron, whose upper foreheads were very wide. The temporal region is also rather narrow, showing a lack of the impulse to construct, though she has an extraordinary endowment of the perceptive which give dexterity in the use of tools or in the execution of literary work. The musical faculty is strong, and her temperament is exceedingly sensitive to the tone art.

As regards her intellect, she has a forehead which includes nearly all the elements peculiar to the ideal feminine type. It is very prominent across the eyebrows, but neither high nor broad at the top. Many intellectual women will perhaps take exception to this statement, but it is only necessary to remind them of the instinct which prompts the majority of the fair sex to bang their hair, in doing which they unconsciously seek to give their foreheads an appearance of the configuration here described. This development of the lower part of the forehead, the perceptive, shows great talent for observation, judgment of detail, ability to estimate shape, distance, the volume and direction of forces, and locality; mem-

ory of events, sense of color and order.

In the center of the upper forehead there is great activity of Comparison, but at the upper corners, so to speak, there is a deficiency at Causality, which is the characteristic intellectual element in the masculine mind. Mrs. Kendal will therefore excel in all those studies which relate to phenomena within the objective or concrete world; and in her ideas and conversation she will be peculiarly clear, specific and pointed, so long as her emotions are not allowed to interfere. She has the forehead of a scientist rather than that of a philosopher, as regards the shape; but her temperament is that of an artist, though adapted to the realm of emotional expression through the vehicle of language, music and gesticulation, rather than through any strictly mechanical channel such as sculpture or architecture.

Altogether, the combination is a difficult one to define in a few words. The temperament involves some apparent contradictions, and can only be understood after careful study. As to the lady's history, all agree that her home life has been a model of devotion, and that as an actress she is an honor to the stage.—*N. Y. Press.*

SOUL-INCASED ; OR, THE MENTAL CHARACTER OF SOPHIA HUTSON.

BY HARRIET E. IJAMS.

IN a sequestered part of the city of Wilkesbarre, Pa., Sophia Hutson, a blind deaf-mute, lives. Laura Bridgman's identity became world-wide after Charles Dickens' visit to America, where he saw her and wrote of her, creating interest among thinkers, men of science and of feeling, for her peculiar condition and correspondingly wonderful mental state. There are other prodigies of like nature or equally restricted environment

who have not become known to more than a small circle of friends, or curious spectators, and of these, Sophia Augusta Hutson is one.

Her life has been a peculiarly affecting one. She was born thirty-six years ago in her present condition, which is not a result of disease, as is so frequent, in the home in which she still resides, of parents who came from the county of Essex and from Devonshire, England, the seventh daughter

and tenth child in succession. The writer visited her often as a child, accompanied by older friends, at the time her mind was making continued, definite, external signs, through the patience and loving kindness of Miss



SOPHIA HUTSON.

Angelina A. Fuller, an apt instructress, whose painstaking zeal was inspired by that bond of sympathy which one straitened being feels for another. Miss Fuller was what is termed a semi-mute, threatened with blindness; a woman gifted with mental endowment and of poetic inclinations. The readiness with which Sophia's self-inclosed mind groped after external light was pathetic. After the true meaning of outer communication dawned upon her, her delight and eagerness for knowledge was great. Her mind was not entirely sealed before the drawing out, for she was able to attend herself, and would often procure objects from the cellar, or other parts of the house, upon the request of some member of the family, understanding this request by means of natural signs and gestures. And this ability to wait upon herself and

others gave her peculiar satisfaction foreign to that shown by many a girl possessed of all her faculties.

When she was about seventeen years old, a Rev. J. B. Howell took much interest in her, and, with a noble philanthropy, undertook the first conveyance of thought to her, teaching her one hour every Wednesday. His procedure was not according to the system followed in institutions for the deaf and dumb. Instead of spelling the words by the regular manual language, he used a system of his own invention. The touching of the ends and different parts of the fingers and hand was significant of the alphabetical letters, which method is very like the English sign language. How he succeeded in making her understand what these letters represented and for what purpose they were used, I am unable to say. The means by which the first glimmering illuminating these obscure minds is obtained is a mystery. All those with whom I have conversed upon the subject are unable to fathom this phase of the subtle workings of that subtle piece of human mechanism—the mind. I think the first ray of light entered Laura Bridgman's mind when a key was handed her to feel, placed in the door, and the letters spelled on the fingers to her; then a hat, and other articles of common use. Sophia must have been enlightened in some such way.

Miss Fuller heard of her and out of love wrote from her home in Illinois that she might be permitted to go to Sophia to impart her knowledge to her. Sophia's progress under her new teacher was rapid, and greater because of the kinship which their mutual affliction promoted. Miss Fuller adopted a better system of communication, the one familiar to all American mutes, who would thus be able to converse with Sophia, where it would have been impossible by Mr. Howell's method. Sophia's disposition at that time was eminently cheerful, her mind bright, and her conversations

with Miss Fuller awakened her affections. She often embraced her teacher, telling her she loved her.

Many scriptural passages were taught her and her memory was remarkable. A question and answer would be told her once and the next day, on inquiry, she would answer it without hesitation. All praiseworthy efforts were requited by a pat on arm or knee, evoking childish glee. She would repeat: "Peace I leave with you, my peace I give unto you." Being told of the sun, and thinking she might be able to discover it, she tried to pry her eyelids apart once while looking heavenward.

It had been the intention of Miss Fuller to continue her instructions until Sophia's education was considered complete and she equal in intellect and culture to Laura Bridgman, but, by a combination of circumstances, her teachings were interrupted after one year. Miss Fuller estimated that this could have been accomplished within three or four years, Sophia's mental grasp being so keen. From that time on until within the past month I heard nothing more of Sophia, and was unable to elicit anything relative to her. No one in the city in which she lived seemed aware of her existence. A remembrance of the location of the then solitary house, in the midst of the dwellings of to-day, and a little inquiry, brought us to her home, clad in its winter robes. Entering the cheerful domain, we saw Sophia seated before the comfortable fire. Time had wrought great changes in her. Her face and head have elongated during her years of womanhood, her figure become attenuated. In appearance she is tall and angular; her hair is dark banded with white over her forehead, and generously sprinkled with gray throughout. Her movements are quick and nervous. Her lips are always apart. She does not resemble her mother or sister, who are both of ample proportions. Her imitation is large; she wants to

be like other people and do as they do. In the evenings when it becomes dark and she wants to work or finger her books, she lights the lamp and places it on the table. Never has she been known to knock a lamp or other article off the table, nor ever broken anything.

While combing her hair she stands before the mirror peering into it with her sightless orbs, performing all the motions every seeing woman enacts before the glass, that of looking on each side of her person, as if to see that her dress was well adjusted and her hair well arranged. Her intuition and sense of feeling are very acute, for a single suggestion will enable her to understand the gist of a conversation between others. Her mother was relating incidents connected with Sophia, orally, to the unconscious accompaniment of the habitual signs. Sophia's hand was laid on her mother's knee; she felt the action of her mother's hand without other contact than that of the knee, understood what she was saying, laughed, and made some remark. In the same way, by simply placing a hand upon a person, she is cognizant of his movements precisely as she would be could she see.

Her hands are used as feelers, and she holds them outward before her when walking about, seeing through her fingers as we do through our eyes, figuratively speaking. She has no knowledge of color by the touch. Sophia knows the days of the week and appreciates the sanctity of the Sabbath. Unlike Laura Bridgman, she has no aversion to cats and other furred animals. She is very particular about her surroundings, and is a "pink of neatness." Her extreme sensitiveness of touch renders the slightest contact with dirt an excruciation. She likes to have the things about her arranged with taste, and, during our stay, suggested to her mother that a new lounge be purchased, as she was tired of the old one. To a certain extent she is an

accountant. Her mother buys one dollar's worth of milk tickets at a time and places them in a certain cup. Over these Sophia holds supremacy—no one may touch them, showing her sense of property. Every morning promptly at the right time she opens the door, pitcher and ticket in hand, to receive the nourishing liquid from the milkman. When those tickets are exhausted she runs to her mother asking for money for more tickets, and buys more from the man herself.

Again her wonderful imitation and intuition are illustrated by her taking up an ordinary book, and sitting apart for hours as if intent upon its contents; whether the book is straight or reversed is unnoted. Sophia loves to feel the vibrations of musical sounds by placing her hand upon the piano when others are playing, and knowing that others were able to call forth wonderful sounds from that instrument, she desired to be equally accomplished. Accordingly, her sister taught her a hymn which she played for us with one hand correctly, being very careful to spread the musical sheets—written to another air—upon the rack as she had found others do. She played the scale back and forth with both hands, then folded the pages, putting them away. In closing the piano she let fall the sheets. When she reached her chair by her mother, Mrs. Hutson took her hand, pulled it down towards the floor, and pointed to the piano. Sophia understood and placed the paper in its place. When re-seated she was made happy by a pat of approval.

Sophia is affectionate, and kissed her mother's hand several times while she was talking, but she lays certain restrictions upon members of the family. At one time her mother was troubled with her sight, and Sophia's sister would read aloud to Mrs. Hutson. As soon as Sophia discovered this fact she would object, necessitating a suspension. They might

read to themselves, but not aloud. How did she know? The reason for her objection was not learned. Sophia has never been far from her home. Once she rode on a railway train and was highly pleased with the novelty. She is never allowed out alone, except to visit her married sister who lives a short distance from her home. Frequently she tires of the monotony of home life and asks her mother or sister to go calling with her, sometimes at an unreasonable hour. On one occasion she was taken out to see a friend; a circuitous route was taken homeward, passing by another home where they had intended stopping. Sophia was displeased with this, and it was long ere she was pacified. One time the Hutson home was rented, while the family moved into a house near by. Sophia hailed this innovation with great satisfaction, carrying chairs from one house to the other. In the new house she walked from room to room, from garret to cellar, with her hands extended, learning its physiognomy. In a year's time the family decided to return to their old home. This announcement was again pleasurable to Sophia, for in that time she had grown homesick for the old home around which her heart-strings clung, and she again carried light furniture back.

Being conversant with the manual language, we spelled on our fingers to Sophia, she feeling each letter formed with her hand, that we had seen her years ago when a young girl, measuring her height as she was then. She laughed, and measured her present height. Much of Sophia's time is passed in crocheting and knitting lace squares with thread. Several were shown us, also a strip of several yards of lace edging, beautifully done. We purchased one which was more valuable than the nominal price. It was fourteen inches square, with shell in shell, bordered by knitted lace wonderfully made. Other squares had interstices for the interweaving of ribbon. I put the money in her

hands; she fingered it as fondly as a child, showed it to her mother, ran up-stairs for her purse and came down rattling it. She signed to Mrs. Hutson for some paper to wrap the lace in. Sophia makes this lace, which is bought occasionally by people at a distance, saving the money thus obtained for her two brothers who were disabled during the war. The quality of her touch might be demonstrated by a little incident: She was making some trimming. Her spool became exhausted before she finished her lace. Number twenty thread was sent for. Sophia tied the new thread on the end of her work, and while doing so detected a difference in the thickness of the thread, making known her discovery and refusing to use it. Her mother and sister could not see or feel any difference. Finally they found that the old spool had been one of Clark's O. N. T., while the new one was from another manufacturer, but the same number. She could not be prevailed upon to continue with her work until another of Clark's was obtained.

I asked Mrs. Hutson whether Sophia knew she was differently situated from other people. She said she did. Did she ever appear discontented with her lot? No, she was always happy and contented. She had her faults; she was perverse at times, but a little humoring and coaxing soon made her tractable.

Mrs. Hutson considers Sophia's life as being happier than that of people in normal condition, for she knows nothing of cares, troubles, anxiety, sorrow, or any of the "sins and ills flesh is heir to." Though delicate in appearance her health has been remarkably good, she never being ill, except with an attack of La Grippe, lately. She has never required a physician's attendance save once in infancy, when her mother consulted one relative to her sight.

During our stay Sophia ran up-stairs, bringing down with her two large books, with raised letters, for us to ex-

amine. Mrs. Hutson believes Sophia does not understand the reading of the raised letters, simply running her fingers over them for amusement; and further, says Sophia has had no additional education since Miss Fuller's endeavors, other than the knowledge of the ordinary immediate life which they explain to her. Much that Miss Fuller revealed to her has been forgotten after the lapse of years and so short an education. She still remembers the Lord's Prayer, one scriptural passage, which she repeats rarely, and sometimes speaks of "Angie"—Miss Fuller. When her father died two years ago she pointed her finger to the sky, signifying that he was there.

Mrs. Hutson regrets that Sophia did not receive a better education, for her mind was equally if not more bright than Laura Bridgman's. At one time she wrote to the principal of the Institution for the Deaf and Dumb at Philadelphia, but when Mr. Hutson heard of it he spoke against it in such strong measures that the project of sending her there was never carried out. Sophia's brain took on its growth developed by circumstances, but differing widely from Laura's. The head, as shown in the picture taken when she was seventeen, is of the mental type. I was greatly struck by the change. Instead of the massive forehead, the symbol of intellect, she carries one now with less significance, extremely narrowed at the sides, predominating in the perceptives. Sophia's head measures, from the middle of the forehead, around the head, 20 inches; around from the line of the hair, 20 inches; over the head, from ear to ear, 11½; over Firmness, 11; and over Benevolence, 10½ inches. This narrowness is heightened by the greater volume of brain at the top of the head, the moral regions being high in comparison.

Having had no continued education, there was consequently little brain activity, and the cranial devel-

opment was checked. The cessation of intellectual life caused a stoppage in the growth of the frontal lobe of the brain; a separation from the activities of life, a like result in the parietal and temporal, with a more natural aggregation in the superior cerebral lobes.

With so little education, yet so much sense, acute sensibilities, accuracy, precision, there is no doubt that some of the embryos of truth have their existence in that quiet soul. The soul chords struck by an invisible hand never emit sounds, yet their echo seem ominous at times,

when Sophia sits, silent, alone, a smile hovering on lip, an inward communion lighting up face and betraying itself in the look of exquisite bliss. As her mother said, "She is a mystery." Of the nature of her thoughts there has been no revelation. She often sits by herself smiling or laughing.

She is not perfect, yet with little beyond the limits of her soul to mar its melody, the song of her life has been, in the main, harmonious, responsive to the secret music played by the Master-hand, and is a living rebuke to man's peevishness and pessimism.

SKETCHES OF PHRENOLOGICAL BIOGRAPHY.

BY CHARLOTTE FOWLER WELLS.

DR. GEORGE McCLELLAN.

GEORGE McCLELLAN, father of Major-General George B. McClellan, was a professor of anatomy in the Jefferson College of Philadelphia, and one of the most eminent surgeons of his day. He was a personal friend of Dr. Sewall of Washington, and with him had been an opponent of Phrenology. In his lectures to his classes he held up Phrenology to ridicule. He was converted while listening to the lectures of George Combe in 1839. The following remarkable surgical operation, * performed by Dr. McClellan, was one of the most interesting that had, up to that date, ever occurred in the history of surgery. As it involves facts which have an important bearing upon a correct knowledge of the functions of the brain, I shall insert here a full description of the case, given in Dr. McClellan's words, taken from an old copy of the PHRENOLOGICAL JOURNAL.

"Early in the month of December,

*A partial description of which was given in the Biographical Sketch of George Combe in 1890.

1838, Thomas Richardson, a resident of the city of Pittsburgh, called on me for surgical aid. He was then twenty-two years of age and had been afflicted about three years with a tumor upon the vertex of his skull. About six months before the first appearance of the tumor he received a severe blow from a missile on the affected region, after which he occasionally experienced a tenderness and pain there. As the tumor gradually increased it produced a determination of blood to the head, attended with a sense of fullness and a giddiness on stooping. But he was not deprived of any intellectual power, nor were any of his sensations or muscular actions disturbed. The tumor was very hard and unyielding and had been pronounced to be an *exostosis* by every surgeon who had examined it. It was oblong in shape, being four inches in the long and three and one-fourth in the short diameter. It was raised in the center about one and three-fourth inches above the surrounding portions of the outer table of the skull, and extended

from about an inch beyond the sagittal suture on the right side obliquely to the left and backwards, over the adjacent portion of the left parietal bone. It occupied, phrenologically, the organs of Firmness, Self-esteem, Approbativeness, and a part of Cautiousness on the left side. I was induced to undertake an operation for extirpating this tumor, chiefly because no symptoms of cerebral affection could be discovered other than those which a moderate determination of blood to the head might produce. Two long incisions were first made at right angles near the center of the swelling, and afterward the scalp was dissected up from the whole surface, and, to some extent, around the sound bones, with a long narrow saw, held in a tangent to that portion of the circumference of the cranium. I then cut off the entire tumor, apparently at its base. The saw moved with difficulty while it was passing through the external table, but with great ease when it was acting upon the interior of the mass. This first led to the suspicion that the disease was not an *exostosis*, and when the prominence had been removed, it was made evident that a far worse state of things had to be encountered. The exposed surface presented perpendicular cells, or cavities, like those of a honeycomb, which were filled with a bloody, or pulpy and sanious matter. The case was at once decided to be a *spina ventosa* of the skull, and it was, therefore, deemed necessary to extract the whole mass from the surface of the dura-mater beneath. A long and tedious extension of the operation was then undertaken. The

whole mass of the tumor was circumscribed by the circular edge of a small Hay's saw, and the mass was pried out in successive fragments by an elevator, occasionally aided by the bone nippers and forceps. This part of the operation proved exceedingly difficult, for the tumor extended inwards much deeper below the internal table than its outer surface had risen



THOMAS RICHARDSON.

above the external table of the skull. Finally, however, a removal of the whole morbid structure was effected, and the dura-mater was exposed, thin and livid in appearance, at the bottom of a deep cavity, which the bystanders estimated to be capable of holding four and one-half ounces of water. There were no pulsations visible, although the circulation was strong and full. Some small spiculæ of bone had adhered to the dura-mater, which were extracted by the aid of forceps. In extracting the last of these, which appeared to penetrate the dura-mater, a prodigious gush of venous blood

issued, after which the patient fell into a convulsive syncope. The hemorrhage was supposed to proceed from the longitudinal sinus, and was therefore arrested by graduated compresses and a bandage. The angles of the wound were brought as near together as possible over the compresses, for the purpose of affording support to them while they were confined by the bandages.

Very little irritation resulted from this operation. In nine days the compresses were loosened by suppuration, and on removing them, the whole of the exposed surface was found to be granulating, and the orifice in the great sinus was closed. But the brain had not risen up to occupy the exposed cavity; and it was found impossible to place the flaps of the scalp in contact with the dura-mater in the usual way, so as to close the wound. Mild dressings of patent lint were applied over the surface, and confined with moderate pressure by means of a double-headed roller. On the twelfth day after the operation the cavity below the bone was evidently diminished, and every day thereafter it continued to decrease, until, in the fourth week, the surface of the brain, covered by the granulating dura-mater had risen up to the level of the inner table. The natural pulsatory motions did not appear, however, until the cavity was nearly filled, and in the meantime forcible pressure could be made on the surface of the brain without exciting any degree of stupor or inconvenience on the part of the patient. But as soon as the pulsations began to appear, every kind of pressure proved irritating to the brain. At the same time a remarkable change took place in the character and bearing of the patient. He then became exceedingly timid and irresolute. It would render him pale and almost pulseless to approach him with a pair of scissors for the purpose of trimming away his hair from the margins of the wound; and the sight of a piece of lunar caustic,

or a pair of forceps in the surgeon's hands, would throw him into great trepidation. This state of his mental faculties continued for a long period after his complete recovery from the wound. He could not even go down a few steps into a basement containing some plaster busts without a sense of faintness and sinking; and the operation of taking a cast of his head in plaster nearly prostrated all the functions of his mind and body. His carriage also became remarkably affected. Instead of maintaining his natural erect posture and bearing, he sunk his head and shoulders into an awkward stoop, and looked timidly and anxiously forward, as if he was afraid of blundering against a door-post.

At the time of the operation, and until the pulsations of the exposed portion of his brain returned, he was remarkable for his firmness of mind and resolution. No patient ever bore a severe and protracted operation with more intrepidity. He sat upright in a chair, without any confinement, until the blood-vessel gave way at the close of the operation; and during its performance he repeatedly inquired of the bystanders if it was the brain which was coming out under the efforts of the surgeon. It has been, moreover, stated by those who have known him well for years, that previous to this injury he had always been distinguished for his firmness, courage and independence. He is now (two years after the operation) living in perfect health, engaged in active business, and is entirely exempt from any symptom of a return of the disease. His former firmness and intrepidity of mind have been gradually returning for a year past, and at present no departure from a healthy condition of mind or body can be discovered. A thickening or induration of the flaps of the scalp, which resulted from their long exposure and separation from the subjacent dura-mater, and which at one period gave origin to a report that the

disease had reappeared, has become entirely softened down, and attenuated by the natural process of absorption.

As this case occurred during the period of Mr. Combe's first course of lectures in Philadelphia, it excited great attention among all phrenologists. One of the gentlemen who attended the operation addressed a letter to Mr. Combe, stating that both organs of Firmness were lost or destroyed; and asked for an explanation of the apparent contradiction in the conduct of the patient to the principles of Phrenology. Mr. Combe read this letter publicly to his class, and endeavored to explain away the difficulty by locating the position of the tumor posteriorly to the organs of Firmness. On a further and subsequent examination of the wound, however, he decided that a great portion of the skull, over the region of Firmness, had been removed, together with that of several of the neighboring organs, as I have enumerated them.

In no respect, however, does this case militate against the principles of Phrenology. The organs, instead of being destroyed, were merely displaced or depressed by the growth of the tumor, in the same way that deformities are produced in some of the savage tribes by gradual pressure of the skull.

Perhaps a better analogy may be drawn between the state of these organs and the parts of the brain pressed upon by internal effusion of blood, and depressed fractures, which do not produce the symptoms of compression. A compensation is then made for the space occupied by the effused blood or depressed bone, by a corresponding amount excluded from the cavity of the vessels, and retained in the general circulation.

A careful examination of this case will, I think, elicit observations in support of Phrenology. The tone and excitement of the depressed region of the brain must probably have been

increased by the invasion of the tumor, on the same principle that the muscles of laboring men are sometimes supported by leathern straps and bandages. On the other hand, the extirpation of the tumor must have had the same effect in removing the tension and mechanical support of the organs as tapping for abdominal dropsy exerts upon the viscera of that great cavity.

As soon as the depressed convolutions began to be unfolded or distended by the pulsation of the blood-vessels, they experienced a want of that pressure which had before stimulated them into an increase of activity. Their tone then became enfeebled, and continued so until the scalp had contracted adhesions to the outer surface of the dura-mater, and the cicatrix became consolidated, so as to afford a firm and counteracting support to the pressure of the circulation below.

While Mr. Richardson was recovering from the operation he was visited by several phrenologists, for the purpose of establishing the precise location of the wound. Although they differed in their opinions in regard to the degree in which the organ of Firmness was involved, they all agreed that Self-esteem was affected, and some thought the injury extended also to the organ of Concentrativeness. Inquiries were therefore directed by them to the manifestations of these faculties; and the patient did suggest some points of character in relation to which he conceived he had undergone an alteration. He asserted that he had for a long time previous to the operation lost his self-respect in the presence of company and his power of confining his mind to any particular train of thought. But these peculiarities were not obvious to me or to any of his familiar friends; and I have not thought it right to put them down in my estimate of his condition as affected by the operation.

Such affections may have been the result of that confusion in the mind

which generally accompanies excessive determination of blood to the head. It has been suggested that they were produced by a paralysis of those organs which were most severely depressed by the deepest portion of the tumor; while, at the

suppose any one not acquainted with him could learn. He possessed some very peculiar traits which were brought out by this examination. From this time he was an ardent advocate of the science. He brought his son, George B., when ten years of age, to



DR. GEORGE MCCLELLAN.

From a Cast.

same time, the convolutions which lay under the edges of the tumor, and were only slightly pressed upon by it, were stimulated into increased activity of their functions. I will leave the decision of this point, however, to more experienced phrenologists, trusting that the facts which I have here given will be judged of according to their merits."

Dr. McClellan had a phrenological examination of his head from O. S. Fowler, and this, he said, had done more to increase his belief in Phrenology than the lectures of Mr. Combe. It told him of qualities he did not

told him the same story. He visited Dr. McClellan, who said the same; but he said, "If you will risk it, I will." The man consented, and the operation was a success. We had in our possession for some time a large glass jar of alcohol, in which was an arm, shoulder-blade, and tumor of a boy who lived in Virginia. Dr. McClellan was invited to remove the tumor. The surgeon and doctor of the family was present to take charge of the boy, and all Dr. McClellan had to do was to make three cuts, which removed tumor, arm and shoulder-blade in one piece,

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which weighed more than the boy he left. The operation occupied less than five minutes. The boy survived, but after two years another tumor formed in a vital part, which caused his death, as it could not be removed. These instances show not only the skill of Dr. McClellan, but his willingness to do what other surgeons of the day would not. He became a warm advocate of Phrenology, and wrote to Dr. Sewall of Washington, whom he had previously encouraged in his attacks against the science, and strongly counselled him to revise his opinions.

After this he lectured to his class in favor of Phrenology, instead of against it, acknowledging that he had been in error in his former lectures.

The accompanying cut, made from a cast taken from his head, indicates that Dr. McClellan had very large perceptive organs. The eyebrow was long and arched. Locality, Individuality and Order were specially large. He also had very large Constructiveness, Benevolence and Destructiveness; his head was high in the moral region and broad between the ears. He had a firm hand, which never made a false cut in a surgical operation. He often said that nothing else gave him so much pleasure as to relieve pain, even though to do so he had to cause pain. He possessed a very active temperament, and could not keep still for many

minutes at a time. The friends who brought him to my brother impressed upon him the necessity of keeping quiet and letting them do the talking, but it was with difficulty he did so; and when my brother examined his head he told him he could hardly keep still even when asleep. He talked much and rapidly, yet his organ of Language was thought to be small, and for this reason his friends brought him for an examination, to see how Phrenology would explain the apparent contradiction. My brother, without knowing who he was, told him that he had so much knowledge in his brain, collected by the combined action of the perceptive and reflective organs, that he had much to say, but Language being small, he could not find the appropriate words in which to convey his ideas, and therefore used many more words than necessary, which made him a great talker. To illustrate this, my brother said to him, "Your Language being small, and having so many thoughts crowding for utterance, makes your conversation like water running from a jug turned upside down, which gurgles, gurgles, gurgles." So much activity, combined with so much strength of mind and muscle, with such power of self-control, is rarely found. These qualities constituted Dr. McClellan such a remarkable surgeon, and had he lived to old age, no one would have surpassed him in celebrity.

THE FEELING OF THE LUDICROUS, OR MIRTHFULNESS.

MAN has been defined as "a laughing animal," and his dignity need not reject the definition, for it would scarcely compensate him for the loss of the characteristic. When the progress of years and the cares of life have somewhat sobered the spirits, who does not look back with regret to the joyous mirth of his childhood, and if he cannot return to those happy days when he himself

was tickled by a straw," delight in the hearty merriment of those with whom they are not past? One of the happy effects of the mixture of all ages in society, is the enlivening influence of the light-heartedness and gayety of those in whom life is young, upon those whose animal spirits are no longer as buoyant as theirs.

There may be a strong sense of the ludicrous without the power of excit-

ing it in others, which last is wit, and depends on the combination of this sense with other mental faculties and peculiarities. In proportion to the degree of intellectual cultivation which accompanies it, will the pleasure it gives be more or less exquisite. Children, therefore, can seldom enjoy the higher species of wit, because

part of this class. The sayings of children may be accidentally witty to those who can perceive an incongruity or an unexpected relation which is quite hidden to the children themselves. The laughter thus excited will abash a child of a timid disposition, and add to its natural reserve, while another of a different nature



ALLEN GRIFFITH. MIRTHFULNESS.

their knowledge is too limited to enable them to understand it; but whenever they can, they are quick to appreciate it. They are generally, however, most pleased with humor, drollery, play upon words, and the inferior kinds of wit which depend upon the power of imitation, and their own efforts at wit are for the most

will be emboldened by it to the utterance of fresh conceits, or perhaps to the repetition of the same, over and over again, not doubting that the same effect of surprise and laughter will follow as at first. When we laugh at such things, we should explain to children why we do so.—
From "How to Educate the Feelings."

HOW TO STUDY STRANGERS

BY

TEMPERAMENT, FACE AND HEAD.

By NELSON SIZER.

CHAPTER XII.

SENSITIVE TEMPERAMENTS.

Fig. 112, H. B. Claflin.—This gentleman, who died suddenly from apoplexy, about 1887, was known as an eminent merchant, and the firm of H. B. Claflin & Co., which he founded, is perhaps the largest wholesale dry goods house in America. Mr. Claflin stood about five feet seven inches high, weighed perhaps 140 pounds, though later he may have gone up to 150; but he had a peculiarly delicate constitution; his voice was smooth and not heavy; his skin was exceedingly fine; his temperament was mainly Mental; his skull was thin; his scalp thin, and his features delicate, and his whole make-up indicated gentleness and sensitiveness. In his manners he was polite and gracious; common people liked him, for he walked modestly among men; there was no display, no haughtiness of manner, and few would suspect his power or position. He was rapid in his thought and in his movements, had great elasticity of body and mind, which worked easily. Not one man in fifty thousand has so fine a skin or so sensitive a brain as his, and he impressed every observer with the fact of his extreme cleanliness and delicacy, was not feeble or sickly, but he had the quality which indicated refinement and susceptibility.

He had a harmonious balance of developments. He should have had more Self-esteem, but his intellect was clear, his memory retentive, and all the details of business were quickly grasped and firmly held. He had intuitive judgments of people and of

the best way to get along with those who were difficult to deal with. He was industrious; his methods of doing business were of the highest moral type, and everybody believed in him and he had their good will.

The perceptive organs across the brow were sharply developed; the temples widened out, showing Order, Calculation, ingenuity, taste and refinement. The upper part of his forehead was massive, showing good reasoning intellect, and the top head shows large Benevolence and a full degree of Spirituality. His moderate Self-esteem was the weakest part of his constitution. Perhaps no man in this country ever accumulated the wealth that he possessed and acquired and retained such sympathetic regard for the common people who came in contact with him and those who were in his employment and service. They were willing that he should be rich; few men who are rich ever carried themselves with such gentleness and kindly consideration for other people.

His success in life was doubtless the result of clearness of thought, ready and rapid intuitive judgment, sound common sense, great industry, connected with sound, moral culture, and a thorough, practical business training. He justly merited the rank and reputation and also the wealth which he acquired. As an indication of the moral tone and courage of the young man, it may be stated that when he and a partner bought out the store of Claflin's father, who had kept spirituous liquors as a part of the stock of

a country store, Horace B. had the casks rolled to the sidewalk, the faucets opened and the liquor permitted to run into the gutter. He was born in Worcester County, Massachusetts in 1812. He came to New

York in 1843, and soon achieved a front rank and a high reputation in his line of trade. The facts of the cases which came under his scrutiny as a lawyer and as a Chief Judge of the Court of Appeals of the State of New York, of which he was an ornament. The height of his head shows a strong moral development; Con-



FIG. 112. HORACE B. CLAFLIN.

York in 1843, and soon achieved a front rank and a high reputation in his line of trade.

Fig. 113.—The peculiarities of this head are height and length. The large perceptives across the brow gave him command of details in the

facts of the cases which came under his scrutiny as a lawyer and as a Chief Judge of the Court of Appeals of the State of New York, of which he was an ornament. The height of his head shows a strong moral development; Con-

scientiousness was large, which made him hold the scales of justice even, and to regard life and conduct from an honest point of observation. That is an honest face; sincerity, integrity, definiteness and precision may be read in every feature of the intelligent face. Then the high top head shows the strong Conscientiousness, Firmness, Veneration and Benevolence, with Faith and Hope enough to believe in truth and follow after righteousness. The poise of his head shows not only Firmness but Self-esteem.

The side head was large enough to give him energy and thoroughness, but his propensities and selfish feelings were kept in subjection to his sound moral and intellectual judgments and the desire to do right, and the power to recognize right wherever there was a conflict of opinion, even though he might have a feeling favorable to one of the sides; he would listen to reason and reach honest and sound results. In his manners on the bench and at the bar he was courteous, dignified and kindly. His temper was always under proper restraint, but his opinions and purposes were definite and direct. He was regarded by the best people who knew him well as being pure in life and purpose and correct in all his plans, desires and practices, and an ornament to the elevated position he worthily filled.

Fig. 114.—Mr. Conkling was born in Albany, N. Y., in 1828, and educated for the legal profession, and died in the City of New York in 1888, a victim of the great blizzard. He was robust, tall, broad, manly, had a fresh countenance, and full vigor of health, and he walked during that storm from lower Broadway four or

five miles uptown; he was strong and felt that he could do it, and some avaricious coachman demanded ten dollars to drive him up to his home, and his indignation at such extortion led him to tramp on; but the unac-



FIG. 113. HON. WARD HUNT.

customed struggle against such a wind in the severe cold weather excited undue action of the heart, and he took a cold in the base of the brain and became unconscious. He died in three or four days. There might have been slight apoplexy of the brain.

His dignified, strong and magnificent body, his handsome face and noble head would command instant respect anywhere, and his health was believed to be perfect. The quality of the organization was fine, amounting even to delicacy, showing uncommon sensitiveness and susceptibility and keenness of feeling which belonged to such an organization. In fact, the

face has almost a feminine look, and he inherited largely from his mother, acquiring instinct and intuitive genius as well as an ardent emotional nature. His phrenological developments also, in addition to the intuitive and im-

among his compeers as he did in statesmanship among statesmen. He dealt with original ideas, with solid premises and important consequences. His type of mind was more Websterian than any other statesman of his



FIG. 114. HON. ROSCOE CONKLING.

aginative faculties, show breadth of thought and comprehensiveness of mind, the logical and philosophical ability. Large Ideality and Spirituality shown in the upper temporal region evince imagination and scope of feeling and elevation of mind, from which his magnificent oratory received its lofty and brilliant touches. He was orderly in a high degree, and had eminent talent for mathematics; so, while his mind was ardent, impetuous and eloquent, it was endowed with exactness and absoluteness which sometimes seemed dogmatic.

He had strong Constructiveness, was a natural inventor, and had he been trained to architecture and engineering, he would have ranked

party. And, like Webster, he did not need to make the first or an early speech on some great subject; each could wait till others had ploughed and cross-ploughed the field, and then the plough of Webster or Conkling would leave in sight only the furrows which the great master minds had turned. They would plough all the other furrows under. Their arguments would stand forth regnant and masterful.

He had wonderful knowledge of men, and was said to be one of the best cross-examiners of witnesses in any of the Courts. He was exceedingly fond of approbation, very sensitive about the approval of the world, but he sought his success and his

honor by elevated and honorable means. His large Conscientiousness lifted him above speculation and above trick. He scorned to win a victory by what some men call tact, but preferred to bare his manly breast and with a logical hammer smite his way to victory, or fall in the encounter.

He was cautious and secretive, confiding in few men, and maintaining among the people at large a dignified reserve. He had large Combative-ness, and would promptly resent and resist insult and aggression. These gave force, courage and severity when excited, and the power to defend royally, or to assail vigorously.

He believed in calling things by their right names, and giving emphasis where the strong points are, though they may enrage his antagonist, or even render his own cause less acceptable.

His large Reverence gave him a dignified politeness among men and a reverent regard for sacred things. His Friendship was strong. No man was more loyal to his friends. His Language gave him uncommon command of words, and his fine imagination gave breadth of enthusiasm to his efforts; and when he finished a popular oration in the heat of a political campaign, everybody within the reach of his voice and in the sight of his manly vigor, whether he should vote with or against him, would feel that he was every inch a man, and that he had treated the subject in a manly and honorable way. And few men were willing to speak after he had spoken.

In 1858 he became Mayor of Utica, his place of residence. He served eight years as representative in Congress and fourteen years in the United States Senate, and in every position his talent and character made him a prominent figure.

He was a hard worker. When given a law case for argument, he made himself thoroughly acquainted with its details, and often surprised

court and client with the extent of his knowledge of technical details. He was particular about the sources of information and the authenticity of statistics, and in preparing for a speech or an argument these were his chief concern; the language he should use was generally left to the occasion. In private life he was a careful, temperate man, his habits being severely regular. He indulged a strong fondness for fruits while he eschewed spirituous liquor in general.

Fig. 115.—Miss Ingelow is an excellent specimen of a well-developed English girl, and has won her way as a writer of prose and verse to the admiration of the reading world. Her temperament is a combination of the Vital and Mental;—the expression of plumpness and smoothness indicating the Vital, and the fineness and delicacy, indicating the Mental, which give a good basis for mellowness of character and harmonious mental tendencies. The soft and smooth configuration of the face must interest the observer, while at the same time there is strength in the features;—there is a firm chin and a well-set, prominent nose, which exhibit anything but weakness. The finely-arched brows show practical talent, the fullness of the eye is expressive of language, while the development of the lower half of the forehead, and especially of the middle section, show memory and decided ability for literary work.

The region of the crown of the head is well developed and elevated, showing integrity, perseverance, self-reliance and a desire for the good opinion of friends. Whatever she thinks it is her duty to do is undertaken with earnestness and conducted with courage, talent and self-reliance, but her manners are gentle and her character is strong, steady and substantial. The fullness of the side head indicates a sense of the beautiful, an appreciation of the grand and a tendency to be prudent, mechanical, ingenious and guarded in her state-

ments and conduct. Her temperament and organization combine to make her an artist, to give her ability, æsthetic feeling and excellent taste. Her head is formed like

readers in America as well as in her native country, England, and her writings have obtained wide circulation. Her first volume contained the inimitable "Songs of Seven,"



FIG. 115. MISS JEAN INGELOW, POET.

that of a teacher, she can acquire knowledge, appreciate it and communicate it.

A fine temperament contributes its most valuable aid toward the balance of her organization. She is endowed with excellent vital stamina, and is not easily wearied by unexpected or protracted effort. She appreciates responsibility, and keenly feels the lack of integrity and the moral delinquencies of others. Her spirit is aroused quickly by indifference to the claims of duty and honor on the part of another, especially if the weak or poor are made to suffer.

A quarter of a century ago her name as a writer was familiar to

other of her works entitled "Mortification of the Unseen," another, "Poems of Love and Childhood." She has also been a prolific writer of prose for the magazines, which have been collected and published in books, "Stories Told to a Child," "Sister's Bye Hours," "Studies for Stories," and others, which are excellent for the entertainment and instruction of children.

Her conversation, her writings and her general manners are calculated to impress others favorably in regard to her affection, her talent and character, besides they show a robust, healthy earnestness and sincerity which create an impression that is lasting as well as beneficent.

CHARACTER STUDIES. No. 5.

BY NELSON SIZER.

FRANCIS MARION COOPER, M.D.

YOU have a tendency to be mental in your make-up. You have a delicate organization and capacity for thought and sentiment and sympathy, rather than physical power. Your temperament is first Mental in a high degree, with a fair share of the Motive Temperament. You need more of what we call the Vital, nutritive system, to give you bodily vigor and stamina. We find men who have brawny muscles and stout frames, who are very broad in the back and also broad in the cheeks, and who have a strong and intense bony structure. Your organization is of the lighter type. We see the Percheron horse, sturdy, strong, slow, heavy and enduring; the lighter animals in that great family are slim, alert, sensitive, susceptible and speedy. You are more like the quick horse that takes the light wagon and makes rapid progress.

The upper section of your head is strongly marked; your life finds its chief outlet or source of power in the higher intellectual faculties, and in those which constitute the æsthetical and take into account the realm of imagination and beauty and wit, prudence, morality, dignity and ambition. You enjoy the sublime and the grand, and are sensitive to all that is delicate and harmonious and elegant. And it is as natural for you to ignore and repudiate the rude, boisterous and rough in manner and usage as it is for a well-kept greyhound to leap out of a circle of muddy mastiffs, and thus clear himself of bad company. You have often wondered, when you have seen men enjoying what they call sport and amusement, to see how rude and base and low their tastes and desires are. Even in the selection and use of their

food they are coarse and groveling and sensual. Your interest in food would find the channel of gratification in the use of that which is delicate and fine with less of it, such as venison steaks rather than the overfatted beef or pork that is coarse-grained, gross and tough. Your temperament reminds us more of rosewood than it does of oak. The fiber is finer; the susceptibility is more delicate than we ordinarily find; in fact, if you had more of the Vital Temperament, if you had a larger amount of nutritive power, so that you could broaden out and take on bulk and momentum, and thus your large and active brain could be sustained and nourished amply by more of the Vital Temperament; in other words, by a better stomach and a better pair of lungs, life to you would be broader, perhaps not so high, and probably more intense, because you would still retain your excellent mental make-up, and all it needs is the Vital to give it adequate support. Your type of temperament is a little like the steel that constitutes the cutting edge of an axe, which alone is too light to fell the forests, and it needs the Vital Temperament to give it backing, just as the steel edge of the axe needs the three pounds of iron behind it to give it momentum. It does not add sharpness to the axe; it simply adds momentum to make the sharpness effective.

You ought to be known mentally for strong Causality and Comparison; these give you the tendency to analyze whatever is before you, and also the tendency to synthesize and put together facts and principles and comprehend their laws and relations; while the large Comparison gives you the power of discrimination and criticism.

You have large Mirthfulness which renders your mind wakeful to all that is witty and worthy of being cherished and retained. It is not the rough, low sport that roars and rejoices in the coarse, but it is rather that sense of the brilliant and the scintillating which gleams and is full of beauty and brightness but does not descend to coarseness.

Your Ideality gives you a poetic sense; you have not quite enough of the Perceptive intellect to make it easy and natural for you to gather statistics and to put facts into rhythmic form. You appreciate poetry better than you could concoct it. You have the sentiment but not the manipulating faculties that measure it and organize it.

Your Constructiveness is large in the sense of invention and imagination, rather than in the sense of mechanical, practical skill. You have the faculties which would enable you to get a general idea of what you wanted, and let some skillful mechanic take your thoughts and realize them in forms. And when he got it realized to his comprehension, when he got it builded, you could then see where it might be improved; and the second one he would make better than he would the first. Your language is more compact and accurate than it is voluminous. Your sense of Tune seems to be rather strong, a feeling that lifts your thought up into the realm of the harmonies of sweet sounds; and your appreciation of time as connected with music will be better than in connection with dates and the incidents of life.

You appreciate the good things of the table, are prompt to recognize fine flavors and odors; and if you had occasion to relate yourself to food products and culinary matters, you would be a good guide and supervisor of whatever belongs to the table comforts.

Your back head is strong. You have large Self-esteem, which gives you dignity. You may not be domi-

nating; you will quietly manage to work things to suit you and as they ought to be. You have a good degree of Continuity; hence there is an intensity of feeling and purpose in the planning and executing of that which is needful. You are fond of home and home associations, and it would be a pleasure and pride to you to make a nice home. You would make a place homelike for others; if you were keeper of a hotel, you would manage to keep the house in such a way that people would think it was a good place to stop at. You express and manifest a friendly sympathy to an extent that would lead people to feel that you felt an interest in their welfare and were trying to do everything to make their time and their stay acceptable. And if you kept a mountain summer resort, or a watering-place resort for pleasure seekers to go, they would stay with you longer than they anticipated. They would propose to stay four days, and stay fourteen, because of your tendency to make it friendly and homelike.

Your fondness for children would make the little ones cluster around you and come to your companionship.

You love life, and are inclined to hold on and prolong it; for a man with a delicate structure like yours, you are likely to live to a longer age than most men who are stronger absolutely. The feeling that life is worth having leads one to be tenacious in respect to it.

You have strong Acquisitiveness, the desire for property, the tendency to look out for whatever belongs to your rights and interests in that respect and not have them overlooked and forgotten.

You have Secretiveness enough to conceal that which it is not best to express, and to be judicious in your statements and in your dealings with mankind. You sometimes say nothing and look interested and bow your head to the recognition of what people are saying without responding to

it or committing yourself; and if they ask you what you think about it, you say, "We will talk about that after I have thought about it a little more;"

tastes and spirit by taking men as they are and adapting yourself, as far as you may, to each man and not contradicting where it is not necessary.



FRANCIS MARION COOPER, M.D.

and perhaps they will never renew the conversation, though you are ready to talk about it, but not particularly anxious to do so. You could keep on good terms with men who were of diverse dispositions and diverse

You do not break with them or have a controversy. And, although you may be firm and even headstrong in your wishes and will, you do not generally allow your personal opinions to controvert the opinions and purposes

of others, unless duty absolutely demands it. And so you could have customers, if you were a professional man or a dealer in goods, of every shade of political opinion, and you would not be ventilating your political opinions in such a way as to prevent a man from buying a bushel of salt of you or ten yards of cloth if he could do it and you had it suitable for his wants; but you would join the church that you preferred, you would vote with the party that you approved, you would subscribe for and read the paper that you believed in; you might subscribe for other papers; but your opinions, political, religious and scientific, are your own; and, at the same time, you carry yourself and your opinions in such a way as not to make war upon other people.

When we come to take hold of the higher elements, your Conscientiousness is one of the corner-stones of character; you love the truth because it is true; and you feel conscientiously bound to do whatever is right and to avoid whatever is wrong; but you are not so much inclined to harass other people who do not want to agree with you as many whom you meet with. And while your Firmness is uncommonly strong, your Conscience and Caution, located in the neighborhood of Firmness, aid you greatly in sustaining your opinions and holding yourself calm and serene, even in the midst of the "contradiction of sinners." And we can fancy we see you following a line of business with men who differ with each other as widely as men can differ and be peaceful. Your eyes will snap and you will attend to your business and hear what they say and smile occasionally and let the thing go off by default; it is not your argument; you are not involved in it, nor do you chip in nor talk about it with them; and if a man should ask your opinion, you would say, "I have as much as I can do to take care of that which I am responsible for; we shall not quarrel about what we think; we will vote as we please, and we will

go to church where we please, and it is nobody's business outside of ours;" and a man will say, "Yes, that's so." And thus you would evade it, though you would not shirk to state and defend opinion if necessary. But we are speaking of a man being in a position where it is not necessary. Suppose you were visiting as a physician from house to house, you would not bring your altar of worship into conflict with the necessities and duties of daily life; and you would try to carry yourself towards those whose opinions differ from yours in such a way that they would feel that you were simply a physician or you were simply a merchant, or you were a tailor making clothes for them; you would fit your enemies just as well as you would your friends, and be as happy when you had done it up properly, because that is a transaction by itself. And while you are not indifferent, you have the reticence and the prudence and the self-respect to hold yourself aloof from whatever is another man's quarrel, and not let these incidental and collateral opinions stand in the way of your being a good neighbor and a good friend. And yet you select your friends, and select the persons that you wish to talk with, who will blend with you and harmonize nicely; but you do not let people pick your pocket nor pick your conscience, nor pick your knowledge and your private opinions. Some people carry their opinions "on their sleeves for daws to peck at." If men put their ten dollar bills on their sleeves, sometimes they might get lost.

A man whom we would not vote for may be a good neighbor, may be a good friend, may be a good parent, may be a good workman, may be honest and true, but he may have opinions that we think in government matters are not as wise as those that we approve. So we will work against the opinions, not against the man.

What you need most is an increased development of the faculties that be-

long to the lower range of intellectual organs, the perceptives. If your Perceptives were larger, your eyes would be broader apart, and the lower part of your forehead would be more arched and heavy, and it would be easier for you to gather in the incidental facts of life, and hold in ready possession for use, the knowledge you have. As it is now, you follow the principle, rather than detail; you follow ideas, rather than specific lines of thought and effort. And in taking care of practical matters, you have to systemize, theorize, and get the right way, and then try to carry it out and make it your own affair. It is not so easy for you to adapt yourself to incidental conditions as it is for a man who is large across the lower part of the forehead.

You have large Imitation, which gives you the tendency to copy and conform, to adapt yourself to circumstances, to do as other people do, as far as you can conscientiously.

You have large Human Nature; you judge of character well, and hence are rarely mistaken in reference to persons who are in your presence for the first time. Consequently, when you meet strangers and see in them worth and talent, you would take the initiative in getting acquainted with them, and they feel that you have somehow selected them from a preference you had; and they will respond to you with the cordiality that is befitting the occasion; you do not stand off, love and admire persons at a distance, and let them break the ice. If you conceived a strong and approving opinion in favor of the persons, you are apt to take the initiative and lead in forming friendship. If you do not so regard them it takes a good deal of their presence and their good works, and their kindly manifestations to make your mind seem mellow and pliable and conformatory; but you do not need any persuading, you need no crowding where you instinctively see that people are worthy of all the respect you can bestow.

You have large Spirituality; that gives you the inventive tendency, a tendency to take up new things if they are worthy; you do not get so hide-bound in reference to old usages and methods as to keep you from seeing the worth and merit of something that you never heard of before. And in regard to inventions and improvements, you keep your mind open to conviction, ready to listen and investigate and to appreciate and approve whenever there is something to be approved. But you are not very likely to get drawn into the approval of that which is a sham in any type of subject. In a good many things you stand aloof, because you have not yet got the facts on which to form a sound opinion; it may take you a little longer to form opinions on some subjects or topics than it does most men; where the Perceptive organs are the means of information you are slower in getting it than you are where the intuitions and the moral sentiments come in.

Yours is a strong character; it has force and thoroughness and courage; it has prudence and guardedness and policy; it has economy and invention; it has wit and humor; it has taste and refinement; it has logical and analytical power and strong moral sentiment; and your affections towards those that you like draw you very near to them, and you make friends that will stand by you to the last.

I would give you the hygienic conditions that belong to the upbuilding of body, such, for instance, as the wearing of boots to keep the cold air from chilling the blood as it goes through the ankles to the feet in cold weather. If you wear boots the space that you would have around the ankle bone being filled with warm air would keep the blood warm, and the free circulation would keep the head cool, and be likely to enhance your weight and build up your nutritive system. Then the diet should be simple and nutritious, studying carefully to avoid extra amounts of

carbonaceous material, which the system cannot properly convert. Wheat, in its entirety, oatmeal, milk of the best sort without skimming or without diluting; and if I had to be responsible for your health I would make sugar a scarce article of use with you; nor would I permit the use of much butter, or what they call superfine bread; nor would I load you with fat meats; I would give you a luscious tender steak and stew, with the greasy part excluded. And I would recommend to you in the eating of starch bearing material that you manipulate it in the mouth long enough to saturate it with saliva, so as to secure the digestion of the starch, as hundreds of people have dyspepsia and suffer from it needlessly for years just from a lack of this precaution; and I would expect improvement in your weight and strength.

Dr. F. M. Cooper, the subject of the foregoing sketch, is a well-known physician, who conducts a sanitarium at Emporia, Kansas. He treats all chronic diseases, and has had a great deal of success in orificial surgery. He also employs many valuable hygienic agencies, such as electricity, magnetism, massage, and various forms of baths. He is not a one-sided man, as is the case with so many of his profession. He believes in combining philosophy with science, and nature with art. He has attracted considerable attention in several states adjoining his own, and has won his reputation so largely as a result of honesty in purpose and intelligence in method, that we take pleasure in presenting him to our readers as a phrenological study. Dr. Cooper has diplomas from several medical colleges, and is a graduate of the American Institute of Phrenology:

THE INSTITUTE ALUMNI AT DINNER.

THE fourth annual dinner of the Alumni Association of the American Institute of Phrenology, on the evening of Oct. 31, 1893, at the Columbia of this city, was an occasion of special interest and enjoyment. There was a large gathering, including the class of '93, members of the Alumni residing in and near New York, and others. The following is a list of the members of the class of '93: Chas. Aman, Illinois; Wm. A. Anderson, Massachusetts; J. J. Axtell, Michigan; Chas. H. Barnes, Connecticut; W. S. Bell, B. A., Illinois; J. W. Billman, Ohio; F. M. Cooper, M. D., Kansas; L. P. Conklin, New Jersey; H. E. Corman, Pennsylvania; J. G. J. Davis, Georgia; Mrs. S. C. Davis, Georgia; John Dykes, Georgia; William D. Ingall, Vermont; Miss Mary Irwin, New York; John Jackson, Connecticut; Chas. H. Jones, Texas; John B. McIlvaine, Pennsylvania; Mrs. M.

L. McIlvaine, Pennsylvania; Wm. McKee, Missouri; N. E. Mulford, New Jersey; Julius Pankow, South Dakota; Louis Pankow, South Dakota; E. W. Penney, Utah; R. L. Shanahan, California; Miss M. Siemoneit, Illinois; G. W. Smith, Texas; Alice P. Vanderbilt, New York; Wm. Welsh, Canada.

In addition to these and the members of the faculty and the officers of the Institute, there were present the Rev. Phebe A. Hanaford, Mr. A. M. Kellogg, editor of the *New York School Journal*; Mr. Wm. H. Vanderbilt, Mr. R. F. M. Andrews, Miss Irwin, Dr. Miles, Mrs. Leist, Miss Abbott, Miss Corman, M. T. Richardson, '70; Miss M. E. Herrick, '84; Chas. E. Cady, '85; E. G. Bradford, '88; Prof. Wm. and Mrs. L. Windsor, '88; Dr. and Mrs. C. W. Brandenburg, '89; Mrs. J. F. Upton, '89; Miss S. K. Hare, '90; Miss O. C. Heine, '90; C. W. Broomall, '91; Miss

C. E. Fowler, '91; Peter Leist, '92; Miss Albertha N. Turner, '92.

After disposing of the good things provided by the Columbia, Prof. Sizer, president of the Institute, called for attention and earnestly spoke of the growth of the subject and the work of the Institute. He then introduced Mrs. Wells, who was received with hearty applause, and spoke very feelingly of the work and her interest in it. Her address was entitled, "A Light Ahead." After this, Mr. Albert Turner, chairman of the Committee, in the capacity of toast master, called on Mr. A. M. Kellogg, who spoke upon "The Relation of Mental Science to the Work of the Teacher"; the Rev. Phebe A. Hannaford, "A Power in Reform"; Dr. H. S. Drayton, "A Phrenological Vista"; the Rev. Thos. A. Hyde, "The Work of the Orator"; Dr. Nelson B. Sizer, "The Brain"; Dr. Edgar C. Beall, "Phrenology as a Profession"; C. E. Cady, "The Alumni Association"; Dr. C. W. Brandenburg, "The New York Association of Graduates"; Prof. Wm. Windsor, "Former Students"; Wm. Jackson, "Our Class"; Mr. R. F. M. Andrews, "Our Guests."

The occasion was one which will not be forgotten by those present, and was pronounced one of the most successful of its kind which had been held. We give herewith a brief report of the addresses made, not having space to print all that was said.

PROF. NELSON SIZER:

BELOVED FRIENDS:—We are assembled again to celebrate our noble science. Sixty-one years ago in August last, the immortal Spurzheim introduced Phrenology in America. Such men as Dr. Howe, Horace Mann, Judge Hurlbut, Judge Amos Dean, and the Rev. John Pierpont signalized their welcome by accepting the new philosophy of mind and giving it their cordial and life-long support. The younger generation caught the inspiration; college students heard of the new mental philosophy, tested its application in its demonstration of human character, adopted and proclaimed its teachings.

In Amherst College, the gifted and witty Beecher was appointed to debate against it,

to prepare for which he read Spurzheim and Combe, and lent his eloquent voice in its favor, and then and there vanquished his opponents, and through all his influential career never hesitated to endorse its doctrines and apply its principles in dealing with mentality. From this debate, the Fowlers caught their first impulse to a career which has wedded their name to that of the new mental philosophy and made them synonymous around the world. Fifty-seven years ago, in 1836, they opened an office in New York to teach Phrenology as a philosophy of mind and to practice it as an art. Thinkers became interested in the subject, lectures were given, characters were described, and practical Phrenology thus had its origin. One year before this, in 1835, fifty-eight years ago, the first phrenological class in America was taught, and Mrs. Wells, who, happily, is now with us, taught that class. Every succeeding year such classes were taught and many men and women acquired broader views of the human mind and character and higher aims in life. Like leaven, these principles acted through the best fibre of humanity, and a radical improvement in education, legislation, the administration of criminal justice, the treatment of the insane, the elevation, education and enfranchisement of woman are among its fruits.

Finally, as an outcome of these influences a public sentiment made itself felt to such an extent that early in the year 1866, the Legislature of the State of New York passed the act which gave a charter to the "American Institute of Phrenology," bearing such names as incorporators as Greeley, Deane, Osgood, Hall, Dexter, Trall, Fowler, Wells, and others, and we now are celebrating the graduation of the thirtieth class of students, numbering, all told, five hundred and ninety, and the twenty-eighth anniversary of its work. Our first Institute class contained six students, who received twenty-six lectures, of one hour each. The term of instruction now closed has consisted of one hundred and sixty lectures, and, like all of our classes, has had the advantage of using the large collection of skulls, busts, casts and portraits of this Institute, which has cost fifty-eight years of patient and costly effort to collect.

If more than half a century of constant work in practical Phrenology, and thirty annual sessions of class teaching can qualify us to aid earnest students in securing a preparation for entering a field ripened for the reaping, this meeting of students and teachers shall not be in vain.

One of our venerable and prosperous seats of learning, Yale College, was more than thirty years hard at work before she had sent out as many students as we have graduated from the American Institute of Phrenology in that length of time. Our

worthy Alumni are devising liberal things for the prosperity of their Alma Mater, and have an abiding faith that the true mental philosophy shall at no distant day be well housed and have ample facilities of liberal and extended culture. Mythology, theology, geology, astronomy and philology have heretofore called out the efforts of the best teaching talent of the ages. May we not hail the advent of Anthropology, which in point of importance and practical utility must stand first and highest in the scale of human endeavor?

CHARLOTTE FOWLER WELLS.

Fifty years ago a young woman in Boston was magnetized for the relief of a severe pain in her head with exhaustion from over-exertion on a very warm day, and her magnetizer requested her to remain quiet a few moments and rest before she should be awakened. She soon indicated by her movements that she imagined she was riding in a railroad car, and when asked if she was ready to be demagnetized, she replied, "No, I have to go on a long journey, and do not know why or where, but I see a light ahead of me and that will guide me correctly if I follow it." Thus Dr. Gall, the discoverer of our beloved science of Phrenology, all his followers and the promulgators of his discoveries, have been looking for and following the "Light Ahead" as a guide in their path. That light has enlarged and spread to every quarter of our globe, and scattered its blessings in every direction. It has been a ready guide to teachers of morality as well as of science, literature and sanitation. It has been adopted by the press and the bar in their practice if not in their technology, for some cautiously avoid giving credit to the name of the source from which they derive their knowledge and power, yet they followed that light which led them to success. So have also the apostles and teachers of Phrenology, and when obstacles have intervened they have struggled and overcome them—guided by the "light ahead." In our own case it has at times looked as if the last feather's weight could not be borne, that our struggles were greater than our power to overcome, and we were ready to surrender, but the unexpected happened, and the load was lightened as if by a miracle.

Then we could breathe again and appreciate the source of our help, for it appeared as if somewhere out of our sight was an ever watchful eye, and that the cause for which we struggled was not merely our own, but had a higher origin; and so we worked on in faith with the hope that the "Light" would still guide us. Whether or not the cause was ours, we were the workers, and it was our duty to stand at our post with armor on, and our light burning for the benefit of those who

lacked oil for their lamps. We have done so, but that light, for us, has burned nearly to the socket. Who will stand at the helm when we are all gone? Some of our co-workers have fallen, and others will soon follow. The watch tower should not be forsaken. The workers were human and therefore not perfect—and yet, who, if not the teacher of the relations of mind to the needs of mankind, could be expected to be perfect?

Mr. Wells used to say, "There is a need of apostles of Phrenology to take our places when we go hence." With that end in view this American Institute of Phrenology was inaugurated and has sent many workers into the field; but still a headquarters must be sustained as a beacon light, a home for Phrenology, as well as a source for supplies and information. The question is, How can it be perpetuated? Hitherto Fowler and Wells have been looked to to fill that position, but even they must go the way of all the rest, and then who will fill the gap? Our aim has been to disseminate knowledge of the science, and we have not stopped to lay up those earthly treasures necessary for keeping alive our work. We have done, with our might, what we could of that which was for us to do towards advancing the cause of humanity, but there will always be work enough for willing hands.

We have distributed books, charts, leaflets, pamphlets, journals, without price, till the science has been carried to all quarters of the globe and made the names of Fowler and Wells and Phrenology synonymous. That fact has been, to my knowledge, verified repeatedly, and at times in a most interesting and singular manner. For instance, in 1874 Mr. Wells and I, with an excursion party, were travelling with teams, tents, etc., in the Rocky Mountains. Some of us were in advance of the teams bringing the tents, provisions, etc. We reached the valley where we expected to pitch our tent, built our camp fire, made provisions as far as we could for the comfort of the company for the night, ate what we happened to have with us, and waited for the laggards. Presently word came that a wagon had met with an accident five miles back, and would not be able to come that night. A number of our party were invalids, and the ground was too wet for them to sleep without other bedding, so it was agreed that Mr. Wells and I should give up our wagon-blankets, etc., to them, and ourselves go back a mile and a half up hill, and ask to sleep on the floor of a log house we had passed. When we reached there Mr. Wells at once introduced me to the lady of the house as "Mrs. Wells, of Fowler & Wells, New York," telling her of the breakdown, and our condition at the camp, and that we came to see if she would allow us to sleep on the floor. He had not

mentioned Phrenology, but she exclaimed—raising her hands: "Sleep on my floor! Why, Phrenology was next to the Bible in my mother's estimation. You shall have the best bed I can give you." We had not supposed she had a spare room, but she had, and we found on the wall one of our symbolical heads, and she had read our books, and was a lover of the science.

I told you we had not laid up those earthly treasures necessary to provide a Home for Phrenology. Sometimes a feeling of anxiety steals over us lest what we have labored so long and faithfully to keep alive may fail when we are gone, but the remembrance of what we have all read about in an old book, of a wise teacher who had not where to lay his head, and yet the Gospel he taught has had a wider acceptance, perhaps, than that of any other teacher. May we take courage from that example, and trust that this great truth that mind understood is the crown of humanity and will make its effulgence visible, even when obstructed by ignorance, prejudice and superstition. What but Phrenology can expound the science of mind understandingly, and how it is to be taught?

Now by the eye of faith I seem to see this Light overspreading the earth with the aid of apostolic helpers. Those who desire to lend a hand to join the procession which is to usher in that glorious time, may have the satisfaction of thinking that they have assisted in making known one of the greatest aids towards the perfection of our race. They need not wait to be called, but should lay hold of the chain and help draw the car which is destined to teach *self-knowledge* to every student of human nature. When that lesson is learned, it will prove to be *the great lesson* or step toward perfection, for who, aside from the person who *understands himself* phrenologically, can so well reach out to others needed and useful help? Teach, ye who can, or point out the way to those who seek to learn the truth.

DR. DRAYTON.

MASTER OF THE FEAST, MEMBERS OF THE ALUMNI ASSOCIATION AND OTHER LADIES AND GENTLEMEN:—It seems to me that we have had given us already a good view of Phrenology, and to call upon me at this time to give you any further disclosure of its vista seems a little late, if not embarrassing. It strikes me that after our excursion through this repast we should give ourselves to a discussion of light topics in an easy, digestible vein. But concerning this phrenological vista I might apply in a fashion a State legend they have in the West, modifying the language of it: "*Quæris vîstam phrenologiæ, circumspice.*"

You ask a view of Phrenology. Look around you! Survey this table!

The problems of life, truth and mind lie

still unsolved before us, although thousands of the wisest in all ages and nations have sought to unfold their mysteries. It is scarcely a hundred years since the revelation of one great truth startled the world of thought, and raised great expectations of further illumination along the line of human being. That revelation occurred when the relation of mind to body was finally shown to be what all now accept by the sturdy German observer who found himself compelled to leave Vienna or cease to insist upon the fact of his theory. Unlike Galileo, he accepted the responsibility of his pronouncement, and without murmuring set forth with his great disciple, Spurzheim, to find a home and a better fame in a strange land. Through the perseverance and enthusiasm of these men a metaphysical "impossibility" became a great physiological fact and accomplished a revolution in useful and humane science that ranks when fairly comprehended among the most brilliant feats of intellectual genius. Skepticism may question and prejudice sneer, yet in every avenue where men and women think and work this fact finds thorough application. Well might Spurzheim give his life in the strength of a grand manhood, and Combe the years of a splendid maturity to extend the knowledge of this fact. 'Twas the consciousness of doing a noble work for their fellows that led them fearlessly on. The distinguished Abernethy, quick to perceive and bold to acknowledge, said in a pamphlet addressed to London surgeons, "I verily acknowledge my inability to offer any rational objection to Gall's and Spurzheim's system, as affording a satisfactory explanation of the motives of human actions." This opinion was ratified by scores of the most distinguished authorities in science and letters.

From this center of view I take account of the world's progress, and perceive the effect of that sturdy Vienna doctor's teachings in medicine and surgery, in education and philanthropy, in the civil and domestic arts. What an advance was there in physiology when it was determined that the brain is positively the functioning apparatus of mind, and consequently that the thinking organism must participate in the physical states of the body? Consider the light given to the physician by this new and vivid reading of the facts of temperament, especially to him who studies the nervous system in the channels of psychiatry, for there the modern expert finds himself dependent upon his knowledge of special centers of ideation for the clear determination of the peculiar mental disorder in a given case. The modern surgeon, too, knows that his success in the treatment of a paralysis or an epilepsy or a chorea depends upon the topography of the brain and its centers of sensation and

motion, and that he must read the mental and muscular phenomena with accuracy to ascertain the central lesion. From the same radiant source modern psychology has derived most useful truths. No longer does the *tabula rasa* of Locke rule in modern philosophy, but a physiological basis, that Calderwood, Baine, James and Stanley Hall accept as the necessary supplement of a mental heredity, and upon which may be built a fabric of development through education. Over fifty years ago, when Spurzheim died, those eminent men in Boston who lamented his sudden decease, had caught the spirit of his work. It was Quincy, Bowditch, Story, Tuckerman, Barber, Bond and Curtis who united in saying, "We recommend to our fellow citizens the opinions of the deceased on the improvement of our systems of education; and especially what relates to the development of the physical powers and moral dispositions; and as they can no more expect to hear them from the lips of our lamented friend, that they lose no time in making a practical application of them to the existing state of our institutions for the culture of the human mind."

In the life social and individual the teachings of the phrenologists with respect to the great importance of a sound body to clear, coherent and efficient expression of intellect and morals have wrought results promotive of the general welfare, and especially are they culminating to-day in many organized undertakings for the improvement of society in its different relations. Benedikt in Vienna, Mantegazza in Italy, Maneuvrier in France, as advocates of the amelioration of the world's vice and crime on the line of humane discipline and education; Henderson, Clouston, Munro, Mitchell, in Great Britain, and the advocates of the new education—Parker, Schurman, Harris—in America, following the propositions of Combe and Horace Mann. These are but a few of the thousands who have absorbed life and light from the once so Quixotic scheme of Gall, and seek to reflect what they may of it upon the expectant civilization of to-day.

The scientist may value the demonstrations of Gall and Spurzheim as they concern those important features of brain functions, the correlation of the hemispheres, spinal reflex action, the differential office of the cells and fibres, the function of the fifth nerve, the crossed action of the fibres in the bridge of Varolius, the progression of the fibres from the medulla upward through the great ganglia to the convolutions, the distinctive functions of the brain and of the spinal cord, and attribute a varying importance to this or that according to the line of study that he is accustomed to pursue. But while these things are of high value to the human being it is

the great essential humanity of the phrenological doctrines that command our highest respect. The man of 1890 is warmer with altruistic feeling toward his fellows than the man of a century ago; is it presumptuous to claim that the preaching of the gospel of Phrenology by Spurzheim, Combe, Mann, and those other earnest men who were moved by a like spirit, has not aided that greater gospel that the divine Nazarene proclaimed among the hills of Judea? If this be regarded as presumption then the laureate of America is amenable to the same judgment, for he once said of phrenology:

"We owe it an immense debt. It has melted the world's conscience in its crucible, and cast it in a new mould with features less those of Moloch and more like those of humanity. If it has failed to demonstrate its system of correspondence, it has proved that there are fixed relations between organization and mind and character. It has brought out that great doctrine of moral insanity, which has done more to make men charitable and soften legal and theological barbarism than any one doctrine I can think of since the message of peace and good-will to men."

With these facts in view is it not reasonable to expect that the present and the future have but to continue and to extend the application of phrenological principles? Teaching as these principles emphatically do from the basis of physiology, a similarity of organism among all of human mold, a common humanity, therefore, with possibilities of unlimited development and of surpassing capacity, what has the individual but to strive in order to reach desired heights of intellectual and moral ability? and so to harmonize and ennoble all life's relations that the soul shall realize the success of an exalted manhood and womanhood; when without affectation the common motive is that of "malice toward none, and charity toward all;" when peace, like a flood of mellow sunlight, warm and inspiring, shall envelop all in a common affection and a mutual happiness.

MR. AMOS M. KELLOGG.

The subject which has been given me is a very excellent one, and a large one, but before I take it up I think I ought here, in the presence of this excellent assembly, to acknowledge the great debt I am under to Phrenology. I thought while Dr. Drayton was speaking, what a splendid book might be written upon the debt which this western world at least owes to Phrenology. It owes an enormous debt. When Phrenology came upon the surface of public opinion fifty years ago, it was like a plowshare that ploughed in deep, turned over the soil and set people to thinking. Fifty years ago I lived in central New York. I was a boy in a little village, and there my first debt began to this subject. Prof. Fowler was then

moving through the country, delivering lectures, and I remember going some distance to attend a lecture which was given in the basement of a church. He had spoken of Combe's great philosophical work, the "Constitution of Man," and as there was a cheap edition issued, I immediately bought the little square volume, and kept it for many years. Now, that book contains the most profound truths; and no young man can come up on the platform on which that book stands and not have come up a great ways. It had that effect upon me and upon a circle we formed.

But all the conveniences of education there were extremely limited. I was a boy in this factory town, working in a factory, but we saw this example constantly before us: "The great study of mankind is man;" and I began right then and there in a sincere and honest way, prodded on by George Combe, prodded on by the lectures of Prof. Fowler, to be a student. I felt that I must know my race, that I must know man. When one sets out on such a task as that, you can't tell where he is coming out; but he is going somewhere.

Well, then we formed a little debating society there, growing out of this, three, four, or five of us, and I purchased the first phrenological head that I saw, and I remember putting it up on a shelf—the honored place—and George Combe's volume was on one side of it. Oh, I thought if I could ever own a few more books! My shelf was two feet long—if I could ever fill that shelf with books! I began to have the student's feeling, the desire to know something; to enter upon this study of mankind. I could go on and tell you a great deal of the debt which I was thus put under by these men; but I must leave that because my time is limited.

About twenty years ago I began to edit the *School Journal* and very soon afterward a gentleman called upon me, a student in this city, teaching, and said, "Is not, after all, the basis, the true basis of all education, laid in mental science?" I said, "Yes." "Well, then, it seems to me that the beginning ought to be made there." Well, it looked to me as if that was a good way off. He wrote some articles upon that subject which attracted some attention at the time. I brought the matter up before the National Association, and it was derided. A gentleman from the West said that he had heard this talk about psychology connected with education, and he thought it had no relation to education. Now, ladies and gentlemen, at this time it is a subject upon which a great many books have been issued. To-day a publisher told me that he had sold tons of *PSYCHOLOGY*, an English book that has been brought to this country. The State of Indiana bought eleven thousand of them. There is scarce-

ly a firm of publishers in this country that has not issued a psychology, and then we published ourselves a book called the *Teacher's Psychology*, by Prof. Bridge, a very eminent man in the West, formerly President at the State Normal School, Michigan. That was the first beginning in that; it was rather a hazardous enterprise; there was no call for it in a certain sense, among the teachers; they had been satisfied with arithmetic, grammar and geography so long. But if you will notice, now, all through the East, upon the higher grade of certificates there are examination questions upon psychology. And this, with the opposition that was made to the study, has, in a certain sense, come to be the foundation. Thus we are at the beginning of a new era in respect to education. We recognize now that education is a psychological affair. That was once a position which could not be taken, but it is admitted to-day.

The third point is that we are beginning to study the whole child. Col. Parker, who was quoted by Dr. Drayton, has become somewhat famous for this motto: "The whole child must be put to school." The whole child, the body as well as the mind. And that is an outgrowth of this movement. Phrenology began, perhaps, in a small, one-sided way, and it kept growing larger and larger, until the term which Dr. Drayton used here is the one that covers my idea. It is the study of Anthropology; it is a vast study; it has grown rapidly; the few lectures that were given in the early days of the Institute have now come to be doubled and trebled, and the attention which is given to-day to the subject has enlarged and will enlarge.

I have listened with a great deal of interest to Mrs. Wells as she reviewed this past. How she must look at it, having watched its growth from infancy! I sympathize with her position very much indeed. Now, I venture to say that Mrs. Wells never, in those early days, expected to witness such a scene as this; these ladies and gentlemen here are not children; these people bear the marks of intellectual study; every brow is thoughtful. These people have come to take hold of a thoughtful subject; they have come to grasp it and carry it out for the benefit of others; and I think that Mrs. Wells is to be congratulated that she has lived to do and see a work so great and so useful. Thousands you know, lay the corner stone, and then they go; but she has lived to see the structure built.

Accept my thanks for the attention you have given me, and believe that you have my heartiest wishes.

MR. TURNER

MR. PRESIDENT:—We may well infer that the point we have arrived at has been

along the lines of reform, and we have with us to-night one who has been interested with us, who has watched the growth of the work, and knows a great deal about it; and I take great pleasure in saying that the Rev. Phebe A. Hanaford will speak of "A Power in Reforms."

MRS. HANAFORD.

It is a very great satisfaction that I am here to-night. I have already expressed to Mrs. Wells my pleasure in meeting her, and I am glad to meet all the friends of Phrenology, old and new. I will venture to express my satisfaction with what Mr. Kellogg has just said of the great good that Phrenology has done, and the pleasure with which I look upon so many intelligent men and women who are interested in this cause. And yet I should not do myself justice if I did not, for a few moments, return to the past. It is long ago since I first saw L. N. Fowler, when he came down to my native island (Nantucket) and took one of my relatives as his wife; I was a little girl and only remember her as a teacher whom everybody loved; you may have read about her afterwards, and know what a noble career her's was, how grandly she pursued the good work, how she worked until the end, nobly and faithfully for humanity. It is a very great pleasure to me when I look back to think that I ever saw her and knew her; and then, in after years, when I was a young woman, it was pleasing to me to meet L. N. Fowler once again upon my island home, and I feel that I belong to your number to-night because I can say I have examined one head, and that head was L. N. Fowler's. And that was at his own request, to gratify me and to say to me that he thought I might become a phrenologist if I would study. Now, I didn't get any diploma as you have done. I have never taken a degree; I don't know that I could be called an alumna here, but it is a matter of great satisfaction to me to know that early in life I became interested in Phrenology, and I have felt that in the training of children in school, and my own children, and in other respects, what little knowledge I have possessed of Phrenology has been of use to me.

I must tell you that I have been personally interested in Fowler & Wells; personally interested in Phrenology, and though I feel we owe a debt to all men and women everywhere, so far as they come to a knowledge of other sciences besides that of Phrenology, we owe a special debt to Fowler & Wells, because, as you know, and as has been intimated here, the publications of that firm have not only been for the benefit of those who have studied Phrenology, but they have gone into other subjects, and helped in all reforms. There is not a reformer on any line who has not been

helped by the works of this company. I hope you will do what you can to build upon the foundation that the Fowlers and Wells and their associates have laid, and make an institution that shall endure for centuries. I wish you God speed, and with all my heart I rejoice that I may speak to Mrs. Wells, our mother, sister, friend, and say to her in your name, in the name of those who shall come after you, that we shall remember her and love her and the work she has done in all the days to come. And I want to thank her and those who have gone before, her brothers and husband, and those who are with her now in this good and great work. God speed you young men and women. God speed you to go forth for your work; it will never end if you do good work; it will go on forever, and God himself at last will say to you, "Well done, good and faithful servant; enter thou into the joy of thy Lord."

DR. NELSON B. SIZER.

There are only a few things I want to mention to-night—two or three things that it especially behooves you as graduates of this Institute to look after. You know in studying any bodily organ there are four principal things to consider: We have first the anatomy of it, the structure; then we have the physiology of it, what it does, the functions; then we have the pathology of it, how it is when it is diseased; then we have the therapeutics, how to treat it; those four things. Now, when you come to the question of brain, these four things are your work; but before you commence with the brain *per se*, there are one or two popular errors that you ought to correct. One of them is the superstition, as you well know, that Phrenology is supposed to teach that the head is covered over with a series of contusions, looking very much like the cranium of a prize-fighter, and that according to the width and the depth—I won't say the volume and boldness—of these contusions, you judge character. You, of course, know that the length of fibre determines the development of an organ, but you will have to fight all the time to make others understand it, and you must not grow weary in well doing.

And then, there are certain things about the anatomy of the brain that ought to be emphasized in your teaching. As far as the localization of muscular and physical functions is concerned, scientific men are pretty well agreed, and the time has practically arrived when they will admit the phrenological localization if you state in direct and definite anatomical terms the convolutions, limits and relations of every phrenological organ.

Then the whole question of the physiology of the mind, that mysterious thing which, while it is connected with the brain,

is yet separate from it; that which makes all the difference between a live brain and a dead brain; the element of life; remember that. And then with you, of course, among the important points will be the pathological and the therapeutical questions concerning the mind or the brain, what to do with weak, ill-developed brains; what to do with perverted brains. I believe that we can do better with criminals than to hang them, and we can do better than spend so much public money over them. Witness the Chicago assassin, or the wretch yesterday who shot that man right here on Broadway. Now, it will cost from twenty to thirty thousand dollars to try one of those men and get him railroaded through some insane asylum. That is a good deal of money. What we want to do is to railroad those fellows out of that sort of thing so that the court won't need to take hold of them; and that is your business; that is where we want to save money. We want to save taxes, and we want to save men and women for the community, for society, for the human race. We want to elevate the public intelligence and moral sentiment so that criminals will cease to be born. God speed you in your work.

DR. EDGAR C. BEALL.

There are three points of view from which a life pursuit is usually considered; as a labor of necessity, as a source of selfish pleasure, and as a means of adding to the happiness of mankind at large. Now it seems to me that the ideal vocation should cover all this ground. It should be remunerative, and afford pleasure not only to him who follows it, but directly or indirectly to the whole race. Fortunate indeed is the man or woman whose hours of toil are filled with this triple joy.

It is certainly a mistake to suppose that true success is simply to become rich in lands or gold, or merely to outstrip all rivals in the race for place and power. It is rather to be truly happy; and as the highest happiness can come only from the activity of our highest faculties, the most successful man is he who most harmoniously exercises all the elements of his nature, under the supremacy of the moral and intellectual powers.

In my judgment, Phrenology as a profession affords the largest opportunities for those who aspire to the loftiest and most perfect development. All of the learned professions relate directly or indirectly to the human mind. Although the physician is usually considered only as a healer of bodily ills, he is often called upon to treat the insane, and he cannot exercise his full function without considering the influence of mind as a factor both in the production and in the removal even of physical disease. The

jurist or statesman would have few duties to perform if there were no sentiments or passions in human nature which need to be regulated and controlled. If there were no mental faculties, religion could not be apprehended or become effective as an influence for good. It is thus evident that the minister of religion, the physician, the teacher, or the reformer upon any plane of activity should be a phrenologist, at least to the extent of understanding the principles of our science. For no man can work to the best advantage with materials, the nature of which he does not know. Phrenology thus stands in a sense at the head of all professions. Indeed, it is as absurd to expect a public teacher to instruct and develop mental forces of which he is ignorant, as to expect a man to perform a difficult surgical operation who knows nothing of anatomy.

But while Phrenology is of the highest dignity as a pursuit in life, it may be regarded also as of immense advantage from a purely selfish point of view. There is no other subject in the whole range of human study which provides stimulus and food for so many sides of our nature. The true phrenologist will be a man of the broadest philosophy, the most unselfish religion, the most logical intellect, and the greatest harmony in all his feelings. Of course, there are not many individuals who would be susceptible to all the advantages of such a school as this science may be made. Not all persons would appreciate or heed the culture it would give; but to the extent that one is tractable, he can be rapidly taught, enlightened and disciplined by this means. For in studying the mind by the phrenological method, or in the practice of phrenology in delineating character and giving advice as to mental development, one's attention is called to a more specific consideration of all the different departments of human nature than would be possible in any other way. The phrenologist is constantly required to recognize and weigh those elements of mind which, on account of his personal deficiencies, he would never instinctively be led to study. As an illustration of this, suppose he is weak in the moral forces; by describing and expounding the beauties of those elements, he is compelled to appreciate their importance whether he will or not; and certainly the first step in all self culture is to desire it and to comprehend its advantages.

As to financial success, there are now great opportunities in this field for men and women of real ability, and if one is capable of genuine intellectual and moral expansion, by making the same effort that would be required in any other calling. Phrenology as a profession will insure material wealth, mental breadth, health and happiness,

MR. HYDE.

The subject assigned to me is so large that it seems to be inappropriate to the occasion. I would rather speak upon Phrenology. Looking here upon these venerable persons who have done so much to build up and perpetuate this grand science of the mind, which has led to freedom of intellect, freedom of thought and freedom in religion, I feel as if I had caught their inspiration, and would like to add a few words to encourage or to inspire those who may follow in this grand work, and add to that which Gall, Combe, Spurzheim, the Fowlers, the Sizars, and the Draytons have given us; but I am cut off; I am told to take up the Orator. Now, what has the orator to do with Phrenology? You are preparing to go forth as phrenologists; and oratory is that power or that force by which men are stirred to develop and express that which is in themselves; and if, with this definition, you study oratory or become orators, your Phrenology will have success.

It was such oratory that stirred Demosthenes when Philip withdrew with his armies at the gate of Greece, and Grecian freedom seemed to be in the balance; and if it had gone down at that time, perhaps our Western civilization, and perhaps Gall and Spurzheim would not have spoken to you. But it was the oratory of Demosthenes that rolled back the tide, and he paid for his oratory with his life. So, also, was the case of Cicero, who saw the power and the influence of the human tongue when agitated by the heart; and when he spoke for his country he demonstrated the power of human eloquence in the cause of freedom. But, you say, those days have gone, and there is no room for oratory now. There is room for the orator everywhere, even in the simple matter of business, as, for instance, when a company publish a book, say at two dollars, and that company may only receive, say fifty cents on a dollar, and the book is sold at retail, who gets the other dollar? The man who can talk up the merits of the book. Oratory in business pays. Who makes you buy the article you don't need? The beautiful lady with the sweet, pleading voice.

Then you have the orator in causes of reform. Everywhere in the arena of moral conflict should be found the silver-tongued orator, speaking in defence of all the great principles and all the issues of life. But who are to be the great orators? In former times of war, it required a strong and masculine nature. In our day there is an opportunity for the gentler sex, because they have the oratorical temperament; woman is, and always has been, a natural born orator. Since the day when she made that little, eloquent speech to Adam that brought knowledge into the world, her tongue has never been sealed. And, as

the great Apostle Paul said, "the tongue no man can tame."

Now, when the sword is rusted in the scabbard, when the scepter of imperial power is laid aside, when the words of common honor rule the world, now is the time to discuss great issues, and in discussing these great questions woman should be conspicuous, because she has the oratorical or emotional nature, and I only hope that she may not out-distance man. I only hope that all men and women will wake up to the great possibilities which may be developed by oratorical art.

MR. CADY.

You have asked me to say a word for the Alumni Association—an association whose members are scattered all over the country in every State of the Union, in Canada and in other foreign countries, too far removed to meet except in small bodies; and yet united by a bond very much stronger than mere sentiment. Because, as it appears to me, there is no subject which appeals so continually and so strongly to people as the study of man and the study of mind as expressed through Phrenology. We can never get away from it, and the student never desires to do so. It is a mental discipline analagous to that of the gymnasium. The boy who uses his muscles in the gymnasium during his teens never entirely loses the elasticity and strength he gains there. So a student of Phrenology never loses his interest in this subject. He must always of necessity be practicing more or less. Now, these students who become scattered all over the world recognize a common cause; while the graduates of the ordinary college or the classical school, go different ways and have no common interest.

Let me say for the Alumni that, as Mr. Kellogg has said, in speaking of the people he had before him, they are, I believe, one of the most thoughtful bodies of men and women, and I want to emphasize the word women, that have been gathered together in any class of schools in the country. These men and women do not come here to the American Institute of Phrenology for fun. I doubt if there are any considerable number of baseball players among the men, and the school perhaps is lacking in that respect—lacking, in that it does not have a ball club or a boat club, if we may judge by the popular conception of education; but it does that for which it was intended: it teaches directly, thoroughly and forcefully the doctrines which relate to man, to the study of mind—and what study is greater! It is sometimes said that they grind out phrenologists here and that pretty soon every lecture hall and every church and schoolhouse in the country will have its "Professor." I don't think that is the idea of the professors here. They are perfectly

willing and very glad to have these men and women go and teach Phrenology, but they do not expect that any considerable number of them will do so—I speak on my own motion, but I think I speak their sentiments—that they expect that the graduates of this school will use their knowledge, whether as teachers, especially as teachers in the schools, or in commerce and trade, or in the handicrafts, wherever they come in contact with men to do business with them, to teach, to plead, or to instruct. How will Phrenology compare as a disciplinary study with—say languages and mathematics? Well, I may stand alone in the statement I make, that it appears to me that there is no one other branch of knowledge that has the power of discipline that Phrenology has. Twelve college presidents may write twelve learned essays to give the value of languages, mathematics, oratory and other topics, each writing on his specialty, and each prove rather conclusively that his particular subject is the one that will accomplish the redemption of the world, intellectually at least. Why may we not stand for Phrenology and say that it is ahead of languages, because it is broader and more intimately connected with man; that it has all of mathematics, and has all of oratory? May we not say that Phrenology is superior to history as a matter of discipline? And yet people have said that history will educate a man. I believe that the science of the mind as taught in the American Institute of Phrenology will do more toward broadening and disciplining mankind and womankind than any other one branch of study, wherever or whatever. And the members of this association, scattered as they are, and engaged in various occupations, are disseminating this knowledge, and doing good equal to any other class of men and women.

Our friend, Dr. Beall, has spoken of the value of Phrenology from several points of view; the missionary feature I will call a sentimental view. But who in the world is there that does not approve of sentiment? It is sentiment that induces a man to get money; and a man in amassing wealth does his share of good; it is sentiment that leads a man to teaching instead of going into business where he could earn more money, and have a better time as the world goes. The world needs just that class of missionaries that is sent out from the American Institute of Phrenology, and just that class which every alumnus of this association can represent; and I am happy to say that Prof. Sizer, Mrs. Wells, and Dr. Drayton and the other professors are sending them out, and we thank them and bless them for it.

DR. BRANDENBURG.

Until the close of the last century, people were looking in vain for a science which

would give them a mastery of the brain, and unfold the mysteries of the minds of men, and those who, from ignorant self-confidence, assumed to be mental philosophers, gave the ancients and moderns a system of mere speculation and guess-work. They had no method of discovering the innate or primary faculties which constitute human intellect, sentiment, and passion; the elements of goodness, evil, feebleness or power. They knew not that the anterior portion of the brain is the home of the intellect; that the superior portion gives virtue and amiability; that the posterior superior expresses social energy, or that the posterior inferior brain is the seat of animal force.

Contrast the incoherent speculation of the past with the scientific Phrenology introduced by Gall and Spurzheim. They began by objectively studying the constitution of man, and inductively learning the functions of the brain. To Gall and Spurzheim and Combe, our *alma mater* points with pride; and we, the Alumni, with reverence to the pioneers of American Phrenology, Fowler, Wells and Sizer.

The New York Association of Graduates was organized February 1, 1892, and from that time to the present has held regular monthly meetings, except during the warm summer months. Some of the topics that have been presented are:

"Judging Character by Types," by Albert Bausch.

"Theory, Practice and Demonstration of Phrenology," by Dr. C. W. Brandenburg.

"Why a Knowledge of Phrenology Should Be Extended," by Prof. Nelson Sizer.

"Importance of a Knowledge of Phrenology to the Young Man," by Chas. E. Cady.

"Best Methods for Mental Recuperation," by Dr. H. S. Drayton.

"The Relation of Health to the Mental Temperament," by Mary T. Hayward.

"Anatomy of the Brain, with Dissections," by Dr. R. C. Shultz.

"How Phrenology May Be Made Useful to the Teacher," by Cora M. Ballard.

"Phrenology in the Home," by Edgar C. Beall, M.D.

"Is Life Worth Living?" by the Rev. J. A. Trimmer.

"How Phrenology May Be Made Useful to a Young Woman," by Helen Potter.

"Temperament and Character," by Dr. H. S. Drayton.

"Recuperation, Mental and Physical," by Dr. M. L. Holbrook.

"Practical Phrenology," by Chas. E. Cady.

"Brain Structure and Development," by G. F. Laidlaw, M.D.

The reading of these papers was in each case followed by very full discussion on the part of members and guests who were

present. The Association gives receptions to the new classes in the Institute when they come to the city each year, which have proved pleasant and helpful.

The meetings as now conducted attract so much interest that on each occasion the hall of the Institute is crowded to its utmost limits. A cordial invitation is extended to graduates in New York and vicinity to become members, and to others interested to become honorary members of our Association.

MR. TURNER.

Mrs. Hayward, who was to speak for "Former Students," has been referred to by Dr. Brandenburg as one of our most effective workers. She is not present to-night, and I don't know of any one who will miss the privilege of being here more than she will. I received a dispatch this afternoon, saying that on account of illness she would be unable to come.

However, we have with us to-night, unexpectedly, one who can speak ably for the former students, and I take pleasure in calling upon Prof. Windsor.

PROF. WILLIAM WINDSOR.

Five years ago, as valedictorian of my class in the American Institute of Phrenology, it was my privilege to pay a tribute to the President and Vice-President and the other members of the faculty. To-night, standing within the genial radiance that is shed from these two grand old heads, it is my privilege to repeat upon this family altar my tribute of gratitude for all that has been in the past, and all that I see in the future.

My subject, as a speaker voicing the affectionate sentiment of the "former students" of this Institute, is a broad one. Our President, with characteristic modesty, in stating the number of students of this Institute—he may have used the term graduates—he has placed the number at, I think, about five hundred and ninety. Is it too much for me to claim to-night the privilege of answering for thousands, and I may say with truth, the millions of the students of the literature of this Institute, which has girdled the world with the mellow glory of good will, beneficence and reform! Wherever man exists on this continent in a civilized form, wherever he can read or write, wherever he can listen to the voice of the teacher, the doctrines promulgated by the American Institute of Phrenology have gone forth; they have blessed mankind; they have made man and woman better; and they will continue as long as literature exists.

I have been accused of being an enthusiast upon this subject; I have retorted with some spirit, that the enthusiast is the only man who ever amounts to much. And if I am an enthusiast upon Phrenology, it is because Phrenology has made me capable

of enthusiasm. I believe in proclaiming and in standing up for and combating for that which has benefited me and has benefited my fellow men.

We are standing to-night, ladies and gentlemen, in the presence of what I am proud to call the aristocracy of intelligence. I understand by aristocracy, the rule of the best; and I understand by intelligence, that which knows and takes cognizance of that which is; and when I say that I am in the presence to-night of a band of brave men and heroic women who know the best that there is in mental philosophy, and who recognize and who believe in the philosophy that is destined to rule not only the educational, but the manufacturing and commercial influences of this country, I feel that I am simply voicing a great, historical and patent fact.

I believe in Phrenology; I believe in it as a science; I believe in it as a philosophy; I believe in it as a religion; I believe in it as a profession; I believe in it as a science, because I recognize that it is the science of sciences. Am I saying too much? When I look upon other sciences—and I recognize the value of astronomy, geology, etc.—I say that humanity, as far as we are concerned, is worth more than all the stars that scintillate in the heavens, and worth more than all the gold that can be mined from the bowels of the earth. Am I claiming too much for it as a philosophy when I say that the old philosophers all admitted that they had no philosophy? And to-day the philosophers who have attempted to work out the great problems of human existence without the advantages which Phrenology affords, simply give up the task and acknowledge their own weakness.

If I can say anything this evening to kindle the enthusiasm of those who are now going out for the first time as members of the profession of Phrenology, I hope to arouse in them the true professional spirit. Humanity is hungering for this knowledge if it is presented in the right way. There are those who have gone into the work unworthily, who have tried it and eked out a miserable existence, and have practiced in an undignified and unskillful manner. There are those who have never formed any conception of the real dignity of Phrenology. There are also those who have pandered to the depraved taste of the multitude. We have enemies in the camp; and when I say enemies, I mean those who undertake absolutely to commit grand larceny against the splendid science of Phrenology by stealing from it its best and dearest axioms, its splendid doctrines, its magnificent enunciations of principles, and embodying them into books that they palm off on the public under fictitious names, such as craniognomy, or physiognomy with an apology, and stating that they do not recognize Phrenology, thus pandering to that sentiment

everywhere in the world which you will hear expressed by people who, ignorant of the whole subject, say that they believe there is something in physiognomy, but nothing in Phrenology. There are people who will pander to that and sell their birth-right for a mess of pottage that may be included in the price of a book or a very cheap, miserable delineation of character. Professional Phrenology demands something more and grander than that.

No man can ever rise to the dignity of true Phrenology or be an ornament to his profession who does not realize that humanity demands of him all of the teaching abilities, all of the splendid erudition of the minister of the gospel, and also the splendid scholarship and knowledge that we require of the skillful surgeon and the trained physician; and until we can blend those two characters together as our ideal Phrenologist, we fall short of our conception of this magnificent profession.

MR. TURNER.

Although the hour has ceased to be an early one, I know there is no one who was present this afternoon who would want to leave without hearing from the valedictorian, Mr. Jackson, who is to speak for "Our Class."

MR. JACKSON.

I am sure, after the flood of oratory with which you have been deluged this evening, it would ill become me to take up much of your time. I am proud of the privilege of speaking here in behalf of the "Class of '93." I am sure a finer lot of fellows never assembled together in any class; and as for our ladies, they are certainly unique.

One sentence from the lips of Prof. Windsor reminded me of a story. He spoke about the brotherhood of man, and I thought it would be well for us as phrenologists to form a brotherhood—a brotherhood in sincerity and in truth. There is a story of a little boy who called at the house of a wealthy man. He knocked at the door, and the master himself went. "If you please, sir, I am so hungry; would you give me something to eat?" And the man said, "Yes. Here, cook, bring that crust of bread I saw on the sideboard." The boy did not say thank you, and so the man said, "My little boy, did you ever learn your manners?" "No, sir." "Did you ever go to school?" "No, sir." "Did you ever learn to pray?" "No, sir." "Well, then, pray after me: 'Our Father, who art in heaven.'" And the little boy said, "Our Father," and then he stopped and said, "Is it our father?" "Yes," said the gentleman, "it is 'our father.'" "What, your father and my father?" "Yes." "Well," he said, "if it is your father and my father, then you and I are brothers." "Yes," said the gentleman,

"that is so." "Well, then, aren't you ashamed to give your brother such a dry crust of bread as this?" Now, it is all very well to preach brotherhood, but we must also practice it.

Those who do not believe in Phrenology shower all manner of abuse upon the science, and yet everybody reads character, though often unconsciously. A young lady was petting a large dog, of which she was very fond, and a dude stood there and said, "I wish I were a dog." "Oh!" said she, "never mind, you'll grow." She measured him properly. She read character without the assistance of Phrenology. So, wherever we go we hear men saying, "I don't like the looks of that person; I don't feel that I could trust him." They know that there is something wrong, but only the phrenologist can explain it. Now, I have only to ask you, before I close, to display a little more enthusiasm. We want our hearts in Phrenology if we are to have success; it is enthusiasts who have done the world's greatest work; so let us cultivate a genuine love for the principles we hold so dear. You know that every good cause has to pass through three stages; the first is that of ridicule; the second is fierce opposition; and the third is final triumph. We as phrenologists have passed through the first two stages, and we are now marching on to final triumph. The flag has been unfurled, and if we only gather around it, put forth all our energies, all our talents, everything that we have and are, and spread the principles of this splendid science, we shall help forward the dawn of that day when vice and sin and misery shall be driven from our land, and when peace, happiness and joy shall reign supreme.

MR. TURNER.

MR. PRESIDENT: There are not to exceed three or four persons in the room to-night who are not graduates of the American Institute of Phrenology, and I think it but fair, notwithstanding the hour is late, that we give an opportunity for expression as to the sentiment that may be entertained by "Our Guests," by asking Mr. Andrews to say a word.

MR. R. F. M. ANDREWS.

Those of us who are strangers here, although we know nothing of the practical working of this great science of which we have heard so much, feel that we cannot look into these intellectual faces without seeing that in the ranks of Phrenology there are men and women who stand high in the field of literature and the field of science. One of your speakers has told you that if Phrenology could obtain the silver tongue of some great orator to spread forth her truth, success would be more quickly achieved. The greatest

leader of public opinion, it seems to me, is not the "silver-tongued orator," but the press. The orator is heard by comparatively few; but into every home in the land the newspaper finds its way; and so, if I cannot speak to you upon Phrenology, I may at least make a few remarks on the influence that the newspaper might have if it could be brought into the service of Phrenology. The common people, the people who have only an ordinary education, read the newspaper; and if into your service, into your work, you could enlist the press of this country, it would not be many years before Phrenology would take a stride that would place her as the first science in this country, and be regarded in the school and college as of equal importance with chemistry, philosophy, algebra or Greek. Into the colleges of the land, I hope, at no future day Phrenology will find her way, so that our young men and women going out into earnest life may have this necessary equipment.

It doesn't require a phrenologist to see difference in people. For instance, when I was at the World's Fair, on the Midway Plaisance, I heard a gentleman of rather seedy appearance ask one of the guards if he could show him where the Lagoon Building was; and it didn't take me long to put that man down as one who had heard nothing of the Fair, who had not even read the newspapers about it. The newspaper man reads the people on whom he depends for his news; he can't go and verify every item that may be handed to him; he must depend on his judgment, and so it behooves the newspaper man to understand as much as possible about human nature. Therefore, if you can infuse into and distribute through the ranks of my profession a knowledge of Phrenology, a respect and love for it, and belief in it, it would not be many days, I repeat, before the science would take its place in the front ranks of this country. I believe that Phrenology is going on growing. I believe that the day is not far distant when we shall hear from it on all sides; and I am sure those of your guests who, until to-day, have known little or nothing about the science and its practical working, after having heard the exercises of this afternoon and the speeches of this evening, will feel that we must respect the profession. We see that these thinking men and women, in the intelligent walks of life are making it practical; are applying it to an every day use, this knowledge which has been given to them by the American Institute of Phrenology, under whose auspices we are gathered here to-night. Therefore, in the name of the guests and in the name of the public, and in the name of the press, I wish your venerable President and all of you every possible success. The next time we meet may it not be with compar-

atively few from all parts of this continent, but may there be men from the faculties of all the colleges, and from the Alumni associations of all the institutions of learning. May there be gathered together the best representative men of the nation under the banner of Phrenology, who shall stand together and give it place as one of the first sciences in our advanced and ever advancing America.

MR. TURNER.

MR. PRESIDENT: I doubt if there is any subject that could have held as many people together so long with as little fun and nonsense as we have had to-night. I think it is a very great compliment to our subject and to our company; and this is the end of our programme.

PROF. SIZER.

The American Institute of Phrenology for 1893 is now adjourned *sine die*; but I trust we shall long hold our affection for and memory of one another.

EXPERIENCE.

DREAM delivers us to dream, and there is no end to illusion. Life is a train of moods like a string of beads, and, as we pass through them, they prove to be many-colored lenses which paint the world their own hue, and each shows only what lies in its focus. From the mountain you see the mountain. We animate what we can, and we see only what we animate. Nature and books belong to the eyes that see them. It depends on the mood of the man, whether he shall see the sunset or the fine poem. There are always sunsets, and there is always genius; but only a few hours so serene that we can relish nature or criticism. The more or less depends on structure or temperament. Temperament is the iron wire on which the beads are strung. Of what use is fortune or talent to a cold and defective nature? Who cares what sensibility or discrimination a man has at some time shown, if he falls asleep in his chair.—*Emerson.*

CHILD CULTURE

INSTINCT AND INSIGHT.

A WRITER in *Study of Child Nature* points to the necessity of intelligent direction on the part of those having the charge of children in order to educate their mental powers in the proper manner. The capacity to do this depends much upon the patient's or teacher's "insight." It is claimed that:

First. *The Child bears within himself instincts which can be trained upward or downward.*

Second. *These instincts give early manifestation of their existence.*

Third. *The mother's loving guidance can often be changed from uncertain instinct into unhesitating insight.*

This change from instinct into insight is thus illustrated: A young mother, who had been studying Froebel for some months, placed her four-year-old boy in my kindergarten. I soon saw that he was suffering from self-consciousness. In a conversation with the mother, I told her that I had discovered in her child a serious obstacle to mental growth, viz., self-consciousness. "What is the cause of it?" said she. "If the child had not had such a sensible mother," I replied, "I should say that it had been shown off to visitors, until the habit of thinking that every one is looking at him has become fixed in his mind." Instantly the blood mounted to her face, and she said: "That is just what has been done. You know that he sings very well; last winter my young sister frequently had him stand on a chair beside the piano and sing for guests. I felt at the time that it was not right, but if I had known then what

it would do, I would have died rather than allow it."

Instinct is often overruled by others; insight makes the mother stand invincibly for her child's right to be properly brought up.

THAT LAST KISS.

ON the day of a great fire, which occurred not long ago in Boston, a bright lad, sixteen years old, was running from his home at the south end of the city to catch an electric car, which would take him to his daily work in one of the large wholesale houses of the city. The boy's mother was a widow with small means, who lived on the upper floor of a neat little house, and earned, by sewing, what she could to increase the small income which her hard-working honest husband had left to her. Her son William had been kept in school until he was fifteen years old, and, as he was ambitious and studious, he made the most of his opportunities and graduated from the high school with credit. During the summer following he took a course of study in one of the commercial colleges of the city, and was thus enabled to accept a position offered him, and earn a few dollars a week, with a promise of promotion and better wages another year.

William was devoted to his mother in every way, and he seemed so happy to be able now to earn something himself, and to begin to repay her for all her self-sacrifice and loving care of him. Every Saturday night as he started for home with his week's pay in his pocket, his first thought

was of his mother, and it was his delight to carry her a little fruit or a few flowers, or some little token of his thoughtful love. He knew well how she appreciated these attentions, and he was conscious many times during the day of her loving thought for him, and her real gladness in working for him. He was always in the habit of kissing his mother good-bye as he left her in the morning for school or for business, and of greeting her again on his return at night in the same loving manner.

On the morning of the fire William had inadvertently hurried off without kissing his mother. He ran for an electric car on Shawmut avenue and was just about getting in to it when he suddenly thought, "I forgot to kiss mother good-bye!" and as suddenly turned about, and ran home again. As he hastily opened the door, he exclaimed, "I ran back for my kiss, mother, for I would not feel just right all day without it!" and, taking it, and with a bright, happy face waving a farewell, he ran again for his car.

That afternoon the fire broke out in the building in which William was at work. He was almost choked with smoke as he tried to find his way to the staircase, which was, however, enveloped in the flames, and his only chance of life was in leaping from a six story window, hoping that a fireman or a policeman might catch him. He leaped, and fell to the pavement, dead. . . . His mother sits now in her little home broken-hearted and desolate! Her husband was taken from her many years ago, and now the son upon which she leaned, in whom her heart delighted, who had helped her to bear her grief, and for whose comfort she had joyfully worked, was suddenly taken from her. The sorrow of that desolate mother's heart none can know but those who have been afflicted as she is afflicted. But she thanks God every day for the blessed memories which comfort her, and many times a day, and in the twilight hour,

When the forms of the departed
Enter at the open door,
The loved ones, the true hearted
Come to visit her once more,—

She sees the happy face of her boy as he came running back from the car, and bounded into the room to get that last kiss from his mother. So amid her sighs and her tears, in her loneliness and in her sorrow, she still lives over again the sweet hours she has spent with her boy, and the thronging memories of his many acts of devotion to her, and the loving thoughtfulness on that last morning, are her solace and her comfort now.

FOUND HIS PLACE.

MEN admit that no man is equally great in all things. Yet often they do not see that a man's failure in one line of work is no reason why he may not succeed in a different calling, to which his faculties are adapted.

An incident which occurred some years ago in a London linen store illustrates this blindness.

A young man, whose bluntness was such that he was of no use as a salesman, was told that he did not suit and must go. Seeking the head of the house, the youth said:

"Don't turn me away; I am good for something."

"You are good for nothing as a salesman," replied the principal.

"I am sure I can be useful," continued the youth.

"How? Tell me how."

"I don't know, sir; I don't know."

"Nor do I," said the principal, laughing at the boy's earnestness and ignorance.

"Don't put me away," continued the youth; "try me at something else. I know I can't sell, but I can make myself useful somehow; I know I can."

Moved by his earnestness the principal placed him in the counting-room. Immediately his aptitude for

figures showed itself. In a few years he became the head cashier of the concern. Throughout the country he was known as an eminent accountant. His organization had a special aptitude for calculation and mathematics, and when its opportunity for exercise was presented it was shown with results that, while natural, seemed remarkable.

A CHEERY SPIRIT.

SUCH incidents as the following are very pleasing to note:

A little boy came to his mother with a broken arrow, and begged her to mend it for him. It was a very handsome arrow, and was the pride of his heart just then; so she did not wonder to see his lip quivering and the tears come into his eyes.

"I'll *try* to fix it, darling," she said; "but I'm afraid I can't do it."

He watched anxiously for a few moments, and then said cheerfully:

"Never mind, mamma, if you can't fix it. I will be just as happy without it."

Wasn't that a brave, sunshiny heart? And that made me think of a dear little girl, only five years old, whom I once saw bringing out her best playthings to amuse a little homesick cousin. Among the rest was a little trunk, with bands of gilt paper for straps—a very pretty toy; but careless little Fred tipped the lid too far back, and broke it off. He burst out with a cry of fright; but little Minnie, with her own eyes full of tears, said:

"Never mind, Freddie. Just see what a cunning little cradle the top will make!"

Dear little Minnie went to the upper country a few years ago; but we have a great many sweet memories to keep of her.

Keep a happy heart, little children, and you will be like sunbeams wherever you go.

FAILURE IN LIFE FROM THE START—WHY?

IN the *Christian* H. L. Hastings relates that Dr. D—, a successful Western physician, returning to his old home after a long absence, visited the college at which he had been educated.

"Twenty years ago," he said to a group of students, "I graduated in this hall. There were eighteen men in my class. Of the eighteen six drank habitually; not to excess, but regularly—a glass or two each day. Not one of these men has succeeded in attaining fortune, reputation, or even a respectable position. But they were among the ablest men in the class.

"While here, I was in the habit of frequenting the daily newspaper office here. There were ten men in it—editors and reporters. I knew all—a lot of bright, jolly fellows. The work was hard, the hours late, the meals irregular.

"Every man in the office drank but one, a reporter, Ben Perry. One of the editors told me he had seen Ben come in from a fire at two o'clock in the morning, drenched to the skin and tired out. He would look wistfully at the whiskey bottle, but he never touched it.

"I inquired for the boys to-day. Three had died from drinking; six were holding inferior positions in newspaper offices. Their habits were bad. They could not make their way, and so fell lower. Perry's head, though, was always clear, and he was regular at his work. He is editor-in-chief of one of the principal newspapers in a seaboard city. He had not half the natural ability of at least three of the others.

ONE of the best preventives of the alcohol habit and other similar vices, is to begin with the diet. Thousands of drunkards owe their misfortune to the excessive use of condiments and highly concentrated foods during their early years.

SCIENCE OF HEALTH

THE WET PACK.

A WRITER in the *Herald of Health*, of London, writes zealously of the virtues of the wet sheet pack, but advocates that warm and not cold water be used. This form of hydropathic treatment is old, yet to many of the recent readers of the PHRENOLOGICAL JOURNAL it may appear quite new, so that it is deemed appropriate to print what is said on the subject, with the criticism of the physician on the old cold-water theory.

“The most remarkable of all the discoveries and applications of the inspired father of hydropathy was the wet sheet pack. Wringing a sheet, large enough to envelop the whole or a large part of the body, out of cold water, and laying it on blankets, he wrapped it round the patient, then drew closely the blankets with a plentiful covering. There is first a cold shock, very agreeable in fever, then a glow of warmth, which gradually increases to a profuse perspiration. In twenty minutes to an hour or more the patient is taken glowing from the pack and quickly bathed in cold water. The sensation of the cold bath is simply delightful. Sheets and blankets are filled with the effluvia cast out by the skin. The effects are very sensible and remarkable. Fever is cooled at once, and a dry, harsh skin made moist and supple. The capillaries become full and active. Every one of the myriad glands of the skin sets to work to relieve the blood of its waste and morbid matter. Poisons laid up in the system, oppressing the nerves, are cast out, and may be detected on the

packing sheet, always by the smell, often by the color. Opium, tobacco, mercury in minute globules, bile and other substances can be distinguished. Here is a wonderful purification. Each pack draws a certain quantity of morbid matter from the body, and a certain number gives it a thorough cleansing. The first slight shock acts as a tonic to nerves, blood vessels, absorbents and glands. Water is absorbed and afterwards expelled.

. I know of no disease, and no condition of disease, in which the cold sheet pack may not be used by a judicious adaptation to the reactive power of the patient. Diseases that commonly last two or three weeks can be cured in as many days simply because the purifying process set up by nature is expedited by the hydropathic process. Chronic diseases are cured more slowly, but as fast as the reactive energy of the patient will permit.

“There are diseases whose only termination is death; there are many cases of disease in which cure is sought too late—when the reactive and recuperative powers of the system are exhausted. At a certain stage, diseases of the brain, heart, lungs, kidneys and bowels are hopeless of cure, but wherever there is enough vitality to cope with the disease I believe the methods of hydropathy, judiciously applied, give the best aid to nature, the best prospect of cure.”

In the application of the cold wet sheet pack we have two positive factors—one moisture and the other cold. So long as the sheet remains

cold the patient is in danger. But in proportion to the amount of reserve energy which he is able to utilize for the purpose of bringing the water supplied by that sheet to the heat of his own body, so will he be able quickly or slowly to accomplish this most essential result. Great stress is always laid by cold water hydropathists upon the necessity of carefully packing the patient up all round and in all crevices with blankets so as to conserve the heat generated by him. The cold shock spoken of above as being so agreeable is not always thus described, and is indeed fraught with a certain amount of danger. This is only overcome by the patient's ability to accumulate heat. The responsibility of the hydropathist is indicated by the caution that this wet sheet pack must be *judiciously adapted "to the reactive power of the patient."* When nature is curing chiefly by the skin, then is the power of the cold wet pack depended upon. When successful, then can all the benefits, so lucidly described, be looked for, such as the expulsion of morbid matter, nicotine and other drugs. *But mark that none of these benefits can or do arise till the cold sheet pack is turned by nature into a hot sheet pack and the morbid matter is expelled hot, not cold.* Then why not apply hot moisture instead of cold moisture at once? A series of hot baths and hot water drinks, followed by rest between woollen blankets, will bring about the same results in less than half the time, without the shock, and without the demand upon nature's power of expenditure of energy, which means *waste* of much needed energy or heat force. Chronic diseases can be assisted in their eradication much more rapidly by the application of hot moisture than by cold moisture. The doctor states that "chronic diseases are cured more slowly, but as fast as the reactive energy of the patient will permit." This means that nature is helped in her work by the moisture,

but she has to counteract the coldness of that moisture before she can utilize it. In fact, she cures in spite of the cold, and not by virtue of it. "When the reactive and recuperative powers of the system are exhausted," the doctor states that the cure is sought too late. But where there is life there is hope, and the skilled healer will seek to conserve the remaining spark of life power, which is the reactive and recuperative power, and fan it into a flame. This is not to be done by robbing the body of its energy or heat force, or by applying a shock to an exhausted nerve force. If the patient has "enough vitality to cope with the disease," let her utilize it all for that purpose, and not waste it by coping with the work of heating up cold applications.

The stimulation to expression of vitality seems to be the idea upon which hydropathists work. Stimulation means drawing upon the vitality of the patient without granting any measure of gain. The same kind of thing can be done by alcohol, though such treatment leaves behind a permanent injury, while the injury of stimulation from the application of cold is more or less removed when the patient has recovered his heat. "The reactive power of the patient—his ability to get warm after a cold bath—is the fulcrum of the lever of cure. It is the measure of the possibility of cure." And it is just the increase of this *possibility* which hot-water applications secure.

THE PERFECT MAN.

DR. PAUL TOPINARD, who is at the head of the School of Anthropology in Paris, and author of "Man in Nature," gives his views of the perfect man as follows:

First, from the point of nature and of evolution the most perfect man is one in whom all the organs are the most harmoniously adapted to the life which is best for him. The bird flies, the fish swims, the horse is

herbivorous and escapes his pursuer by the speed of his course; the lion is carnivorous and muscular; man thinks, creates, lives intellectually. Therefore, the perfect man is he whose brain is the best organized to conceive correctly and truthfully and to will most vigorously, the eye the most acute to bring him external impressions, his hand most dexterous to execute, the internal organs so satisfactory that he is not arrested in his course by diseases of any of them.

Second, from the personal and egotistic point of view, the most perfect man is the preceding, but having such a superiority through all his organs, and specially through his brain, that he has the advantage at the same time over animals and over his own kind in the struggle for existence—not to speak of his own power to master to a certain extent the physical elements of nature, thanks to his intelligence. This aptitude is his attribute for excellence.

Third, from the point of view of general or social utility the perfect man is he who possesses sentiments that are the most necessary in common life—justice, family affection, love for his kind, respect for the rights and benefits of others, abnegation, personal dignity.

Fourth, from the ideal point of view the superior man is a thinker who sees things under their true aspect, who is neither an egotist, a systematist, nor a priorist, and who is able to free himself in his judgment from all the inherited influences of his body, his accidental and individual education, and to the ancestral education accumulated under the form of reflex action or hereditary instincts and beliefs.

I have defined man—an animal, of common origin with the simiads, highly perfected, chiefly in his brain and the highest up to the present time of the creation. He is the “intellectual animal.” The man actually the most perfect is he who within the healthiest body has the healthiest brain.

HOW TO RUB OUT THE WRINKLES.

THE patients in the Battle Creek Sanitarium do not always confine their Question Box desire for information to strictly medical topics. Somebody asked lately: “Does the face indicate character?” To this Dr. Kellogg replied substantially as follows:

“Of course it does. There is no person whose face does not tell something of what he is. A man may school himself to conceal his real feelings quite effectively, just as the actor manipulates the muscles of his face to suit the moods of the part he is playing, but the face of the average man tells directly what his character is. You know whether a man is lame or not when you see him walk. The crippled walk due to physical infirmity would not be confounded with the staggering, uncertain gait of the drunkard by one who had discernment. Similarly our mental experiences affect us outwardly as well as inwardly. If a man habitually entertains evil thoughts, he becomes an evil man. There is a deep philosophy in the Scripture which declares, ‘By beholding we become changed.’

“One day a lady said to me, ‘Doctor, I would like to get rid of these wrinkles running up and down between my eyes.’

“I replied that I could tell her how, but I must first explain the philosophy of wrinkles. Wrinkles or creases in the skin are caused by the contraction of muscles which are attached to the skin at one end and to the bones at the other. This is the case with most of the muscles of the face; the muscles in the greater part of the human body are not, however, attached to the skin. One set of facial muscles contract the mouth into a whistling position; another set elevates the corners of the mouth into a happy expression, and still another set draw them down to make a gloomy, forbidding aspect. There is a curious little muscle, with a nice easy name, which serves to turn up

the end of the nose. It is called the *levator labii superioris alæque nasi*. Just so the wrinkles in the brows are made by muscular contraction. The various facial muscles are constantly being played upon by the brain as the pianist plays upon the keys of a piano. Or it may be likened to the shifting scenes of an opera, the scene shifter being stationed in the brain where he pulls the strings of thought or feeling which change the expression of the face at will.

"Now, as I told this lady, the muscles of the face like other muscles grow strong by exercise, and if she wanted to rub out the wrinkles between her eyes she must rub out the thoughts which caused her to frown and cultivate the opposing muscles by cultivating happy thoughts and feelings. The habitual state of mind of an individual, by the action of the brain upon the muscles of the face, is as indelibly and accurately written upon the face as if impressed by an iron mold." H. M.

BREAD REFORM.

THE bread in common use at our hotels, restaurants and home tables cannot be truly said to be the "staff of life." It is a great delusion to hold the popular belief that the fermented fine white flour bread is an excellent article of food and the best and most nutritious product obtainable from the most universal and best grain produced on the globe. The bread of the American people is in great need of reform from a scientific and hygienic standpoint. For several years some medical and scientific men and all true health reformers have condemned and proclaimed their disapproval of the bolting and refining process of making flour as one in no sense improving the nutritive value of the product, but on the other hand deteriorating its quality as an article of food. Much has been said and written on this subject against this method of the millers,

and still the public demand and use bread made of this deteriorated material. It seems that there is a need of "line upon line" and "precept upon precept," on this topic. This refining process and the fermenting method of making bread are both in direct violation of the principles of science and the laws of hygiene.

It is a scientific fact that the refining device known as bolting cloth, used in the flouring mills in the manufacture of fine white flour, removes important nutritive ingredients of the grain. These removed materials known as bran-shorts and middlings, contain the saline and mineral elements of the grain—substances which are essential to the proper nourishment of all the tissues of the body, but more especially of the more dense structures as the teeth, bones, hair and nails. Bread being a staple article of diet—forming a part of every meal and robbed of these mineral ingredients—where and how can a substitute be procured? Can they be sufficiently obtained from other foods? Or can they be used by the living system direct from the mineral kingdom? We answer no to both of these questions. Other foods do not contain a sufficient quantity of these materials when this inferior fine flour bread forms an important and large portion of every meal. These saline and mineral elements as found in the wheat are arranged and compounded by vegetable growth, and from this fact are in a form usable by a living organism. Science demonstrates that wheat more nearly than any other grain contains all the materials needed in the nourishment and complete nutrition of all the structures of the human body. It is a false notion or theory that any mineral compound or chemical substance can be taken in a mineral form and supply the place of those produced by the organic forces of the vegetable kingdom, or be of any use in any manner in the living system. The theory that nutritive supplies can be furnished by

chemical compounds as hypophosphite of lime and similar chemical formulæ has no foundation in physiology and true medical science. These materials of nutrition are derived from organic alimentary substances and not from chemicals, drugs, poisons or mineral compounds of any kind. Nutritive processes and vital functions have no relation to chemical actions and processes. The chemico-physiological idea of nutrition is not sustained by facts and science. Chemical action is purely destructive in its relation to living beings. Vital actions transform materials into its own structures. Chemical action destroys compounds of matter and forms new combinations of the primary elements. It is true, then, in relation to nutritive supplies and remedial agents that they cannot consist of materials of a chemical nature. So it is a great error to rob our bread stuff of these nutritive elements and attempt to supply them from the mineral kingdom or some other source.

Several years ago Magendie, a French physiologist, fed dogs on fine white flour bread and water and they actually starved to death in from thirty to forty days. He also fed others on whole wheat bread and water and they thrived fairly well for an indefinite time. This proves conclusively the superiority of the latter kind of bread. The ultimate elements contained in the fine flour, according to the latest chemical estimates, are only three, while the grain, or whole wheat meal, contains fifteen. So the latter contains twelve more elementary substances than the former, or the fine white flour. It seems there is ample evidence to prove that fine white flour bread is not a fit article to feed dogs, much less is it suitable as a staple article of diet for human beings. A knowledge of these facts indicates that it is folly and a practice detrimental to health and the proper development of the human body to employ fine white

flour as a bread material, as is the common custom.

There is no serious objection to the removal of the rough outer coat of the grain by the scouring process before it is crushed or pulverized. This does not remove the bran but only the coarse, woody fibre of the outer covering of the wheat, which, in some instances, irritates the delicate mucus lining of the intestinal tract. We see no scientific reason to condemn this method; on the other hand, we recommend it when the object aimed at is correctly accomplished and it is not an attempt to remove more than this woody fibre, in fact a large portion of the bran, and consequently rendering the meal minus this part of the wheat. Instead of being whole wheat, meal, in this instance, it is only part of the grain, and is an approach to fine white flour.

The cold air attrition method is without doubt the best process known of pulverizing the grain. The meal or flour is cooled instead of being heated by this process. This method is superior and to be preferred to that of grinding on rollers or stones. No stone or steel-dust finds its way into the meal or flour made by the cold-air attrition method. By this process the grain, after being cleaned and scoured, is made to impinge upon itself by two opposite and rapidly revolving air currents, and pulverized in this way, cutting the bran and the coarser portions of the grain sufficiently fine to make an evenness of the product not obtained by any other method.

The bran has attached to it a mucilaginous substance, which, in a mechanical way, facilitates the vermicular and peristaltic action of the intestinal tract. No device has ever been invented which would separate this substance from the bran. If for no other reason than this the bran should not be rejected from the flour. The bran should be thoroughly pulverized as other portions of the

grain in the making of a good article of whole wheat meal.

The raising of bread by fermentation or acids and alkalis are deteriorating methods of preparing this article of food. These methods of making bread are almost universal. Fermentation is a rotting process and destroys a portion of the ingredients of the flour, and deteriorates the remaining part of the loaf.

The acid and alkali process, after forming carbonic acid gas to raise the dough, leaves behind in the bread the base of the alkali, which is a drug, a material not usable in the living system. Neither of these processes of making bread are wholesome or hygienic. The only method admissible from a hygienic standpoint is that of incorporating air into the dough, and baking in a quick oven. This makes a bread a little more dense and with a firmer crust. This is not only a sweeter bread, but it calls into action the functions of mastication and insalivation—the exercise of which is essential to good digestion.

The beaten biscuits, which are now occasionally found at private tables and in the bread shops, are made in accordance with the principles of science and health. The method of making this bread consists of beating the dough with a mallet or rolling it between two steel rollers until sufficient air is incorporated into it to make it light and brittle. Some cooks say manipulate it in this manner until the dough just cracks, and then it is ready for the oven. No rising materials are employed or mixed with the dough. If whole wheat meal were used and the oil or lard omitted, this would be in reality the best bread that can be made in accord with scientific and hygienic principles. This in fact would be the "staff of life" and worthy of a place as a staple article of food at every meal.

Ordinary bread is too soft and spongy. This does not insure good mastication, and being made of fine

flour which is robbed of the mineral and saline elements of the grain accounts for the poor teeth and in many instances poor health of the American people. Scarcely an adult nowadays can be found who has a sound set of teeth. Most every one, before arriving at the age of maturity, is compelled to employ the services of a dentist to preserve their teeth from further decay. The cause of this condition may be found in the dietetic habits of the people. There is no doubt that in no one particular are they more at fault than in the kind of bread which is employed as a chief article of diet. The inferior and deteriorated article known as fine white flour bread should be abandoned and in its stead unleavened whole wheat-meal bread should be used by all intelligent persons. If all who are convinced and know that this kind of bread is more wholesome and healthful than the white fermented variety would use it and demand it at hotels and eating houses the desired reform in bread would be inaugurated.

The common custom of seasoning bread with salt is a deleterious practice and should be abandoned by all good bread makers. Salt is in no sense a food material. It is a mineral and a chemical and hence is not only of no use in the living system, but is detrimental to all vital processes. The latest microscopical investigations on the influence of salt on the vital changes in the living being is that it (salt) invariably retards all the vital processes, as digestion, absorption, assimilation and the disintegration of the tissues. It is, in fact, a clog and burden on the wheels of life. The wise thing to do from a scientific and health standpoint is to not employ it as a seasoning in the manufacture of bread, which is the "staff of life" when made in accord with the principles of science and the laws of philosophy and hygiene.

J. G. STAIR, M.D.

"OFFENSIVE" WARFARE.

LONDON *Truth* calls attention to the statements that the French drove the Dahomeyans out of the intrenchments by throwing in melinite bombs, the suffocating fumes of which not even Dahomeyans could stand. It was the first battle trial of a bomb of which a good deal has recently been said. The battle of the future may be a trial of which army can stand the longer a series of terrific smells, and the bravest of the future will not be he who cares the least for wounds and death, but he who is best able to defy stenches. In that case the training of troops would be of a nature that would necessitate the location of their barracks as far as possible to leeward of civilian habita-

tion, and their exercises and sham fights would no more draw a crowd, but temporarily depopulate the adjacent country. The reports of a battle would read peculiarly. Imagine a telegram like this:

"The enemy attempted to stink us out this morning, but were outstretched themselves in handsome style. The coughing and sneezing in their ranks as they retired in disorder showed how they suffered. The general in command left his false teeth on the field, and his chief of staff was so sickened by a bomb that burst right under his nose that he threw up everything but his commission. The repulse was complete, and it is not believed that the enemy will be well enough to attack till next week, at soonest."

NOTES IN ANTHROPOLOGY.

Insanity in Egypt.—Dr. Peterson, in an interesting article on the insane in Egypt, gives the result of his personal observation. He calls attention to the fact that New York city and Brooklyn together with two million inhabitants have asylums that accommodate over seven thousand three hundred insane; whereas Egypt, which has six million inhabitants, has but one asylum, and this contains two hundred and fifty patients. While making due allowance for the Mohammedan dislike to institutions, and their treating insane as holy persons, he still concludes that the percentage of insane in Egypt is vastly lower than anywhere else in the world. The first asylum in Egypt was founded in 1280 A. D., and the patients were treated with kindness. Music, dancing and light comedy were features of the treatment. In 1800, Napoleon found patients there in chains and made some improvements. Dr. F. M. Sandwith, who visited the lunatic asylum in 1883, found the most shocking condition of things. The patients were in chains and everything else in the institution was in keeping. Dr. Sandwith took charge of the institution, introduced a sys-

tem of kindness, furnished competent clerks, and, in fact, completely transformed the institution architecturally and in its general management. At the present time restraint is rarely employed. The patients' apartments are neat and clean, and the attendants are kind and attentive. The doctor found that in quite a proportion of the insane, the insanity was due to *cannabis indica*. They used the drug by smoking. The earlier mental symptom is a marked and increasing timidity, and often it results in chronic insanity, dementia or death. General paralysis is very rare, and it has yet to be proved that it even exists among the Egyptians. It is a curious fact that just across the sea from Egypt, in Greece, general paralysis is very common. The doctor thinks the Cairo asylum would be a good school for the study of craniometry and racial characteristics. Among the patients he saw there were Egyptians, Copts, Nubians, Soudanese, Abyssinians, Turks, Greeks, Syrians, Circassians, Jews, and Bedouins.—*The Medical Record*.

A Thibetan Brigand People.—The country of the Goloks extends in Thi-

bet, from that point southward as far as a high range of mountains running from east to west, and is watered by the Gillow River. It is treeless and very hilly; but the pasturage is fairly good in the valleys and on the lower slopes of the mountains, which, even in September show a clearly marked snow line. The Goloks are shorter and slighter in stature than the Mongols, and have higher cheek bones and rounder faces. The men wear their hair long and hanging down to their shoulders; their sheep skins are drawn up by the girdle, forming a kind of kilt, below the waist, and a large pouch above, in which they always carry their wooden tea-bowls, called po-pa, and many other things when on a journey. The boots are of leather with skin soles and cloth leggings bound below the knees, (which are left bare like a Scotch Highlander's), by a long wovengarter of various bright colored wools. The hats, made of the fur of foxes, sheep skins or felt, are of many peculiar shapes. The dress of the women is like that of the men, but the sheep-skin gowns reach to their ankles. Their hair is in two plaits, hanging down their backs and inclosed at the ends in a sheath of cloth ornamented with round pieces of amber and cowrie shells, which they buy from the Chinese. Long earrings of silver and coral hang from both ears; the men limit themselves to one very massive piece of jewelry in the right ear. The tents, utterly unlike those of the Mongols, are made of woven black cloth of the coarse hair of the Yak, the Thibetan ox. They are about 40 feet by 20 and are supported by one small beam on two poles inside and by several props outside. The ropes are made of the hairs of the Yak's tail. These Golok tribes are the most notorious brigands in Thibet. Like the Sicilians of former years, only in a much greater degree, they are feared by travelers, and by other nomadic people like themselves, and they acknowledge neither Thibetan nor Chinese sway. Pouring forth upon their preconcerted forays in numbers varying from 500 to 2,000, they fall upon the tribes in the given district, and surrounding them close on all sides, carry off as booty, cattle, horses, sheep, tents and firearms.—*National Review*.

Comparative Physical Growth of Girls and Boys.

—In the schools of Worcester, Mass., observations have been made as to the growth of various parts of the body of boys and girls, which *Science* publishes in the following summary: "The length of the head in girls is shown to be less than that of boys throughout the whole period of growth, and consequently through life; but the difference in length, instead of remaining the same from year to year, varies considerably, and the annual increment is irregular in both sexes. In girls the greatest length of head is reached about the eighteenth year; in boys, not before the age of twenty-one. The girls' heads are narrower than those of the boys, while the phenomena of breadth of head in periods of alternate growth and cessation of growth are similar to those of length of head. The faces of the girls are broadest at seventeen, those of boys after the eighteenth year; while the faces of the boys are usually broader than those of the girls. In stature, the boys, starting out at five years of age, are apparently taller than the girls, but the girls appear to catch them in the seventh year, and continue at an even stature up to and including the ninth year, after which the boys again rise above the girls for two years. About the twelfth year the girls suddenly become taller than the boys, and continue taller until the fifteenth year, when the boys again and finally recover their superiority in stature. After the age of seventeen there seems to be very little, if any, increase in the stature of girls, while the boys are still growing vigorously at eighteen and probably continue to grow for several years after that age. The curves of the sitting height present the same characteristics somewhat more accentuated as the curves of stature. The curves of weight, while preserving the general characteristics of the curves of stature and sitting height, show minor differences. The superiority of the girls in respect to weight is for a much shorter period than in respect to total height and sitting height. In weight also, the girls seem to reach their maximum average at seventeen, while the boys continue to increase in average weight until a much later period in life. The movements of the curves of the index of sitting height

indicate that the greater part of the growth in stature up to the twelfth year in girls and to the fifteenth in boys is made in the lower limbs, while after these respective ages it is made in the trunk. The result of the whole series of measurements afford evidence, deemed conclusive, that women reach maturity before men, and that for all the measurements, except the weight, girls have completed their growth by their eighteenth year.

The Great Dragon Tree Dead.

—The London *Globe* reported a while ago the death of the colossal dragon tree of Orotava. Though called a tree, in truth the renowned curiosity of Orotava (Teneriffe) was nothing of the sort. It was a kind of gigantic, bloated asparagus, and a near blood relation to the fragile, delicate lilies of our gardens. But with its blood-red sap exuding freely, though with curdling slowness, at every wound, its strange crown of stiff, strong, sword-like leaves at the end of every octopus-like arm, and its scale-clad trunk, it is not difficult to trace the origin of its name. The tree which bears the golden apple is indigenous to the Canary Islands, and little fancy was required with an imaginative people to turn this monstrous vegetable growth into the guardian dragon. Did it not bleed thick red blood, did it not bristle with swords, and was not its abode on those Isles of the Blest far beyond the gates of Gades, in the veritable Garden of the Hesperides? The ancients always spoke of one dragon guarding the golden fruit because the monster of Orotava was even then removed from all its comrades in size, bulk and ghastliness. The old Guanches venerated the monster. They regarded it as possessed of animal life and deified it in its hollow trunk performing Druidical rites, and they used its blood-red sap (the dragon's blood of commerce) for embalming their dead. Humboldt, in 1799, gives its height as "appearing" about fifty or sixty feet, and its circumference near the roots at forty-five feet, and the diameter of the trunk at ten feet from the ground "is still twelve English feet," and he computed its age at 10,000 years. In 1819 an arm was wrenched off in a storm, and about some

forty years ago some unscrupulous persons cut off a huge piece of the hollow trunk and presented it to the Kew Museum. Another storm in 1867 broke off the upper part, leaving the trunk alone standing. A traveler at that time says the ground underneath was covered with pieces of broken branches, some being eighteen feet in circumference. When the land where the tree was growing came into the possession of the late Marquis del Sauzal he nursed the aged vegetable with loving care, filled up the gap in its trunk with plaster, and did all that was possible to prolong its existence. Piazzì Smyth, who saw it in 1856, measured the trunk and found it sixty feet high above the ground, and forty-eight and a half feet in circumference at a height of fourteen and a half feet. The old tree, moderately credited with 6,000 years of life, has gone the way of all trees, but most felicitously the Marquesa del Sauzal has planted on its exact site a seedling derived from its ancient progenitor, and this youngster is now a healthy plant some four feet high, looking—in shape only—exactly like a fine long carrot, lightly stuck in the ground by its taper end, and surmounted by a crown of sword-shaped leaves. This baby dragon will probably not flower for twenty or thirty years yet, and it will only branch after it has blossomed. In a neighboring garden there is a dragon which has not yet blossomed, and yet it is more than forty years old.

Folk-Lore Study in America.—

Thus far the work of American folk-lorists has been directed almost entirely to the collection of material to be collated and examined afterward according to scientific methods. American students think that the time has not yet come for theoretical discussions, such as English and Continental scholars have waged so sharply at times and without good cause. Nor are they ready yet to favor the establishment of a separate science of folk lore. In the Handbook, issued by the authority of the English Society, it is stated that "the definition of the science of folk lore, as the society will in future study it, may be taken to be as follows: the comparison and identification of the survivals of archaic beliefs, customs,

and traditions in modern ages." So far, so good.

But the truth is that the exact definition of the term "folk lore" is still a matter in dispute. The proper place of the "science of folk lore" remains to be settled. Thus there will be two folk-lore congresses at the World's Columbian Exposition: one congress to be held in the month of July, in connection with the Department of Literature; the other folk-lore congress to be held in August, with the Congress of Anthropology. There is no department of comparative folk-lore in any college or university.

Finally, we attribute the rapid progress and popularity of folk-lore study in America and in Europe to three reasons: (1) Folk lore is a study to which almost every one can contribute something; (2) folk lore is a study which throws a flood of light on man's past mental evolution and culture-history, as the Germans call the study; (3) folk lore is a study in which the student of religions, the student of morals, the ethnologist, the antiquarian, the psychologist, the historian, the poet, and the *littérateur*, each finds a different interest and a different value.—*Popular Science Monthly*.

Magnifying Glasses in Ancient Time.—Monsieur Edouard Fourdrignier has an article in the *Photo-Club de Paris*, entitled, "A Few Words on the Knowledge of Optics Possessed by the Ancients," in which he says: "Looking back at the works written by the ancients, we may discover very many ideas and germs which we in the present century presumptuously imagine that we have been the first to discover. With regard to photography, it is certain that the application of the dark chamber and the lens and also sensibility of certain substances to light was well known." With regard to the antiquity of the lens, the author says: "If we are to believe C. P. Ganbil, quoted by M. De Paravey in his 'Chronologia Chinois,' the Emperor Chan, who reigned 2283 B. C., used enlarging lenses in the form of a telescope in order to

be able to get a better view of the planets." The use of lenses has also been traced to the Chinese moralist, Confucius, 748 B. C. A glass case in the Assyrian section of the British Museum contains a piece of rock crystal formed into the shape of a plano-convex lens $1\frac{1}{2}$ inches in diameter and 9-10 inch thick. This was discovered in the ruin called Nimroud. It gives a focus of $4\frac{1}{2}$ inches. According to Sir David Brewster, this lens had been designed for magnifying purposes. The date is about 700 B. C. Plutarch speaks of instruments used by Archimedes "to manifest to the eye the largeness of the sun." Euclid's treatise on "Optics," appeared about 280 B. C. Other notices of lenses may be found scattered through the pages of antiquity until the revival of science and learning in the twelfth century, when Alhazen is credited with having written on the refraction of rays and the magnifying power of lenses. Vitellius, a Pole, also wrote a treatise on lenses about 1270. The invention of spectacles, however, has been credited to Roger Bacon (1250), but Pliny mentions that Nero, who was myopic, used glasses when he watched the fights of the gladiators. To prove the knowledge of the lens and of the dark chamber possessed by the ancients, M. Fourdrignier quotes two extracts from Aristophane's Comedy of Muses, in which, during a conversation between Socrates and Strepsiades, an allusion is made to similar contrivances. The first lenses of which it is possible to discover any reliable record are those invented by the Florentine, Salvino degli Armati, who died 1317. Battista Porta (1560), the inventor of the camera obscura, states: "If you know how to combine a convex and a concave glass, one of each sort, you will see far and near objects larger and clearer." It was not, however, says the *Photographic Times*, until the time of John Dollond (born 1706, died 1761), that perfect lenses were formed, for he it was who discovered the method of achromatizing them by combining glasses of different dispersive power.—*Scientific American*.



*Ex fronte, ex capite, ex vultu, etiam
in ipso oris silentio natura loquitur.*

PLATO.

NEW YORK,
December, 1893.

FOR THE WHOLE, NOT ONE.

Our friend, the editor of the *Montana Mining Era*, has taken exception to certain remarks in the sketch of Governor Waite, that appeared in the October number. He entitles them "A Scientific Slap," and in the course of a rather sharp and sometimes witty criticism that certainly savors of sectional bias we are told that in placing our opinion in the text we have slipped outside the domain of Phrenology. We fear that certain remarks printed in the November number on the recent spectacle in the Senate of the United States, will add to our offending in the eyes of our Northwestern friend. The conduct of those Senators who advocated the policy of "free silver" certainly involved the similitude that was mentioned in the October number, and sent the mind back to those days when the Capitol resounded with the hot invectives of statesmen contending for the extension of slavery.

The phrenologist is none the less a citizen for his science, and therefore

it is a duty on his part to consider things political, not in a partisan way but in that spirit of candor and fairness that independence and a sincere desire for the welfare of the whole nation would prompt. The motive of our remarks seems to have been mistaken by our Montana friend, on the principle, perhaps, that is declared by the followers of the Arabian prophet, that who is not *for us* must be *against us*. This principle is founded on self interest, and while it may work very well if successfully asserted in practice, so far as the people who believe it are concerned, to those who do not believe it and have interests of another kind to promote, it operates injuriously. In so great a country as ours the establishment of a rule very acceptable to one class of people in one or several States, and making that rule a matter of observance in all other States, notwithstanding that it may operate damagingly to their interests, is little short of tyranny. It is very unwise legislation that sets one section in antagonism to another, and this is generally the case with special or class legislation. It is much the same unfortunately with the legislation of a party that secures an overwhelming dominance in affairs. The length to which the interests of a section may prompt their advocate to go is illustrated by certain remarks of our friend, the editor of the *Mining Era*, in an article entitled "Consummation of the Crime," published October 26. The language of recrimination and anger, directed as it is toward the Chief Executive of the nation, is very unbecoming and unworthy a man who can be assumed to have been a student of that science that aims

particularly at self-improvement. While he shows a skillful manipulation of phrases vituperative there seems to be a loss of that poise and dignity that belong to logical and candid discussion. It appears to us an outburst of over-wrought feeling, which circumstances do not warrant. Of course it will probably be remarked in return to what we have ventured in all kindness to say, that we do not understand the issue, and that we are too far Eastward to understand it, but may we not claim (in anticipation) to be in the position of the onlooker who sees some points, and those important ones, in the game that are not discerned by the players.

CLINICAL LESSONS IN PRACTICAL PHRENOLOGY.

What our correspondent, A. C. R., says is very true. The student finds no trouble in understanding and packing away in his memory the principles and apothegms of the science, but when it comes to practical observations, he is soon involved in difficulties. His position is similar to that of the medical student who has attended lectures and studied the books, but in the presence of actual sickness is entirely at a loss what to do. But the medical student in the large cities now has abundant opportunity for the study of actual disease in many forms, and so learns his profession through practical work. This method is properly called clinical or bedside instruction. The young phrenologist needs training in a similar fashion. A few months of daily attendance at the office of a skilled examiner, where he would

have the privilege to listen to the remarks of the examiner on the organization of several subjects and note the varying effects of functional combination and temperamental influence, would be the best preparation for his chosen career.

Our correspondent confesses his inability to analyze the effect of combinations, a most important part of the examiner's duty. It is scarcely to be expected that the young student will master this early, because observation of a large number of subjects and careful thought upon the mental expression of each are necessary to comprehend the office of faculty and its influence. The illustrations given in the books are few and are intended merely as examples whose analogies are found in the action of minds generally, but each mind and character must be studied by itself, because there is that in a given person which differentiates him somewhat from every one else.

All those who have in view the teaching of Phrenology should aim to avoid superficiality in their demonstrations of the head, and this can only be done after thorough preparation. There is no other profession in which practice is so necessary to accurate work as in the phrenological determination of character. The more heads one studies the larger becomes his stock of facts regarding the physical and mental constitution, and close consideration of their expression establishes the relation of these one by one to particular phases of individuality.

When there shall be competent teachers in number sufficient to instruct all who desire to acquire the

methods of character-diagnosis a great change will be wrought in the attitude of society toward Phrenology. What there is of skepticism and prejudice so inimical to the progress of the science will rapidly disappear from the more intelligent and educated classes, as soon as phrenological diagnosis is placed upon a basis at once definite and of universal application.

ONE PROOF OF LIFE.

One indication of the growth of public interest in phrenological matters is the increase of publications relating specially to them. In this country there are three now, San Francisco and Washington being the locale of the monthlies that add their force to that of the old PHRENOLOGICAL, so long identified with New York City. London, as the reader probably knows, has its magazine, now in its ninth volume, showing a well matured constitution and exercising no unimportant influence on British thought. These periodicals have each their individuality, and meet a demand in their several ways that is more or less of its own type, yet the same fundamental source of truth and experience supplies the inspiration of the writers who fill their pages, and each endeavors to instruct the reader with respect to those things that are of most concern to his mental and physical life.

It has been stated over and over again by some whose eyes are affected by the short-sight of prejudice that Phrenology was running out, or effete, little notice being given it now-a-days. In answer we have but to point to those periodicals, and the

wide distribution of popular interest indicated by their circulation, and to the intelligent, scholarly methods and matter of their literature. We are glad to speak of them, and wish them abundant success, and would welcome further additions to their number.

STILL METAPHYSICAL.

The President of the Anthropological Section of the British Association for Science is Dr. Robert Munro, a gentleman of eminent capacity by general recognition. He is responsible for certain deliverances of late in regard to the organic functions of the brain, that appear to give warrant for thinking that Dr. Munro is inclined to believe that the mind is an entity of so extremely subtle a nature that it may be considered a force by itself, and even apart in quality from the physical organism of man. He says in one place, "It is questionable if such psychological phenomena (referring to the power of the mind to gather and combine ideas in the higher intellectual processes) are really represented by special organic equivalents." A little further he adds, "The highest products of intellectuality are nothing more than the transformation of previously existing energy, and it is the power to utilize it that alone finds its special organic equivalents in the brain."

Such statements appear to us as an attempt to reconcile the old metaphysical views of the immateriality of mind with the modern facts of physiological research. We have no protest to offer, because we are as phrenologists just as much at a loss to explain the essential character of that potency

that lies behind organic function as Dr. Munro. Yet, in the "transformation we find ourselves enabled to read much of the differential phases of mind action." It is to those "special organic equivalents" that we owe so much for the ability to read individual peculiarity.

We do not say that it is mere sentiment that prevents such men as Luys, Turner and Munro from a full recognition of the relations of those "special organic equivalents," but rather a certain loyalty that they feel com-

elled somehow to acknowledge to what may be termed scientific conservatism. The issues involved are serious enough, and in certain circles it is so easy to misinterpret one's attitude that it were better to be of that large class that entertain indefinite ideas with reference to the localization of psychic function. Meanwhile we are willing to be of the minority that accept definite ideas in that respect, and find pleasure in applying them to useful purposes, and with excellent results.



To Our Correspondents.

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

ALWAYS write your full name and address plainly. If you use a pseudonym or initials, write your full name and address also. Some correspondents forget to sign their names.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal and private matters addressed directly to the Editor will receive his early attention.

TEMPERAMENT AND DISEASE.—*Question.*—Is a person endowed with a predominance of the Motive temperament more liable to liver and kidney complaint than one of the Vital temperament? A. L. N.

Answer.—The Motive temperament is liable to derangement of the liver, and in the Vital, especially the sanguine or lymphatic form of it, there is more tendency to

difficulties in the kidneys. The former constitution is burdened with venous blood which taxes the powers of the liver, while the more watery elements of the Vital temperament are adapted to give the kidneys extra work which results in lesions or debility.

SWEET FOOD.—*Question.*—Do you consider the consumption of a large amount of sugar injurious to health? L. E. M.

Answer.—Undoubtedly if eaten in the raw form or with food in quantities in excess of the proportions found in nature. The practice of adding sugar to fruits and other comestibles is simply one of the numerous manifestations of perverted appetite so common in our civilization, and should be discouraged. Vegetables and fruits contain sugar enough.

HUMAN NATURE.—*Question.*—Is not the faculty of human nature more of a window to the mind than all other perceptive faculties individually? L. A., JR.

Answer.—We do not regard this faculty as a "perceptive" in any proper sense of the term. It is simply a sentiment or impulse which is gratified by knowledge pertaining to character, motives, etc., and is thus an

incentive to the observation of all indications or signs of character. Its activity becomes a habit, and the individual acquires a facility in reading human nature which is mistaken for intuition or a species of clairvoyant perception.

COLOR IN THE LIPS.—L. C. G.—The color of the lips is mainly a condition of blood supply, and, therefore, has reference to temperament and constitutional state. When the circulation in the facial vessels is full and active the tissues will be well colored, especially the mucous membrane, and those parts of the membrane that are specially full in development will have the deeper color. This you find to be the case with those who have lips full or pouting centrally. Some people appear to have a permanent inflammatory condition of the mouth, especially those whose dietetic habits are not suited to their temperament, and who eat food that is highly seasoned, or overstocked with carbon elements. These usually have lips with much depth of color. The intimation is that there is an excess of blood in the head circulation, and this being likely to induce certain forms of over cerebral activity, there is usually irritability or fervor of mental expression, with a tendency to extravagance of feeling.

A WINTER HOME.—S. P. J.—Many places are suggested as more or less suitable to a case like yours. One having a catarrh of the dry or atrophic sort, in which the nasal and throat membrane has shrunk so as to fail in the performance of its function, will find the best climatic conditions for the relief of the distressing symptoms in a mild, pure atmosphere, moderately elevated and inclined to be moist. The Southern States bordering on the Atlantic and the Gulf of Mexico contain regions that are thus constituted atmospherically. An atmosphere, too, that is somewhat pervaded with the excretions of pine or cedar forest, has a soothing effect upon throat and lung tissue, and conduces to its invigoration. In some parts of Southern Jersey, in Maryland and Virginia there are districts that can be recommended to the catarrhal subject. Lower down in the Carolinas and Georgia we find regions that are more fitting for delicate and advanced cases because the tempera-

ture has a higher winter average. One place that we can speak of because of a personal acquaintance is known as Southern Pines, a delightfully picturesque region in Moore Co., N. C., where forests of long-leaved pine mingle with vineyard and garden. A semi-northern settlement is growing up there, which becomes more popular every year, especially as a winter or all-year residence for invalids. We can refer you and all other inquirers to Mr. J. T. Patrick, Commissioner of Immigration for the Southern States, who will doubtless furnish particulars regarding the accommodation for visitors, means of access, etc.

PERSONAL.

THE Rev. Dr. Philip Schaff was notably one of our broadest and most active Christian workers. Born in Switzerland, Jan. 1, 1819. After preparation for the Church he came to this country. In 1869 he was appointed a professor in Union Seminary, New York, where his scholarship soon rendered him an authority. Dr. Schaff wrote a goodly list of books, bearing on the Church history and Credal questions. He, like the late Dr. Howard Crosby, will be lamented by the general American Church.

THE death of Werner von Siemens not only recalls the wonderful achievements of the past quarter century in electrical appliances, but points us to the very useful life of a great scientist. He was a very industrious worker from the beginning, and it may be said that the success of the well-known Berlin firm of Siemens & Halske in various departments of telegraphy was largely due to his inventive talents. The dynamo-electric machine was one of his achievements. He believed in the beneficent effect of science on mankind, at one time declaring—"The unshakable belief in the beneficial consequences of the undisturbed development of the age of science is alone competent to repel with success all the fanatical attacks which threaten human civilization on all sides."

IN MEMORIAM.—One of the class of '92, Miss Ida Adland, died at the home of her parents, 37 Whipple street, Chicago, Ill., on the 25th of October, 1893. Miss M. L.

Moran, of the class of '85, in a letter to us on the subject, says: "I visited Miss Adland when I was at the World's Fair, in August, and she was then ill. She spent a week with me in Washington after graduating. I had learned to love her dearly, and am grieved to know that the Institute has lost so promising a student, and I so dear a friend."



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

PHRENOLOGICAL PROGRESS AT THE CAPITAL.

A year ago, a Phrenological Society was organized in Washington, D. C. It started with twenty members, and the meetings were held in the parlors of the President, Dr. T. A. Bland. The meetings were on the call of the President, and the invitations by card. This plan resulted in building up a society of fifty members from among the most thoughtful and cultured people in the city.

The opening meeting for the season of 1893-4 was attended by almost the entire membership and quite a number of invited guests. Most of the latter joined the Society at once. Since that October meeting, the officers of the Society decided to take a public hall and hold a series of open meetings. In accordance with this idea the Hall of the Theosophical Society was engaged and a meeting held on the evening of November 4. A violent rain-storm raged during the evening, yet quite an audience came and listened with deep interest to an exposition of the science and philosophy of Phrenology by our President.

For the present, monthly meetings will be held, and regular lectures delivered. The Rev. Alexander Kent, D.D., Pastor of the People's Church of this city, a charter member of the Society, will give the second lecture in this course, on the evening of November 11. The title of his lecture is, "Phrenology the Basis of Moral Philosophy." That the lecture will be an able

one goes without saying, as Dr. Kent stands in the front rank of the brainy men of this city.

M. L. MORAN,
Secretary.

THE ORGAN OF WEIGHT.

Editors Phrenological Journal:

In the November JOURNAL is an article on "The Organ of Weight," in which the author quotes the definitions given of it by Hoffman, Sir G. S. Mackenzie, Edmonston, Simpson, G. Combe, O. S. Fowler, Sizer and "Brain and Mind"; and he says they all remind him of the "blind men who went to see the elephant," and he adds, "There is one field in Phrenology still open to mind students"—&c.

I am of the opinion that the students of Phrenology in general will believe that many of these authors quoted have spent much thought in analyzing the faculties, and I do not feel called upon to say a word in their defense, but he criticises my paper on the subject—a paper which, I believe, has never been placed before the readers of the JOURNAL, and of which they are therefore incapable of forming any opinion, except as they may be prompted by this new analysis of Weight.

Permit me, therefore, to say through your columns, that I was not "led to question the location of the organ of Weight" (as Mr. Shull says) "by relegating it from the intellect to a mere co-ordinating muscular sense," but by observations, running through many years. I have never found a person possessed of the skill attributed to this organ to an unusual degree who had not some other possible and reasonable cause, than the great development of the brain called "Weight" situated over the eyes, and that, which I consider far more conclusive, I have known remarkable cases of muscular skill and confidence, when the so called organ of Weight was moderate. This was stated in the little paper to which the author refers, and had it been published in the same number with his criticism I should have had nothing to say now, for I am opposed to any argument other than as a direct aim at eliciting the truth.

Respectfully,

JOHN L. CAPEN, M.D., Philadelphia.



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

UPLIFTS OF HEART AND WILL. Religious Aspirations in Prose and Verse. By JAMES H. WEST, author of "The Complete Life," etc. Second thousand, with additions. 106 pp. George H. Ellis, Publisher, Boston.

A suggestive little book, stored with noble thoughts that lead the soul upward, away from the anxious, straining, rasping cares and associations of our everyday life, and helping to impart that moral strength to our conduct that will render it more even, assured and successful. We agree with the Chicago newspaper, that "nobody will feel himself the poorer or the more restless or perturbed for often looking into its pages." Little books of this sort afford the right kind of salad for the solitary.

THE WHAT AND HOW OF VOCAL CULTURE. By MME. F. ROENA MEDINI. E. S. Werner, Publisher, New York.

A neat little manual of but 125 pages, yet containing a deal of excellent advice to the student of vocal music in the management and training of the voice and of the vocal organs. The author—a singer of experience—evidently knows how to put her suggestions into clear language, and illustrates her methods with many interesting incidents from the careers of celebrated singers. The hygienic hints are valuable in themselves and to be commended.

THE PILGRIM IN OLD ENGLAND. A Review of the History, Present Condition and Outlook of the Independent (Congregational) Churches in England. By AMORY H. BRADFORD, author of "Spirit and Life," etc. 12mo, pp. 362. Cloth, price

\$2.00. Fords, Howard & Hulbert, New York.

This volume comprises the series of lectures delivered by Dr. Bradford, in the Southworth Course at Andover Theological Seminary. They not only constitute an appropriate conspectus of the state of Congregationalism in England, but have a general value theologically and ethically to the general reader. In our opinion, having some knowledge of Dr. Bradford's performance as a preacher from the reading of other volumes from the press of the publishers named, we think that he has put into these lectures some of his best thought. The chapters include discussions of: I. Life and Form. II. Beginning and Growth. III. Church and State. IV. The Present Condition. V. Creeds. VI. Conditions of Church Membership. VII. The Pulpit. VIII. The Outlook. These include, comprehensively stated, the effect of life in variations of form when under different environments, a rapid survey of the early Christian church system, and its modifications in the course of the centuries, to the present. The presentation of the conditions of the English Independent churches in respect to their beliefs, teachings, ecclesiastical methods, etc., is exceedingly lucid and comprehensive. The bearing of all this on the pressing question of church disestablishment is considered with force and ability. To American church people of all denominations the volume should be more than passingly interesting.

THE NEW ERA; OR, THE COMING KINGDOM. By the Rev. JOSIAH STRONG, D.D., author of "Our Country." Cloth, price 75 cents. New York: Baker & Taylor Co.

The book entitled "Our Country," by Dr. Strong, attracted more widely spread attention to the subject to which it was devoted than any other work ever published, and showed deep research into the present and possible future conditions of our country. In this new volume, the work of the Church in relation to civilization and the future of humanity is considered in a broad sense, especially in relation to the changed conditions in regard to labor,

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of
FOWLER & WELLS CO

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$1.50 a year, payable in advance, or \$1.65 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Express Money Orders, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-stamps will be received for fractional parts of a dollar. The larger stamps are preferred; they should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made by giving the old as well as the new address, but not without this information. Notice should be received the first of the preceding month.

Letters of Inquiry requesting an answer should inclose a stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our new list of "Books for Women" will be sent to any address on receipt of stamps for postage.

A PREMIUM OFFER.

We are especially desirous of securing the co-operation of the present readers in extending the circulation of the PHRENOLOGICAL JOURNAL, and we are willing to reciprocate for efforts made in this direction; and, therefore, we have decided to offer a copy of Dr. REDFIELD'S COMPARATIVE PHYSIOGNOMY free to every present subscriber who will send, with his own subscription, one NEW subscriber for the coming year at \$1.50 each. If the Premium Book is sent by mail 20 cents extra must be sent for postage.

This work contains nearly 350 large octavo pages and 330 engravings, illustrating the strong resemblance between men and animals. It is a most interesting work, and every student of Human nature will certainly be pleased with it. The book has never been sold for less than \$2.50, and was formerly published at \$3. We have no doubt this offer will result in largely increasing our subscription list to the JOURNAL. It is open only to present subscribers who renew for 1894. By sending 15 cents extra for the new subscriber, either the Bust or Chart premium will be sent, and every present reader can obtain at least one new name.

THE PHRENOLOGICAL JOURNAL FOR 1894.

THIS practically closes the year for 1893, and the publishers feel disposed to point with pride to the result of their efforts to make a good magazine. We are assured that the JOURNAL was never better than it has been during the year just closed. Of course, this is encouraging, for we cannot expect to meet with success as publishers unless we make a magazine that meets with the approval of our readers, and so secures their patronage.

We have plans in store for the coming year that will still farther increase the attractiveness and usefulness of the JOURNAL.

Professor Sizer will continue his articles on "How to Study Strangers" which will certainly grow in interest, and we do not think there is one who has read them for the last year that would willingly give up the reading of the numbers for the coming year. This series, with his occasional "CHARACTER STUDIES," will be an attractive feature.

The continuance of the PHRENOLOGICAL BIOGRAPHIES by Mrs. Wells will more and more take the form of reminiscences of people that she has known during her own busy life, and will increase rather than diminish in interest.

Dr. Beall's "PHRENOGRAPHS" in which he carefully delineates the character of men and women who are before the public in a way to attract attention will be continued and read, we are sure, with interest, as each of these is a lesson in character reading. The department of CHILD CULTURE will carry with it important lessons on this topic. The Science of Health Department will be strengthened, and the Open Court, in which our readers have a chance to have their say, and ANSWERS TO CORRESPONDENTS are always found of interest.

New features will be added, and new writers will be heard from. We feel justified in asking not only the

renewal of former subscriptions, but an interest on the part of our subscribers in extending the circulation of the JOURNAL.

CURRENT EXCHANGES.

The November *Harper* opens with the second installment of "Week's Journey Across Persia by Caravan." William Black's novel, "The Handsome Humes," is finished. "London in the Season;" "Arbitration," by Frederic R. Coudert; a description of Acadian Louisiana; "The Decadent Movement in Literature," by Arthur Symons; a description of "Riders of Turkey," and four short stories, including "Apollo in Picardy," are all worthy special comment. New York.

The *Century* has for November an unpublished article by James Russell Lowell, an authentic description of Napoleon's tragic journey to St. Helena, and a collection of letters written by Edwin Booth render the number quite remarkable. "Humor, Wit, Fun, and Satire," the title of the Lowell essay; "Tramping with Tramps," by one of the great army; "The Escape of the Confederate Secretary of War," "John Henderson, Artist—a Psychological Study from Life," and "The Sale of Votes in New Hampshire" have each a claim for notice.

Lippincott's complete novel is "An Unsatisfactory Lover," by Mrs. Hungerford. The ninth in the series of Lippincott's "Notable Stories" is "The Rustlers," "How the Light Came," "Expensive Religion," "Golf," "Progress in Local Transportation," "An Old-Fashioned Garden," "Why the Body Should Be Cultivated," etc.—Philadelphia.

Harper's Bazar and *Harper's Illustrated Weekly*, current numbers received. New York.

Sanitarian. A. N. Boll, M.D., editor; monthly.

Humanitarian, monthly. London.

Pacific Medical Journal, monthly. Winslow Anderson, M.D., editor. San Francisco.

Humanity and Health improves in matter and utility. Dr. Ella A. Jennings, editor, etc. New York.

Childhood—Devoted to the welfare of the child; Geo. W. Winterburn and Florence Hull, editors; monthly. New York.

Journal of Inebriety, quarterly. Always stocked with live matter, positive, instructive, reformatory. Hartford, Conn.

Popular Science Monthly for November has at the opening an illustrated paper on "The Conservation of Our Oyster Supply," by Robert F. Walsh. The writer shows that an oyster famine is threatening us. The first half of a noted lecture on "Evolution and Ethics," by Professor Huxley, and "Electricity at the World's Fair" are edifying. There is a sketch of John Ericsson, with a portrait. "The Scientific Method with Children" maintains that schemes of scientific teaching constructed for college students are useless for children, as they do not take account of the child's standpoint or of his way of thinking. "An Argument for Vertical Handwriting," illustrated with cuts and facsimiles, by Joseph E. Witherbee, will interest the curious. Appleton & Co., New York.

Le Progres Medical, Paris; weekly. Bourneville editor-in-chief. Regular numbers received.

Phrenological Magazine, London. November maintaining the good standing that it has acquired as a scientific monthly.

The Literary Digest, weekly, deserves the support it has won. A veritable time saver to the studious. Funk & Wagnalls, New York.

American Medico-Surgical Bulletin, monthly, can be commended to the general practitioner as a digest of international interest in the line of its title. Bulletin Publishing Company, New York.

SUGGESTIONS WANTED.

A few months since we published a request for suggestions from the readers of the JOURNAL as to changes that might be made that would be likely to make it more acceptable to present readers and lead to an increase in the list of subscribers. The responses we received to this request were so helpful that we are led to repeat the request now. What change can be made that would improve the character of the PHRENOLOGICAL JOURNAL? What departments should be changed, either by increasing or diminishing the amount of space given? What change, if any, in character of the articles published?

We want to make the JOURNAL better each year, if possible, and therefore let no one hesitate in sending criticism and suggestions. You are not only invited but urged to do it.

RENEW! RENEW!

WE would esteem it a special favor if our subscribers will send in the renewal of their subscriptions promptly. A good deal of trouble is saved by not having to modify or change our subscription books by having to erase and re-enter subscribers' names. We feel confident that our efforts to make a good magazine have been successful, and, therefore, we reasonably hope for the renewal of subscriptions by old readers.

Human Nature considered in the light of Physical Science, including Phrenology with the *New Discovery*, by Caleb S. Weeks, 240 pages, 117 illustrations, bound in extra cloth; \$1.00; paper binding, 50 cts. Published by Fowler & Wells Co.

In this new work the author considers Human Nature physically and mentally, and bases his lessons in Phrenology on a description of what he considers a new discovery in connection with the combination of the mental faculties. In the demonstration of this heads and characters are compared including unbalanced developments and the combinations in their various parts, concluding with the chapter on "Phrenological Lights on Life's Problems." The author has been a student of Phrenology for many years, and his work will prove helpful to all phrenological readers.

Do Not Fail to take advantage of our offer of REDFIELD'S COMPARATIVE PHYSIOGNOMY to old subscribers.

HOW DO YOU LIKE IT?

WHAT DO YOU THINK OF THE PHRENOLOGICAL JOURNAL? This practically closes the year; have we succeeded in making a magazine that meets with your approval? If so, then we may reasonably hope for your renewal, and would like to ask your influence in extending its circulation. Will you not at least send your own subscription promptly, and with it one new name, which will entitle you to a copy of our great premium book, "Comparative Physiognomy." See page advertisement of this offer, but the book must be seen to be appreciated. If you like the JOURNAL you will be delighted with this book.

The Well Dressed Woman.—We take the liberty of printing below a letter from a purchaser of this work which may seem to show something of the estimate placed on the value of it by at least one reader.

DETROIT, MICH., Nov. 11, 1893.

FOWLER & WELLS CO.

Gentlemen: Yesterday I received my copy of the "Well Dressed Woman" and am greatly pleased with it. It is a book which should be on every woman's table. I am going to have my winter gown modeled after one of those shown in the plates.

Last night I showed the book to a friend of mine, who is at the head of the dress-making department of one of our large stores and caters to the richest and most fashionable element of society here. She, more than anyone else, unless it be a physician, understands the fearful crimes women commit against themselves by wrong dressing, but it is not her place to advise as it would be resented, and she can only supply what they ask for, as they ask for it. However, the book has so much impressed her that she has commissioned me to order her a copy of the "Well Dressed Woman," and I inclose you P. O. Order for \$1.00 to pay for same. Address the book to me. It is her intention to put the book on the table in her reception room, in the hopes that waiting customers will be attracted by the title, take it up, become interested, and learn something to their benefit. It seems to her and to me the best way to reach these people. I give you these particulars, as I thought it might be a pleasure and satisfaction to you to know them.

My copy of the book I shall put into a number of families and in the hands of a number of young women I know, trusting it will work good results.

Yours very truly,

M. T. H.

Poems Here at Home.—By James Whitcomb Riley, illustrated by E. W. Kemble, published by the Century Company; price, \$1.25. This is the latest published volume of the poems of this author. It should, perhaps, be enough to say that this collection is fully up to the standard of his previous volumes, containing some poems that seem especially to come from the heart of the writer and go to the heart of the reader. "The Absence of Little Wesly" is particularly touching, and worth the price of the volume, although occupying but two pages; and "I Want to Hear the Old Band Play" will be read by many with great interest.

A Cincinnati Phrenological Society.—

We are very glad to publish the following letter :

Editor PHRENOLOGICAL JOURNAL :—

Cincinnati will soon have a Phrenological Society established, as we have several graduates of the New York institute and many who have more or less knowledge on the subject, in our midst ; also two graduates preaching it professionally.

Readers of the JOURNAL and persons who are interested in the science and who desire to become active or associate members of the new organization will please call or mail their application to

R. H. THORNBURY,
No. 111 Lock street,
Cincinnati.

We are very glad to note the growing interest in the forming of Phrenological Societies and we hope the time will soon come when there will be a Phrenological Society in every town in this country. We will be glad to publish notes of these at any time.

The Human Nature Club of Brooklyn reports a very prosperous season. They have thirty-three active members and the attendance of visitors at their open meetings is so large they have been obliged to hire the W. C. T. U. Hall, 454 Bedford avenue, to accommodate them. They have arranged the following free lectures :

Nov. 24. "Phrenology and Reform," Dr. C. W. Brandenburg.

Dec. 22. "Phrenology as a Philosophy, a Science, and an Art," Dr. Edgar C. Beall.

Jan. 28. "Quality, Mentally, Temperamentally and Physiologically Considered," Mr. Peter G. Leist.

Tickets of admission may be obtained of Albert Bansi, 100 South First street, Brooklyn, N. Y., or Miss J. R. Floyd, Sect., 214 Rodney street, Brooklyn.

The Pittsburg Phrenological Society

keeps up an interest in the subject in a report of a recent meeting, we are told. On Saturday evening this Society met at the home of Chas. F. Sermen, class '91. The meeting came to order with President S. C. Trawatha, of class '90, in the chair.

Mr. S. C. Trawatha gave a very interesting talk on the organ of Weight, its function, its action in the normal and diseased state, and the part it played with the rest of the perceptive group. Bro. Jas. Devlin gave a very instructive talk on the advantage of having a knowledge of Phrenology ; how by its aid a person who is illiterate but who has good quality, how they can acquire an education and be of some use to society ; how it lifts a person from an humble occupation to a greater one ; it also points out some ministers of the Gospel who are trying to lead their flocks to the higher and better life, who themselves are not honest and some not moral.

The society extends an invitation to those interested in Phrenology. The society meets at the homes of the different members. Those who would like to meet with the society can do so by addressing the President, S. C. Trawatha, 4547 Friendship ave., Pittsburgh, Penn., or the Secretary, Miss Stella Sprague, 487 Fifth ave., Pittsburgh, Penn.

Prof. Foster, class '93, reports a good class at Hudson, N. Y., where a Society is to be formed.

Common School Elocution and Oratory

is a manual of vocal culture based upon scientific principles by Prof. Isaac H. Brown, a well known reader and author of speakers, etc. It is difficult to conceive of a work of the same size with a better analysis and arrangement. Hundreds of samples are given for exercises in pitch, force and different qualities of tone. The selections are modern and excellent. Such books often have a preface of rules and a lot of selections with little relations between the parts, but here the rules and applications to reading run all through the book, which if carefully studied will be of the greatest possible assistance.—*From Winona Weekly Leader.*

This work will be sent to any address on receipt of price, \$1.00.

The Coming School.—This is the title of a work by Miss Kenyon, showing what the model school should be. It should certainly be read by every parent, and by all interested in the improved condition of school education. Miss Kenyon is warmly interested in Phrenology. Her story, the "Lucky Waif," was based on Phrenological ideas, and this is her underlying principle in the new book. Copies will be sent by mail postpaid for \$1.00. Address this office.

Phrenological Envelopes.—We have just had prepared a lot of envelopes containing on the front a Phrenological head and a statement of the value of Phrenology. These would be found acceptable to those interested in Phrenology who would like to use them in their correspondence, and we will send them for 25 cents per hundred, by mail, postpaid. Address this office.

The Three Philosophies.— "Search Lights and Guide Lines" is a Brooklyn inspired book treating of "Man and Nature? What They Are, What They Were and What They Will Be." It is written by Edgar Greenleaf Bradford. Mr. Bradford divides philosophy into the materialistic, the mystical and the rational ; in other words, the visible or sensuous, unaware of things invisible and causal ; the purely ideal, which in a mystic sort of fog ignores practical things ; and finally the philosophy which rationally regards both that which is in the mind and that which is still in the universe without, and aims to bring them together harmoniously. This excellent scheme is well worked out in the space of about one hundred pages, with applications to practical living in mental and bodily health, either in the line of favorable heredity, or in spite of unfavorable. It is a concise but complete sketch of the whole field of what man is destined to grow to in knowledge.—*Brooklyn Eagle.*

Rev. A. M. Grouden, in a recent review, says : "In his preface the author distinguishes between materialistic, the mystical and the rational in philosophy. The work inculcates a rational philosophy based on the constitution of man. While not claiming special originality, striking truths are brought to light, and new trains of thought are suggested. One thing noticed by the author is mental individualism, that which is so often overlooked by teachers. The book deserves a careful reading. To appreciate it thoroughly the reader must summon the best thinking power. A truly valuable work."

Men and Animals.—There is a resemblance between them in looks and in character.



A TURK.

Would you not like to know how to study and see it? It is a most interesting study and every student of Human Nature will find it fascinating.

The whole subject is considered in all its details in that great work, "Comparative Pysgnomy; or, Resemblances Between Men and Animals,"

by Dr. Redfield, containing nearly 350 pages and more than 300 striking illustrations of every phase of the subject. The price of the book is \$2.50, but we will send it FREE to any subscriber to the PHRENOLOGICAL JOURNAL who will send with a year's renewal the name and subscription price for one new subscriber. This is certainly a most liberal premium offer and one that will or should largely increase our subscription list. When the premium book is sent by mail we should receive 20 cents extra for mailing it.

The Laws of Life which has been published for thirty-six years, will be discontinued with the December number. It has been a pioneer in health reform, and it will be missed by many readers. The editor announces its discontinuance from want of time, owing to pressing professional duties.

The Arena issued by the Arena Publishing Company, one of the few periodicals that thoughtful people must feel the necessity of reading; not a number is published that does not have articles of special interest that must secure a wide reading. We offer this at special rates sent with the PHRENOLOGICAL JOURNAL, both for \$5.50. Address this office.

The American Newspaper Manual, published by the Remington Brothers, advertising agents, Pittsburgh, Pa., is a catalogue of the newspapers in United States and Canada, containing a list of the best agricultural, scientific, religious and trade papers, leading magazines and the principal daily and weekly papers of value to advertisers, furnishing a classified and general list. It is printed on good paper, bound in handsome cloth and sold at \$2.00.

Epilepsy.—Its curability established.—

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JAY KAYE.

From New York Life, April 20, 1893.

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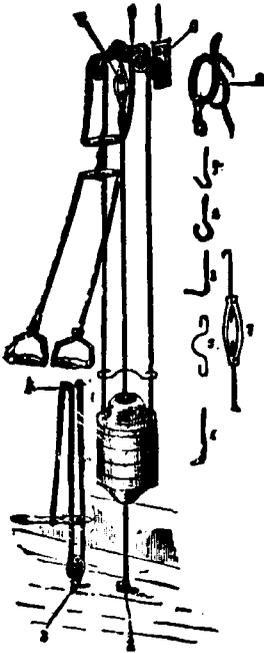
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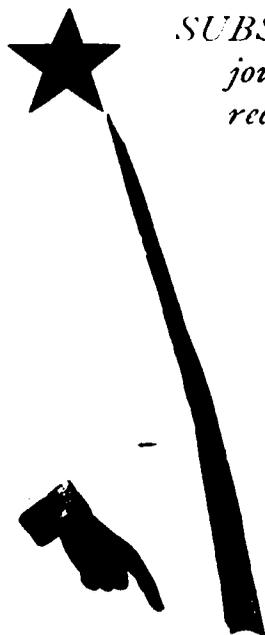
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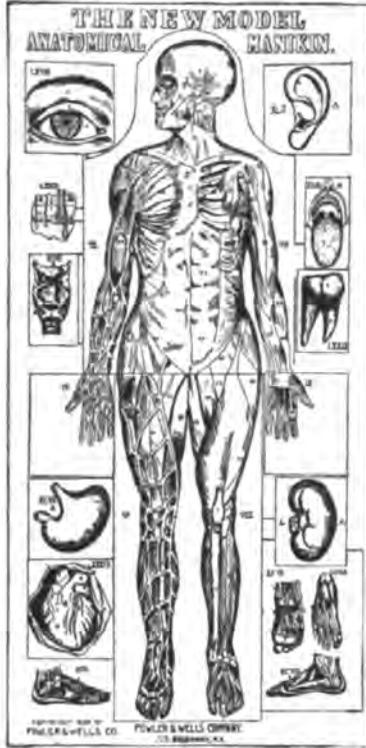
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CONTENTS FOR DECEMBER, 1893.

Frontispiece.		
	Class of 1893	276
I.	Madge Robertson Kendal.	
	Phrenograph and Portrait. Edgar C. Beall, M. D.	278
II.	Sophia Hutson. (Sketch and Portrait.)	
	Harriet E. Ijams	281
III.	Sketches of Phrenological Biography.	
	Dr. George McClellan. By Charlotte Fowler Wells	286
IV.	Mirthfulness. (With Illustration).	
	Bray	291
V.	How to Study Strangers.	
	Chapter XII. Prof. Nelson Sizer	293
VI.	Character Studies. V.	
	Dr. F. M. Cooper. By Prof. Nelson Sizer	299
VII.	The Institute Alumni at Dinner.	304
VIII.	Child Culture.	
	Instinct and Insight	317
	That Last Kiss.	317
	Found His Place.	318
	A Cheery Spirit.	319
	Failure in Life.	319
IX.	Science of Health.	
	The Wet Pack.	320
	The Perfect Man.	321
	How to Rub Out Wrinkles.	322
	Bread Reform.	323
	Offensive Warfare.	326
Notes in Anthropology.		
	Insanity in Egypt; A Thibetan Brigand People; Comparative Physical Growth; Great Dragon Tree Dead; Folk-Lore Study; Magnifying Glasses in Ancient Times	326
Editorial.		
	For the Whole Not One.	330
	Clinical Lessons in Practical Phrenology.	331
	One Proof of Life.	332
	Still Metaphysical.	332
Our Correspondents.		
	Temperament and Disease; Sweet Food; Human Nature; Color in the Lips; A Winter Home.	333
Personal.		
What They Say.		
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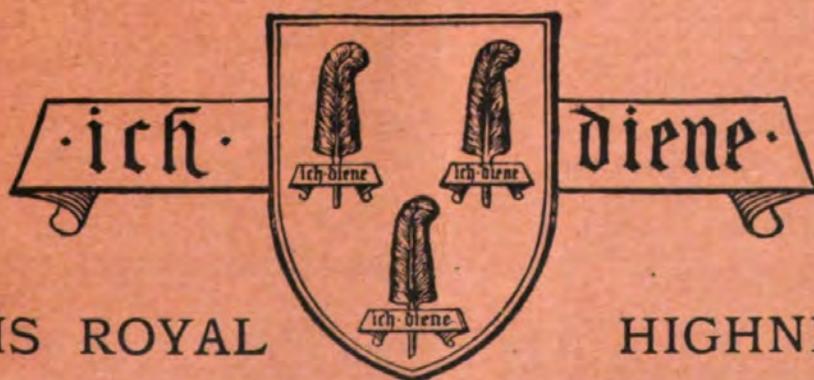


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