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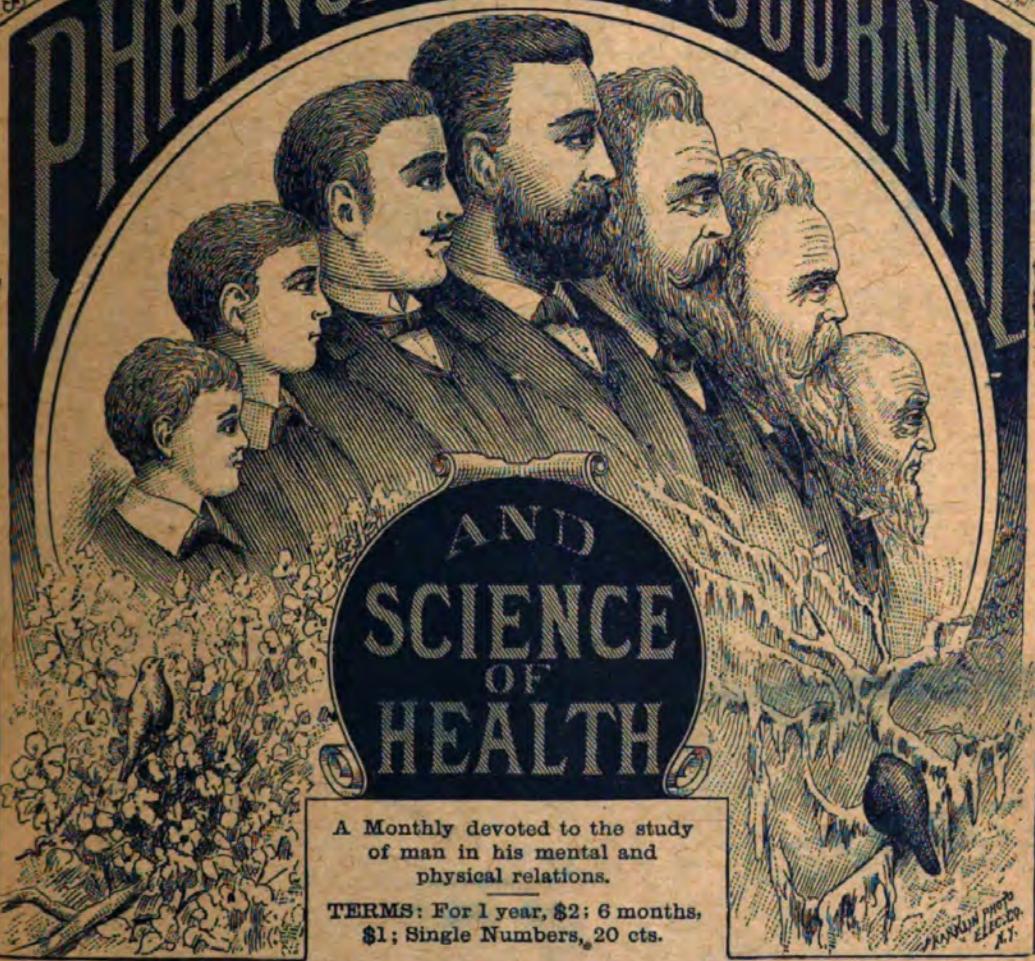
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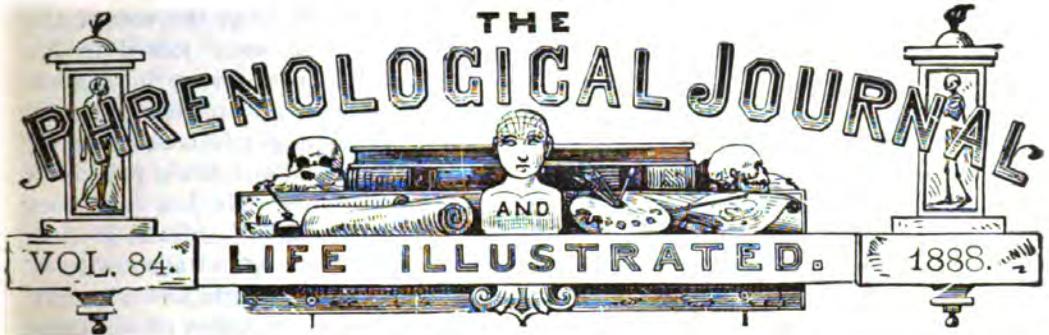
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NUMBER 1.]

January, 1888.

[WHOLE No. 589



LOUIS PASTEUR.

Very few men of the time have awakened more interest in themselves and their work than the man whose portrait faces the reader. For several years past he has devoted himself to researches that relate immediately to the vital welfare of humanity. In certain other important particulars society is his debtor, but

the persevering efforts on his part to perfect a method of inoculation by which the horrible malady, hydrophobia, shall be prevented or cured, have commanded the special attention of the civilized world, and whether or not the principle on which his investigation and experiments are founded is physiological, it would appear that in the general results much encouragement is given to those hopeful ones who think that hydrophobia cases are curable.

In a description of M. Pasteur given by Prof. L. N. Fowler, that careful examiner said :

"He is well-supplied with vital power and animal life, and is equal to the task of vigorous action of both body and mind, and is not afraid of new undertakings. He is favorably organized to appreciate life and physical comforts. His broad shoulders, full chest, and wide-spread nostrils, all indicate a strong hold on life and more than ordinary power to do executive work.

Difficulties and dangers would only be a spur to such a man, when ordinary opportunities would not attract his attention. The make-up of his face, and his general expression, indicate self-possession, presence of mind, discipline, and patient perseverance. He will never be so impetuous as to jump to conclusions, or to be in so great a hurry as to fail to be correct. He must belong to a family whose ancestry had great tenacity and application of mind, and singleness of purpose.

The base of his brain, from the perceptive faculties back, is large and broad. He has elements of energy and force, and will not stop at trifles; could show very strong likes and dislikes. He has a good substantial appetite and digestive power, and believes in living as he goes along. He does not worry or chafe much about anything, but takes things as they come, as though they were to be, and makes the best of them. His intellect is of the scientific, perceptive, observing, knowing, experimental type. The central

range of faculties, from the root of the nose up, is large, and, joined to his constructive faculty, gives him great versatility of talent and makes him handy in doing many things; he is not wanting in talents to invent and bring principles to bear accurately. He has a correct eye for forms, shapes, outlines, proportions, and the fitness, and adaptation of parts; has also large weight, and can carry a steady hand; can judge of distances well, and remembers places accurately; has favorable talents to organize, systemize, and arrange work and conduct experiments.

He is particularly well-qualified to analyze, compare, discriminate, and see differences and resemblances; is well able to criticise and see discrepancies; is remarkable for his intuitive perceptions and power to see the difference between error and truth. He is able to foresee and determine results beforehand; he takes in the whole situation accurately and at once.

As a physician he would readily understand the physiology and temperaments of his patients, and be able to administer treatment accordingly. He seldom has occasion to change his opinions, and he can turn off a great amount of business in a day. He is generally in earnest, and means what he says, and does not trifle. If he is mirthful or witty it is when he is with others who are, and who take the lead. He can return a joke when given and is appropriate in his remarks, and as a speaker would come to the point and deal in the application of principles, for he is a thoroughly practical man. His head is so high as to indicate strong feelings of humanity and sympathy for the welfare of others, high sense of character, a strong desire to be a prominent member of society, and exert an influence over others. He relies on his own resources, prefers to take the responsibility, to act and think for himself, and is not much affected by praise, blame, or danger."

LOUIS PASTEUR is about sixty-five years

of age, having been born December 27, 1822, at Dole, in the Jura. He appears to have been a close student, taking courses in physics at leading schools. At the Ecole Normale, Paris, he spent four years, from 1843 to 1847, where he received the degree of Doctor, and was later appointed Professor of Physics to the Faculty of Science, Strasburg. In 1854 he received the appointment of Dean to the newly constituted Faculty of Sciences at Lille. Three years later he was given the "scientific direction" of the Ecole Normale. In 1863 he was appointed Professor of Geology, Physics, and Chemistry at the Ecole des Beaux-Arts, and elected member of the Institute. For certain researches with reference to the polarization of light, the Royal Society of London awarded M. Pasteur the Rumford medal, in 1856, and in 1869 that body elected him one of the fifty foreign members.

Chemistry has been M. Pasteur's special department, and he has written numerous works or papers in relation to it, many of which have appeared in *Recueil des Savants Etrangers* and *The Annales de Chimie et de Physique*. Among these may be mentioned as worthy of more particular notice, "A new example of fermentation determined by the ability of infusorial animacules to live without free oxygen," Paris, 1863; "Studies on wine, its disease, etc.," 1866; "Studies on vinegar, etc.," 1868; "Studies on the silk worm disease," 2 vols., 1870; "Some reflections on Science in France," 1871.

M. Pasteur owes much of his early prominence to his vigorous opposition to the doctrine of spontaneous generation that obtained so large a following twenty years or more ago, and did as much as any European observer toward refuting it. In 1874 the National Assembly accorded to him as a tribute of appreciation for his valuable researches in fermentation, a life annuity of 12,000 francs. In 1882 the French Academy elected him to fill the chair made vacant

at the death of the distinguished philologist, M. Littré. His address on the occasion of taking his seat was a panegyric on the departed savant. In the same year the London Society of Arts conferred the Albert medal on M. Pasteur, for his work in connection with fermentation, the preservation of wines, and his discoveries with regard to the development of germ diseases in silk worms and domestic animals. His disclosures in relation to what is known as *charbon*, a deadly disease in domestic animals, have led to the saving annually of a vast number of sheep and cattle.

In 1880 M. Pasteur commenced the investigations into the nature of hydrophobia, his attention having been directed to the case of a little child that had been bitten by a rabid dog. Several hours after the death of the child, two rabbits were inoculated with some of the frothy matter that had accumulated in the child's mouth in its last convulsions, and was found to be so poisonous as to cause the death of the animals in two days. After many experiments he hit upon the expedient of inoculating the brain of a dog with the virus of rabies. The animal selected is fastened to a frame and rendered insensible by means of chloroform. The process of removing a small portion of the skull, and introducing the virus into the brain, is performed without pain to the victim. By this method of inoculation the operation of the virus is hastened. Instead of taking two or three weeks, the effects appear within a few days. M. Pasteur not only gained time by this process, but was rewarded by the discovery that rabies is a malady of the brain. This theory had been entertained by many physiologists previously.

Starting with the idea that the virus of an infectious disease on its passage through different species of animals is subject to alteration of its virulence, M. Pasteur inoculated monkeys with the virus taken from a dog affected with madness, and found that the poison, after having passed through three

monkeys, became so attenuated that its inoculation into a dog is harmless, and a dog so inoculated may be rendered proof against a development of the original disease.

It is found, however, that the virus of rabies taken from the dog and introduced into the brain of the rabbit or guinea, and transferred *seriatim* from one of these animals to another, becomes more virulent, and the period of inoculation shortens from fifteen days to six or seven.

With regard to the success of the Pasteur method of neutralizing the poison of rabies, there has been much discussion in scientific circles everywhere. English and French opinion is on the side of its practical success, while German opinion seems to be for the most part, as yet, unfavorable. Persons who have been bitten by rabid animals have gone to M. Pasteur's laboratory from all parts of Europe, and several have crossed the Atlantic for the great chemist's treatment. The results of the master's own treatment, and that of physicians who have been led to try it, encourage general belief in its prophylactic virtue against a development of the disease.

At the late International Congress of Hygiene at Vienna, this subject was discussed at much length in a special seance; the majority of those taking part in the discussion supported Pasteur with much earnestness. M. Ulmann, of Vienna, as reported by *Le Progres Medical*, referred to 122 cases that had been treated under his own observation,

the mortality being but 2.4 per cent. M. Von Frisch, also of Vienna, said that the fact of a method having been found by M. Pasteur for the prevention of rabies in animals was beyond dispute; but that the results of its application to man were variable, and such variability might be largely due to changed conditions of the virus used for inoculation or to differences accidental or otherwise in treating cases. This observer was of opinion that the best course to prevent the occurrence of hydrophobia would be to inoculate all the dogs. Prof. Metschinkoff, of Odessa, reported most signal confirmation of Pasteur's doctrine. He referred to a list of 713 persons who had been bitten by mad dogs, and to 1,500 experiments made on animals. M. Chamberlain, a very earnest advocate of Pasteur, insisted that negative results were due to faults committed in the manipulation of the virus in the operative procedure, etc. He referred to 250 trials made in the Pasteur laboratory, all of which were successful, because all the necessary conditions relating to the treatment were observed.

It is clear that the method is open to objection on logical grounds when viewed as a theory, but if in practice it is found to reduce the percentage of deaths by hydrophobia, and therefore to offer a vantage ground of encouragement to the world in believing that this most terrible disease may be avoided, M. Pasteur has good right to wear fresh laurels as a benefactor to humanity. D.

HISTORIC SCOTTISH HOMES.

“AND this is where he was born,” the guide says with a flourish of his whip toward an humble and ancient home. *He* in this case meaning the veritable Alexander Selkirk, of whom we had been hearing quaint anecdotes as our carriage passed slowly along the roadway through the “Neuk of Fife,” and entered the quaint, old-

time fisher-village of Largo. A recent writer says: “It is only after being in Largo that we can understand what a wonderfully truthful picture Defoe has given. Robinson Crusoe is the Largo fisherman, the Fife fisherman, put face to face with the idea of solitude—provident, fertile in expedients, self-reliant, a philosopher by nature, a utilitarian by

instinct, deeply pious, mindful of the Sabbath day, a Scot that never loses his nationality, standing out the moral idea of his race and class."

Pittenweem, another fisher village, close by Largo, is the birthplace of the Henderson brothers, who have made a name for themselves throughout the commercial world as the owners of the

Kirkcaldy, on the Firth of Forth, is a straggling village three miles in length, and yet with but one street. In this quaint, quiet village, Dr. Adam Smith wrote that remarkable book, "The Wealth of Nations." In this same village Thomas Carlyle taught mathematics, and after lessons strolled along the street, arm in arm, with his friend Irv-



BIRTHPLACE OF
ALEXANDER SELKIRK.

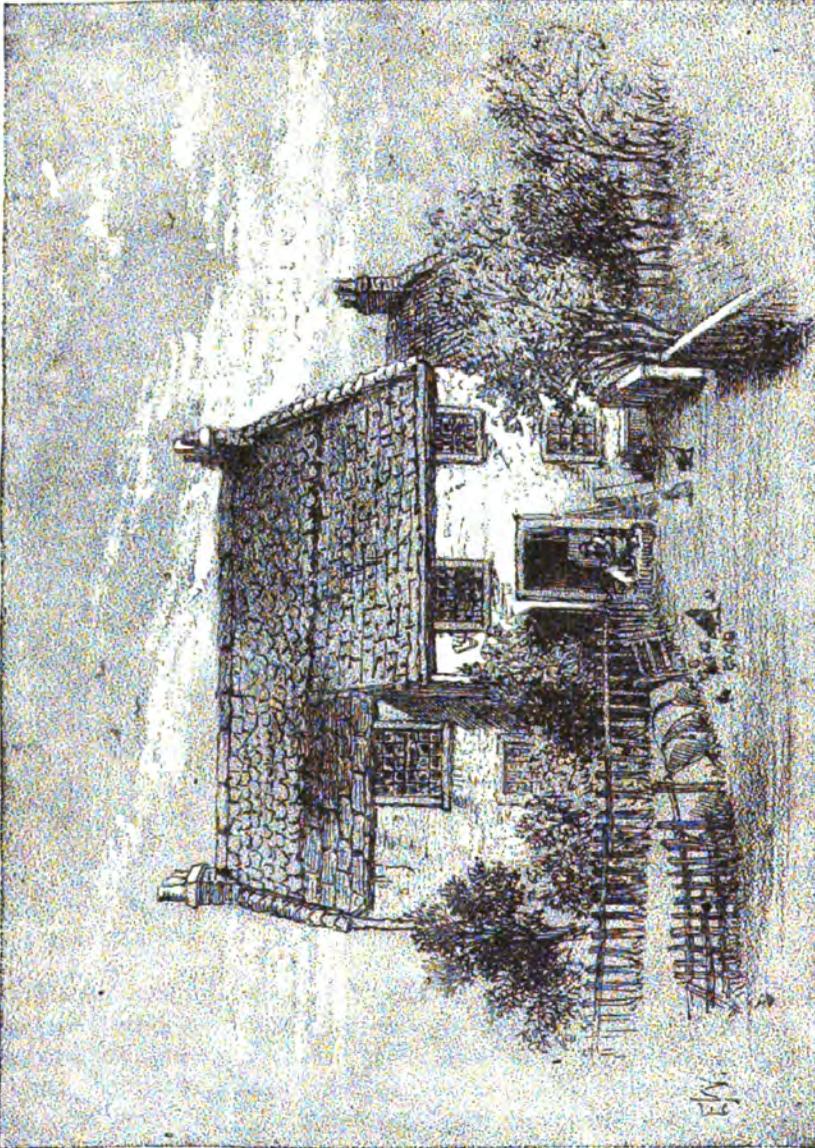
Anchor Line steamers. Not the least remarkable trait in the characters of this quartet of ex-fishermen, who have departed from the calling of their fathers, is the brotherly love and harmony of plans which has led them on to enviable success. Pittenweem is also famous as the headquarters of Fife witches, and our guide pointed out the spot on the beach where the last of the witch-burnings took place in the time of James I.

ing. Stopping at one of the cottages to obtain needed refreshments, we found in good health a great-grandam and her daughter, grand-daughter and great grand-son. The fir-wood furniture was spotlessly white, the turf-fire kindled for the evening meal, the "cruisie," a small iron lamp, trimmed and setting on the window shelf by the side of the family bible, ready to be lighted when the gude-man had supped and all were gathered about him for the never-to-be-

neglected "evening exercise" for these fishermen are truly pious after the most approved pattern of rigid Calvinistic teachers.

In a quaint old cottage in Anstruther, close by Pittenweem, Dr. Chalmers

saw the light is still furnished as it then was; in fact, scarcely any change of house or furniture has been made in 200 years, the change has been in the "goings out" of its inhabitants never more to return, and the "comings in" of



BIRTHPLACE OF THOMAS CHALMERS.

was born March 17, 1780. Not only has he handed down his name as the founder of the "Free Kirk," but as a pulpit orator of rare eloquence and persuasive power. The small bedroom on the first floor of the cottage where Thomas Chalmers first

new born tenants, descendants of the same family, but of differing names.

In the dining-room of the old Royal Hotel of Anstruther, Dr. Thomas Guthrie received the inspiration that made the crowning glory of his useful

life. The present host of the Royal tells the story in this wise: "Dr. Guthrie and a companion came up to Anstruther to see the birthplace of Dr. Chalmers. While they waited dinner, Dr. Guthrie, lying right there on that same sofa, looked on that same print of John Pounds, the Portsmouth cobbler, with the ragged children about his bench, hard at their lessons.

"That man was a hero," exclaimed Dr. Guthrie, 'and with God's help I'll go and do likewise.' Only those conversant with the Scotchman at home can imagine the ring of the words. Oh, he was a grand man and in his memory the old print, not much to look on as a



DR. THOMAS GUTHRIE.

print, shall hang there so long as I bide in the house." It is useless to attempt to put this into the rich brogue of the sturdy landlord, for it would still lack his proud smile and the light of his keen, blue eyes.

Of the many grand characters produced in this rugged soil, with their equally rugged, strong, commanding natures, none live in the memory and affections of the people more fully than Dr. Thomas Guthrie. "Ah, but he was a good mon, and a true Christian mon," is often heard from the lips of his countrymen.

Driving out toward East Anstruther, we take a farewell look at the old Chalmers home. In the doorway a child is teaching

her pet dog at her feet to "beg" for his dinner; motherly hens are "earning their living" and singing their not unmusical notes in the sunshine of the dooryard, and we wonder if ever again there will come to dwell in that old house so grand a soul as that one which has endeared the place not only to Scotland's pious folk, but to the Christian world.

"And this," says our conductor, pulling the reins, "is the manse builded for worthy James Melville in the year of our Lord 1590."

"What a lovely garden!" is the answering exclamation as we prepare to leave the carriage and inspect the time-honored manse. In the diary, now yellow with age, we read in the handwriting of the good minister these words: 'And the people further obliged themselves to build me a house. This was undertaken and began at Whit-Sunday in Anno, 1590, but would never have been perfected if the bountiful hand of God had not made me to take the work in hand myself, and furnished strongly to my consideration all things needful; so that never a week passed but all sorts of workmen were well paid, never a day's intermission from the beginning to the completing of it, never a sore finger during the whole labor.'

The manse contains nine rooms, the walls are corbelled, with a kitchen, scullery and cellar on the first floor; these are strongly arched over with solid masonry. So well was the work done that the beautiful building is practically uninjured to-day and bids fair to endure as the home of the dominies of East Anstruther for another three hundred years. A Scottish tenant would be loth to leave the dear old manse; possibly an American would object to the deep window seats and doorways, and to the undoubted reverence in which it is held by all the honest fisher-folk about it. Woe betide the irreverent lad who would "shie a stone" at those windows, or rob one of the rose trees of its fragrant

wealth. Ah, what a long record of pastoral love and labor; of sorrowing ones comforted, of wayward ones per-

The "East Neuk of Fife" was the cradle of the Reformation; a strong religious element was inherent in the



JAMES MELVILLE'S MANSE.

sued; of little ones led into wisdom's path; of marriage fees, and death entries is summed up in the nearly three hundred years of ministerial tenantry!

rugged nature of the people, and it was into this suitable soil that Knox dropped his seeds of reform, first at the village of Crail, near Anstruther. Passing the

queer little Kirk at Crail, we could fancy the stern preacher in his high, narrow pulpit preaching that historical sermon, after which his earnest hearers marched out to abolish all the monuments of Papacy in Fife. In one day they razed the Cathedral of St. Andrews, which stood six miles distant from Crail Kirk, and also destroyed the monasteries of the Gray and Black Friars. That same positive, unfeeling element dwells in the breasts of the people of Fife to-day, ready to follow a leader, with unquestioning faith, if so be that leader bases his authority on the "Book." The people of St. Andrews protested with Knox to extremity; a century later they were with the Covenanters to a man. The

city of St Andrews is steeped in historic association connected largely with religious movements. In front of the Castle, Wishart was burned. Near by is the church of St. Regulus, now 1,000 years old and with a promise in its solid wall of another 1,000 years as a temple for praise and prayer.

If not already a sabbatarian the tourist will, perforce, be one during the Sabbath day spent at St. Andrews, or indeed in any portion of Fife.

Taken all in all, a pedestrian will be amply repaid by a leisurely ramble through these historic villages, little changed in domestic and religious aspects from the times of Knox, Chalmers, and Guthrie.

A. E.

SHORT MEN.

A COMIC SKETCH.

SHORT men have many advantages over (or should I say under) their taller neighbors. They do not lie as long in bed as their brothers of greater altitude. If they wear home-made garments, they can save cost in the purchase of material. They can pass through doorways without stooping. When short of breath, they still have the best chance because the breath has not far to come; if they will use a little perfumery they will be "short and sweet;" should they marry tall women, they will just come up to the hearts of their spouses, and if, unfortunately, they should drink to excess they would not in a double sense get high. And yet I never saw a short man who was satisfied with his stature. Take for a sample my friend G—. He wears a stove-pipe hat and would be glad to wear two lengths of pipe, if the style would permit such a fashion in this latitude (or rather longitude). In church, or in any assembly, he stands on tiptoe, and in the street he strides to keep pace with longer legs. In conversation with a "six-footer" he puts on airs and becomes angry because he has to look up

to him. He privately quarrels with Providence when he reflects that his head, which understands, and his feet, which do understanding, are too near to admit of a long reflection upon any ground; while he is as near to the nadir as a giant, he is much farther from the zenith. If he marries a tall woman, she will be his better and taller half; indeed, she will seem to be three-quarters of him, but he will remain in *statu quo* and will feel humiliated every time he jumps upon a chair to kiss his wife. He is very much afraid of being underestimated, so he speaks in loud tones, and gives his orders with an emphasis of speech that would do credit to Brobdignag. His correspondence will probably be written in a large hand, mostly in words of many syllables, and his thoughts "long drawn out." Perhaps I ought to add that his ideas may or may not be gigantic.

There is Mr. B., a man of vast wealth, who would be willing to pay \$20,000 to be two inches taller than he is. Could his aspiring soul charter the fine form of his coachman or coal-heaver, he would be willing "to come down handsomely"

with a large sum for what he conceives to be a great advantage. Why? Would the heart pump more blood into the brain? Would it make him a more brilliant orator and writer? Would he rise in proportion to his height in the estimation of the public? Do long men have the longest purses? Does height make a man a Longfellow? "Worth" (not the one in Paris) "makes the man," the lack of it the fellow. Oliver Wendell Holmes (who is about five feet nothing), dressed in his singing robes and standing in the choir of immortal singers, casts a shadow upon many who could wear the harness of Hercules. Thiers, the French diplomat and statesman, could not have gotten a position on our police force, for he was below the requisite stature, but he could reach up to the highest shelves of political science and knock off the hats of ordinary statesmen with their heads in their hats. Indeed, some of the proudest princes were not a little nervous in

his presence, for they knew that he had an arm long enough to reach their crowns and force enough to tumble their thrones in the dust. In the face of these facts, why should short men, as a rule (there are many exceptions), be so tyrannical, so over-bearing, so consequential? Do not forget the many and noble exceptions. Didn't Rowell, whose brains and attainments are nothing to boast about, trot in a ring which finally became a straight line to notoriety—and a liquor saloon? The race is not always won by the swift of foot nor the battle by the strong of fist. Rowell's legs gave out and Paddy Ryan got a terrible basting. Why should the short man refuse to call for short cake at a lunch party? If he can not meet his payments why should he be disinclined to say that he is short? Is there a good reason why he should go a roundabout way home when he might take a short cut?

GEORGE W. BUNGAY.

NOTABLE PEOPLE OF THE DAY.

WILLIAM O'BRIEN. Early in 1887 this staunch leader in behalf of Irish Home Rule visited America, and made a rapid tour. He appeared before several popular audiences, and won respect for his patriotic zeal and intelligence. Those who expected to see a ramping, roaring agitator in Mr. O'Brien were disappointed. He bore himself modestly, and discussed the subject which he represented calmly, though earnestly. One purpose for which he came was to set the matter of the Lansdowne eviction before the people of Canada. Lord Lansdowne, Viceroy of Canada, had aroused the indignation of the Land League by driving the tenants by force from his estates in Ireland. Whether or not Lord Lansdowne's purposed retirement from office, which he has held but a comparatively short time, is a result of O'Brien's visit we can not say, but probably that has had some influence.

Mr. O'Brien appears to be of rather delicate organization; there is not enough body, or of the vital temperament to give his brain all the support it needs. He is a sharp observer, an intense thinker, throwing himself for the time into what engages his attention. We are told that his sympathies are very controlling; but as we can see from the not very excellent portrait the engraver has given us that he is very energetic every way when his feelings are enlisted in any cause, he would show little reserve in his advocacy of the cause that interested him.

He is well-educated; it being said that during his college career he performed that feat which is only told of Carlyle—reading every book in the college library, and he remembers much of what he has read. As a journalist he early made a good record. His letters as special commissioner of the *Freeman's Journal* during and before the famine

of 1879-80, were really the pabulum on which the subsequent land agitation was fed. The phenomenal success of *United Ireland*, to start which he left the *Freeman*, was entirely due to the charm and vigor of his writing. As a writer and speaker he is vigorous, condensed, epigrammatic and taking, just that sort to appeal to an Irish heart and sustain its interest.

The reader probably knows that Mr. O'Brien has been imprisoned for uphold-



WILLIAM O'BRIEN.

ing the action of members of the Land League at a meeting held at Mitchelstown, after its proclamation of the League as contrary to law and order by the Conservative Ministry. It would appear from the statements of authorized persons, that the proceedings against Mr. O'Brien were characterized by much severity and injustice.

CHARLOTTE A. GRAY. An earnest face looks at you from under the bonnet of Miss Gray, the young missionary of Antwerp, Belgium. One would say, who places much confidence in the theories of physiognomy, that her nose indicated self-confi-

dence and perseverance, while her mouth showed emphasis and sympathy. Certainly the face is English in both its roundness and marked expression of physical energy. That is a very social chin, and the eyes are at once frank and sympathetic. The forehead is full in the center, showing the faculties of inquiry, of study and analysis to be well-developed. We'll warrant the crown of her head to be high, while the part forward is somewhat conical. She is disposed to think for herself, has her own ways of looking at subjects and feels but little inclination to adopt other people's opinions. To imitate, unless her judgment fully approves, would be almost an affliction to Miss Gray, so little does she respect mere custom, or fashion. With her temperament and executive force she must be stirring and busy; the listless, indolent woman is to her a social inconvenience, if not a sheer hindrance to useful enterprise.

Miss Gray was born in Southampton, England, but most of her girlhood was spent in London, where her father died. At about eighteen she went out into the world to win her way for herself as a governess. At twenty she went to Prussia, and after two years' severe training in a German family, returned to England with broken health. In 1874 she went to Bruges in Belgium, but after three months removed to Antwerp. There she has been very active during the past nine years in behalf of temperance and social reform. She was very slow to arrive at the conclusion that it was best for her to adopt strictly temperance habits, because she had been taught in a childhood that was marked by almost constant sickness, that alcoholic stimulants were necessary to her. Of her Antwerp life she says:

"It was in Antwerp I found a special work. Finding that help was needed in the Sailors' Mission I determined to take up my abode in that city, and while earning my living to devote my spare time to mission work. At the close of

1876 my sister joined me and we opened a small English school. In February, 1878, the little band of Good Templars in Antwerp induced me to commence a Band of Hope. This was not done without a struggle and a great deal of reasoning, for though, since my sister had joined the Good Templars some few months before, we had not used any alcoholic drinks as a beverage, yet on

but she said she would come too if he would, and I left them to consider. A fortnight after on April 2, 1878, standing beside that poor drunkard and his wife, I took the thorough-going, life-long pledge. I scarcely slept that night. It was like a second conversion, and it certainly was a solemn re-dedication of my life to God. From that time my special work has been the temperance mission, and I believe that all my previous life had been training me for this. I have reason to believe and to know that God has owned and blessed my work, and I thank Him for having called me to it. My visits to the Grand Lodge of England have encouraged and helped me to persevere, and now I am thankful that I am able to devote myself entirely to the cause so dear to me."

Who can tell the good that may be accomplished by an earnest woman? Miss Gray in her work in the Sailors' Home; in the Good Templars' Lodge; in efforts to establish in Antwerp places where safe, un-intoxicating drinks may be obtained; in training the young in the principles of total abstinence; in trying to save from the vilest of traffics young English girls who are sometimes decoyed to Antwerp, is a bright example and an encouragement to thousands of idle,



CHARLOTTE GRAY.

account of my 'often infirmities' I still believed in the occasional use of stimulants. . . . I was rather an obstinate subject and held out for some time, but at last an opportunity occurred, to which I yielded. An Englishwoman and her family in whom I was interested were in great distress through the husband and father, who was a drunkard and a Belgian. I went to him and offered to join the lodge if he would. He was much astonished and so was his wife,

yet capable young women and young men to give of their time and talents to the service of virtue and humanity.

HENRY GEORGE. Having in a former number given our opinion of Dr. McGlynn, and made some note of his efforts in behalf of the poor and "land reform," it is to be expected that the leading advocate in the so called "anti-poverty" movement would have a place in this gallery of notables. Henry George is

known to the world in two characters; one as a most dangerous fanatic, the enemy to social order, and all existing institutions; the other as a champion of the cause of the poorer classes and the oppressed; indeed, a most pronounced philanthropist. In appearance he is far from impressive at first sight, being of medium height, rather compactly built, of light complexion, reddish brown hair, and somewhat careless in dress. Closer inspection shows the man of very active temperament, and good quality, with a developed brain, broad and high. He is a good observer, a keen thinker, while his sympathies are prompt and thoroughly sincere. He is an open spontaneous man, but very tenacious in opinion and original in expression. His features and the general mold of his head do not intimate eccentricity, but rather culture and harmony. He has the intellectual development we should look for in the writer and critic in the teacher. Had he been educated for a collegiate position in such a chair as that of history or philosophy, he would have taken eminent positions. The stronger side of his nature as originally inherited, lay in the moral and social faculties, but forced contact with the rude and severe from boyhood has brought into active exercise the physical and practical organs to whose impulsion he owes his prominence as an advocate of new and revolutionary social principles.

Mr. George was born in Philadelphia, September 9, 1839, and educated in the common schools of that city. At thirteen he was placed in a store, but remained there only a year or two, being drawn by a somewhat adventurous disposition to try sailor life. For some time he followed the sea, then left his ship at a California port, where after some experience in fortune hunting he took to the printer's case, became a compositor in San Francisco and finally settled down to work. Here he seems to have found a sphere adapted to his capabilities, and soon showed that he could not only set

type, but also write. He reported for the *San Francisco Times*, and displayed so much talent that he was given the place of managing editor.

Later he became editor of the *Sacramento Reporter*, but his independence did not please the railway managers and he was displaced. Then he started a paper for himself, which was very successful for a time, but in 1874 a misfortune occurred that ruined the enterprise. Then he received a small official appointment; and began to write in the moments of leisure the work for which he



HENRY GEORGE.

had long been preparing. This was the famous book "Progress and Poverty" that appeared in 1879. We need not say that the book was widely read, and how thinking men were struck by the boldness of the author's theories. There is not space here to consider them, albeit our readers are for the most part acquainted with them. Suffice it to say that he thinks that the chief source of the poverty of the masses is to be found in the fact that land is mostly monopolized by a few rich men. He holds that all property in the land should belong, not

to individuals, but to the State; and to have this doctrine carried out, he would have every government acquire all the land within its dominions. The rent paid to the government by the occupiers would then do away with any necessity for taxes. It is not strange that ideas so alluring to the masses, especially the poor, and so objectionable to the rich, should make a great stir when sustained by brilliant reasoning.

In 1880 Mr. George removed to New York, and has since made this city his residence. In 1881 he visited Great Britain, where he was at first well received and entertained. But in Ireland his sympathy for the grievances of that unfortunate people led him to make such revolutionary speeches that the government interfered. He was twice arrested, and forced to leave the country.

He has published works on "The Irish Land Question," and "Social Problems," in which he further explains his theory that the nationalization of land would prove the best remedy for our social and political ills. In "Free Trade and Protection," he discusses the merits of these rival systems, and draws the conclusion that the former should be preferred by the working classes. He publishes a paper, *The Standard*, which appears to have considerable circulation.

Mr. George's views, like those of most reformers, are radical, and adapted to a condition of society far advanced morally beyond its present state, hence any sudden efforts to establish them must be productive of serious civil disturbance. He has taken an active part in New York politics, writing and speaking on the side of the labor interests; was nominated by the Union Labor Party for Mayor in 1886, but defeated, and in the late election for State and County officers he was a candidate for the Legislature, but it would appear that he suffered "in the house of his friends," old party affiliations being too strong for the very men who had only a little before been talking loudly in his behalf.

GENERAL O. B. WILLCOX. In this head and face we see a fine temperamental combination. In his sixty-fifth year he is robust, active, spirited, and efficient, and the accidents or misfortunes of war aside, is likely to attain great age. We should infer that Gen. Willcox is a man of dignity and poise, yet sensitive on the side of personal character. He is decided, perhaps inclined to be peremptory



GEN. O. B. WILLCOX, U. S. A.

when occupied with the performance of duty, yet at the core a kind, sympathetic, tender man. He ought with so much height of forehead be unusually clear-headed in his impressions of the disposition and motive of man, an excellent judge of character at first sight. In society, when off duty, not subject to the rigid discipline that accompanies the wearing of the officer's uniform, he should be known for genial good nature, his knowledge of men and his large benevolence combine to make him approachable and tolerant. Although professionally a soldier, he does not appear to have an excitable, pugnacious nature—ambition and the spirit of authority are more conspicuous in the crown than

Combativeness is in the base of the brain.

Orlando B. Willcox was born in Detroit, April 16, 1823, graduated from West Point in 1847, and as Second Lieutenant of the Fourth Artillery, immediately took part in the war with Mexico. Ten years of frontier and garrison service followed, including the Anthony Burns riot in 1854 in Boston, and the Billy Bowlegs Florida war, and then, at the close of 1857, he resigned, and began the study and practice of law at Detroit, where he was admitted to the Bar in 1858. When the civil war broke out, he set out for Washington as Colonel of Michigan's first regiment. In May, 1861, he was engaged in the capture of Alexandria and of Fairfax Court House. At Bull Run he commanded a brigade, and in the extreme advance was severely wounded while in the saddle, and made prisoner. He was held in close confinement in the prisons of Richmond, Charleston, and Columbia for thirteen months, a part of the time as hostage for privateersmen that had been captured.

Immediately on his exchange, in August, 1862, he received a lucrative offer to write an account of his prison experience, but declined it in order to hurry into the field. Appointed a Brigadier-General of Volunteers, to rank from July 21, 1861, he received command of a division of the Ninth Corps, with which he performed noteworthy service at South Mountain and Antietam. He took part in Burnside's Fredericksburg campaign, and moved with the corps to Kentucky in 1863, after having had temporary command of it in Virginia. Throughout most of that year he held important district commands at the West, and took part in several combats, including the one at Blue Springs.

From the opening of Grant's Virginia campaign in May, 1864, to its close, Gen. Willcox commanded a division of the Ninth Corps, rendering distinguished services, particularly in the battles around Spottsylvania and Petersburg, at

Bethesda Church, at the first attack on Petersburg, at Fort Steadman, and in the final assault on Petersburg. Gen. Willcox was brevetted Major-General of Volunteers for distinguished and gallant services in this campaign, and in 1866 was made Colonel of the regular Twenty-ninth Infantry.

During the last twenty years Gen. Willcox has had various important duties to perform, particularly in Arizona. He was the ranking colonel of the army at the time of his promotion to be Brigadier-General of the Twelfth Infantry, succeeding Gen. J. H. Potter, who retired October 12, 1885.

EMILE ZOLA, the writer whose books have obtained a wide sale in Europe and



EMILE ZOLA.

America, because, as many critics assert, they describe the lowest types of French life, with all the indecencies of speech and conduct included, is evidently a "good liver," and as a specimen of the Vital temperament in excess would serve well. He is withal a critical observer, and would have made his mark on the reportorial staff of a daily newspaper any-

where. His quality of mind is distinguished for readiness and susceptibility. There are also evidences of excitability that is increased by the surplus vitality. With so strong a circulation his brain is apt to suffer on occasions from excessive blood pressure. M. Zola looks like a man who lives for the present, and concerns himself little about the future. He is very practical in his views of life and entertains opinions that are based on his own independent observation. He may have a certain physical geniality when among his familiars, but there does not appear to be that degree of organic development that tends to render a person suave and mellow, easy in adapting himself to others. He may be polite and guarded in conduct but is not inclined to imitate any one or exhibit much respect for formalism. He is bold and likely to go to the farthest limit if invited by success.

Emile Zola was born in Paris April 2, 1840, and during his childhood lived in Provence with his father, the originator of the canal which bears the Zola name at Aix. He then studied in the Lycée Saint Louis at Paris, and afterward obtained employment in the well-known publishing house of Meesrs. Hachette & Co. In 1865 he gave up that situation in order to devote his attention exclu-

sively to literature. He has been a very industrious contributor to the newspaper press, and has written many works of fiction, among which *La Confession de Claude* (Confession of Claude), *Les Mysteries de Marseille*, *Manet*, a biographical and critical study, *Mandeleine Merat* a series of political, social and physiological studies entitled *Les Rougon Macquart*, *Historie Naturelle et Social d'une Famille sous de Second Empire*, which has been called his human comedy. *L'Assommoir*, one of these series, created a great sensation and has passed through many editions.

Le Bouton de Rose (The Rosebud), a comedy played at the Palais Royal in 1878, *Nana*, in 1880, are also works written for the stage. His later works are *La Joie de Vivre* (The Pleasure of Living), *Du Bonheur des Dames* (Of the Happiness of Ladies), and *Germinal*; all these belong to the *Rougon Macquart* series.

Although Zola's works are very popular, they are objected to by many, and properly so, for possessing an unhealthy moral tone. As a modern French writer he is one of the most pronounced on the side of realism. His theory is that the uncovering of the sewers purifies the atmosphere. One can not but think that the writer's face reveals the writer.

EDITOR.

THE WOMEN WHO SMUGGLE.

THERE are twenty women in the Customs Service of the Port of New York, about half of whom are unmarried. Their duties have reference to the examination of women suspected of having secreted valuable foreign goods about their persons, for the purpose of evading the duty required to be paid on landing in this country. This force of twenty women is said to have become a valuable aid to the detective branch of the Custom House, although but recently organized. Their experiences are often very interesting, as an account

given by one to an attache of the New York *Sun* fully shows.

In speaking of the circumstances that lead to suspicion that a lady passenger is endeavoring to take something dutiable ashore, this inspector says:

"The vast majority of the women who smuggle look me calmly in the face. They very seldom turn their faces from the inspectresses. They have very much more nerve than men. I invariably say to the woman suspected of attempting to smuggle: 'I am afraid that you have dutiable goods on your

person,' or, 'I think you have,' and you would be amazed at the assurance of their answers. They tap their bodices and invite me to examine them, and if I call attention to their bustles, saying that they look unusually large and are askew, they graciously adjust them, and say that the size is the latest from Paris.

"Some women, no matter how warm it is or how much they perspire under them, wear heavy ulsters, and when I ask them if they do not wish to remove them, they graciously reply, 'Oh, no; I am quite comfortable.' Hundreds of women smugglers, in the most charming way, say that there is no use for me to examine their trunks. 'I can tell you just as well what is in that trunk,' they say. 'It is quite unnecessary for you to examine. You look tired.' They are considerate to a degree.

"They possess the quiet and careless air of millionaires, but we can always tell them by the way they sit down. The stiffness with which they use their bodies is not compatible with the graceful carriage of the head and arms, and they are immediately suspected of having goods concealed about their skirts. There is a class of women who rush immediately from the wharf to their homes, while we are talking to the staff officers. They return in an hour or so or send somebody for their trunks. Little or nothing is ever found in the trunks. The smuggling has been done by concealing goods on the person, and they are quickly secreted at home.

"The honest woman who is accosted with the invariable suggestion, 'I think you have something you ought to declare,' stammers a trifle, is abashed, and then frankly admits that she has a few things. It is always only 'a few' things, but sometimes these are of value.

"On several of the wharves there are private examination rooms, where the women inspectresses examine smugglers," the inspector continued, "but in most cases the examination is conducted in the staterooms on the steamship. It

is the delicate part of the business, and very often, after I have told a woman that she must permit me to examine the clothing worn by her, I go ahead and suggest that she follow me at a short distance, in order not to attract any undue attention to her. They think that we are simply to examine their bustles, and they don't evince much emotion. As a rule they are mighty cool. Very few cry, and I feel sorry for their predicament. I never insist that they shall take off all their clothing. I simply ask them to please take their things off. They begin with the bustle, and invariably stop there. I politely tell them that they must take off their dress and skirts, and you would be amazed and shocked at the easy unconcern which some of them show in divesting themselves of their clothing before a perfect stranger.

Lace is wound around their forms inside their corsets, and with thin women the curvatures in the corsets are packed with rolls of lace. They stuff their stockings with ribbons, often creating very funny angles. In one case ribbons were wound about the limbs of a woman. Others partial to lace curtains have had their skirts made of them. The bonnets with velvet fronts and plums for ornaments, when dissected, are sometimes found to contain diamonds. The diamonds in the plums are wrapped in black cotton. Some false heels to shoes have been discovered, and in their hollows, packed in cotton, have been found diamonds of the purest ray. One trick is to have skirts with pockets that will not be detected unless one's eyes are very wide open. The false hips to Paris dresses have turned out to be snug resting-places for jewelry, laces, and almost everything dear to the feminine eye. The enormous bustles of the smugglers are really nothing but wired enclosures for tarletan bags containing hundreds of yards of ribbons, metal trimming, crowns of bonnets, silks, and gloves.

"Speaking of gloves reminds me of

women who come into port with a dozen pairs or so. They can bring gloves only for their own use, and then only a reasonable number. Well, some women with three or four dozen pairs bring in sizes ranging from 5 to 7. One woman said one time that the 5's were of particularly fine quality, and would stretch to fit her, and the 7's were for the days

when she had the rheumatism in her hands."

The pay of these inspectors is \$3 a day, but, as a rule, they earn it well; not only on account of the peculiar and often trying nature of their work, but because they are frequently required to be at the dock early in the morning, and to remain until near midnight.

A NEW YEAR'S GREETING.

Where e'er I come, where e'er I call,
A Happy New Year to you all.
May Heaven's sweetest blessing fall,
May joy and pleasure, sweet content,
To every home on earth be sent.

Last night the old year passed away.
In his brief reign he had grown gray.
He silent passed, without a groan,
To sleep among the ages gone.
He brought some good to every home,
And dire afflictions brought to some;
To some he brought despair and pain,
To others, shining heaps of gain.
On those he placed a load of care,
To others gave the strength of cheer:
To some he brought the blight of death,
To many gave the living breath;
To some he brought the marriage feast,
And some from marriage he released.
But he is dead, and with much cheer,
We usher in the glad New Year.

The glad New Year comes o'er the earth,
With eyes of light and lips of mirth;

He comes with love, with armour bright,
To help the weak-achieve the right.
He comes to make our lives more strong,
To battle with the fiends of wrong.
He comes to light the heart of sadness,
And touch it with a thrill of gladness.

Where e'er I come, where e'er I call,
A Happy New Year to you all.
May all the comforts now you hold,
Become, in this year, manifold.
May Heaven's sunlight o'er you play,
And blessings crown you every day;
May every wish that hatred brings
Be cast among departed things.
May every malice leave the heart,
And every jealous pang depart;
May kindly charity extend,
Till every foe becomes a friend;
Till every hate and wrong shall cease,
Till war songs turn to songs of peace;
Till every lip its tone shall lend
To "Peace on earth, good will to men."

J. I. N. JOHNSTON.

EARLY EXPERIMENTS IN MESMERISM.

AS a fresh interest in the subject of mesmerism is awakening, an interest which specialists and philosophers in physical science are beginning to share, I have thought that a few of my early experiments might interest your readers. I shall continue to call the subject mesmerism, after the first modern investigator of its laws, ignoring the various names which have lately been invented by the class which so long denounced the whole matter "as a humbug."

For three years nearly all of my evenings and such other leisure as I could find were given to experimenting on this

subject, and it was only when the skepticism which I myself entertained could no longer find ground for existence that the experiments were discontinued, as requiring too much time and labor for the unnecessary repetition of the proofs; and for nearly forty years since the question has been: What of it, what new light does this phenomena throw upon the great subject of life and mind? I shall not here attempt to answer this, for the subject is too vast and the facts must first be seen.

My first observation in mesmerism was in Auburn, N. Y., in the winter of 1842-3. Then a young lad, I met

others near my own age, or a little older, some of whom had been reading a book on mesmerism, and it was proposed to try to mesmerize one of the company. We repaired to a tailor shop where one of them worked, and, after several attempts, one of our number was "put to sleep." The amateur mesmerizer, who had been the chief reader of the book on mesmerism, was so excited and partly scared at his unexpected success that he lost control of himself, and of course could not control his subject. He tried to awaken him, and failing, was still more frightened; and we all in a measure shared his fright. For about an hour operator and associates worked in vain, but finally the subject began to arouse. Our fear changed to joy of rather a wild kind, and the subject, seemingly wilder than any, when partially awake, sprang up and ran around several blocks like a wild deer, and we all after him. We caught him at last, and all went back to the place of experiment. He said that he was lost to consciousness for a time, and on awakening felt a strange kind of wild feeling, and partly from that and partly from seeing that we were excited, and to make sport, ran as I have said. He told us afterward that for several days he felt a strange indescribable feeling as though half asleep, yet not like usual sleep. Our wondering interest in mesmerism was intensified, but we durst not try it again. At least it was not tried during the few months that I remained in the place.

Two or three years after this I was living in Carbondale, Pa., when a Mr. Loomis came to the place lecturing and giving exhibitions of mesmeric control, and a short time after, Mrs. Loomis came with her daughter, a clairvoyant, who read with her eyes completely blindfolded, a book, bank-bill, or whatever was offered, being placed at her forehead by a committee of the audience who had not read the thing presented. This exhibition was continued every evening for a week; I found my

skepticism pretty badly shaken, although I took lessons from Mr. and Mrs. Loomis, and got what books I could on mesmerism and studied them several months before I ventured to experiment for myself. I then commenced, and during three years I tried nearly two hundred persons, and succeeded partially with eighteen or twenty, and quite fully with about a dozen different subjects. In only four did I produce the complete sympathetic *rapport* with myself which I shall describe. Of several others I could control the movements by my will, sometimes without speaking, making them rise up or sit down, raise an arm or drop it, take what I had put in my mouth; and by a strong effort could at times partially impress my thoughts on some of them so as to excite their imagination to see a thunder shower coming, a field of strawberries, a snake, or any thing else near them; doing this in a few instances without speaking or giving any sign of what I was endeavoring to do.

The first stages of the mesmeric condition were with some easy to induce, but with most of them difficult at first, requiring several attempts; and the sympathetic *rapport* was never attained in my experiments till after repeated trials. With one of the best sympathetic subjects I only succeeded in producing the first stage of mesmeric sleep after eight trials of an hour each, on eight successive evenings under the most favorable conditions, being alone with the subject, with nothing to attract his attention and prevent passivity. Afterward two or three minutes were sufficient to mesmerize him into this complete *rapport* with myself.

The one I first and oftenest mesmerized was the one with whom a majority of my best demonstrations were obtained. The place where most of our experiments were conducted was the work room in the rear of his father's shoe store. There after work hours we were undisturbed. For a while I mesmerized him several

times a week and left him in that state an hour or two each time, from an idea then prevalent, that such frequent and prolonged operations tended to induce clairvoyance.

Even after such repeated demonstrations of the reality of mesmeric power as swept away all reasonable ground for doubt, some fragments of skepticism would hold on tenaciously. Though I could control his motions and wake him by my silent will alone, and make him taste what I put into my mouth, yet the thought of possible deception absurdly obtruded itself occasionally. So to test the matter further, I used to leave him saying I wanted him to sleep while I went down town, and would wake him when I returned. I then went round to the rear of the store, two or three rods from the window, which I had left partly uncovered, so that I could watch and see if he acted the same in my absence as when I was present. I found that while there, I could, by my will, make him get up, sit down, raise and lower an arm, and that he would taste what I put in my mouth, smacking his lips at candy, sucking in air at cloves, and spitting and shuddering with face awry at tobacco, aloes, and other bitter things. After testing him in this way to my satisfaction I would awaken him by my silent will. All these things I did repeatedly. The first time, on awakening he looked around with an amused mischievous expression, peering behind boxes and rolls of leather, supposing I was in the room. I then returned and pretended to think that I had not got him sufficiently mesmerized to remain so in my absence. On one occasion, while sitting in the shoe store, the father, the boy, and myself only being present, the thought occurred to me to see whether I could mesmerize by my will without letting him know that I was attempting to do so. I tried and in a few moments he showed much restlessness, moving his arms and legs and seeming to suspect something from sensa-

tions similar to those he was accustomed to feel preceding the mesmeric sleep. He cast his eyes upon me several times, and then appeared to dismiss the thought as he saw me apparently intent on reading a newspaper. In less than five minutes he was so completely mesmerized that I controlled his movements as before described, and caused him to taste what I tasted, although I had not been within twelve feet of him or spoken a word from the first. The father looked up, but I beckoned him into silence, and he viewed the whole affair with astonishment till the end. After I had tested my power to my satisfaction I awakened him without speaking or going nearer to him. And he did not know that he had been mesmerized.

The late Dr. R. F. Hallock told in my hearing of a case of mental control of one many miles away—he calling the subject, whom he had often mesmerized, home from a visit just commenced, much to her annoyance, as she wanted to stay; and although it did not occur to me during my experiments to test the power at long distances, I have no doubt that his statement was correct.

One of the blunders of judgment which I, in common with most of the early investigators of mesmerism made, deserves notice, showing how ignorance with partial truth often casts discredit on great truths which are partly obscured. I had read that if the mesmerizer so willed, the mesmerized person could hear no voice but the operator's, and on one occasion, against the boy's father's attempt to secure recognition, I willed that the boy should not hear him and said to the father he could not hear. The father performed a boyish prank which attracted my attention and relaxed my will, when the boy laughed. I, for the moment, was confounded, half believing that the boy had been deceiving me, but found that I could control him by my will without speaking, and the lesson gradually opened to me against my own and mesmerizers' opinion, that hearing

which the operator could not control in himself, he could not in the subject, but only the voluntary motions by which the fact that he heard was made manifest. Had I been exhibiting in public this blunder of judgment from partial ignorance of the application of mesmeric power might have caused the whole affair to be denounced as an imposition. I have no doubt that honest mesmerizers are sometimes disconcerted and condemned, and even driven out of communities as impostors for such partial mistakes, which after all contain far more truth than error.

Only one of my subjects became clairvoyant—the one I first and oftenest mesmerized—and he was only clairvoyant occasionally. Only when his and my condition were right, and the atmosphere favorable, could this state be induced, and it often failed when all things seemed most favorable. But in the lower stages of mesmerism—the sympathetic—when my mind controlled his, I found that my strong desire to have him see clairvoyantly caused him to guess, or to reflect my ideas, supposing he saw what I was wishing him to see. At first I was misled by this, thinking it clairvoyant vision, and was greatly staggered on finding his statement unreliable. But after repeated experiments I learned to distinguish between these two stages of mesmeric condition. And I found that my subject was as ignorantly honest in giving me guesses, or a reflection of my thoughts for clairvoyance, as I was in causing him to do so. I found when he had once become clairvoyant, that this state did not depend upon my will at all, but was more readily attained without its interference. I also found that when my will was kept quiet, after he was mesmerized, the subject did not mistake sympathetic mental *rapport* for clairvoyance, nor assert that he could see except when he could do so. And I found that when thoroughly clairvoyant I could not control his mind by my will, that his sympathetic susceptibility to

impressions from my thoughts or utterances then ceased, though at other times he was very impressible.

I mesmerized this boy more than a hundred times, probably nearer two hundred, during the three years. Several times he saw from his forehead, reading with his eyes thoroughly bandaged, and also described things at a distance, some of which descriptions I verified. On one occasion he described the interior of my father-in-law's house, near my own, telling what was in the upper part of it, the furniture, which way the doors swung, and every minute particular, including the fact that my wife's brother, a boy about his own age, was in bed asleep. He told where and how the bed stood, on which side or arm the boy lay, which way his head was, and other matters of detail, though he had never been in the house but once, some years before, and then only in one room. I immediately afterward went to the house and found everything as he had said, even to the unusual fact that both head and side of the bed on which the boy lay were between two and three feet from the walls. I was strongly of the opinion that his description was wrong as to the bed, for I had often been in the room and never saw it in that position; and I was quite sure also that the boy would not be in bed asleep, as it was only half past seven in the evening. I told my subject that he was guessing, for the boy would not be in bed so early, and that I knew where the bed stood and that he was wrong; but he insisted that he could see clearly and was right. And so I found it. The bed had been moved out to clean the room, and had not been moved back again. Some other matters of the detail description which he gave I did not then know about.

Afterward this subject left me and went West with his parents, where I learned that he became quite noted as a medical clairvoyant. I was informed that although he there sometimes gave good demonstrations of clairvoyance,

yet that he often gave such dissatisfaction as to be called a "humbug;" and doubtless at times he was such; yet, honestly on his part and on the mesmerizers, simply because the latter had not learned the law of the matter sufficiently to distinguish guesses or sympathetic impressions from clairvoyant vision. In following clairvoyance as a profession the operator's anxiety for success every time would naturally be stronger than mine was when private information was my only object, and therefore would be more likely to force these sympathetic impressions upon his subject when receptive.

I never dared offer him in public as a clairvoyant, or to claim any certainty of ability to induce clairvoyance in him; but a few times private circles witnessed his successful seeing.

Just before he went West, a school teacher of Carbondale, named Virgil, mesmerized him and he became clairvoyant, when the teacher, full of confidence in his power to produce the state at pleasure, presented him in public as a clairvoyant, but was hooted as a "humbug" and gave it up. I doubt not that he was honest but ignorant of the law he was using, and so made a mistake.

My experience and observation convinces me that clairvoyance is real but rare, while the sympathetic rapport of the subject with the mesmerizer, or with others that he may be put in communication with, is quite common.

My experiments demonstrated the truth of Phrenology, for several of my subjects who knew nothing of that science—small boys—responded readily to the touch of the phrenological organs by my finger, and once I received a knock-down argument that it was the nervous influence from my finger to the organ instead of my mental intent that brought forth the response. In reaching to excite Adhesiveness to make my subject act friendly to one of the company before him, when being asked a question by that person, I touched Combativeness

instead, and received a blow on the side of my head which brought me half way to the floor. It was very convincing.

At another time I was alone with this boy when mesmerized, and I told him he was in church and was Mr. Gorham, a Methodist preacher, who was quite a revivalist, and when I excited Reverence and Benevolence he began to exhort and invite sinners forward for prayers, and then got on his knees and prayed for them; and while he was praying I changed my finger to Combativeness when he drew back in fighting position, and swore at the increasing audience. I immediately changed to Reverence, Benevolence and Conscientiousness, when he wept tears. I asked what was the matter, and he said "the poor sinners were here trying to get religion, and I swore at them and fought them." I asked why he did it, and he said, "Some awful wicked feeling came over me, I suppose it was from the devil."

I didn't dare tell his folks of this while operating on him, for most of them were Methodists and I feared they would think it was making sport of religion; and some readers may perhaps think so; but with me it was only a scientific test of the relation of mesmeric power to Phrenology, and with him it was the automatic action of mental organs under the stimulus of magnetism.

Toward the end of my three years' experimenting I was induced to give several public exhibitions in Carbondale, then in an adjoining town, and then in others, continuing three months till the summer nights. I was solicited to begin again in the fall, but I had commenced to learn my present profession—dentistry—and could not afford the time. During that series of exhibitions there were many experiments quite as amusing, though not generally of as high an order as those I have described. In Pine Grove, Pa., where a young man who had denounced the whole thing as a humbug, tearing down my handbill, and wanting to ride me on a rail for "such

pretensions" was induced by a friend to come to the exhibition, where he said, "Let it be tried on me," and he proved an easy subject. I obtained such complete control over him as to make him believe what I asserted, and, being told of his skepticism, I resolved to make a convert of him the first time. So, among other laughable exhibitions of power over him, I made him fancy himself a hog in a field of potatoes and root on the floor until he had rubbed the skin off his nose, making a scab which was there for more than a week, after I had left the place.

As I have said, I can not here touch

upon the great lessons of life and mind which the facts of mesmerism force upon thinkers, but must close by presenting to my readers the questions which these experiments forced on me. "What of all this? What is this human mind which possesses power thus to commune with fellow-minds, and to see facts beyond the ken of the senses? And can its existence be limited to its connection with an organism whose limitations it thus transcends?" Some of our sciento-philosophers—Spencer and others—are trying to answer these questions. Are their answers sufficient?

CALEB S. WEEKS.

A FACE I KNOW.

Did ever a face pursue you,
Turn wherever you would—
A fair, sweet face that you'd learn to love,
As only a strong man could?

A face that you held in your hands and kissed,
While your cheek brushed the sunny hair
That fell in its gracetul rings of gold
On a forehead pure and fair?

A face that Murillo had loved to paint,
With its eyes of gentle ray,
With lips all ripe and tremulous,
That breathe of new-mown hay.

While the lashes that fringe the eyelids
Swept the blushing cheek below,
As you sought in the face the secret
That your own heart strove to know?

Such a face has haunted my pillow,
Has been with me in my dreams,
And has never faded or left my side
Midst all life's shifting scenes.

The merry eyes look into mine
While the red lips breathe my name;
Each day of my life I bless the hour
When this sweet face to me came.

—CHICAGO JOURNAL.

GOOD MANNERS.

He that goode manners seemes to lacke,
No wyse man doth set bye;
Wythout condicions vertuous
Thou art not worth a flye.

MOST men judge from appearances, and therefore we are not surprised to find that good breeding accomplishes much in politics, in business and in love. Says Wilkes, "I am the ugliest man in the three kingdoms, but if you give me a quarter of an hour's start I will gain the love of any woman before the handsomest."

When a man has mastered thoroughly the art of conversation, and has learned the forms of society, he will find the barriers erected by wealth lowered considerably. The manner that clothes

men with dignity is simple, plain, and direct, yet governed and beautified by sense, by kindness, and by grace. Simplicity is the first essential, and we here include frankness and ease in the definition of this word "simplicity." "She spoke with a simplicity which in this country only accompanies the cream of high breeding." "Certainly, as faith and charity should go together, so we should never care much for a man's urbanity if we had not a thorough belief in his honor and frankness." Singleness of heart and purpose; absence of affecta-

tion, are charms that compensate for the want of many a grace, while a put-on manner rarely deceives and is always displeasing. Doubtless, too, it is sometimes well to hide ill-temper or deformities of character by covering them with the cloak of an affectation, thus choosing the less of two evils; but it is still better to try to be what we would have others take us to be. When we are perfect freedom and ease will follow.

"Anxiety about the opinion of others fetters the freedom of nature and tends to awkwardness." Do your best to please, but don't try to make people think you are a conversationalist, a philosopher, a bank president, a saint, a roué, or anything else that you are not. Neither should you be too eager to make your friends feel quite comfortable. There is such a thing as trying too hard to please. It is better to say nothing at all or to repeat the same old common-place, whenever you meet your friend, than to show by your manner that you are suffering exquisite agonies in your endeavor to say something original. The manners of a man should seem to indicate that he has nothing to conceal, no plotting, no high pretensions to an oppressive greatness. "Let her see nothing strange, no passion, no eagerness, in thy way of accosting her. She is seldom tolerant of emotion when she does not fully comprehend the why and wherefore."

A fearless, independent common-sense is the second essential. A servile spirit of imitation is a power most destructive of naturalness, of ease, of grace, of variety, of every kind of elevation. We must permit ourselves to think and act without constant and timid subservience to the latest fashion of Paris or London. We must have courage to drop whatever encumbers and deadens social intercourse; we must try to make it what it was intended by heaven to be, a solace and a blessing. Good sense and character must, on every single occasion, tell us what to do and how to do it; for without good sense, learning is apt to

degenerate into pedantry; wit into buffoonery; simplicity into rusticity; good nature into fawning; and wealth into a vulgar display.

Kindness or benevolence is another element of good manners. Benevolence quickens our sympathy, the power that enables us to feel for others, and to pay prompt attention to the little and apparently insignificant things that are so often productive of pain or pleasure. The less a man tries to make the life of others happy the more burdensome will his own life become. It is no small thing to make the sad heart joyous. Kindness or benevolence is "the love that perfects mankind." It lights up the countenance with cheerfulness, it drives out all envy, hatred, pride, unrest. "The music of kindness has not only the power to charm, but even to transform both the savage breast of man and beast, and on this harp the smallest finger in the world may play heaven's sweetest tunes on earth. The less tenderness a man has in his nature the more he requires it from others."

Kindness prompts a man to try to make others pleased with themselves, and when he has done that they will be pleased with him also. "You can only raise yourself in the estimation of others by courteously refraining from everything that has the least appearance of raising yourself. You must show a willingness to sacrifice self in the interest of social ends; a willingness to assign inferiority to no one but yourself. Many persons fail to please simply because they think too much of self, of how they can enjoy themselves or glorify themselves, and not enough of the pleasure and comfort of others, and of the topic under discussion or the work of the moment.

Kindness and benevolence should be clothed with the mantle of good humor, which is one of the best articles of dress one can wear in society. A smile half redeems unattractive features. To wear a pleasant face even when you don't exactly

feel like it, is a Christian duty. Good humor is gracious. "If we were asked to name the word which embodies female politeness, we should name graciousness. Women should be gracious. Graciousness is their happy medium between coldness and familiarity, as self-respect is that of men between arrogance and downright rudeness."

The following little anecdote illustrates the impoliteness both of rudeness and familiarity. One day a venerable gentleman called on Mrs. Magnificent and asked one of her daughters how she did. She answered she never conversed with men. The same day he visited Mrs. Grundy and asked her daughter the same question. She answers, "What is that to you, you old thief?" and gives the venerable gentleman a hearty slap on the shoulders.

Women who are too familiar never have much power; we soon cease to reverence what is always before our eyes, or within our grasp. Yet cordiality is a very necessary adjunct. The reason why women of education are not more popular in society is because their apparent assumption, their coldness of manner and want of liveliness, utterly repel men seeking society as a relaxation. Give women a cultivated taste that is veiled by kindness of heart and gentleness of manner, and liveliness not exhausted in the acquirement of comparatively useless accomplishments, and they can afford to laugh at the competing attractions of silliness and mental vacuity. Sympathy is the quality that constitutes the difference between those who are popular and beloved, and those who are avoided and disliked. "She was not coldly clever and indirectly satirical," says George Eliot, speaking of Dorothea, "but adorably simple and full of feeling."

The preceding remarks give us a complete definition of good manners. Benevolence is the heart, good humor the dress, ease the golden chain hanging gracefully about the neck, or from a

buttonhole, and common sense the crown that should confer dignity and self-respect upon men, and graciousness upon women. Self-control (to go on with the simile) may be compared to the buttons that keep every article of dress in proper place and position. It is a well-known fact that when a man's buttons fly off he is apt to show that he has lost his self-control by scowling or swearing or stamping vigorously. And now, having defined good-manners we will consider how they are to be taught or acquired.

A man's character should be so unselfish, so manly, so true and upright, so capable of self-denial and self-control that he need not bother himself much about what people say or think, for that tends to awkwardness. A good character ought to confer repose—that dignity of manner joined to "that simplicity of expression which, whether brought forward on the stage or exhibited in private life, inspires almost as much enthusiasm as magnanimous deeds."

Whatever is disagreeable in a child's manner must be corrected, to prevent the formation of bad habits. Negative rules are almost the only ones that can be given. Children should be led to fix their attention upon things outside of themselves so as to save them from an uncomfortable self-consciousness. "That same hour which awakens a child to the consciousness of being observed strips its grace of motion," and makes it look silly, embarrassed or full of affectation.

If, as some assert, it takes three generations to make a gentleman, we may suppose that the first generation has sense enough to *tell* the second what good manners are; the second will then be able to *show* the third by setting them a good example. And because the third learns by example rather than from precept, it will excel the other two. Example always has the greater influence in this, as in other things. Tricks of look and speech can be caught as every

one knows. Married couples often acquire a certain likeness to each other in the expression of the countenance from living long together. In cases of nervous disease like epilepsy, and especially hysteria, imitation, conscious or unconscious, is often very powerful.

The home circle is the place where *genuine* manners, as distinguished from "company manners," must be acquired. "Humbug may assume the form of politeness, but it can not stand the strain of continual use. We recommend to the clergy 'rude papas' as a subject for a course of sermons. 'Nagging mammas' might form a second series. To treat your children like servants or slaves whose highest duty is to fetch and carry is not the best way to bring them up." Nor is there any reason why the finest manners should not be observed by husbands and wives, brothers and sisters. Wives who wish to retain their husbands as lovers must never indulge in fits of temper or hysterics. Equally important is it that husbands should control their tempers and their tongues. Self-abnegation is one of the lessons love teaches, each striving to yield in matters where it is right to yield. Never find fault unless some criticism is needed, and then make it without bitterness or "fuss," trying to do it with tender looks and loving words.

The philosophy of manners is based upon attention to trifles. "If Charles slam the door as he leaves the room, or Rosalind gives a pettish answer to Jennie's question, the family peace may be disturbed for the rest of the day." The greater articles of duty the husband will set down as his due; but the lesser attentions he will set down as *favors*, and depend upon it, there is no feeling more delightful to one's self than that of turning these little things to so precious a use. Even in the most highly civilized countries you will find many who are like savages in at least one respect; they can be heroic and self-denying on extraordinary occasions, and in great things,

but they can not be polite in little things. "The courtesies of a small and trivial character are the ones that strike deepest to the grateful and appreciating heart." "It is in these acts called trivial that the seeds of joy are forever wasted, until men and women look round with haggard faces at the devastation their own waste has made, and say the earth bears no harvest of sweetness—calling their denial knowledge."

The education acquired in the home circle and at school must be polished and refined in the society of ladies. Men come from school impudent and from college awkward. In the drawing-room the ladies can teach them to be easy and respectful, prevent them from becoming shy, taciturn, misanthropical and hypochondriacal. "A high-bred English lady," says Thackeray, "is the most complete of all heaven's subjects in this world. In whom else do you see so much grace, and so much virtue, so much faith and so much tenderness, with such a perfect refinement and chastity?" And by "high-bred ladies" he does not simply mean queens and countesses, who are not always or necessarily ladies. "But almost every one has the happiness, let us hope, of counting a few such persons among his circle of acquaintances—women in whose angelic nature there is something awful as well as beautiful to contemplate."

As a concluding admonition we give the following couplet:

"Wherever thou be, in bower or hall,
Be merry, honest and liberal."

HERMAN KOPP.

STATISTICS show that the more married men, the fewer crimes there are. Marriage renders a man more virtuous and more wise. An unmarried man is not living in accordance with the law of his being, he is but half of humanity and it requires the other half to make things right. It can not be expected that in this imperfect state he can keep the straight path of rectitude any more than a boat with one oar can keep a straight course.

A TOUR OF SEARCH.

“O H, dear, the world is growing so wicked, and so dirty, and so ill-natured that I am quite disgusted,” exclaimed my friend, Mrs. Arthur Williams of Madison avenue.

“I do not believe that the world is growing worse in any particular,” I answered.

“I can prove it to you,” rejoined my friend.

“I am all attention.”

“To begin with, the papers are filled with reports of murders, divorces, scandals, and all manner of wicked and horrible things.”

“I skip that reading by aid of the headlines, and read of charities, incidental kindnesses, weddings, new books, developments of natural products, conquests of science, successes of artists and professional people.

“The sentences one catches on the street are profane, obscene, low.”

“Too many of them are, I admit.”

“You never hear people talking of churches, sermons, lectures and such things in the street cars or on the sidewalk.”

“My experience is happier than yours, then. Only to-day I heard a sweet-faced young girl say to a friend whom she met:

“‘I have been to the Y. W. C. A. I am on duty there now every Sabbath, and I went down to make ready for to-morrow.’

“‘I miss our Sunday Bible Class,’ answered her friend, ‘but you know I have taken charge of Miss E.’s class in St. James’ Sunday-school since she has been ill.’

“As I passed through the elevated depot I heard the gateman say, ‘I want to go to church to-morrow afternoon; my boy and girl will be confirmed, and my wife feels as though I ought to go; her father is the rector of our little chapel.’ Stepping into a store near the station I heard a customer say to the young clerk: ‘I missed you last Sunday Miss Genin.’

“‘Mamma was ill; she is better now. I shall be with you to-morrow, Mrs. Johnson.’

“‘It was the finest sermon I ever listened to on that subject, and as he continues the subject to-morrow—’ said a young man to a companion as I was going up the stoop to my home.”

“All that in one afternoon?”

“Yes, and it is not an infrequent thing to hear similar remarks, although I must acknowledge that one can not go many blocks without hearing profanity, especially from boys.”

“Then there is the tobacco nuisance.”

“So far as that is concerned I can out-talk you, for I do not believe you can realize the extent of the nuisance as a woman in business life can.”

“How all-pervading the vice has become; the sidewalks sicken one; men and boys spit regardless of who is looking or what may be deluged by it; they smoke in anybody’s face. The smokers on the car platform dye the air with blue. The grocer’s boy, the butcher’s boy, the milkman, all come into the kitchen smoking those vile cigars or still more vile cigarettes.”

“Not into my kitchen. If an errand boy or tradesman comes to my door smoking or spitting, he takes back the goods and I transfer my patronage.”

“To whom pray, for they all smoke?”

“No, not all. My milkman will not have tobacco used about his place; my grocer will discharge a clerk who uses it on the premises, and so will my baker and my butcher.”

“And where have you found such paragons?”

“By looking about a little and noting habits as well as faces.”

“Have pity on me and send your tradesmen to me for my custom.”

“With pleasure; I have already secured to them the patronage of several friends. Housekeepers are largely responsible for that class of uncleanness.”

“Take our restaurants. All sell liquors

and cigars ; if a lady sits down in one she is choked with smoke, and sickened with the smell of liquors. It is impossible to find a place in New York where the conditions are otherwise."

"I heard that same remark made the other day, and in looking back over a long experience confessed the speaker was right. A day or two later I was down town, and needing lunch looked for a place wherein to obtain it. A sign near by read, 'Temperance Restaurant.' I went in ; there was a long room as neat as wax and an annex quite as neat. The colored waiters were as quiet, as courteous, and as cleanly in their attire as those of a southern household before the war. The food was in every sense prime. I had a dinner instead of a lunch, and was put into harmonious relations to the whole world by its wholesome influence. The walls are decorated with fine steel engravings in neat frames. Illuminated texts, selections from the Scriptures, hang all about. There is not a drop of any kind of liquor sold, nor is there a cigar lighted or sold in the place. Taking the matter all in, I wondered if in this city such a place could be made to pay ; yet that one must pay a royal income into the hands of the proprietor, whoever he may be, for the several times that I have gone out of my way to dine there since, I have seen many guests patiently waiting for a seat."

"I did not suppose there was such an Edenic dining-room in New York."

"Finding that one, I pursued the search for more, and found that there are many where no liquors of any kind are sold, but only that one where the line is drawn against tobacco, and the eyes are feasted on fine pictures, while the mind takes in words of truth."

"I don't know any gentlemen, and but few boys who do not use tobacco and beer."

"Unfortunate woman that you are, I pity you ; among my acquaintances I know but few who use either, and every day hear of somebody giving up their use.

"Through your persuasion ?"

"No, but because the world is growing better, wiser, purer, and tobacco is losing caste among refined people."

"I don't believe it ; I tell you the world grows worse. Where are the people now who are zealous in church matters as they were when I was a child and my father a deacon in a down town church ?"

"Will you go with me on a tour of inspection ?"

"Yes, gladly ; if you can convince me of the error of my thoughts."

So arm in arm we went on the next Sabbath morning to a Sunday-school in a side street not far from Madison Square. How earnest everybody was ! We were pressed into service in the place of two absent teachers who were very ill. A few blocks west we listened to an eloquent sermon and delightfully unconventional singing. In the afternoon a third chapel, in the evening a fourth was added to the list. All through that and three succeeding weeks we attended the unostentatious chapels, prayer-meetings, teachers' meetings, Bible classes, etc., not visiting the same place twice.

"It is enough, I am convinced," said Mrs. Williams. "The good impulses are not all dead, the wicked people are not making as many converts as I thought."

"I am not through with the witnesses," I said, "there is still evidence to be offered."

"In what line ?"

"I would like to take you to visit our charities. There you will meet with the wealthy people who support them ; such sweet women, such grand men, such patient sufferers ; true, you will see some growling misanthropes and human hyenas among those who accept the benefactions. I also want you to see with me what armies of employees in our great stores and factories and hotels are to a last one honest. We hear of the *one* thieving clerk, the *one* dishonest cashier, the *one* incendiary servant, the

one murderous viper who has been warmed into life, the one undutiful son, the one brutal husband, but of the thousands who are honest and faithful, and kind, we hear nothing and think nothing. No, my dear, the world grows better, when a Christian restaurant in the business center of New York, and it is not a ten-cent-warmed-over-hash-affair I assure you, receives royal support from business men as well as women who are glad of a truly 'clean' place to eat in; when workmen and women sit side by side with millionaires in a little side-street chapel and sing and pray

as those we have heard lately do; when ladies of gentle birth and culture go noiselessly about the hospital wards and prison corridors comforting and persuading; when employers prepare cozy dining-rooms for their clerks and hands to keep them away from temptation; when whole families, as I could show you, are growing up without a single vice attaching to one of them; when so many good books are being read, so much wise thought disseminated, there is hope of the world in which the wee ones of to-day shall be adult sharers in a time not far distant." MRS. A. ELMORE.

SOME OBSERVATIONS BY A WOMAN IN PUBLIC LIFE.—No. 1.

I HAVE been asked by a young professional, *How Shall I Dress?* Indeed, a serious question for persons of limited experience and income, also to those who have uncertain or eccentric taste. Admit the variety, beauty and cheapness of goods in market. Yet how to select and combine colors and textures so as to appear artistically dressed, or even comfortable to the eyes of those who are forced to look upon us in the daily routine of life, is a difficult question. Besides, after the plans are perfected and the material purchased, it is not so easy to get the actual work done, and many of our best dressed artists upon the stage make or assist in making their own costumes. A beautiful woman can be made hideous by her garments, and a plain woman can be made pleasing and attractive by a knowledge of the means.

The uglier the woman the more skill is required to suitably clothe her. To be an artist in dress one must be able to discover individual peculiarities, and know how to overcome them; must understand textures, *i. e.*, what effect heat, light and dampness have upon them; if they shrink or fade, or draw or change color in gaslight; if they drape well or not; can be gathered or plaited best. Also, one must appreciate the effect of

colors in combination, their tints and shades, how and in what proportion to combine them. It would be a good idea if we had *advisory modistes, dress artists*, who neither sell nor make garments, but who are capable of advising rich or poor, according to their position, needs and means, in matters of clothing. It is a question whether it would not be a saving in the end to purchasers. Do you want to wear the dress one or one hundred evenings? Shall it be subdued or showy; shall it cost \$2.00 or \$2,000? This decided the designer directs the material and sketches the costume, and if need be has the pattern cut and put together for you. Would this not be the acme of convenience and economy? It would outdo the late method established, but not widely known as yet, to dress dramatic or operatic artists richly and fashionably at small expense. A London or Paris *modiste* contracts for a certain sum to furnish evening or other dresses for the season, be they more or less in number. They are not sold, but rented, so to speak. The garments are returned and made anew, relined and changed for another play and city. Thus the rich ornaments, costly laces, passementeries and embroideries travel from one country to another, now in New York or Chicago, now in St. Petersburg or Berlin. This

is wise and economic, for wardrobes are notoriously poor property, bringing at auction almost nothing, or worse than nothing, obloquy and contempt upon the profession and the artists.

For example, see the reported sales of the historic costumes of Edwin Forrest, "Roman Toga, \$1.75; Richelieu, gaber-dine, \$4.00, etc." Most absurd prices for costly articles, to say nothing of the sacrilege of selling at auction and scattering about the garments and jewels which bear somewhat of the personality of the great artist who wore them. How much more to the honor of Edwin Forrest and the profession [at large, had his wardrobe been preserved with care to be used on rare occasions only (great benefits, etc.), by artists whose talents and position alike make them worthy of such honor. Like old gems, relics and paintings, they should be preserved in glass cases to stimulate future novices to noble and painstaking effort.

A gradual return to simpler methods in dress seems inevitable. Those who have neither taste nor skill to dress themselves to the best advantage should seek advice from some competent designer and artist in apparel, one who can point out unpleasant or individual peculiarities and how to exaggerate or obliterate them at will. We are drifting toward antique styles of dress, *i. e.*, draperies. This is in the right direction. Plain, loose, flowing garments, how comfortable and becoming! How easy to put on and to move about in! They do not make one appear stout or uncouth and clumsy. Far from it. The most slender impersonation in my whole repertoire has a costume of loose drapery, falling from the shoulders in long sweeping lines. There are no stays, girdles, bands or starch in the entire costume, yet I appear and FEEL more slender and tall in this than any other costume in my whole wardrobe. And here allow me to remark that what we FEEL has something to do with the impression we make upon others. To illustrate, when I sat in

Chickering Hall, one evening, and listened to Prof. Norton, of Cambridge, Mass., on Archaeology, I felt, I think, somewhat as he felt as he stood by the little stand and began to speak, and had I been obliged to go out of the hall at that moment, I should have unconsciously assumed his little mincing steps. He seemed to say, "I am in New York. Her most learned people are here tonight. I see before me readers, thinkers, and explorers. I am from *Cambridge*, and they expect great things of me. Of course, I *do* know a great deal, but some one here may know as much, perhaps more; indeed, what we all know isn't much, and I must appear modest and unassuming; I must not assert too much in face of the vast realm unexplored and unsettled in science and history."

So he came forward with his hands together before his vest, elbows a little out and shoulders high (modestly); brow a little forward (with weight of matter); eyes turned upward (in introverted thought); winking often (to shut out all present objects from the mental picture he was about to explain); stepping lightly from one foot to the other, without affecting the general pose in the least; crushing up a soft filmy handkerchief entirely within the palm of the hand, then passing it from one hand to the other a half dozen times, and restoring to the pocket. So he appeared to the end, speaking slowly, as if criticising each sentence before it was uttered.

In what sharp contrast to this is the appearance of the Rev. Joseph Cook of Boston. Before an audience, he stands boldly, swinging his body with his changing steps, chest up and forward, shoulders back, face skyward, arms swinging. "I am Joseph Cook. You who have not read as *I* have read, who have not thought as *I* have thought, nor studied as *I* have studied, thank God that you lived in the century in which *I* was born." The contrast between these two speakers is a lesson in general physical expression not to be forgotten.

HELEN POTTER.



POLISHING DIAMONDS.

“ANNIE,” whispered a mother to her thirteen-year-old daughter, sitting beside her in church, “why don’t you sit still?” “I can’t sit still,” was the whispered reply. “Then you will have to leave the church, my dear; you *must* not move about so.”

The girl had been quiet during the early part of the service, but soon after the sermon began she became restless. First one foot was drawn nervously back from its position, then the other foot; then she moved her body from one side to the other, toyed with her fan, and shrugged her shoulders.

What was the matter? Only this. Every schoolday the child was bending every energy to secure and hold such a position in her classes as would make the prizes hers. The mother, proud of this ambition and application, encouraged the girl in this course, and did not realize the necessity of keeping the nerve force and the muscular development of her daughter in harmony with each other. In consequence she was on the verge of nervous prostration. At what a cost did she win the prizes! Would it not be wiser and better that she should study less and play more, so that she might gladly dance with Terpsichore, though prizeless, rather than laden with trophies be compelled to dance with St. Vitus?

The danger to our girls at present, especially to those of the well-to-do classes, is that in polishing them by academic and collegiate courses so much of the substance of the diamond will be ground away that what is left will be too small and too weak to bear the strains that may be put upon it. We do not all of us realize the necessity of seeing to it that in our children strong and beautiful bodies must be built up for the cultivated minds to dwell in. Parents and teachers are alike unmindful of this. In the best of our colleges and universities careful medical attention is given to the harmonious development of body and mind, it being well understood that intellectual growth at the expense of the body—allowing the engine to consume itself by its own fires—is a wrong, a waste, an irreparable injury. But in most of our primary and preparatory schools the idea still obtains that intellectual advancement is to be secured at all hazards. So the child is stimulated to leave its play and pore over its books, though its body grows thin and its cheeks grow pale. As a natural consequence of this procedure, many a student at entrance to college courses is unequal to their requirements, and break down in the second or third year, and many a one that holds out to get a diploma falls exhausted at the goal.

It is but a few years since country school sessions became continuous for nine and ten months in the year. Formerly children attended school three or four months in the winter and the same time in summer with long vacations between. Such is the case now in some rural districts, and in these ample time is allowed for recovering from even severe study while the short session lasts. It would seem the dictate of common sense that a child unable to keep up with its class during the long ten months' session should be taken from school and given some other occupation. There is a large amount of reading to be done, if a child is to become familiar with our best literature; and instead of going over and over the dull grind of the same lessons month after month many a child would be far more profitably employed in reading under some shady tree Robinson Crusoe, Hans Christian Anderson, the Arabian Nights, Fairy Tales from Science, and making friends with the works of living writers for children. We need to remind ourselves that the schools are made for the children and not the children for the schools. Suppose a child should lose its place in one class and take place in a lower class, because of temporary and judicious absence from school, what real harm would be done? We pinch back the buds that the culminating flower may attain more nearly to perfection.

Very much of preparatory school work can be done better at home than at school. The mother with requisite apparatus and textbooks can introduce her children to the various sciences while breathing outdoor air, and learning from the objects themselves rather than from even the best pictures of them. From a globe she may teach geography; from an onion and the rocks geology, with a microscope, botany and entomology. Introductions to the sciences thus obtained stimulate a healthy appetite for further acquisition and make subsequent work pastime.

A great deal is said and written now about "the higher education of women." Certainly if the intellectual attainments of women are to equal those of men, the same time should be given women to complete their educational course as is allowed men, and the day of graduation for our girls must be moved forward at least four years. This will make the educated young woman mature when she assumes matrimonial duties. This, too, will enable her easily to realize the program we have indicated in the preceding paragraph; to teach her child with its a b c's and even before them the alphabets of science, of literature and art; to create for her child, from the very beginning of its existence, an atmosphere in which all things noble and beautiful shall spontaneously grow and flourish. As has so often been said, "to have a nation of great men, we must have a nation of great mothers," women sound and vigorous in body, cultivated in intellect, pure in heart. There is no real danger that the majority of women will have the wifely and maternal instincts extinguished by harmonious culture. God has planted them too deeply for that. These instincts may for a time, and should during school years, be kept in abeyance, but they will sufficiently assert themselves when the proper period comes. Pleasure and fashion and frivolity divert women from proper domestic occupation far oftener than does high intellectual culture.

We do not claim novelty for anything said above, but the thoughts given are suggested by observation on what is daily going on around us. Since beginning this article a letter comes to us, alluding to the sad case of a girl who is "a hopeless cripple from overstudy at the age of fifteen." Let us polish our diamonds all we can without wasting too much of their substance, and remember that the Koh-i-noor, the largest and costliest gem in Victoria's crown, is not perfectly symmetrical in shape, though it is brilliant and beautiful. L. E. L.

ON HEALTH.

WHAT is health?—I might quote many writers on the subject with the dire result of perfect confusion. The best definition I have seen, somehow does not stick by me; partly because it is really of no use, and partly because I do not like it so well as my own, which may be understood in the course of this article. A scientific definition, however, is of very little value, after all, since no good definition is easily made to cover all points, with the exception of those found in works upon subjects too large and too high for simple folks to use.

I might play upon the word health—whole, heal, hale, healer, hallow—and others like them, and say they all mean one thing; but what that one thing really is, would be as hard to find as a definition. Suppose, then, we avoid any definition, and proceed to fact. Any one knows when he feels well; and some people can say that they are ill, when they are not too ill to be conscious. Sickness, the doctor, medicine, disease, are these not familiar words? Do they require explanation?

But the opposite of disease is not health; we know enough to understand that; and to be ill is not by any means the same thing as to be well; although some people seem to act as though, when ill, they are getting well; as if a disease is one thing and the absence of disease is another; which is partly true in one sense and very absurd in another sense; for healthy people are sometimes ailing, and, oftener perhaps than invalids, are attacked by severe illness.

A person, then, may be very ill, and yet not be generally ailing, or he may be a confirmed invalid, and not be any more ill than is usual for him. All of which goes to show still more plainly than a single sentence can show that disease is, after all, a common circumstance in the life of a healthy person, and must be occasionally expected in such, whereas it may be present only seldom so as to be marked in others.

I have seen the figures recorded of the number of days per year when ordinary persons must expect to be ill in the ordinary course of events and on the average; although for many years one shall escape illness, and lives tolerably exempt from any considerable attack from disease.

One or two little illustrations occur to me here. I have seen the statement made by Dr. Virchow, a most eminent physician, that disease is a part of nature, and so it belongs to the things to be expected.

I have also read in an account of an exploring expedition, of a deep-sea sounding once made in an almost unknown region of the southern archipelago, where the plummet brought up a number of curious and interesting vegetable growths of a low type, some of which were found to be diseased; showing that in a remote region, away from what we have been accustomed to call the debasing and demoralizing effects of civilization, such evil influences as disease and disorder were at work, even in the most simple and natural forms of life. And if there, then it may be everywhere expected to prevail.

PREPARATION OF BAKED BEANS.—Dr. Ephraim Cutter, in a recent article on the nutritive value of this favorite New England dish, gives the following rules for preparing it in the genuine “down east” style.

“Soak a quart of beans over night in two quarts of cold water.

“In the morning turn off the water, add fresh water, and boil them till the membrane begin to separate; turn off the water.

“Put the beans in a baking pot, with half a pound of salt pork (good sweet butter would be much better) buried in the beans; add two tablespoonfuls of molasses, and cover the whole with water. Bake in a slow oven all day; a baker’s oven is best. Watch the beans, and if they become too dry, add more water. When thoroughly cooked, it will be

known by the softness of the beans in the mouth between the teeth, by the taste, and by the microscope showing the starch grains broken up and mixed in one homogeneous mass that will not polarize light with a selenite plate.

"Take time to eat, and chew thoroughly.

"After eating, go out in the open air and walk or work. Do not go to church after eating baked beans; they will stay in the stomach, and their indigestion will do much towards spoiling the enjoyment of the exercises there. Dyspepsia and

religion do not go well together, but good digestion and holiness are twins. Holiness, health, whole and hale, come from the same root. A holy man is a healthy, whole man, with all the functions in good order, and no dyspepsia. Dyspepsia is a physiological sin."—*Medical Annals*.

Comment.—Beans contain highly nutritive elements, but must be carefully cooked, and eaten by one with a good digestion, otherwise the eater will not get the benefit he expected from them, but rather bowel disturbance.

ANENT "BRACES."

I RECEIVED some time ago the following letter from a niece of mine, and as the reply I made to it may perhaps be useful to somebody else's niece, who may be worrying herself to death for similar reasons, I have concluded that it may be well to print both letters.

CHICAGO, June 11, 1887.

DEAR UNCLE :

"I write you to-day for advice which I know your medical education and long practice of your profession qualify you to give. My oldest boy is now fourteen years old. He has been going to school six or seven years and ranks high in all the branches taught in the school. But I find he is getting to be very round shouldered and if this goes on for another year as it has done the last, he will look, when his back is turned toward you, like an old man of eighty. Several people, and among others his teacher, have recommended the use of "braces." Would you advise me to get them and allow him to wear them; and if so whose are the best? Please answer at your earliest convenience and oblige,

Your loving niece,
EMMA."

REPLY.

DEAR EMMA :

Yours of June 11th was duly received. The condition your boy is in is getting

to be quite common nowadays. Communications from anxious mothers addressed to the papers, asking advice on this very subject are often seen, and in my own practice I am frequently called upon for the same. I now repeat to you what I uniformly say to all who consult me on this subject.

The cause, my dear, is inattention, carelessness and ignorance on the part of parents and teachers of the subject of physiology. A parent or teacher with half an eye could easily detect the first indications of the deformity and by carefully watching the child and seeing to it that he sits or stands with his shoulders always well thrown back, the trouble will be nipped in the bud. This to prevent the deformity. After it has progressed as far as your boy's has, the proper remedy is to send him to some military or other school where physical training is taught. Fortunately for the rising generation educators have at length discovered that the body is as susceptible of cultivation as the mind, and in all the colleges and in many of the private schools physical training now finds a place in the curriculum. In a few months, under a qualified instructor, your boy's body will assume its natural and proper shape and he will know how to retain it so.

As to mechanical "braces" intended to keep any of the members of the body in their proper position—they are to be avoided. It would hardly do for a practicing physician to say, "throw physic to the dogs," but I do say, most emphatically, throw "braces" to the dogs. The use of them will perpetuate indefinitely the trouble they are designed to remedy by doing the work nature's braces should do. Do you remember a great many years ago when you were a great deal younger than you are now, that we visited West Point at the examination season of the cadets, and what admiration you

expressed of the erect and manly appearance they made, not only on parade, but when off duty? Well, my dear, I'll venture to say you could not have found a mechanical brace in the whole Academy. The "braces" which hold their bodies in such fine shape are those which the Almighty placed there, and your boy has the same. They are the only "braces" I would recommend you to use. Keep them in normal condition by exercise and you will no longer be troubled with round shoulders on any of your children.

Faithfully yours,

Burlington, N. J.

J. S. R.

HOME EXERCISE.

MEN and boys ride horses, row boats, climb hills, dance, play ball and skate for exercise. Women and girls do much the same, substituting croquet or lawn tennis for base ball. Little boys and little girls may fly kites, roll hoops—in fair weather—and so keep the blood from stagnating, in their living bodies. So far, so good. But there is a large class still unprovided with the means for proper daily exercises such as men of sedentary habits, clergymen, lawyers, editors, teachers, authors and children who do not have play grounds, and who can not safely go into the streets to exercise. The Health Lift meets certain cases, and is useful; the ten pin alley, when separated from smoking, drinking and betting, affords healthful exercise. The same, though to a less extent, may be claimed for billiards. Then there is the coarser exercise of boxing, which is chiefly used by "sports," and the "fancy," to the disgust of respectable people. And yet, even the clergy might derive real benefits from going through the exercise which pugilists take while being fitted for the "ring," or those forms of exercise supplied by cheap gymnastic apparatus which can be obtained new, and easily set up in a room at home.

The short sword or foil is another sort

of exercise in which muscle may be developed.

When lecturing in Mobile, Alabama, some years ago, a Mr. Pomeroy informed us that he and his family—consisting of wife and several children, had suffered much from illness, and that his expenses for medical attendance had been large for several years previous to his building a "play house" in which each and every member, from a three-year-old baby up to servants, wife and himself, took regular daily exercise of from ten minutes to half an hour. Since that time, now more than two years, not a moment's illness worth attention had been suffered by any single member. He assured us that this, with hygienic living, had enabled the family to dispense with doctors and drugs at a saving of a considerable sum.

Children are dying among us for want of exercise and pure air. They become fretful, mischievous, disobedient and troublesome, when, if they could climb a rope, sailor fashion, and inflate their hungry collapsing lungs with invigorating air they would be gentle, obedient and tractable as lambs. We don't want weak, thin, narrow-chested dwarfs, or bean-poles for children; we want strong, robust, well-developed bodies and brains.

S. R. WELLS.

TO HAVE GOOD MILK.

WHETHER or not cow's milk is proper food, the fact is evidenced by the roll of thousands of milk carts on our city's streets in the early morning hours of every day, that it is universally used as an article of diet, and thousands of practicing physicians are ready to stand up and vouch for its nutritious properties. But another fact demands general respect, that of the easy determination of milk when exposed to unhealthful influence.

When milk is delivered to residents in a city, in summer, the cans containing it should be kept covered, and a cloth, soaked in cold water, wrapped about them. But how often milk-wagons are seen going about the streets with the milk-cans exposed to the direct rays of the sun, the thermometer in the shade ranging from 90° upward, and in the sun from 115° to 120°? At no season should the milk be frozen; but no buyer should receive milk which has a temperature higher than 65°. Changes short of souring take place in milk in an exceedingly brief space of time. It is unfit for food for children for some time previous to its becoming acid. It is the most nutritious and the most apt to agree with the stomach of an infant within the first hour after it has been drawn.

Milk should never be kept in sleeping and living rooms. If, however, this can not be avoided, the vessels containing it should be carefully covered. There is scarcely any fluid that possesses such absorbent powers. It readily takes up morbid germs and is soon affected by bad odors. Drains from refrigerators should never lead into cesspools or communicate with kitchen drains. The only vessels suitable to hold milk are tin, glass or porcelain. After one supply has been exhausted, the vessel should be thoroughly scalded before another supply is placed into it. A few drops of milk of one day, left in a vessel, will, in a very short time, destroy the healthful qualities of that of the next day. All intelligent dairymen understand the pernicious effects of old milk upon new or fresh milk, and, consequently, thoroughly scald all their cans so soon as they have become emptied of a previous milking. Housekeepers should be satisfied,

before engaging milk from dairymen offering to supply them, that the cows are healthy, in good condition, and are not fed upon slops, or the refuse of breweries, or glucose factories, or any other fermented food. They should feel assured that they roam in summer-time in pastures where they can feed upon good grass in which there are no noxious weeds, have clean, running instead of stagnant water to drink. In the winter they should be kept in clean stables, fed upon good hay, sound grain and chopped food, and have exercise every day.

A SCHOOL GIRL'S INFATUATION.

The demoralizing influence of habits that relate to the use of narcotics needs no particular mention in this place, but an interesting case that was revealed not long ago in a young ladies' school near Philadelphia not only illustrates the ascendancy that a drug-taking practice may obtain over the mind but also the ingenuity the victims may display to secure the article craved and avoid detection. The subject of it is a girl yet in her teens who had periods of deep dependency, and often asked the privilege of going to the room in the seminary set apart as a hospital. There she would lie for a whole day at a time, only rousing herself when anyone approached the table, on which stood an ink bottle and a stylographic pen. The nurse one day, having occasion to send a message to the doctor, attempted to write with this pen, the young girl at that time being asleep. The pen refused to write, and on examining it the nurse recognized in the point the puncturing needle of a hypodermic syringe. This led to an examination of the ink bottle. It was a four ounce bottle, painted black on the outside, and contained Magendie's solution of morphia, enough for 128 one-half grain doses. The principal of the school was summoned immediately, and the sleeping girl's arm bared. It was punctured from the shoulder almost to the hand, and the livid blue marks confirmed the suspicion, which was changed to absolute certainty by the small abscess which had begun to form in the forearm just above the wrist. With regard to the growing use of the hypodermic syringe, we think that its use by any others than physicians should be prohibited by law.

Child-Culture.

AN AUNTIE'S NOTIONS ABOUT CHILDREN.—No. IX.

CANDOR AND TRUTHFULNESS.

I THINK few children would tell falsehoods were they not trained to do so by those around them, and untruthfulness, as far as I can see, seems to be chiefly inculcated in three ways,—by example, by suspicion, and by fear.

I have known parents who thought it quite a good joke to tell their children some absurdly improbable yarn, and then laugh at the innocent faith with which the unsuspecting little creature "took it all in." But by-and-by, when the youngsters begin yarn-spinning on their own account, these same parents are shocked at their want of veracity. Often, too, a person in charge of a baby will endeavor to keep it from meddling with things by saying: "If you touch that, it will bite you!" Not reflecting how soon the little one will discover the falseness of the statement, and learn a lesson in untruth, besides losing faith in her word for the future. Or lazily, to save herself from troublesome importunities, she will say that the sweeties are "all gone," when she knows, and the child probably knows, too, that the bag is still half full. Or she will make all kinds of impossible threats about policemen, sweeps, or black men, which, though bad enough if the poor little victim is frightened by them, are still worse when, as is speedily the case, he finds out that they are utterly without foundation. From all such habits as these, young children gather the impression that absolute truthfulness is of small importance, and that if a falsehood will serve their turn it may with impunity be resorted to.

Suspicion, too, I consider to be a potent agent in effecting the above sad result. Some people appear to think that they are always on the safe side in assuming that a child is "telling a story," or likely to do so. Such treatment requires no comment. If a child finds that he is pretty sure to be credited with a falsehood, whether he tells one or not, his sense of honor is destroyed, and he soon decides that it is a pity to "have the name without the game." I should *never* accuse a child of untruthfulness, unless I had indubitable evidence against him, and then I should speak of it as a most serious and dreadful thing; and not with the lightness and carelessness with which such charges are often made. To show faith in any one, especially a child, goes far toward rendering him worthy of such confidence. It was, I think, the famous Dr. Arnold, of Rugby, who succeeded in cultivating a high standard of honor and truthfulness in the school over which he presided, simply by always *trusting* the scholars; he never doubted a boy's word, and not one of them would have told him a lie. I, as a child, was trained to speak the truth, whereas, under a different *regime* I might probably have become deceitful. My mother relied thoroughly upon my veracity, and any inclination to duplicity in word or deed was effectually checked by the thought that she would be *sure to believe me*. Thoughtlessly and indiscriminately to accuse little children of falsehood is to sully the purity of their minds and to teach them deceit.

A third cause of untruthfulness in young people is *fear*. Many a child has told his first lie through mortal terror of having to suffer a disproportionately severe punishment for a small fault or accident. Of course children ought promptly and unhesitatingly to "own up" to any wrong-doing with which they are justly charged, be the consequences what they may; but the amount of moral courage requisite for such an effort is considerable, and more than most grown persons would exhibit under corresponding circumstances. To peremptorily demand of a trembling and frightened child, "Did you do so and so?" in a tone of anger, and with the lowering brow which reveals but too plainly that sentence is already pronounced in our own mind, is to invite a denial, while a kind, unprejudiced inquiry into particulars, with the evident hope that punishment may not be necessary, will help to assure the little offender that justice will be tempered with mercy, and encourage him to throw himself upon our forbearance by making a full confession. Moreover,

although I do not think it wise, as a rule, to entirely excuse offences which really call for punishment because the culprit speaks the truth about his fault, I do consider that a frank avowal of wrong-doing should be allowed in some measure to condone the same, especially if accompanied by signs of contrition.

The value of a candid, truthful disposition, and the benefits accruing when a child can repose perfect confidence in a parent, can scarcely be over-estimated. Fathers and mothers — particularly mothers — do encourage your children to confide in you, to tell you frankly, without fear of harshness, coldness, or unmerited censure, of their little errors and mistakes; of their faults, troubles, and "scrapes;" it may save you and them undreamed-of misery in years to come. Also win them to unburden themselves to their parents' sympathetic hearts concerning the little fears and fancies, just or groundless, which are the secret torture of many a young child's life, and with a few phases of which my next chapter will attempt to deal.

JENNIE CHAPPELL.

A MOTHER'S DISCIPLINE.

THIS tender story of a mother's experience was told in the *Christian Weekly*. She had laid her table with great care and pains for a company of distinguished guests, when her little girl accidentally overturned a tureen of gravy on the snowy cloth.

"What should I do? It seemed a drop too much for my tired nerves—many drops too much for my tablecloth. I was about to jerk my child down angrily from the table, when a blessed influence held me. I caught the expression on her face; such a sorry, frightened, appealing look I never saw, and suddenly a picture of the past came and stood out vividly before my mind's eye. My child's face revealed feelings which I had experienced twenty years before.

"I was myself a little nervous girl, about eight years old, in the happy home of my childhood. It was a stormy day in winter. It was soon after coal-oil lamps were introduced, and my father had bought a very handsome one. The snow had drifted up against the kitchen windows; so, although it was not dark, the lamp was lighted. Mother was sick in bed up stairs, and we children were gathered in the kitchen to keep the noise and confusion away from her. I was feeling myself very important, helping to get supper; at any rate, I imagined I was helping, and in my officiousness I seized the lamp and went down cellar for some butter; I tried to set it on the hanging shelf, but alas! I didn't give it room enough, and down it fell on the cemented floor.

"I never shall forget the shock that it gave me. I seemed almost paralyzed. I didn't dare go up stairs, and was afraid to stay down there. To make it worse, I heard my father's voice in the kitchen. He had cautioned us again and again to be careful of that lamp, and now there it lay, smashed to pieces.

"But his voice seemed to give me the impetus I needed to go up and meet the scolding or whipping, or both, which I felt sure awaited me, and which I really felt I deserved. So I crept up over the dark stairway, and as I entered the kitchen I met my father, with such a stern look upon his face that I was frightened. I saw there was no need to tell him what had happened. He had heard the crash, and if he 'hadn't I guess my face would have told the story.

"The children stood silently around waiting to see what father would do, and I saw by their faces that they were horror-stricken, for that lamp had been the subject of too much talk and wonder to be smashed without a sensation. As for me, I felt so frightened, so confused and sorry, that I couldn't speak. But upon glancing again at father I saw the angry look die out of his eyes and one of tenderest pity take its place. I doubt not

that he saw the same look in my face then that I saw in my child's face to-day. In a minute he lifted me in his arms, and was hugging me close to his breast. Then he whispered, oh so kindly: 'Never mind, little daughter; we all know it was an accident, but I hope you will take the small lamp when you go down cellar again.'

"Oh, what a revulsion of feelings I experienced! It was such a surprise to me that I was suddenly overwhelmed with feelings of love and gratitude, and burying my face I sobbed as if my heart was breaking. No punishment could have affected me half so much, and nothing can efface the memory of it from my mind.

"How I loved my father to-day, as the sight of my little girl's face brought it all freshly before me! Will she love me as dearly, I wonder, twenty years or more from now, because moved by the same impulse that stirred my father's heart in that long ago time, I was able to press the little frightened thing to my heart, and tell her kindly that I knew she didn't mean to spill the gravy, and that I knew she would be more careful another time? Will she be helped by it when she is a mother, as I have been helped by it to-day?"

SYMPATHY.

MANY a childish heart has been hardened and alienated by lack of sympathy with its interests and pursuits. The occupations and plans of the little ones are in reality of as much importance as our own, for while ours are the means, perhaps, by which sustenance and clothing are furnished the growing bodies, theirs is the way by which these same bodies, and what is of greater consequence, their minds as well, are developed and strengthened.

Whatever a person, young or old, is most interested in, becomes in a measure their educator; therefore, whatever occupies the thoughts and time of these

little ones is, in part, the material out of which their future character is made.

It is our duty, and should be our privilege, to be intensely interested in all that interests them. There are some who act as if they thought children's affairs beneath their notice; good, conscientious parents too, who provide for their children every comfort within their power, with the exception of this costless one, a loving sympathy.

And some again are ever ready to condemn anything which the child undertakes, thereby putting upon it the seal of their disapprobation, if not of their stern veto. This is very disheartening.

The child either learns to look upon himself as incapable of doing anything well, or else proceeds to carry on his little business transactions without regard to parental approval. What may look silly to us may seem like real common-sense to the child, and no doubt would the same to ourselves if we would but recall our childhood

Some one has wisely advised "cultivate the *habit* of sympathy," and in no way can we more effectually do this than by putting ourselves in another's place.

Want of sympathy upon the part of parents has a tendency to lead the loving little hearts away from those to whom they would naturally give their best affections. The child instinctively turns to the parent, and especially to

the mother, for companionship in enjoyment; in fact, it hardly seems capable of enjoying to the fullest extent unless mamma shares in the satisfaction experienced. And if this sympathy is withheld, if in the press of many cares she turns indifferently away, the heart of the little enthusiast suffers an irreparable wrong.

Childhood is an impressionable period. Its joys, its griefs, its affections are keen. I fear we do not always appreciate the tender little hearts throbbing with varied emotions. Let us strive to enter more fully into their pursuits, let us see to it that other and less important interests do not usurp the place which belongs to them.

MRS. SUSIE E. KENNEDY.

NECESSITY OF EXERCISE FOR CHILDREN.

THIS is a subject of great importance on account of the number of children interested, and the magnitude of the interests involved, and therefore should receive due consideration from the parents, because it is their duty not only to the children, but to the community, to see that their children enjoy physical health and possess strong bodies; from the children themselves since, in a measure, the development of their minds and bodies is left to them, for the parent and teacher can not always be with them to guide and instruct.

The school children of to-day are to be the citizens and law-makers twenty years hence; it is therefore our duty to properly educate their bodies as well as their minds. A good *physique* is of more value to the youth than the accompanying mental endowments, since these may be indefinitely developed, while the former, if neglected in early life may never be obtained.

There are many who secure a fine education, graduating with high honors, whose after life is one of pain and anguish, and they die a premature death, simply because they neglected the education of their bodies. While

those who maintain strong bodies as well as sound minds, will not only be better prepared for study, but for after life.

Providence puts in our hands the means of preserving health, and this gift involves a grave responsibility. It has been justly said, "Health will be counted among those talents for the use of which we are to answer to our Creator," and it therefore becomes our duty to acquaint ourselves with those laws which regulate and govern it.

It is the duty of all parents to admonish their children to take proper exercise. But we find that many parents pay more attention to the physical culture of their domestic animals, etc., than they do to their own children.

Girls are more apt to neglect exercise than boys, and hence they should receive greater attention from parents and teachers; there is no reason why they should not take proper exercise as well as boys, for they are to bring up children of their own, and it becomes their duty to maintain strong bodies and to be versed in physical education, in order to train their children aright.

The teacher must not think that one-

half the time is to be spent in recesses, or that the children should spend more time in play than study, but recesses are necessary, and it is the duty of every teacher to see that the pupils not only leave the school-room, but that they engage in some agreeable amusement calculated to cheer and keep up the healthy action of the system as well as strengthen the muscles. Teachers and parents are very apt to forget that *exercise is necessary to health*, and they are often deceived in believing that medicine can cure the headaches and like pains of their children caused by the constant breathing of impure air in improperly ventilated rooms, while the real cure is found in light exercise taken in the open air. Outdoor exercise is more profitable than indoor, and should be taken daily by all who would enjoy good health. Gymnastic exercise in our schools and houses *alone*, will be insufficient, but when accompanied by an occasional outdoor walk or sport will be productive of great good. The use of light dumb bells and Indian clubs is highly recommended to students.

Exercise, like everything else, should be systemized in order to afford the greatest amount of good. It is of the utmost importance, at all times, that our lungs should receive a full supply of pure air, and this becomes an absolute necessity when exercising vigorously. If the air inhaled be impure the exercise will

not prove of benefit; rather positive injury may result, hence, gymnasiums and other rooms for exercise should be well ventilated, and should be kept as near as possible at a temperature of about 60° F. It is not advisable to carpet the floor, as the rooms should always be free from dust. The ceiling of such rooms should always be tolerably high.

Brisk exercise should not be taken just before or after a full meal. Cold water should not be drunk immediately after exercising; the longing for water in this case is not due to actual thirst, but caused by the parched condition of the throat and tongue. Care should also be taken not to sit or stand in a draught at any time, and more especially so after exercise when the body is heated and the pores of the skin open.

The child should not be allowed to exercise too vigorously at first; fifteen minutes of brisk exercise is sufficient for the beginner, and the time may be increased a few minutes each day.

Physical education should be taught in our schools and studied at home until it becomes so instilled into our minds as to render the subject perfectly familiar to all. The time is coming when physical training will be counted quite as important, if not more so, than the study of grammar or geometry, and then our "physical sins" will be shown up and in due time corrected.

J. H. E.

THE POWER OF LITTLE KINDNESSES.

BLESSED be the hand that prepares pleasures for a child, for there is no saying when and where it may again bloom forth. Does not almost everybody remember some kind-hearted person who showed him a kindness in the days of his childhood? The writer of this recollects himself, at this moment, as a bare-footed lad, standing at the wooden fence of a poor little garden in his native village, where with longing eyes, he gazed on the flowers which were blooming there quietly in the brightness of a Sunday morning. The possessor came forth

from his little cottage; he was a wood-cutter by trade, and spent the whole day at work in the woods. He had come into the garden to gather flowers to stick in his coat when he went to church. He saw the boy, and breaking off the most beautiful of his carnations, which was streaked with red and white, he gave it to him. Neither the giver nor the receiver said a word, and with bounding steps the boy ran home. And now, here at a distance from that home, after so many events of so many years, the feeling of gratitude which agitated the

breast of that boy expresses itself on paper. The carnation has since withered, but now it blooms afresh.

DOUGLAS JERROLD.

HOW TO BE HAPPY.

Are you almost disgusted
With life, little man?
I will tell you a wonderful trick
That will bring you contentment
If anything can—
Do something for somebody, quick;
Do something for somebody, quick!

Are you awfully tired
With play, little girl?
Weary, discouraged and sick?
I'll tell you the loveliest
Game in the world—
Do something for somebody, quick;
Do something for somebody, quick!

Though it rains like the rain
Of the flood, little man,
And the clouds are forbidding and thick,
You can make the sun shine
In your soul, little man—
Do something for somebody, quick;
Do something for somebody, quick!

Though the skies are like brass
Overhead, little girl,
And the walk like a well-heated brick;
And are earthly affairs
In a terrible whirl?
Do something for somebody, quick;
Do something for somebody, quick!

—*Home Guardian.*

MOTHERS AND THEIR QUERIES.—The correspondence received which comes under this head is often of such delicate nature that it becomes private correspondence and must be directly answered, but we are quite willing, in fact, anxious to devote some of the pages of CHILD-CULTURE to letters from mothers so written that we may present them and receive answers from other mothers.

Occasionally we shall give as a selection an especially good poem which a mother will be pleased to recite to her little ones. "How to be Happy" comes under that head; there is a subtle charm about it which will catch the attention of children.

BEGINNINGS OF BEAUTY.

(Concluded from November Journal.)

"We will suppose a case. If you had in the beginning of the grimace-making which has set its mark on the face of your otherwise pretty daughter, said to her kindly and patiently: 'When little girls make up such disagreeable faces they stretch the delicate muscles that make the face round, and smooth, and beautiful. After a time the muscles become weak, and do not spring back to their places, then the face changes and is not so beautiful as it was intended to be. Will my little girlie remember this and be careful not to make such grimaces hereafter?' I fancy Alice would have remembered, that advice would have taken but a few moments of your time, and would have saved you mortification and pain, which you now feel in regard to the disfigured mouth. Another consideration which is paramount to or rather of greater importance than the physical disfigurement is the injury to the character, which inevitably results from such habitual expressions of disgust or anger. Every time that a child gives free expression to revenge, anger, jealousy, or any other vicious impulse the method of expression grows easier, the inclination to goodness and gentleness is weakened, and the character is permanently scarred. One of the greatest wrongs to which a child can be subjected is that of permitted indulgences of the passions."

"You take radical grounds and set hard tasks for us poor, careworn mothers," answered the lady, "and yet I am more than ever convinced that you are right, and my baby shall reap the benefit of my convictions."

It were well, indeed, for the future of our country if all the mothers of to-day were roused to the importance of careful culture of mind and body of each little one, as exceeding that of perpetual obeisance to the latest freaks of fashion.

A LADY PHYSICIAN.

NOTES IN SCIENCE AND INDUSTRY.

The Industrial School Experiment.—The New York trade schools, says *Building*, are based on the idea that young men should be taught the science and practice of a trade at a trade school, and then left to acquire speed of execution and experience at real work after leaving the school. The trade school instruction makes a lad's labor of value to the employer, and enables him in a reasonable time to become a skilled workman. The trade school also enables young men to enter the trades when old enough to judge for what sort of work they are fitted. This a long apprenticeship precludes. It is no part of the system of the New York trade schools to graduate journeymen. It may be possible to do so, but it is not deemed desirable.

Before giving official encouragement to this experiment in industrial education the master mechanics not unreasonably desired to see what its effect would be on the young men. Of this they have now been able to judge. Six years have elapsed since the schools were opened. The attendance has increased from thirty the first season to three hundred and thirty-seven the present season. Specimens of the handiwork of many of these young men, in stone-cutting, carpentry, fresco-painting, wood-carving, plastering, and plumbing can be seen in the school work-shops. Builders have watched the walls of a large apartment-house and of four dwelling-houses being built during the past two summers by young men who could not handle a trowel when they joined the trade schools, a few months before being set to work. Their skill compared favorably with that of the average journeyman. The plumbing class has recently been subjected to an examination by a committee of the Master Plumbers' Association, which has demonstrated how thoroughly it is possible to teach not only the practice, but the science, of a difficult trade. First, the manual skill of the young man was tested; then the diagrams of faulty work, which the pupils are obliged to correct, were examin-

ed; and, finally, each member of the class was given a paper containing seventy-seven printed questions, selected from the subjects explained at the lectures, which he was required to answer in writing in presence of the committee. As these questions covered a wide range of technical knowledge, it was thought by the committee that if forty questions were answered correctly it would be a fair showing. The average was over sixty. This is not the less remarkable from the fact that these young men are not in the habit of putting their ideas quickly and concisely in writing; indeed, it was found that in many cases where incorrect answers were given, the pupil failed from an inability to state clearly in writing what he meant.

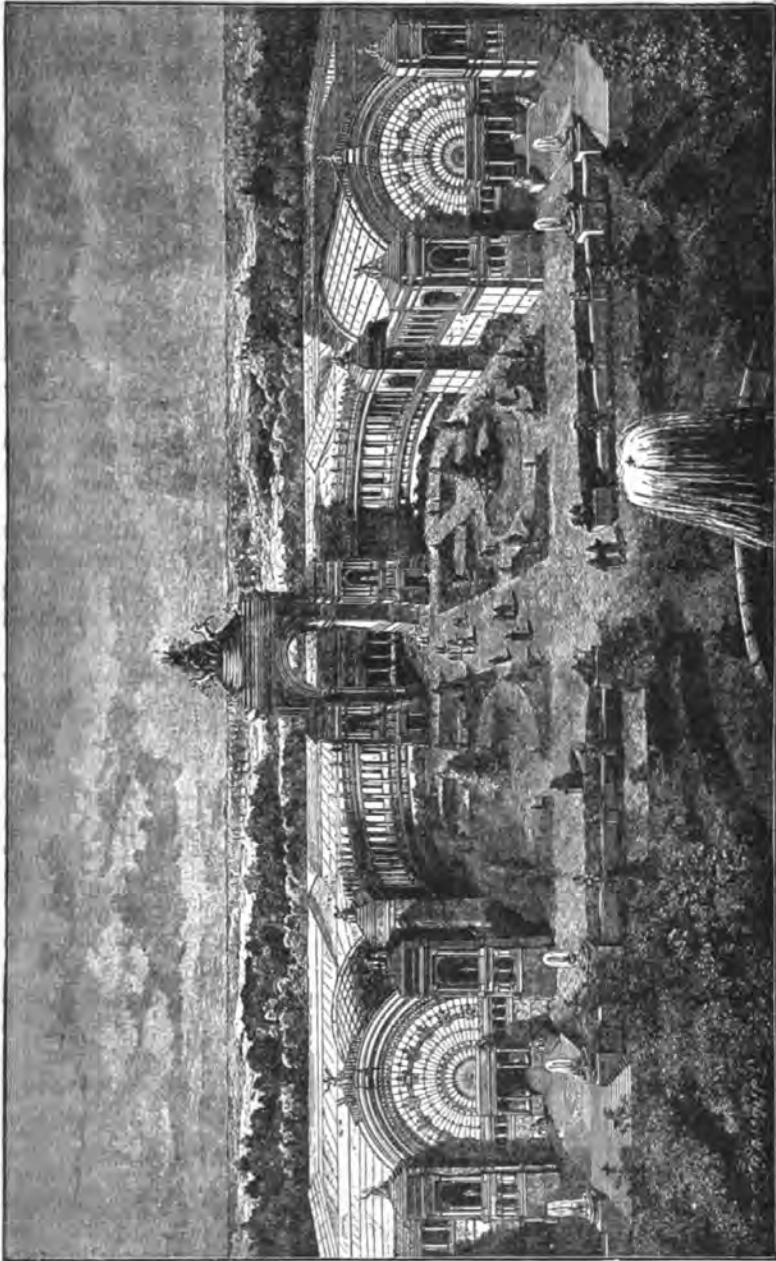
The Brussels Exposition.— In May next a Grand International Exhibition of Science and Industry will be opened in Brussels, Belgium, to which Americans are invited to contribute for all its departments, and much interest is shown by our manufacturers and merchants. The design of one of the principal buildings, the Gallery of Honor, in which the world's exhibits will be assembled, is shown by the engraving, and it is certainly one of the most beautiful that we have seen, not excepting the famous Trocadero of Paris.

This exhibition will be the first of the kind ever held in Brussels, and its promoters are laboring diligently for its success. The site chosen for the holding of the exhibition is the ancient Champ de Mars of Brussels, said to be one of the finest locations in the city. The exhibition buildings will cover an area of 100 acres.

Work on the buildings is progressing so rapidly as to insure their completion in a very short time. The permanent structures are said to be very fine specimens of art, and will be supplemented by temporary buildings of brick, iron and glass to meet the requirements of exhibitors. Beautiful gardens will be an interesting feature of the exhibition.

The main buildings comprise the Gallery of Honor, the Central Gallery, the Lateral Gallery, the Machine Gallery and the Gallery of Art. It is announced that

There will be a thorough inquiry into the actual state of applied sciences and the different industries. All products exhibited will be classified, according to their nature,



THE GALLERY OF HONOR, BRUSSELS EXPOSITION.

a Convention, quite distinct from the exhibition, will be held in the Gallery of Honor, where subjects of interest to manufacturers and producers will be discussed.

in international departments so as to give an opportunity for a comparison of them with similar products from different nations.

The prizes in the convention will be as

follows:—First—A prize of progress—Premiums in money, medals, diplomas, etc., amounting to 500,000 francs, a diploma to accompany every premium. Second—A prize of honor—Gold medal, with diploma. Third—A prize of excellence—Silver medal, with diploma. Fourth—First prize—Gold medal, with a gilt medal. Fifth—Second prize—Silver medal, with a silvered medal. Sixth—Third prize—Bronze medal. Seventh—Fourth prize—Diploma of encouragement.

In the exhibition a diploma of participation accompanied by a commemorative medal will be given to all subscribers to the exhibition.

Messrs. Armstrong, Knauer & Co., the American agents of the exhibition, have issued a circular to American exhibitors in which they offer the following inducements:—First, guarantee of the protection of industrial, scientific and commercial property; second, transportation of goods for exhibition through Custom House free of duty; fourth, insurance; fifth, representation of exhibits.

Their circular says:

“In the present time of intense crisis and over production it becomes necessary for the self-protection of manufacturers and producers to become thoroughly acquainted with everything pertaining directly or indirectly to his particular line of trade, whereby it may lead to a better and more economical manufacture. The great advantage this exhibition offers to American manufacturers and producers, especially those of machinery, implements, tools, hardware, and all articles of merit, is an opportunity which every enterprising manufacturer and producer in the United States should immediately avail himself of by introducing his goods abroad, and thereby creating a demand for the use of the same in foreign countries. The enterprise fulfils a universal and momentary want—viz., to manufacture and produce better, quicker and cheaper.

“For American exhibitors the latest time to file applications for space is January 15, 1888, and for all entries, April 15, 1888. All goods must be in their respective order by April 25, 1888.”

Destruction of the Phylloxera.

—Dr. Clemm has patented the following

process in most civilized countries: He incorporates with the soil sulphides and carbonates which easily undergo decomposition, preferably those of potassium. Peat which has been made to absorb sulphuric, nitric, or phosphoric acid is then also introduced. The acid gradually acts upon the sulphide and the carbonate, liberating sulphureted hydrogen and carbonic acid in the soil. These two gases, according to the experiments of Dr. Eyrich, of Mannheim, are rapidly and uniformly distributed, and prove fatal to the *Phylloxera* or grape-vine parasite in its underground stage, as well as to Colorado beetles, field mice, moles, etc. The potash remains in the soil as a sulphate, nitrate, or phosphate. The question is whether useful animals, such as earthworms, humble bees, carnivorous ground beetles, etc., will not be destroyed also.

Lightning and Barns.—A writer in the *Farmers' Home Journal* says that lightning is simply a powerful electric spark caused by a current of electricity passing from a positively charged cloud to one that is negatively charged. Electricity follows the shortest and most favorable course of a good conductor. Water is one of the best conducting substances, and a stream or body of heated, moist air affords an easy course for the passage of electricity from the clouds to the earth. A barn filled with new hay or grain gives off a considerable quantity of moist, heated air, which, rising, forms a column often several hundred feet high. This leads the lightning into the barn, which, of course, it sets on fire. Barns with ventilating cupolas are most often thus burned, by reason of this moist current of air ascending in a compact stream. When the ventilation is through several openings, of course there is less risk. A lightning-rod under such circumstances is not capable of conducting an electric discharge from the clouds to the ground, and hence is no protection—its only efficiency as a safeguard being in conducting in one *uninterrupted*, quiet stream the electric current to the ground. Sometimes, it is true, a current of warm, moist air, such as in the above case, will conduct the electricity safely to the ground, provided nothing should intervene to divert its course, but if a break should occur, a flash is thus produced, and fire the

consequence. Stacks of hay for this reason are not so often burned as barns. Trees when in foliage continually give off moisture through the leaves, and, as a consequence, are often struck, while dry, dead trees as often escape.

A Novel Horse Railway.—The longest horse railway in the world will be that with which it is proposed to connect a number of towns near Buenos Ayres, South America, and which will have a total length of two hundred miles. The road will also be exceptional, in that sleeping-cars will be run upon it for the comfort of passengers. Horses will be employed as a motive power instead of steam, because horses are cheap, fuel is dear, and the people are slow. The price of two tons of coal will buy a horse with its harness. The sleeping-cars and all the other equipments of the line are supplied by a Philadelphia company, and these cars are stated to be curiosities. They are four in number, eighteen feet in length, and are furnished with four berths each, which are made to roll up when not in use. The cars are furnished with lavatories, water coolers, linen presses, and other conveniences, and are finished throughout. Other rolling stock comprises four double-decked open cars, twenty platform cars, six refrigerator cars, four poultry cars furnished with coops, eight cattle cars, two derrick cars for lifting material, and two hundred box cars.

Fluatation.—Fluatation is the name applied by Messrs. Faure, Kessler & Co. to a new process of hardening building stones through the application of hydrofluosilicates. The operation is very simple, and can be performed whenever desired, either upon the stone before it is put in place, or after the building or other structure is completed. The surface of the stone is covered to the desired degree with a solution of the fluuate by means of a brush, sponge, or hand pump. Another application is made the next day, and a third one the day after. As a general thing, it requires three applications. The hardening takes place at once, and upon the third application becomes perfect. There are several soluble fluates, each of them having its peculiar properties. One darkens the color of the stone, another whitens it, another preserves the original color, and

others color the stone indelibly. The coloring fluates most employed are those of iron, which gave a brown tint, and those of chromium and copper, which give two greens of different shades. Fluatation is applied to old structures as well as to new ones, and is a true means of preserving the edifices that have been bequeathed to us.

After the stone has once been fluated, it becomes so hard that it can be treated like marbles and porphyries. Upon applying the colored fluates along with a subsequent polishing, very remarkable decorative effects are obtained, inasmuch as the intimate structure of the stone is brought to light, and the nodules, veins and fossils are delineated in different tints. After the stone has been fluated it can be easily rendered impermeable, and, as it is not attackable by ordinary liquids, it may be used for making tables, sinks, baths, and reservoirs for a host of liquids, such as wine, oils, alcohol, molasses, etc.

Fluatation is applied in the same way to cement, mortars, stuccoes, etc., provided they are more or less calcareous. It renders the alkalies of cements insoluble, and thus, after a washing with water to remove the excess of fluuate, permits of a coating of paint being applied.—*Le Genie Civil.*

Soldering Cast Iron with Tin.

—Many ornamental articles are made of cast iron, variously decorated. The smaller specimens of this kind break very easily if carelessly handled. Then the question arises of how to mend the broken article, a question that has puzzled many, as it is so very hard to firmly unite pieces of cast iron, because it has but a slight affinity for tinsolder. The soldering can be made much easier by first cleaning the faces of the broken parts from all impurity, which is not necessary when the fracture is of recent occurrence and the broken parts are perfectly clean on their faces. With a brass wire scrubbing brush, the faces of the fracture are continually scrubbed until they finally appear perfectly yellow, thus in a certain sense being "dry plated" with brass; the rough cast iron rubs off brass from the fine wires very quickly. The brazed surfaces are tinned just as brass is tinned, and then with no greater difficulty the parts can be soldered together.—*Der Metallarbeiter.*



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
January, 1888.

FIRE AND PASSION.

FIRE is at once one of the most destructive agents and one of the most useful in nature. Under intelligent control fire has helped man toward attaining many a remarkable result in the domains of science and art, and served him most efficiently in the social and domestic spheres. It would be a long recital should we attempt to enumerate the advantages man has reaped from fire. Yet the fact is often most startlingly and unhappily shown in our common life that fire can be a most terrible master.

There is a fire in the human organization that is burning while life lasts; a fire that like the physical agent becomes a destructive influence when it escapes from control. That fire lies in the appetites and passions. These are endowments for a purpose both natural and benign. They lie at the basis of human energy. Under control, which means properly developed and made co-operative with the intellectual and moral faculties, they perform a most useful and honorable part in the life of a man. It matters not where that life is

spent, whether amid the roar of pullies and trip hammers, or at the accountant's desk, or by the bedside of the hospital patient, or in the quiet of the study, these powerful forces still exercise their special function. Under normal restraint and properly applied, they are the stimulants of healthful mental action. Without control their influence becomes injurious and baneful to the mind. They are like the horses illustrated by Fourier, that, if left to do as they please, will run away, upset the chariot, and fall with it down some precipice.

The engineer when he starts his fire must watch the kindling, and guide its development; so the parent must watch the growing passions in the child, and the young man or woman must watch against their excessive activity, and be careful to direct that activity in useful channels. What is the criminal but the effect of passions that have been masters of his conduct instead of aids? What the pushing, efficient man of affairs but a practical example of the same forces made obedient to good and useful purposes? Fourier properly says that "sensual and spiritual pleasures are only two sources of scourges as long as we are ignorant of the laws of the pas-sional balance;" but it is the sensual propensities that we have to guard against chiefly, the common routine of life having much more employment and stimulus for them. Diligence, perseverance, industry, earnestness in any field of usefulness, however high the leading motive, must have the support and co-operation of the self-nature, the propensities. Here and there are men and women drifting along listlessly or sullenly in the current of life, or lying

motionless in a slough of misanthropy. Ask one why he does not "Act in the living present," and he answers because he has no aim or incentive. Awaken in him the hope of securing some personal advantage, excite the desire of wealth, fame, social influence, and he will at once look around for a place where he can work toward the new object. There is nothing ignoble in the possession of such things; it is the way in which they are obtained and their application that marks character high or low.

Let propensity or passion burn in the soul, the man is the better for that, provided the faculties of intellect and moral feeling, the sentiments of ambition, honor, sympathy and kindness are set aglow by the heat. This "lower nature," which we are too much given to decry and treat contemptuously—our appetites and passions—is as necessary to our mental integrity as any element in that range of feeling and sentiment that we dignify by the term "higher nature." It is the combination and harmony of both that make true and noble manhood. In one as in the other the divine hand is seen; in one as in the other, we need that "celestial fire" that

"Can change the flint
Into transparent crystal, bright and clear."

THE CONSTITUENTS OF HEALTH.

THERE is no type of constitution that can be taken as representative of health. Variations of development in bone, muscle and nerve, even to seeming extremes, may be consistent with that condition of functional balance which is termed good health. Here is one who is short in stature, large in muscle, deep-chested, with four

inches of pectoral expansion. There is one who is tall, slim, "nervous," moderate in the chest, small at the waist, with but an inch or so of expansion. Interrogate them and we may find that as regards the practical indications of physical and mental soundness in their every day life, activity, intelligence, ability to perform the duties of their station without interruption abroad and at home, one is the equal of the other. States of fatness or leanness, unless there is plethora on the one hand, or emaciation on the other, can not be taken as symptomatic of weakness or infirmity, and furnishing grounds for positive judgment as to strength and endurance. The reader knows men and women who are as widely different in physique as a greyhound is from a black-and-tan terrier, complexion, stature, development of body, habit of living, in each, differing from the others, yet all active, vigorous, efficient.

Among our public men I may cite as illustrative of this, William M. Evarts, Chief Justice Waite, Benjamin F. Butler and Roscoe Conkling. The physical "points" of these gentlemen are well marked and contrast signally, and to attempt to apply a rule defined by terms of mathematics for the measurement of their relative health would fail in satisfactory results.

Observers have not been lacking for centuries who sought to lay down certain *data* by which a man's constitutional state and life prospect could be determined. Hufeland, in his "Art of Prolonging Life," says of a man destined to long life: "He has a proper and well-proportioned stature, without, however, being too tall. He is rather of

the middle size and somewhat thickset. His complexion is not too florid ; at any rate too much ruddiness in youth is seldom a sign of longevity. His hair approaches rather to the fair than the black ; his skin is strong but not rough. His head is not too big ; he has large veins at the extremities and his shoulders are rather round than flat. His neck is not too long, his abdomen does not project and his hands are large, but not too deeply cleft. His foot is rather thick than long ; and his legs are firm and round. He has also a broad, arched chest ; a strong voice and the faculty of retaining his breath for a long time without difficulty. In general there is complete harmony in all his parts."

Modern observers, like all who have carried the system of anthropometry or human mensuration to that degree of minuteness that only leisure and enthusiasm will permit, offer statistics that put at fault old maxims in relation to the essentials of bodily strength and endurance. The Greek artists set up certain rules of proportion as definitive of beauty and symmetry in form. According to these the whole figure must be but six times the length of the foot ; the face from the hair to the chin one-tenth of the stature ; the navel must be the central point of the body ; the entire height correspondent to the distance between the tips of the fingers, when the arms are extended horizontally at full length ; twice the circumference of the wrist must be equal to the circumference of the neck, and twice the neck equal to the size of the waist.

Modern artists refer to these and other classical standards of proportion in their estimates of beauty and completeness in

design, but any one who has studied the human body in this era knows that the ancient rules would find but rare exemplification among men and women considered beautiful to-day. The cultivated Spaniard would regard a foot that measured one-sixth of a woman's height as an ugly deformity. In France, England and America, a foot so large is the exception, even among people in the rude districts where going barefooted is a prevailing custom. The ladies of our higher circles pride themselves on the smallness of their waists, and for one to claim distinction for the trunk proportions of a Miloese Venus would be to challenge almost general ridicule.

In Spain and France plumpness of body is admired as a quality of feminine beauty. In England slenderness seems to be a charm dwelt upon by poet and romancer. In America there is a growing favor for a rounded, robust type of development, while small hands and feet are esteemed essential accompaniments of grace. Every race or nation, in fact, has its type of human beauty, and a comparison of one with another would show surprising differences, and demonstrate the proposition that an absolute standard of proportion in human development can not be formulated.

Science reveals departures everywhere in nature from simple types, but such departures do not imply abnormality or imperfection ; the perfect flower, *i. e.*, the plant growth that meets the ideal of the botanist, is not by any means common in a garden, but healthy, beautiful flowers are abundant. Physiologists may define an average man as being so many feet and inches in height, weighing so many pounds, having such a com-

plexion, so many inches of chest and waist, so much circumference of head, such a length of trunk, arm, and leg, etc., but to say that such an average combines the best properties of mind and body would be presumption. There may be some convenience in an inventory of the kind for the sake of comparing one person with another, but men, as a rule, are not to be arranged in sets like wash tubs or wooden measures, the larger the diameter or girth the greater their capacity.

It must be admitted that a tall man should weigh more than a short man, as this would be the case were the body and limbs of the former no larger in circumference than those of the latter; but it would naturally be expected that the tall man would be larger everywhere than the other in accordance with the common law of development, and consequently that his weight would much exceed that of the short man. Nature, however, in her differentiation of men does not always meet our expectations, and counsels discretion in our estimate of capacity, so that we shall not be guided by mere bulk. We must take into account the constitutional factors, the strain or type of development as evidenced in bone, muscle, nerve, skin and peculiarities of contour, after having first determined what these factors are.

A PHILOLOGIST'S NOTION.—Prof. Max Muller of Oxford has been one of the best authorities in philology and Oriental literature so long, that what he writes obtains respectful attention everywhere. His last book, "The Science of Thought," is an attempt in a new field, and it seems

to us that he has carried thither principles and views that ill befit the topic he discusses, while they may be appropriate enough in a treatise on Chaldee or Syriac root words. He makes thought and reason subjective to language. Under the plea of stating a new and more accurate list of names than that in common use for the actual powers of the mind he sets out with an assertion of this sort: "There is no such thing as intellect, understanding, mind and reason, but all these are only different aspects of language."

No metaphysician or psychologist will be likely to think that Prof. Muller has added much to mental science by such a wholesale claim for language. He has rather increased the uncertainty that is generally acknowledged with regard to the evolution of thought, *i. e.*, if his views have any influence on the world of philosophy.

Language, as the expression of emotion or desire in their simple forms, implies a degree of co-ordination of certain intellectual faculties with the sentiment felt. There is a mental operation, consciously or unconsciously, carried on, whose outward manifestation is speech. Language necessarily represents a mental idea or impression that must precede it. Hence the common axiom, "No language without thought." We should not contend with those who would claim that the capacity to think grows with the ability to speak. In the later evolution of reason, words so condition its procedure that it seems at first to be but a twin factor of language. We must go back to primitive phases of mental action, and consider them carefully in order to perceive the antecedent; we must note in

the untaught child the crude effort to express a simple idea. Our much differentiated life to-day consists far more than most of us think in the variable effects and applications given by a language rich in words to comparatively few thoughts. A new thought to-day is a stroke of genius.

Our Mentorial Bureau.

To Our Correspondents.

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

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

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

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 to the Editor personally will receive his early attention if this is done.

COLOR OF TEMPERAMENT.—W. J. M.—A modification of temperament is not followed, necessarily, by a marked change of complexion. A person may require stronger muscles,

and the pronounced features of the motive temperament, but his blue eyes and fair skin will remain about the same. Supposing that he had formerly the vital in excess, the softness and roundness that are accompaniments of that would give way to the hardness and angularity of the motive, according to the degree of change wrought in his constitution.

Regarding your question with respect to increasing stature, we would say, that we know of cases of growth after twenty-five. Athletic exercises practiced with moderation tend to increase the size.

INSANITY AND IDIOCY.—H.—We regard these forms of mental abnormality as distinct in type. Insanity is the effect of brain disorder or disease; idiocy is the effect of brain deficiency. To be sure idiocy may be a result of disease, but it is then, as in the inherited state, indicative of the functional or organic absence of certain nerve tracts or centers. Congenital idiocy manifests itself in the majority of cases by cranial deformity. Cerebral disease conducive to insanity may be inherited without the coincidence of deformity in the skull, and the mental disturbance may not appear until adult life. The old writers regarded idiocy as a peculiar mental condition, indeed a natural state arising from the absence of intellectual faculties: hence, the term itself, which is derived from the Greek. Insanity as distinguished from idiocy is a variable, fluctuating state of mind. The insane may have intervals of clear, intellectual discernment, "lucid intervals," as they are termed, when the conduct appears entirely rational, but the idiot's mental expression is uniform, and characterized by no "lucid intervals."

It seems to us that an analysis of the terms *idiocy* and *insanity* would be sufficient to show the distinction, the latter etymologically pointing to a condition of cerebral disease, unbalance or unsoundness, rather than to organic defect or deformity.

LITERARY SUCCESS.—J. A.—*Question.*—I have a fair education and think from a calm examination of my mental make-up that I possess good qualifications for the pursuit of literature. The business I am in, dry goods, does not suit me, for I have a very strong leaning to books and writing. Do you not think that I could succeed?

Answer.—We do not know your qualifications except as above stated, and taking them to be favorable to a literary pursuit, we should not be ready to encourage you to leave the prosy sphere of dry goods and embark upon the very uncertain sea of literature. There are so many thousands of regular and irregular writers, that even genius that struggles unaided has a hard time of it before any recognition of its merits is accorded. Literature is no easy road; its flowers are thickly guarded with thorns. One, who obscure and unknown would become a good writer, must submit to a trying course of study and practice. In spite of good natural endowments, he must, as a writer has said, serve a long apprenticeship before he gets above the first round of the ladder. Those writers who seem to write so easily have spent years in acquiring ideas, knowledge, methods, and facility of expression. To write one book Charles Reade read a thousand books. John Stuart Mill wrote and rewrote his works, recasting, correcting, revising them with greatest care. George Eliot prepared herself for writing by months of study and thought. Whatever you do you will find that success is won only by the faithful, patient, diligent, conscientious worker.

THE ACTION OF FACULTIES.—E. S.—The normal, harmonious activity of the faculties is dependent upon training. It matters not how large the organs originally, or how well proportioned the head, if the education and culture be deficient and faulty the manifestations will be wanting in regularity and effect. In fact, the errors of training will make their impress on the organization, and in time it will be modified perceptibly. So, if an organization that is wanting in some respects be subject rather early in life to the control and training of an intelligent and judicious teacher, one who understands the philosophy of mental growth, the effect will be to develop a better condition. The faculties once weak would be stimulated to a degree of activity and influence that was not originally theirs, and the organic-centers would be correspondingly strengthened and increased. Nerve grows by normal exercise. The same physiological principles apply to it as to muscle. Determined effort will finally overcome weaknesses

in faculty, if there be a foundation in the organism to build upon, and we are not warranted in thinking that there is no foundation until a fair trial has been made.

CHIN AND CIRCULATION.—J. S.—The chin has some relation to the blood movement in the superficial tissues. A small, pointed chin is usually the accompaniment of a pale skin, and a general appearance of poor nurture. There may be considerable nerve excitability, in itself a mark of insufficient blood supply. The full, broad chin indicates, as a rule, abundant heart action, and a finger placed on the pulse reveals a forcible movement in the arterial vessels. To improve a feeble circulation that is not due to organic disease, we advise out-of-door exercise, good food, and bathing. Massage and electricity properly administered, are helpful also.



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

Both Sides of Mental Philosophy.—Mind can not be considered in the light of logical conclusions in the abstract, and matter can be investigated only as the result of mind. Nature answers to mind in physical correspondencies; it is the display of Omnipotence in the manifestation of intelligent design. It is well known that organization is affected in conformity to law and order and proceeds from a spherule of forces to the development of those characteristics that define genera and species. This implies the operation of inherent forces as well as the changes effected through chemical agency.

We are not to be absolute realists or absolute idealists, but we may consider the two as necessary counterparts co-operating to work out the wonders of existence. All physical changes are the result of mind and all progress is the progress of mind—the result of mental development. We can not treat of matter without terms of mind, nor can we treat of mind without using terms of matter.

Mind is developed and manifested through the medium of corporeal being, the connecting link being the brain and nervous system. This is the means through which mind acts

upon matter. This is a fundamental principle of Phrenology and is emphasized as a legitimate conclusion of modern research. Though this is true, it does not follow that the textbooks of metaphysicians are utterly false. They have given us one side of the subject amidst a mass of error and conjecture.

The science of mind has elicited the attention and labors of wise men in all ages of the world. The two rival schools of Plato and Aristotle have had their adherents, who have from age to age debated the same questions, but they have failed to arrive at logical conclusions on either side to the exclusion of the other. The mind needs the body, and the body needs the mind; each one is a complementary part of the man. A strong mind is dependent on a strong body, and a strong, healthy man is able to exercise a vivid manifestation of mental power, but this does not imply that the physical force that is stored in the food he eats, and which is assimilated through the vital processes is essentially metamorphosed into intellectual and spiritual products. Every process is double; every mental effort has its physiological effect, and every physiological condition has its mental effect, and as these effects are double, why not attribute this duality to the cause? There was a Greek philosopher who died because he could not account for the tides on the Ægean Sea. His system of philosophy was not comprehensive enough to include the cause of tides. So the data of facts is often farther off in the realm of philosophy than we have ever been, but by the recomposition of the material and the immaterial there may be found sufficient data for the solution of all the problems of life.

The extremes of science and theology become stranded upon a turbulent ocean of dreamy emptiness. Man is not merely a breathing lump of clay; nor is he a being of fancy wending his way through airy clouds of mysticism, and roaming over the dreamy realms of fairyland. "The philosophies of realism and idealism become false in becoming divorced from each other, and true as they shall be recomposed so as to hold each other in mutual check."

These sciences seem abstract and foreign to common minds, but they contain underly-

ing principles that have something to do with every day life. Each one has sent forth a stream flowing through all ages of the world's history unobserved by common minds, tinged science and religion, and giving shape and direction to character and society.

D. N. CURTIS.

Matter and Mind.—The relationship between *mind* and *matter*, in our present sphere at least, seems past finding out. Perhaps, in time, we may advance to some higher condition, when this relationship may be revealed to us, but at present we must content ourselves with the various conditions of *matter* that surrounds us, and the knowledge of the fact that there is such an element or power as *mind*.

Ages ago it was thought that we had gained a full and complete knowledge of our surroundings—that all there was in matter had been revealed to us—at least all of importance. But as the years and centuries have rolled on, it has been learned that the farther men advance the more they learn.

In obtaining knowledge of our surroundings there is nothing for us to boast of, nor is it fitting for us to exult over those that have preceded us. But for the good foundations laid by the ancient world and the building up of the walls, the higher and higher elevations of succeeding generations, we of to-day would not enjoy our commanding position. Through the efforts of our brethren of the past, and continued by those who have followed them on and on, through centuries of time, we come to the greater knowledge of the present.

Therefore, let us not be boastful of our individual efforts, or the efforts of the age in which we live, but be thankful to the strong men of the past who built such good foundations, and to all the brethren of all ages since who have continued the good work.

Let us do as well by the future as the past has done for us by emulating the labors of the past and continuing its triumph of mind over matter, that greater and greater triumphs may go on whereby we may at last secure the more advanced triumph of mind. From our present standpoint it takes much matter to produce even the mere ability of mind to grasp the laws governing matter.

The brain is the neutral ground, so to speak, where mind and matter meet—where matter is so finely wrought that it bridges the expanse and forms mind, whereby it is revealed to itself. Common matter by itself has no power to conceive of matter—wrought up and refined in what we term brain tissue, it has that power. How this takes place we know not. At present it is beyond our power. We do know, however, that it has taken many years, and we may say ages, to establish and bring matter up to a high and varied condition. We know that matter existed before mind. At least in a worldly sense, from our present standpoint, for from no other point are we at present able to view it. But because we have not this power at present it is no argument that we shall not, at some future period, advance to it, and perhaps be able to discuss, from a far more intimate point of view, the greater and more advanced beauties of mind. Matter existed before mind and mind was a natural sequence of matter; first low and light orders of matter, then on to higher and higher grades, till low grades of mind were reached.

Those early grades of mind, however, had little power over matter, they were confined to one line of small division, but as the development went on diversity and advanced combinations were the rule—higher and higher, and more and more expanded and complete. But it took many ages to build up even to the lower grades of man. The first story of a house can not be built until the foundations are laid. First the matter or basis on which to build, then the foundation, first-story—second-story—and so on to the dome and final. The house is a good simile, for thus must the plan proceed. Thus the lesson we learn from nature, the development from matter to mind.

Matter it would seem has the power to advance till it has the ability to form mind or to be the abode of mind. Mind without this foundation is as nothing; it can have no existence, at least existence as we regard existence here in this life—and of this life these thoughts deal. Yet, the while, it will be seen that these thoughts follow the example of our surroundings and advance us on toward a higher condition of mind; that they establish

faith in the idea of the spiritual advancement of mind to where it can enjoy a far superior condition than is realized here.

Matter by itself is of no great value; even though it may have existence, its mere existence is as nothing; and in this respect not superior to mind without matter. So either of the two without the other is as nothing. Combined and united they lead on to most wonderful and grand results.

ISAAC P. NOYKS.

An Interesting Experiment.—

BERLIN, Ont., Nov. 16, 1887.

Editor Phrenological Journal :

Dear Sir : The following from Dr. Scheve's excellent work "Phrenologische Bilder," and here translated into English, perhaps for the first time, may interest the readers of the JOURNAL, especially the graduates of the recent class of the American Institute of Phrenology, because of their special relation to the active work of teachers :

"Ich machte im Jahre 1839, die Entdeckung,—dass man durch einen Druck auf die Stelle irgend eines Organes einen die sem Organe ent sprechen Traum hervor rufen kann. Man beruehrt zuerst leise den Kopf um den Schlafenden nicht zu erwecken, und verstaerkt waebrend fuenf oder zehn minuten den Druck so dass der Schlafende durch denselben erwacht."—*Phrenological Bilder*, Leipsic, 1874, Page 22.

Translation.

"I made the discovery in the year 1839, that a person by pressure at the locality of any organ, can produce a dream corresponding to this organ. Touch the head at first lightly, so as not to awaken the sleeper, and increase the pressure during five or ten minutes so that the sleeper is awakened thereby."

We have tried this successfully. Is it animal magnetism or what?

D. H. CAMPBELL.

[We do not regard this process of the nature of magnetism.—Ed. P. J.]

PERSONAL.

MANUEL BARRANT and wife, of Matamoras, Mexico, recently celebrated the 80th anniversary of their wedding. The husband is 102 and the wife 96.

SENATOR HAMPTON, of South Carolina, has a daughter whose physical powers adds to her father's political eminence doubtless. We are told that she is a champion walkist, not long ago making a 300 mile stretch of it in good time.

MR. ELI WARD, of Sheffield, England, is now making a tour of the United States and Canada. He is a successful lecturer on mental science and temperance, and will probably find opportunities to appear on the platform before American audiences.

MATT. W. ALDERSON, graduate of the Phrenological Institute, is engaged in news paper work at Bozeman, Montana. Recently he was manager of the *Butte Miner*. An eastern trip occasionally brings Mr. Alderson to New York, where he is sure to indicate his continued interest in the work of the Institute.

MRS. CRAIK (Dinah Maria Muloch), the author of "John Halifax, Gentleman," died in October, last. Miss Muloch was born at Stoke-upon-Trent, Staffordshire, in 1826, and was married to the late George Lillie Craik, the historian and critical writer and editor, in 1866. Mrs. Craik has probably been as prolific as any writer of the century, for in addition to the many novels she has put upon the world, she has contributed many fugitive tales and poems to the periodicals. Her first novel was "The Ogilvies," which was issued in 1849. Her other principal works were "The Head of the Family," "Agatha's Husband," "John Halifax, Gentleman," "A Life for a Life," "A Woman's Thoughts About Women," "Studies from Life," "A Noble Life," and "A Brave Lady."

WISDOM.

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

Effort, not success, is the true measure of heroism.

The man who lives in the past is unable to understand or serve the men of the present.—[O. W

The sophist has a very cunning way
Of overlooking what he ought to say.
His low chicanery is wide-awake—
In missing all the heavy points you make.

MIRTH.

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

"No, sir," he said to the captain, "I am not seasick, but I'm disgusted with the motion of the vessel."

A newspaper poet desires to know "Where are the girls of the past?" Bringing up the girls of the future, we shouldn't wonder."



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.

PUBLICATIONS RECEIVED.

BEECHER AS A HUMORIST. Selections from the published works of Henry Ward Beecher. Compiled by Eleanor Kirk. 16 mo., pp. 222. Price \$1.00. New York. Fords, Howard & Hulbert.

It must have been a labor somewhat of the kind that we hear mentioned as belonging to love that led Eleanor Kirk to grope through the mass of Mr. Beecher's sayings and writings to prepare this neat volume. And then Mr. Beecher was so much of the humorist that it required no small amount of discrimination to pick out the choicer bits from so rich a treasury with a view to meeting a public want. Now the fertile brain and musical tongue of the great speaker will no more charm the great audiences that filled Plymouth church Sunday after Sunday.

Here are good things from Sermons, from "Norwood," "Eyes and Ears" "Yale Lectures on Preaching," the war speeches in England, "Lecture Room Talks," "Evolution and Religion," and soon; and along the headlines we see the topics as commentaries. humor in the pulpit. false humility, hypocrisy, names, reputation, marriage, Darwinism, bores, credits, Adam's fall, repentance, inspiration, conscience, politics, hazing, old maids, liquor, the church, lovers, religion, poverty—hundreds of themes and thoughts, and every one with a whip-crack in it. He would not spare anything—not even his own beliefs—as a subject for a

humorous turn, if only there were a fair and wholesome point to be made; as where he says, "Whatever you may think of the development theory *behind*, let me tell you the development theory *before* is worthy of a life's attention."

If one has nothing of Beecher let him at least get this book and enjoy it.

THE GATES BETWEEN: By Elizabeth Stuart Phelps. 16mo. Cloth. Price \$1.25. Boston. Houghton, Mifflin & Co.

Who that has read "The Gates Ajar" and knows how well such writing reflects the train of Mrs. Phelps's view of matters psychical needs not to be told the general character of this new book. If anything it is a deeper study of the mysterious sphere beyond this mortal range. The author takes for her chief actor an eminent physician who amid the demands and exactions of a large practice finds leisure only for the investment of his surplus revenue and the problem of evolution. Topics of a religious or supernatural sort he ignores as unworthy the attention of a "scientific" man. A love experience quite out of keeping with that usually met with in novels is related by the central figure. This is a leaf of it:

"I was a man of middle age, and had called myself a scientist and philosopher. I had thought, if ever, to love soberly and philosophically. Instead of that I loved as poets sing, as artists paint, as the great romances read, as ideals teach, as the young love. . . . I do not think of any other thing which a man can not do better at forty than twenty. Why, then, should he not the better love? . . . She was to my thoughts as life to the crystal. She came into my life as the miracles came to the unbelieving. . . . I, Esmerald Thorne, President of the State Medical Society, and foreign correspondent of the National Evolutionary Association, forty-six years old, and a Darwinian—I loved my wife like any common, ardent, unscientific fellow." Stricken down by a terrible accident he goes spiritually ignorant and unprepared to the world of spirits, and there passed through a strange course of experiences which are described with rare power and delicacy.

SEÑOR VILLENA AND GRAY: An Oldhaven Romance. By the author of "Real People." 12mo., pp. 261. Fancy cloth, gilt. Price \$1.50. New York. Frederick A. Stokes & Co.

A pleasant story with much of Spanish ardor in it to blend with the elements of semi-Spanish life introduced by the author. The incidents are varied and penned with a rapidity of succession that keeps the

reader's attention closely and awakens his sympathies. The head center of the story, Dr. Vincent, having married a Spanish lady seems to incline to Spanish manners and society of the tropical exuberance that is supposed to be part of Spanish character, and in his suburban home, on the edge somewhere of New York city, he lives and entertains in the style becoming a gentleman of liberal income. If "Senora Villena" is intended to portray an incident or two in a plane of society that is of the upper, or cultivated order, with some spice of foreign importation flavoring it strongly, "Gray" offers a contrast that is marked in its exhibition of character. We have a story of pathetic interest woven in with the life of a strange, ghostly man, the man Gray, who is the Nemesis of the other striking person of the sketch. "Gray" has much more in it than the other story to the student of psychology, but to the average reader it may seem dull.

WINGED FLOWER LOVERS. Edited by Susie Barstow Skelding. Editor of "The Flower Songs Stories, etc." Illustrated by Fidelia Bridges. Small quarto.

NEARER MY GOD TO THEE. By Sarah Flower Adams. Illustrated from designs by Frederick W. Freer.

WORDS OF PEACE AND REST. Thomas A. Kempis, St. Bernard, Madame Guym and others.

The above from the press of Frederick A. Stokes, New York, are notable for the taste and refinement shown in every part from the textual composition to the unique bindings. The designs of the first named include finely colored effects of bobolink and clever blossoms, sand pipers and blossoming beach-plums, purple-finches and peach blossoms, king-bird and cardinal flowers.

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PRIMARY METHODS. A complete and methodical presentation of the Use of Kindergarten Material in the work of the Primary School. By W. N. Hailmann, A.M. 12 mo., pp. 166, New York. A. S. Barnes & Company.

Coming as this treatise does from an experienced teacher, and relating to what is more and more appreciated as an important method of instructing children in the beginnings of true education, it deserves consideration. Mr. Hailmann shows clearly enough that Kindergarten methods may be well learned from proper treatises and high-priced courses of instruction from ostentatious teachers are not essential to the bright and ready American woman. A systematic course of "Manual Training," in connection with arithmetic, geometry, drawing and other school studies, is outlined with suitable illustrations.

THE NATIONAL TEMPERANCE ALMANAC FOR 1888. J. N. Stearns. New York.

It contains the latest official statistics of the drink traffic, internal revenue returns, beer and liquor statistics, a full list of temperance periodicals, State Good Templars, Sons of Temperance, Temples of Honor, Woman's Christian Temperance Union, etc., together with a list of the various temperance organizations in New York city and Brooklyn, also engravings and stories. Price 10 cents; \$1 per dozen.

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GRAMMAR SCHOOL FRIDAYS. Selections in prose and verse for declamations and public readings by young people and adults. Chicago and Boston. The Interstate Publishing Company. Price 35 cents.

This collection comprises selections from such authors as Edward Everett, Wm. E. Gladstone, Robert C. Winthrop, Robert G. Ingersoll, etc., and poems from popular sources. The collection as a whole is worthy of commendation because its fitness for school recitations.

ROY'S WIFE and Other Stories. By Mrs. Richmond. 12mo., pp. 286, cloth. \$1.00. American Temperance Society. N. Y.

Roy's wife is an interesting well-told story of the good accomplished in a factory village by the influence of one philanthropic, just woman. This story has an object and some literary merit, but "Two Brothers" is a curious jumble of many characters. Why they are all brought into it is a query.

HINTS ON EARLY EDUCATION AND NURSERY DISCIPLINE. 12mo., pp 97. Funk & Wagnalls. New York.

A practical little mentor for the home. Although a reprint of an old English book it is wholesome in its teachings for the use of the American mother, and Dr. John Hall says of it in a note, "I heartily commend the book." The multiplication of such volumes can not but benefit.

SOUVENIR OF THE 15th Annual Convention of the Association for the Advancement of Woman. Invited and entertained by "Sorosis."

Contains in brief a review of the progress of this Association. A neat pamphlet.

UNCLE RUTHERFORD'S ATTIC. By Joanna H. Mathews, 12mo., pp. 282. Price \$1.25. Frederick A. Stokes. New York.

So far as the book-maker's art is concerned this is a more than creditable example, but why so much care and expense should have been given to a manuscript of this calibre we do not understand. As a mere recreation it will pass muster, but it will rarely have a reader who will care to go over it again. If authors would only keep "hands off" from characters and subjects of which they have but a vague knowledge, we would have better work on which to regale ourselves—with which to feed our children.

THE PHYSICIAN'S VISITING LIST. Published by P. Blakiston, Son & Co., of Philadelphia. Price \$1.00 to \$2.00, in morocco, gilt edges. Comparing the edition for 1888 with that of 1887, which the writer has found of much service, new and useful features appear, of which "Aids to Diagnosis and Treatment of Diseases of the Eye," "Disinfectants and Disinfecting," "Incompatibility," and "Sylvester's Method for Artificial Respiration" are valuable. The arrangement of the visiting list proper is very neat and complete, as well as suggestive of many things important to the busy practitioner, which he might easily overlook.

THE INTERNATIONAL CORRESPONDENT (official organ of the International Shorthand Correspondence Association) is printed in the Pitman style, reversed vowel scale, and well meets the need of young writers. Price to American students of the art, \$1.00. Geo. Birtwhistle, Sec'y. etc., Liverpool, Eng.

REPORT OF THE FOURTEENTH ANNUAL CANVASS of the State Executive Committee of the Young Men's Christian Associations and Evangelical Churches of New Hampshire. A. Folger, State Sec'y, Bristol, N. H.

CURRENT EXCHANGES.

Good Health; November.

Hahnemannian Monthly; November.

Chicago Inter-Ocean, Daily and Weekly.

Christian Advocate. Weekly. New York.

Paper and Press, Monthly. Philadelphia.

The Churchman, Weekly, organ of the Episcopal Church. New York.

Young Scientist. A practical Journal of home arts, Monthly. New York.

The Earth, Weekly. A gossiping review of affairs social and civil. New York.

Le Progres Medical. France. An ably edited journal of medicine, pharmacy, etc.

The Open Court, Fortnightly. Liberal, independent; an organ for the original thinker. Chicago.

American Inventor, Monthly. Cincinnati, Ohio. Official organ of the American Association of Inventors.

Notes and Queries; December, 1887. A monthly magazine of history, folk-lore, mysticisms, art, science, etc.

The Western Medical Reporter, Weekly. Liberal and well supplied with practical information suited to the day. Chicago.

The Quarterly Review, of London, Republished by the Leonard Scott Publication Company of Philadelphia, always has notable papers on questions of the day.

The Universal Tinker and Amateur's Assistant, Monthly. New York. Contains designs for decoration, conveniences for home and office use, scientific experiments, etc.

Drake's Magazine; November. The front-piece is a finely executed copy of "The Gorilla," by E. Fremont; it is not surprising that the artist received the Medal of Honor for this piece of sculpture.

Christian Thought is as vigorous as ever, and in its December issue publishes several good things; for instance, a study of Trichotomy, or the threefold nature of man. An introduction to the study of Comparative religion, and the items in "Views and Reviews." New York.

Popular Science Monthly, December, has a well illustrated article on Inventions at Panama, besides Science and Practical Life, by Prof. Huxley, American Cinque-Foils, The Rise of the Granger Movement, The Boyhood of Darwin, by himself, The metals of Ancient Chaldea, Our For-esting Problem, The Color of Woods, sketch of John Jacob Baeyer, with a portrait, and other topics. D. Appleton & Co., New York.

The Medico-Legal Journal, Clark Bell, Editor, in late numbers has articles and reports on the relation of inebriety or intemperance to insanity, criminal law, etc. The transactions of the Medico-Legal Society are fully reported and deserve careful attention. A fine portrait of the late Aaron Vanderpoel Esq., is a feature of the September number. New York.

The American Magazine gives in its December issue a good deal of space to Christmas Topics, and their illustration. A street in Old New Orleans Salmon Fishing on the Cascapedia, Natural Gas in Findlay, The Love Story of Miles Standish, The American Pulpit, and the Editorial departments will be found interesting. Am. Magazine Co., New York.

The Century for December continues the History of Abraham Lincoln and his times, The Sea of Galilee with drawings from nature, After the War, Notes on Parisian Newspapers, Durlham Cathedral, with several views of the great edifice, The United Churches of the United States, The Tonic Sol Far system, besides more "Memoranda of the Civil War," "Topics of the Time," "Open Letters," and "Bric-a-brac." New York.

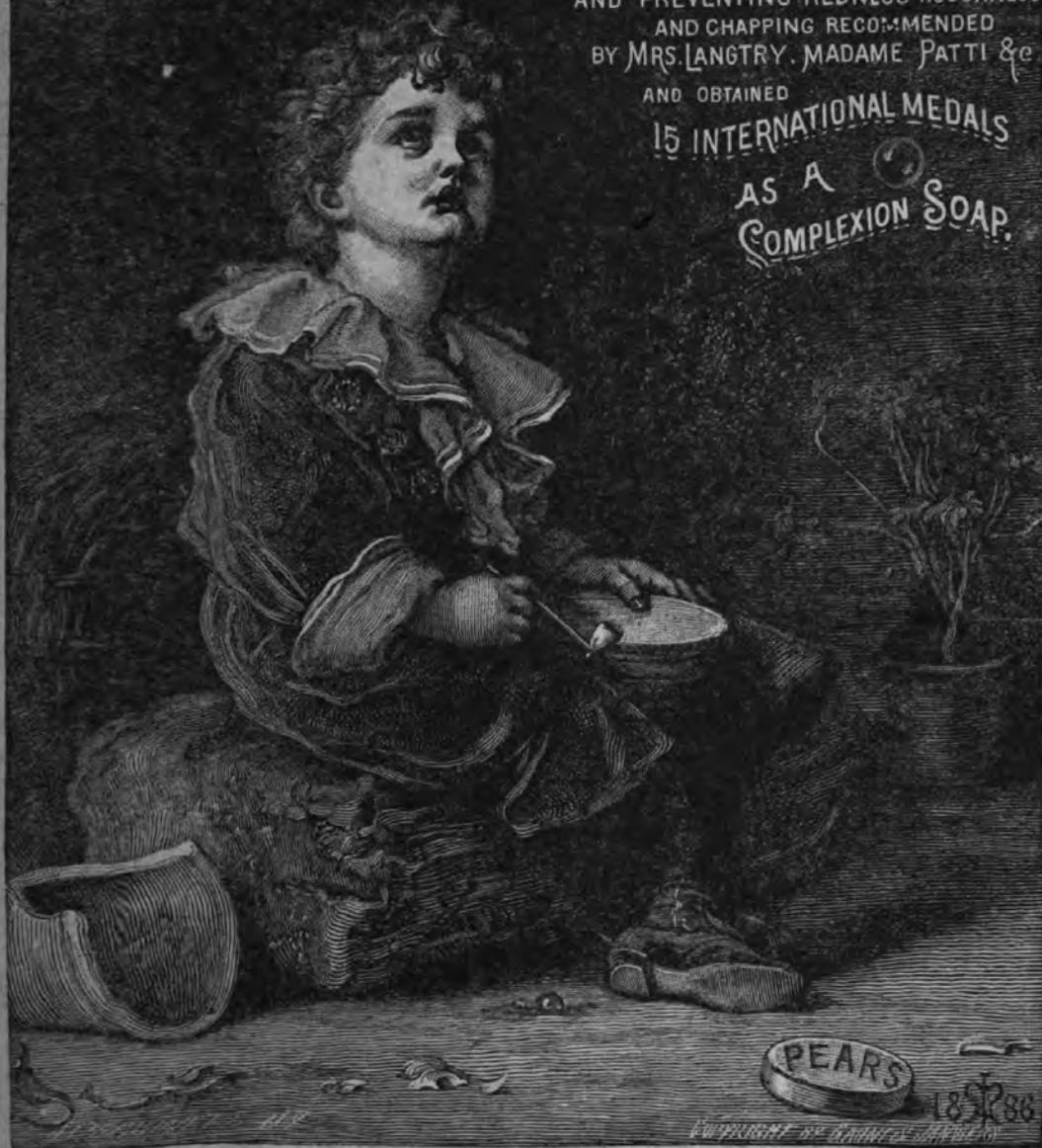
The Pulpit Treasury. The December issue has a portrait of Prof. W. H. Green, DD., of the Princeton Theological Seminary, a sermon by him and others by Bishop Cyrus D. Foss, and Rev. Dr. W. M. Paxton. We have also Noted Preachers, Preachers and their Subjects, Plan Great Things, Church Hospitality, The Saloon Day, and a hundred other topics of interest to the religious and moral community in the number. E. B. Treat, New York.

In the *Homiletic Review* for December Dr. Schaff leads with The Connecting Links between Church and State. The Criticism on Spurgeon, of London, by an Eminent Professor of Homiletics, are discriminating. Miss Frances E. Willard has a strong plea in favor of Licensing Women to Preach. Besides these we have the Best Way to Reach and Interest the Laboring Classes in Religion, The Men for the Pulpit, Man and Evolution, etc. All parts of the number are fully up to the mark. Fuuk & Wagnalls, New York.

Social Science Review, Weekly, deals with burning questions of the day and miscellaneous topics occasionally. We note in a late number a very weak fling at Phrenological science by a writer who uses "dictionary" words without knowing what they mean in that relation. Why is it that a man will expose his ignorance in a rash attempt to air his prejudices against a system? Publishers of *Social Science*, have a care to what you admit to your pages.

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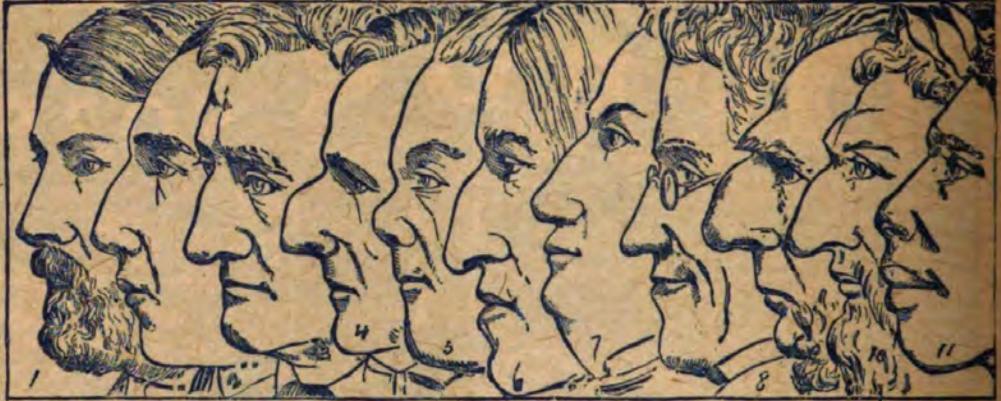
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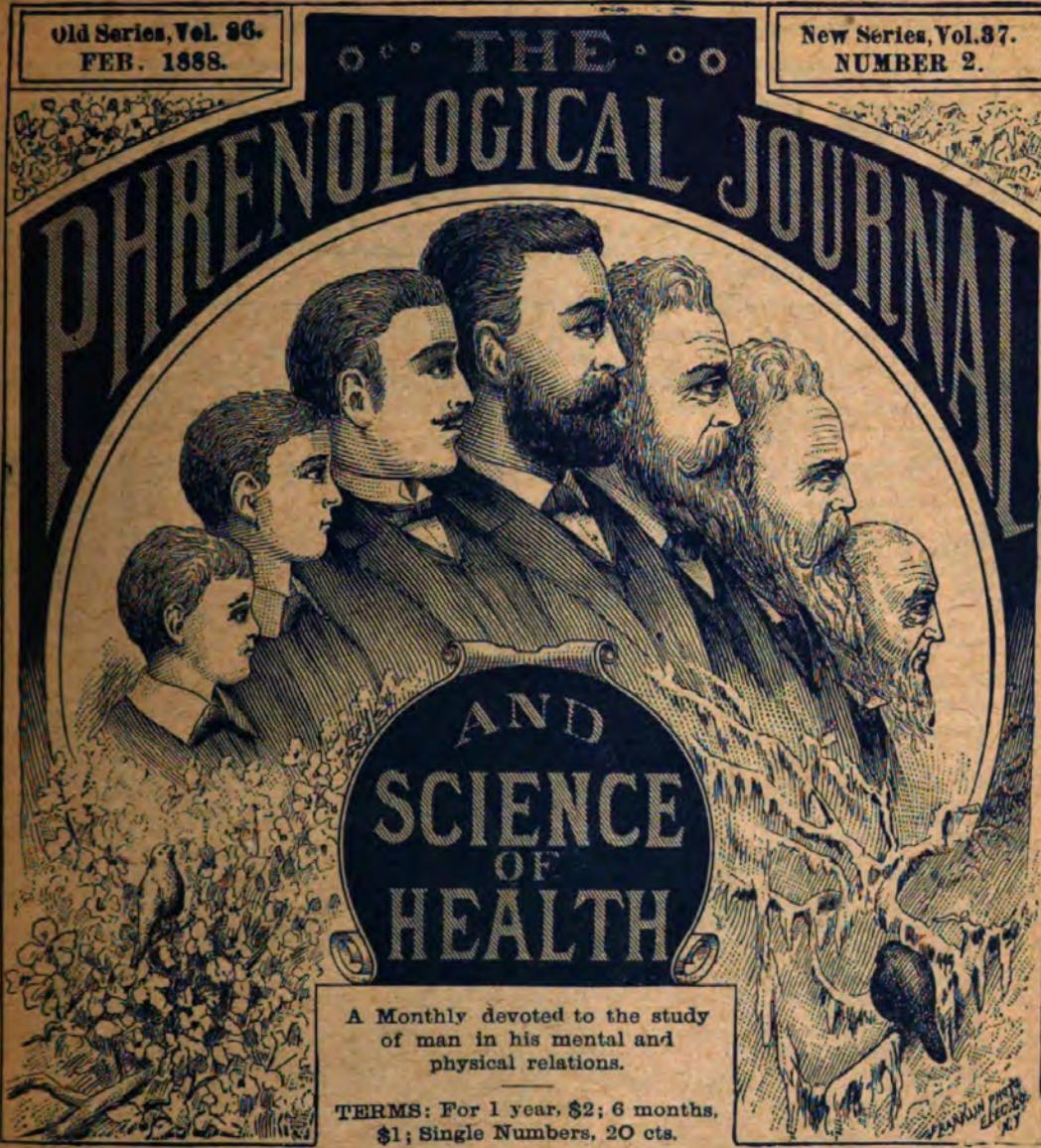
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THE
PHRENOLOGICAL JOURNAL
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NUMBER 2.]

February, 1888.

[WHOLE No. 590



DINAH MULOCK CRAIK.

* THE literature of Great Britain during the past quarter of a hundred years owes much to women who have adorned it with poetry and fiction of the purest types. Such names as those of Elizabeth Barrett Browning, "George Eliot" or Mrs. Cross, Jean Ingelow, and Dinah Mulock Craik, are indissolubly associated

with the Victorian era in its special development of style and moral strength, and to the women who bore them will be awarded an increasing meed of honor for their influences in this development.

The death of Mrs. Craik at the comparatively early age of sixty-one years,

is a loss of no small importance to the English reading public, and its occurrence may well arouse attention to the character of the woman herself which had been almost entirely kept in the background, so simple, unostentatious, and quiet had been her life.

One who looks at her portrait in its plain, old-fashioned dressing would scarcely see the native quality of genius enshrined therein, for the kind, motherly expression would seem to be incompatible with the strength and originality peculiar to her creations. Yet there are elements of power visible enough to the physiognomist in this portrait, conventional as it is. The photographer has not touched or polished out all the lines of individuality. You notice that the head is a large one, probably an inch or more in circumference than the average head of women, and particularly developed in the anterior, the parts over the eyes being protuberant, and the upper central region of the forehead being remarkably salient. We should exclaim on seeing such a head and face, "What knowledge of character is here! What grasp of individual peculiarity!" Mrs. Craik was a veritable seeress in this respect. She read people as an open book, and at a glance, and with her large faculty of comparison, and power to understand and remember details, she could analyze the latent springs of individual difference and show the tendencies or biases of character. Her language was a very important quality; free, copious, inexhaustible, she could utter by tongue or pen the thought that came into mind, without hesitation.

The moral development as shown in the portrait is very strong, and especially marked on its sympathetic side. Hers must have been a broadly generous nature; fervent in its piety, devout and reverential, but without a trace of narrowness or bigotry. She had a high crown; we see its outline beneath the head-dress; she was masculine in the strength of her will, in decision, in perseverance.

Her convictions were the chief rule and motive of her conduct. Under her kind, sympathetic, affectionate exterior lay an iron force, a buttress of courage and determination that few of her intimates appreciated. We are not well acquainted with her books as a whole, but the few that we have read confirm this opinion. Although a youth comparatively when we read "John Halifax" and "The Woman's Kingdom," we remember the strength and spirit reflected by each character delineated in those volumes. The author put much of herself into them, and it must be that her every book was to some extent a reflection of her own strong nature.

Dinah Maria Mulock Craik was born in Staffordshire, Stoke-on-Trent, in 1826. She was the daughter of a clergyman who died while she was but a child, and her mother did not long survive him. Left an orphan and the eldest of three children, Dinah found herself compelled to find employment that she might earn the means to support herself and younger brothers. A disposition to write, led to the attempt to do something in the line of short stories, and fortunately an appreciative publisher was found who encouraged the struggling and ambitious girl. She had an abiding sense of family respectability, that she was born of good family connections, and this seemed to give her the courage and spirit to bear up against the ills and difficulties that beset thickly her youthful footsteps.

Her first book was one for children, "How to Win Love; or, Rhoda's Lesson." In 1849 her first novel was published, "The Ogilvie's," which found such favor that it gave her a good start in the field of literature, and settled her hopes and efforts in that as a life pursuit. Eight years later appeared the work that established her reputation as a novelist of power. It was her fifth novel, and like all the rest was built upon some principle which she desired

to illustrate. This novel we scarcely need to say was "John Halifax, Gentleman," and was designed to set forth that feeling of gentleness under all circumstances which had been so strong a part of her life. Afterward she had sought to collect material which should illustrate this thought, and thus in searching through the chronicles of the time which she had chosen she came upon the incident of the riot, which makes so strong a point in the book, and so lives in the memory of most of her readers. Such books as "A Life for a Life," "A Brave Lady," "My Mother and I," and "King Arthur" illustrate very fully how she carried out in her novels this idea of a central purpose from which incidents and characters develop.

She was a very prolific writer, being the author of nineteen novels, eleven books for children, and as many books of travel and miscellaneous works, and three volumes of poems, in all over forty volumes. Besides the few titles mentioned those of "Young Mrs. Jardine," published in 1879; "Sermons out of Church," 1875, "A Legacy, being the Life and Remains of John Martin, Schoolmaster and Postman," 1878; "His Little Mother," 1881; "An Unknown Country," 1887, are probably well-known to the American reader. It is said that her novels, and perhaps her other writings, have a wider circle of readers in America than England, although in both countries the purpose and sweetness of her books have given her thousands of readers.

In 1864 her literary work received the practical encomium of a pension from the Civil List, and the next year her life was crowned by her marriage to Mr. George Lillie Craik, a relative of the author of "Craik's English Literature." Mr. Craik is a partner in the publishing house of Macmillan & Co., and is well known in the literary world of London. He was somewhat younger than his wife, but the marriage proved a most happy one, as she once had occasion to

say to a lady who came to her for counsel in regard to a marriage under similar conditions. "The home which Mr. and Mrs. Craik built for themselves was one of the most charming about London, across 'the lovely Kentish meadows,' to the southeast, at Shortlands, Kent. It stood in the pleasant English country, with a delightful garden stretching out from it, and outside the house toward the garden was a little recess called 'Dorothy's Parlor,' where Mrs. Craik was very fond of taking her work or her writing on a summer's day. It was named for the little daughter whom they had adopted years ago, having no children of their own, and who was the sunshine of the house up to the time of her foster-mother's death."

Mr. Bowker, from whose appreciative sketch in *Harper's Bazar* the above is quoted, says further, "Within the recess was the Latin motto, *Deus haec otia fecit* (God made this rest), which Mrs. Craik once told me she had long ago selected as the motto which she would wish to build into a home of her own, should it ever be given to her to make one.

"Within the house there was one charming room which served for library, music room, and parlor, filled with books and choice pictures, but chiefly beautiful because of the presence of its mistress, as she brought her work-basket out for a quiet talk with a friend. America and Americans had always a large share in her heart.

"There never was a more charming hostess than Mrs. Craik in her own home. She was tall and stately in carriage, with a winning smile and a frank and quiet manner which gave one the best kind of welcome; and her silver-gray hair crowned the comfortable age of a woman who had used her years, one could see and feel, always to the best purposes. Somehow it always seemed to me as though here was the Dinah of 'Adam Bede,' who had gone on living and developing after the novel stopped."

D.

AUTOGRAPHS.

HANDWRITING may be defined the language for the eye as speech is for the ear, and just the same as the inflection of the voice expresses the finer sensibilities of the speaker's thoughts so does one's style of writing convey, unconsciously to himself, perhaps, something of the stamp of his nature. A noted English author has said, "You never take your pen in hand but you are showing something of your own character. The very style in your handwriting is an element in the determination of character. The way in which a man dashes off a letter is very much the way in which a man uses his voice. There is a modulated ease in the tones of the handwriting."

The expert, however, who professes to read in *every* autograph the writer's cast of mind and pervading spirit, often finds there is "No rule without an exception." It is told of one who, when shown a letter, declared that it was the handwriting of a man without genius, learning, or affection, to find when he came to the signature that it had been written by Lord Macaulay!

It is seldom a great man pays much attention to his penmanship, seeming to consider it beneath his attention; so while his handwriting may define something of his disposition and character, it is no measure for his intellect and education. The best scholars are often poor writers, while illiterate persons sometimes excel in the art. The expert, however, may tell us that this is not pertinent to the subject, and that this very polish, of the unlettered is a thin mask ill-concealing the deception underlying it. The study of autographs is one of interest and profit, and it is surprising to find how many who could write a plain hand signed their names as if they did not wish to have them read.

In the signatures of our Pilgrim Forefathers there seems to be a sort of double interest, and as we read them we

behold in imagination the indomitable spirits that helped to make these gallant men equal to those trying times.

Carver, the first governor of the Plymouth Rock Company, wrote a fine legible hand upon which he had evidently given the same care that he did to all of his actions.

William Bradford, his successor, signed his name in a semi-print hand, every letter as clearly cut as were the deeds of his life.

In Brewster's singular looking signature, which seems to have been written with a stick, something of his blunt character is defined.

Miles Standish affected more elegance and ended his signature with a flourish synonymous with his pompous nature. We would add that he generally spelled his first name with a "y" instead of an "i." The heavy hand of Winthrop, the first governor of the Massachusetts Bay Colony, bears the firmness of will and character belonging to him as a leader.

Roger William's signature seems to have been written with a poor pen and does not suggest the qualities we would like to have it. His writing was very legible, a redeeming feature.

In the days of the American colonists of course but little attention could be paid to the beautiful in penmanship; and then, too, the pens were not suited to elegance. Thus there is a certain harshness in the outlines of nearly all of the signatures of those times. A comparison of the autographs of then and now conveys one of the strongest illustrations of the changes of men and times.

In the bold, dashing signature of John Smith, written in letters all of the same height, without showing that he took his pen from the paper until finished, we see a portrayal of the reckless spirit of those days.

Paul Jones's autograph was of the same style and as truthfully illustrated the vigor of the hand that traced it.

William Penn wrote his in the same way, coming back from the last "n" with an irregular underline to the place of beginning.

The bold, dashing, fearless spirit of Patrick Henry is apparent in his coarse autograph.

In the signing of the Declaration of Independence many traits of characters are seen, from the rushing, impetuous signature of Charles Carroll of Carrollton to the plain, heavy hand of Hancock.

Ornamented with flourishes that did not, as is usual with others, detract from its legibility, Benjamin Franklin wrote one of the finest autographs of the heroes of the Revolutionary period. Not one of them portrayed more clearly the character of the man in his calligraphy than the plain, open-hearted, intellectual Franklin.

Washington's signature was always the same firm, old-fashioned hand evenly formed and showing great dignity. Next to Franklin's autograph his bore the stamp of the writer.

John Adams wrote a plain, round hand, without any attempt at affectation, quite characteristic of the man.

Jefferson's name seems to have been dashed off more hurriedly, but each letter stands out distinctly with democratic simplicity.

Alexander Hamilton wrote a firm, business hand, while his rival, Aaron Burr, left a light, neat autograph, as we might expect.

Glancing at the autographs of the most noted statesmen we find as a rule that they write small, illegible hands.

Daniel Webster cut each line clearly, while something of the method and independence of his character is seen in the way that each letter stands by itself.

J. C. Calhoun, dashed off in a running hand as if each letter was in pursuit of the next, bears an apt imprint of the man.

H. Clay, written in a cramped, crowded manner, as if the hand that

held the pen had grown tired of the task, disappoints us, and we wonder if the great compromiser really wrote it.

Charles Sumner wrote an illegible hand, heavy and without symmetry.

William H. Seward's was a more readable but less characteristic autograph.

Horace Greeley ranks foremost among the wretched writers. It is related that having occasion to have a placard painted to bear the information, "Entrance on Spruce," the painter of the *Tribune* bulletins after two hours' hard study over the great journalist's hieroglyphics caused the following singular notice to be posted at the door: "Editor's on a spree!" Lord Lackmore lost his lady love through his bad penmanship, she mistaking his written proposal for the offer of a box at the opera; and unable to accept for that evening she wrote that she was "engaged." A business letter of Mr. Greeley's had a different interpretation, the lady correspondent thinking it an offer of marriage. Fortunately for the writer she declined.

Rufus Choate was another who wrote a miserable hand, nor is the signature of Caleb Cushing much better as far as legibility is concerned.

We see nothing strange, however, in an existence of a similarity between the penmanship of men of the same profession. The training of their minds trends in the same direction, their association develops the same powers, why should not the characters of their hand assume corresponding shapes?

The author, the lawyer, the soldier, and the statesman has each, we believe, his distinctive style of calligraphy. Let the curious examine each class and he will quickly see whether or not we are right. The autograph of the soldier, for instance, is firm and forcible, without attempt at decoration, the ink it may be driven through the paper as he would drive his enemy to the wall. His hand seems cramped and his pen a pointed stick, but his writing is readable as are the deeds of his life. The lawyer

writes a heavy hand, less regular and with a startling uniformity in the shape of his letters, as if he were prepared to prove his case in whatever way he might be called upon. He generally uses a coarse pen. We have already hinted at the style of the statesman and we have mentioned but one other class—the author. This class is capable of being subdivided, but lest we infringe upon the editor's good-nature we refrain from carrying our article to that length. As

a unit they seem less set and more legible, writing a smaller hand and plainer than the last two named. Lest the compositor complain we will stop here, trusting that few if any of our readers are in the condition of the ardent Irish lover, who says when thinking of sending a letter to his sweetheart :

"I forgot that I had not learned writing.
And that she could not read if I had."

GEORGE WALDO BROWN.

NOTABLE PEOPLE OF THE DAY.—No. 5.

M. SADI-CARNOT. THE NEW PRESIDENT OF FRANCE.

The late political revolution in France forced M. Grevy to resign the Presidency, after which the Assembly hastily convened at Versailles and elected a man who may be compared with the "dark



PRESIDENT CARNOT.

horse" of our own conventions. M. Carnot is of distinguished family, and has been much occupied with public duties. He is, according to the portrait, highly cultivated and well-balanced temperamentally. A man of ambition, of

much pride and spirit, avoiding the disguises and trickery of the average politician. We do not see evidences of great or masterly capacity, but rather the intellect of one who is at home in the performance of official details, or in pursuing a specified course of action. He has energy and executive force, but is not the man to meet emergencies by suddenly devised expedients or a *coup de force*. He should be orderly, systematic, and precise ; one who has at command a store of information. His memory appears to be much better than that of the average, and his Language is also marked. He would have taken good rank, we think, in literature—because his writing is distinguished by clearness and finish. In political life and in the services of diplomacy he would show ability as a writer. He looks to us the one capitally adapted to perform the part of the Secretary rather than the Chief. He is not inclined to be aggressive or to agitate questions that may be conducive to disorder, but seeks to reconcile opposing elements, and to avoid turbulence.

Marie Francois Sadi-Carnot is a grandson of the distinguished Carnot, who was Minister of War in the first French revolution, and son of Lagare Hippolyt  Carnot, life Senator and having a reputation as an author. He is, by profession, a civil engineer and a native of Limoges, where he was born Aug. 11, 1837.

After completing his studies at the

Polytechnic School and the School of Bridges, and receiving his degree, he was made engineer in charge at Annecy. In 1871 he became Prefect of the Lower Seine, and Commissioner Extraordinary to organize the national defence of the three departments of the Lower Seine, L'Eure, and Calvados. The same year, in February, he was elected a representative to the National Assembly and took his seat with the Republican Left, for which he acted as Secretary. He voted for all the measures proposed for the definite establishment of a Republic and for all the provisions of the new constitution, and was recognized as one of the leaders of the strict Republican party. In the general elections of February, 1876, M. Sadi-Carnot was elected to the Chamber of Deputies from Beaune. He was elected Secretary of the Chamber and was one of the 363 Deputies of the Left who united to refuse a vote of confidence in the De Broglie Ministry. In the election of the following year his constituents supported his position by re-electing him. M. Carnot was appointed Under Secretary of Public Works under President McMahon's administration in 1878, and in 1880 he was appointed Minister of Public Works under President Grevy. He held this portfolio until 1882, when he was made Minister of Finance, a position to which he was reappointed Jan. 7, 1886. He held this until the Goblet Ministry came into power, December, 1886.

M. Carnot has at his command a great deal of information regarding the interior affairs of the republic, and is especially conversant with the public works of the country. He was principally prominent in the Chamber in the discussion concerning these works, railroads, navigation, and the interior policy of the administration. He has done some literary work, chiefly a translation of John Stuart Mill's "Revolution of 1848 and its Detractors." By faith the new president is a Roman Catholic. He has four children, three sons and a

daughter. One son is an officer in the French army; the two others are still students. He lives in a very modest way in Paris, occupying a "flat" in a retired neighborhood.

It is supposed by some that M. Carnot's election was due largely to the influence of the large body of those who hold shares in the Panama Canal enterprise, and that the aid of the Government is absolutely necessary to favor a scheme proposed a year or more ago for the issue of lottery bonds, and then rejected, otherwise the Panama Company must collapse, and great losses be experienced by the shareholders. M. Carnot supported the lottery scheme. But aside from that the election of the new president has been the solution of a very dangerous crisis in French affairs, and Republican France seems to have emerged from the agitation in greater strength than ever.

CHIEF JUSTICE WAITE.—That grave body of learned jurists, the Supreme Court of the United States, always commands the high respect of Americans, and most properly so. The position of a justice in this Court is associated with some of the most honorable and important events in our history, and the noblest men have worn its robes of office. To its determination the weightiest matters affecting State and national interests have been submitted. Marshall, Story, and Wayne, who have sat upon its benches, would have given dignity and power to the councils of any age and nation, and never has there been occasion when its decisions failed of the respect of the people at large.

Morrison Renwick Waite the successor of the late Salmon P. Chase, is the seventh in the order of distinguished jurists who have occupied the chair of the Chief Justice of the Supreme Court. He is a man of good height and weight but not imposing in appearance. His head is large, projecting greatly at the brows and covered with abundant gray hair. The features are strong but not lined so

deeply as we usually find them in men over seventy years of age; there is a plumpness of flesh that shows unusual nutritive power, and well accords with his known physical vigor and mental clearness. Justice Waite has a large base of brain, which is indicative of a heritage of superior vital force and longevity. The perceptive faculties of the intellect are very marked; the organs above the eye-sockets appear to overhang and press downward by very excess of weight, a peculiarity of the face that is more apparent in other portraits that we have seen than in this which we are considering. The Chief Justice is evidently a man of great prac-



CHIEF-JUSTICE WAITE.

tical sagacity; he understands the meaning and relation of facts, and is fond of pushing his investigations to the farthest extent. The keen eyes, strong mouth, and clear-cut nose show sharpness of discernment, and positiveness of opinion.

Judge Waite is descended from an English family of rather long pedigree—the family coat of arms is said to bear the date 1512. In the old State documents of England will be found the death

warrant of Charles the II., signed by Thomas Wayte, then a member of Parliament. The family removed to this country soon after the restoration. In the rural town of Lyme, Conn., the old house still stands in which the subject of this sketch was born on the 29th of November, 1816. At the age of 17 he entered Yale College, from which he was graduated in 1837, in the class which included William M. Evarts, Edwards Pierrepont, Prof. Benjamin Silliman, Prof. Benj. N. Martin, late of the University of New York, and other distinguished men. He began the study of law with his father in Lyme, and concluded his preparation for the bar in the office of Samuel M. Young, then a prominent lawyer in Maumee City, Ohio. He formed a partnership with Mr. Young shortly after being admitted to practice in 1839. He was elected to the Ohio Legislature in 1849, and the following year the firm of Young & Waite removed to Toledo, Ohio, where they built up a very large and remunerative practice. A younger brother of Mr. Waite was admitted to the firm soon afterward, and the partnership continued until his appointment to the high position he now occupies. He was a Whig until that party disbanded, and since then his sympathies have been with the Republicans. Although he has never been a zealous partisan, he has always been pronounced in the expression of his political convictions. He reluctantly became a candidate for Congress in 1862, and later he was the nominee of the "Administration party," but his canvasses were unsuccessful. Other nominations and various appointments were tendered him from time to time, all of which he declined.

The first position in which his rare legal abilities attracted attention was that of counsel for the United States in the Tribunal of Arbitration which met at Geneva in 1871-2. He was associated in this affair with the Hon. Caleb Cushing and William M. Evarts, and their skill adjusted the difficulties between the

United States and England, that arose out of our late internal conflict. The year after his return home, in 1873, he presided over the Constitutional Convention of Ohio. He was appointed to his present position by President Grant on the 21st of January, 1874, as the successor of Chief Justice Chase.

His appointment was received with general approval by the press and people.

CHARLES GAYARRE.—This is a strong face in every respect. From the brow to the crisp chin-beard the face exhibits "character." There is no under-current or by-play of sentiment that does not come out somehow in the manner and speech of Mr. Gayarre. He is a Frenchman emotional, active, earnest, thorough-going, and emphatic. The broad head at the temples shows ingenuity, taste, and much artistic faculty; the rounded shape of the upper forehead shows good judgment of people and courtesy of manner despite the strength of expression that his excitability imparts to it. He is a thoughtful man, and naturally systematic in his ordering of affairs, able to marshal his knowledge in such a way as to make it bear with telling effect. His style of speaking and writing would be graceful and rhetorical, but not redundant in phrases; he does not incline to any excess of speech, we think, but is more anxious to win approval for finish and clearness of statement than for a plethora of words. He is a man of much personal dignity, and what is termed self-consciousness, and being now over eighty years old he may be considered by some as rather arbitrary and intolerant in opinion toward his inferiors in culture and experience. He considers himself well entitled to the respect of others and expects it, and failure of deference, especially by the young, may receive a sharp rebuke from him on occasion.

Mr. Gayarre, known as "the historian of Louisiana," was born in the city of New Orleans in 1805. He is of mixed Spanish and French descent, his pater-

nal ancestor, Don Estebon Gayarre, having come to Louisiana in 1766 with Governor Ulloa. His grandmother in the female line was the daughter of Destrehan, who, for a long time, had been Treasurer of the colony under the French, and his maternal grandfather was Etienne Bore, who was the first to make sugar in Louisiana in 1795, and was Mayor of New Orleans under the French Republic in 1803. Gayarre was educated at the "College of Orleans."



CHARLES GAYARRE.

In 1826 he went to Philadelphia and studied law in the office of William Rawle, then a celebrated lawyer and writer. In 1829 he was admitted to the bar and in 1830 returned to Louisiana, where he published in French, an "Historical Essay on Louisiana."

He was elected to the State Legislature and was chosen by that body to write the complimentary address sent by them to the French people on the occasion of the Revolution of 1820. He was appointed Assistant Attorney General in 1831 and two years later Judge of the City Court of New Orleans. In 1835, although a Democrat and the Whigs

had a majority in the legislature, Mr. Gayarre was elected to the United States Senate for six years. His health, however, prevented him from taking his seat and he went to Europe where he remained until the close of 1843. Upon his return he was elected to the Legislature from New Orleans.

In 1849 he accepted the office of Secretary of State and was ex-officio Superintendent of Public Education and on the "Board of Currency," in which position he remained until 1853. During that period Mr. Gayarre published in two volumes a "History of Louisiana," in the French language. He also published through Harper & Co., of New York, a series of lectures in English under the title of the "Romance of the History of Louisiana."

A few years before the war, Mr. Gayarre published his "History of Louisiana," in three volumes, octavo, embracing the French, Spanish, and American regimes, from the earliest settlement of the colony to the year 1861. This work has already passed through several editions. After a brief connection with the Know-nothing party, which he left at once when his efforts to strike out the anti-Roman Catholic plank of their platform proved unavailing, Mr. Gayarre supported the candidacy of President Pierce. In 1861, Mr. Gayarre addressed a public meeting taking strong State right views of the subject of secession. Since the war Mr. Gayarre, besides the last volume of his great historical work on Louisiana, has published a "History of Philip II.," of Spain, "Fernando de Lemos," a novel based on the early history of Louisiana, and another historical novel, "Aubert Dubayen," in which the hero goes through the American Revolution of 1776 and the French Rev-

olution of 1789. Mr. Gayarre has frequently delivered lectures on Louisiana history which have been largely attended with success, and has also contributed to leading magazines.

VICTORIEN SARDOU.—A Frenchman, certainly, you will say on glancing at this portrait. Yes, a Frenchman of the Parisian type, which means a strong infusion of the Norman spirit, however indirect the descent. But Sardou is an original. His face is *sui generis*, and



VICTORIEN SARDOU.

there are peculiarities of cerebral form suggested by what we can glimpse that conform with our impressions of his originality. He considers the world from a point of view that is not derived from any source beyond his own thinking. The forehead is that of a reflective man, the eyes and features as a whole are of the meditative class. But what a strong, independent nose, and how much of latent courage it declares! How much of impulse and power! The head is not high in the anterior part of the tophead where Imitation lies; we would think

him careless of forms and ceremonies, and cynical with regard to fashions that the world esteems so highly. He should be a keen critic, because his active reasoning powers have but little restraint on the side of conventional observance. Should he write a society novel we should expect his characters to reflect sarcastically the puppet manners of the men and women who live in the shallow tide of fashionable life. If that chin is a true representation Sardou must be fond of home and the intimacies of friendship. We should expect him to be earnest and hearty in depicting scenes, real or imaginary, that show life at home where frank cordiality and sincere affection are the rule. We should expect him as a writer to be penetrating and often cynical as a critic in treating everything but the innermost phases of domestic life. For that he would entertain no artificial reverence.

Victorien Sardou was born in Paris, Sept. 5, 1830. His father is said to have been a scholar of eminent culture. After a childhood spent at Drienen l'Archeveque, a pretty village away from the noise and strifes of the Metropolis, Victorien was brought back to Paris to pursue his studies at well-known schools. He commenced the study of medicine but was compelled to give it up. Albeit in his youth he felt a strong leaning toward literature and when necessity required that he should earn his bread he turned in part to his pen for help. A French writer says of him :

"A prey to the difficulties of existence; poor, and wishing to devote himself entirely to his art, Sardou, pale, thin, and delicate, had to yield himself up to ceaseless work in order to live; giving lessons and collaborating with compilers of dictionaries and encyclopedias of all kinds; gaining his bread at the point of his pen; contributing, amongst other works, some excellent articles to the "*Nouvelle Biographie Generale*," by Doctor Hoefer, and constantly adding to the stores of his learning, and making pro-

vision of arms for the literary combat. Alas! the first literary battle of this courageous soldier was to end in disorder. The conqueror began with defeat. *La Taverne des Etudiants*, a comedy in three acts of verse, was, in spite of its amusing qualities, its originality, and its many fine lines, a failure of the most pronounced description.

Later he entered into partnership with a novelist by the name of Paul Feval; the twain produced a drama, *Le Bossu* (The Hunchback), that proved a success. Then a little three act piece was offered by Sardou which obtained an appearance and led to his fame. One drama followed another until *La Patrie* and *La Haine* (Hatred) came to elicit the applause of the dramatic world. Then the war of 1870 between France and Germany afforded Sardou great opportunities, the revolution that it precipitated furnished one of his most thrilling inspirations, *Rabagas*, which is at once "a magnificent picture and a cruel satire."

On the 8th of February, 1877, Victorien Sardou was elected a member of the Academie Francaise, one of "the immortal forty;" and, like M. Scribe, he took the chair formerly occupied at its foundation in 1634 by the historian, Nicolas Faret, Moliere's great friend; and afterward by Pierre de Ruyter, one of the most prolific dramatic authors of his day.

Of the long list of his productions the drama of *Theodora* which has been seen by thousands of Americans on this side of the Atlantic is one of his best and most characteristic. A critic, de Mart-hold, says of it: "Sardou alone, in all the world, has been able to plant us in the tangible, real, living Byzantium of the ancient empire. Shakespeare, to whom we must always look, when he wished to convey an idea of the Roman people, began his *Julius Cæsar* with a trivial conversation amongst carpenters and cobblers, very truthfully supposing that, in all ages, humanity has always been identical with itself. Keeping this in view, Sardou in his "*Theodora*" has

breathed life into the nostrils of beings of flesh and blood, and has not given us mere abstractions of purely conventional tragedy." And this writer in his impetuous enthusiasm describes the great author's personality thus: "Inquiring, intelligent, an inveterate searcher, throbbing, and full of nerve, he possesses dash and impetuosity, and he has that eternal youth born of an intellect always on the watch, always on the *qui vive*. The man's style is the man himself. Whoever knows Sardou, whoever has listened to this inexhaustible and learned conversationalist, and—this above all—whoever has assisted at one of his readings, where,

Proteus-like, he is the living incarnation of every one of his characters, from an emperor down to the rough laborer, from an innocent girl down to the courtesan; whoever has seen him under fire, leading the battle with magnificent strategy, to gain it for his soldiers, or has seen him on the stage, giving, unaided, the living, breathing examples of the passions he has unchained, being, by turn, ironical or tearful, cruel or supplicating, tender or implacable—whoever has seen this is seized with the idea that Sardou's work is made after his own image, the dominant tone of which is—action."

EDITOR.

THE HEAT CENTER

SUCH is the title of an editorial article in THE PHRENOLOGICAL JOURNAL for Oct., 1887, referring to certain experiments in vivisection that seem to indicate that the "heat center" is in the *corpus striatum*. For my own part I would say that I am very skeptical of the value of vivisection for the discovery of normal functions, for the reason that it nearly if not quite always occasions abnormal actions rather than normal ones. I can readily conceive that experiments such as those referred to might cause a rise of the temperature of an animal body if the nervous connections were such as to admit of a close sympathy between the parts experimented on and some of the vital organs, especially the heart and arteries. And such connections are known to exist. Even purely mental impressions will occasion changes of the temperature of the body.

I am of the opinion that, although the brain is as necessary to the life of the body as the keystone is to the arch, it can not be shown that a single vital function is directly presided over by any part of it, but that its functions are purely mental—sensitive, intellectual, and emotional and control of the voluntary muscles. It is evident, however, that

the vital functions are affected by the state of the mind. Also that the state of the brain affects both the mind and the vital functions. Also that derangement of the vital functions affects the mind. These facts are readily accounted for by the direct nervous connection of the vital ganglia, or brains of organic life, so to speak, with the brain, the organ of the mind, placing each in intimate sympathy with the other. And this to me accounts for the disturbance of certain vital functions when certain parts of the brain are irritated. I think it is simply the close nervous connection. And hence I think that vivisection can never accomplish as much as ante mortem observation and post mortem examination. And these can be conducted without cruelty.

The supposed "heat center" is a totally different thing from my supposed organ of temperature, the function of the latter I conceive to be sense of temperature, giving uneasiness or even pain when the temperature of the body or any part of it, especially the surface where the nerves of feeling are principally distributed, is by any means either depressed below or elevated above that which is normal. It is the mental thermometer. Like Alimentiveness it rests

except when there is occasion for its action.

My observations thus far all tend to show that this faculty is seated in the brain just forward of and a little above Alimentiveness. Those in whom I have observed this part of the brain largely developed have manifested great sensitiveness to changes of temperature, and

were inclined to carefully guard their persons against these influences, while those with it moderate or small gave this matter comparatively little attention.

But more observations are needed to determine positively the location of this faculty. Let us have them.

F. E. ASPINWALL, M. D.

EVIDENCES OF A SPIRITUAL BODY.

THE Bible teaches that man has a soul. The human body is triune—body (matter), life, and spirit. Paul says, "there is a natural body, there is a spiritual body." The man is also bidden to: "Defile not the body for it is the temple of the Holy Ghost." This paper is written to consider the evidences of the existence in man of a spiritual body.

Coming directly under our own observation we have collected a few proofs of the existence in man of a spiritual body. As a sort of prelude to the offering of these proofs we assert that:

Matter can not feel,
 " " think,
 " " sin,
 " " act.

The matter of the lower animals is acted upon by their life and the laws of their being. We know that they possess few of the attributes of man, such as love of family, love of the beautiful, pity, calculation, cause and effect, provision against coming want, protection, etc. These facts are mentioned because we have no thought in producing evidence that man has a personal spirit of including the lower animals with him.

Combe, and nearly all writers upon the subject of the mind allude to a power beyond the mind as originating or producing thought. This power "beyond" we denominate Spirit. It is not matter—this is conceded. That which is not matter is universally regarded spirit. It was made personal spirit when God "breathed into him his image." God is a spirit.

The best general proof of the possession by man of a spiritual sense is the transmission to him by revelation of facts unknown—of truths beyond his pre-understanding; thoughts revealed regarding the unknown, as to reason, invention, etc., etc.

As evidences of a personal spirit in man easily understood by all we present the following:—

1st. The general belief by savage and by civilized in such a spirit.

2d. Communications from the spirit world. The writer was informed of the death of a young lady whom he believed in perfect health. She died, he afterward learned, at about the time when he was informed.

3d. His half brother lay dying; the mother sitting by him. The last words as he expired were "I see father." The father was dead.

4th. A young lady within my acquaintance, dying, whose mother was dead, gave utterance, with her last breath, "How beautiful! I see mother."

5th. Riding with a one-armed stage driver one very cold day, I remarked, "You have at least one hand that does not get cold." "On the contrary," said he, "that hand pains me as badly as the one remaining." Instances of this sort are common, if not general.

6th. A farmer lost a foot by a reaping machine. After amputation he was removed to a hospital miles distant. Upon a subsequent visit from the doctor who had done the amputating, he said: "Doctor, you will have to put my foot

where it can not be handled. They turn it over and over and awake me from sleep." The doctor had the foot in alcohol, and according to request placed it where it would no longer be handled.

7th. Thousands of instances are upon record, in the archives of the late war, of men who suffered from amputated limbs not properly cared for after amputation. Added instances, occurring in almost every neighborhood, of this sort, will be called to mind by the reader.

8th. Clairvoyance, anæsthetic effects, trances, swoons, suspended animation, psychological effects, mesmerism, syncope, and all the similar forms of bodily existence, the body not under the guidance, direction, control or subject to the spirit, are evidence of a spiritual intelligence.

9th. Delightful communion of God's people with each other and with him. The going to God in prayer, in the which actual approach to the holy presence seems at times vouchsafed and in which, not infrequently, the answer to prayer is made known. "God is a spirit and seeketh such to worship him as worship in spirit and in truth."

Is not the converse of this also true—the communion of evil spirits, or the evil spirit of man, with the spirit of evil?

We have produced seven sorts of evidence of the fact that man possesses a personal spirit.

1st. In communications by Divine revelation.

2d. In the fact that he differs from the lower animals.

3d. The necessity of a connecting link between matter and mind; acknowledged by all writers upon the subject.

4th. The universal belief in the need of such a spirit or agent.

5th. Communications to the living from the dead.

6th. Feeling communicated to the living by a disconnected member of the body.

7th. Spiritual communion, man with man, man with God, prayer, praise, etc.

Explain these facts, account for these results as you may, and the facts remain as unexplained as before upon any hypothesis, rejecting in man all but the mere animal. Accept the theory that man possesses a personal spirit and the problem is solved and the origin of thought as well as of feeling accounted for.

In conclusion we will only add that a premise so established and taught by Holy Writ, so universally believed by savage and by civilized peoples, should be taught universally. No other scientific truth rests upon a better established basis. Then why is not the fact of a personal spirit in man taught our children?

W. H. GARDNER.

PHRENOLOGY NOT TO BLAME.

HE would be a bold or an ignorant phrenologist who to day would say to one young man what he would not have hesitated a moment to say twenty years ago: "Enter the wholesale commercial trade and your success will be assured;" to another, "Enter the retail dry goods trade and you will excel;" to another, "Become a carpenter and you will make a good living and be content with your work;" to another, "If you become a lawyer, the world will surely hear from you as a states-

man;" to still another, "Your place is the ministry, where, while laying up treasures in Heaven, the Lord will abundantly provide for your earthly wants," etc., etc.

In 1878 a capable phrenologist advised a man of twenty to become a merchant. Following this advice, he clerked for four years, and at the end of that time with his meager savings opened a store in what soon afterward became a railroad town. His only opponent was a robust man, who loved money and

understood human nature, but who had no business education, and his ignorance of the retail trade was such that his best friends would have preferred to buy goods elsewhere except for the added cost. Yet within three years after the railroad entered the town this man had nearly the entire trade of the town and surrounding country, and his able but unfortunate competitor was glad to sell out and then enter his employ on a low salary. It is needless to say to a phrenologist that with such help the robust man grew rapidly wealthy, and won the name of being a most successful merchant. His clerk remained a clerk, and nothing more. His salary not increasing in proportion to his social obligations, he became dissatisfied, and pronounced Phrenology a humbug. The sole cause of his failure and the success of his rival was that the latter got favors from the railroad in the way of rebates, and he was wise enough not to tell anybody.

A man who had kept a notion store in New York City for fifteen years, went to a phrenologist, who, knowing nothing of his history, told him he had excellent knowledge of things, place, and order, and that Burnton, whose notion store is known all over the city, could not do better than to engage him as his chief clerk (if he were willing to take any subordinate position). The man replied that he had recently failed in that business, and, supposing that he had made a mistake in the choice of pursuits, had come at this rather late date to be put on the right track. On inquiry, it was learned that he had really been a most successful merchant in his line, and that the cause of his failure, like that of many other retail merchants, was the concentration of retail trade in such stores as Macy's, Ridley's, etc., that, with large capital, were able to underbuy and undersell, and gradually monopolize the business.

Fifteen years ago some of the writer's friends went west with a few dollars which they invested in cattle, and in the

course of eight years owned extensive ranches and accumulated wealth. Others who went west at the same time being more modest in their aspirations, hired themselves to these men by the month, and to-day are penniless. Why, was asked, do they not now imitate your example, begin an independent business and become rich as you have done? The reply was that none but those unacquainted with the state of things in the west to-day would ask such a question. The larger ranches have absorbed the smaller; immense tracts of land have been bought for a song, and fenced in by foreign and domestic companies, and other land taken and fenced without right. Where the water supply was limited this has been inclosed. The larger companies also have obtained special rates for transportation, which enable them to undersell their weaker competitors.

Thus we may turn to the various pursuits and find that only a comparatively small number of persons make what the world has learned to call a success in them; that is, accumulate wealth and rise to independence. On studying these persons phrenologically, can it be said that their success has been due to peculiar adaptation to the department with which their names have become associated? Honestly, this question must often be answered in the negative. They are men of financial acumen, who have gained control of capital, and with this have been able to monopolize a business the success of which depends upon the carrying out of details by men of ability in their specialty, who, finding so many like themselves glad of an opportunity to gain a pittance, are willing to work for a sum which all admit is evidence of anything else than great success in life.

The phrenologist can tell what one is able to do with natural opportunities opened up to him; but he can not predict an unswerving Christian life in one cast from his youth among savages,

although of high religious development naturally, nor purity of mind and body in the loveliest maiden who is reared under the debasing influences of some of our tenement districts. Some English lords, with their heads twenty-one inches, have it in their power, and often exercise it, to debase the body and stunt the soul of many Milton-like sub-

jects dependent upon them for the mere privilege of breathing God's air.

It is, then, of the greatest importance to phrenologists, for the healthful progress of their profession, to advance, as far as lies within their power, those temporal conditions which give to men equal natural opportunities and a chance to develop their God-given powers. R.

THE WASHER-WOMAN.

Under the laughing trees
Catching the blossom breeze,
In tubs of white or blue,
Where draperies soft pass through,
Stands the woman of toil.
Batling with suds and soil.

Blind to the bloom is she,
And birds that merrily
Chirp, and woo, and wed,
In branches overhead,
Move not the woman of toil
Batling with suds and soil.

The sapphire dome of sky,
With changeful pendants high,
Is naught, if sun but shine
When clothes are on the line,
Thinks the woman of toil
Batling with suds and soil.

Whatever of bloom or spring,
Of charm of voice or wing,
Of amber tint of air,
Of delicate visions fair,

Touched the woman of toil
Batling with suds and soil,

Passed by so long ago,
They left no trace or glow
On wrinkled face and form
That meet half way each storm,
Hapless woman of toil
Batling with suds and soil.

The angels stoop so low,
In fitting to and fro
Near the cleanser of clothes,
How near she little knows;
Blind, deaf woman of toil
Batling with suds and soil.

I wonder if gray death,
That drinks all human breath,
Can reach her with his wand,
And make her understand
We end with mortal coil
This battle of suds and soil?

MRS. S. L. OBERHOLTZER.

HUMAN ORGANIZATION AND RELIGION.

MR. EDITOR:
In the November number of your JOURNAL there is an article entitled "Human Organization and Religion." I should like to ask a question with regard to the principle upon which it is based.

The author, Wm. Tucker, D. D., states first that the brain is the instrument through which the intellect or will acts on other minds. Then, as a natural sequence, the better or more perfect the instrument the better will be the work performed by it.

Second, he says there is no religion

without thought, emotion, and action, and these are conditioned by the organism. "The organism conditions all life." From this we would conclude that the organism is the foundation upon which we are to build, and according to the quality, balance, or bias of such foundation or organism, so will be the direction of its manifest operations.

Third, he proves by actual experiment and demonstration, that a certain bias or development of the organism produces the religious sentiments, feelings, emotions, and actions. Then, according to the second statement, without this

development there will be no religious sentiments, feelings, emotions, or actions.

A man devoid of these faculties has no desire for religion, and no capacity to receive it if offered. A man like Voltaire could not have been famous for the development of such faculties, and yet he acted out those that he possessed.

I think it possible that there are such persons, and according to my observation the majority of people you meet are below grade in this particular. I would ask how are such to be saved? I ask this not from idle curiosity, but from a desire for knowledge, for aside from the Bible, Phrenology has done more to strengthen my belief in God than any other study.

Must we leave this question as one of the hidden things, with an all-wise God, or can it be answered by that science which gave it birth? HAMILTON.

ANSWER.

In reply to Hamilton's question, "How can those who have not the religious organs developed be saved?" I would answer:

The brain is the instrument of mind or spirit, and not its cause. It conditions mental and moral conduct, but does not cause it. The efficient, responsible cause of all moral and religious conduct and character is the personal, human spirit. The human soul in the exercise of its will can and does control, modify, and

improve the brain or organism. The educational value of Phrenology in part is found in this: It instructs us in regard to what organs we should cultivate specially, and how we should do it. Just as a strong mind goes to work by proper hygiene to improve a weak body, so the spirit under a sense of duty should cultivate veneration, benevolence, spirituality, conscientiousness, and hope, that they may become active, strong, and well developed. Every faculty and organ grows strong by culture and exercise. This is as true of weak religious and moral organs as it is of the eye or hand.

It is not true that we are under no obligation to do that which we have not the power to do. It is by making the effort to do, that we get the power. We get it in no other way. We only get the power to walk by walking, to talk by talking, to work by working, and we get moral and religious power by discharging moral and religious duties, by reflection, work, conversation, and worship.

In the case of either mental or moral idiocy, the development will be imperfect in this life; but there are not many such cases. For all such I think there is a future for growth, culture, and development, when the soul will not be hampered by an imperfect brain. Immortality is a doctrine of Phrenology.

WM. TUCKER, D. D.

A GUESS AT THE RIDDLE OF THE NINETEENTH CENTURY.

THE normal condition of man is warfare, and nowhere is the conflict sharper than among the housekeepers of the world. I say the world, advisedly, for this trouble is not confined to any one part of the globe. There was a time, it is true, when the evil was less widespread; in the South, for instance, in the days of slavery, the domestics were a component part of the family, and having been for generations in the same environment with the master and

mistress, were generally efficient in their duties. The complaints in the British Isles and on the Continent are becoming as loud as our own. It is not a great while since their domestic machinery was the envy of their sisters in the New World. On my first visit to London I was struck with the respect shown by the working classes to their employers. That is much changed. They do things differently in England now. Their lamentations are as great as

ours, and they appeal to the world at large to help them disentangle one of the knotty questions of the Nineteenth Century—the labor question as applied to the household. The *Œdipus* who unravels the riddle of this Sphinx will confer an inestimable benefit on mankind. Although I shall not be the one to make this wise monster dash out his brains, I may in a measure aid in that direction. It is with a wish to portray this aspect of the subject as it has impressed one who has studied it in many countries, under many conditions, that this paper is undertaken.

The problem urgently presses for solution. The inefficiency of household servers strikes at the roots of domestic peace; under it the solidarity of the family dissolves and happiness is destroyed. The condition produced is far-reaching in its effects—appalling in its reaction. It shakes the social fabric from center to circumference, and even strikes at life itself. As a class domestic servers are the most unstable, being ever in a mood of "divine discontent." In their ignorance of domestic economy the mistress begins her uphill work as tutor. The rule is that the teacher shall be paid, but, in this great exception, the employer boards, lodges, remunerates, and withal instructs, and for what?—there is no equivalent. She gives her precious moments to long, tedious efforts, beginning at the a, b, c, of the household alphabet; and just as she congratulates herself that her seed is about to produce fruit, the nomad is off for "fresh woods and pastures new." The health of our matrons is failing under the ceaseless wear and tear of following up servants; their own personal duties are thus neglected, and, between the mental and physical drain, they must inevitably become unfit to rear healthy offspring. This does not apply to the comparatively few wealthy women, whose long purses can command the small number of skilled hands in this department. The science of Sociology

is too intricate, too gigantic to be controlled by units. It is an organization of forces that swallows the individual. The criterion of the value of actions being the general effect, I speak for the great body of housewives. Humanitarianism demands efficient helpers in this field. When the fact is borne in mind that home life is one of the great factors of civilization, and when, in addition, it is remembered that the agencies there leave influences on the subsequent lives of men, the importance of requiring the best workers is obvious. Our supreme interest as wives, mothers, homekeepers, lies in this question. It is a matter of necessity that our homes be preserved; subversion would entail a calamity well-nigh irretrievable. The problem of their maintenance is as important, is destined to be as significant in its effects, as any in political economy. The trouble has about reached its acme, and we see the catastrophe of demoralized and broken households in every community. How, then, can we better assist the progress of civilization than by taking the living causes of this miserable result, and, by placing them under discipline, make them an arm of strength to the body politic? Precisely in proportion as this class is enlightened, will the friction of life be lessened.

We are now brought to the considerations which it is the purpose of this paper to point out. If domestic service is a calling, preparation must be made for it as for other callings. If we get a plumber to do a piece of work, we are not compelled to teach him how to do it; if there are repairs for a carpenter, we are not obliged to show him how to plane, to mortise, or to drive a nail. Yet if we engage a cook, and she enters our kitchen with the loud assurance that she is equal to the situation, we find upon trial, nine cases out of ten, that her claims are fraudulent, and we must either dismiss her forthwith, or enter again upon the role of teacher. This, I believe, is the only body of labor of any importance

that is unorganized. It has not even a schedule of prices. Its value is not gauged either by the quantity or quality of its products. A woman, for example, takes a place in a family of seven. She is above the average in her work, and is paid \$3 or \$3.50 a week; another, next door, perfectly *raw*, who is receiving \$2.50, in a family of two, learning the price paid to the neighbor's servant, immediately demands an increase of wages. "But, Bridget," her mistress replies, "you have not half the labor to perform nor are you half as skilled as the woman next door, who goes through her duties without taxing any of the household, while I am instructing you daily." This distinction is difficult to get into Bridget's head, who, like most of her class, is looking for large wages, a good home, and little or nothing to do. A lady whom for convenience we will call Mrs. Brown recently gave me her experience with a cook in New York. On the appearance of the applicant, Mrs. Brown asked, "Are you experienced in cooking?" "Oh, yes, mum." "What can you cook?" "Everything." "Can you make clear soups?" "Yes, mum." "What wages do you get?" "Twenty dollars a month." "Very well, for a good cook I am willing to pay that sum, but I do not go near the kitchen; that is your province, and you are expected to fill it." Less than a week's experience proved she knew neither how to make clear soups properly nor any other dishes. Accordingly she was dismissed. A few days thereafter, Mrs. Brown, making a call on a neighbor, ascertained that this same woman had obtained employment there, and, when the latter lady inquired about her wages, she said she had been paid twenty dollars a month at her last place, omitting to state she was discharged for incompetency, and also that she never had received but ten dollars a month previously to entering Mrs. Brown's service. Examples of this kind might be multiplied *ad infinitum*.

How many servants know even the rudiment of the work they so confidently undertake? Precision is requisite in so simple a performance as broiling a steak, boiling an egg, or brewing a cup of coffee. Yet half who undertake these simple tasks know not the difference between an infusion and a decoction, still less the different results from meat broiled properly, retaining its juices and nutritive qualities, and that improperly done, leaving, in place of food fit for men, a mass of toughened fiber that would try the digestive organs of an ostrich. The gastronomic value of properly cooked food is too vast a subject to attempt in this paper, and its power for good or evil more extensive than at first blush appears. Dr. Gill, in his work on indigestion, mentions a family, all of whom were attacked with diarrhoea and vomiting, and the cause was traced to the filthy condition of the cooking utensils, which were thoroughly cleansed and in due course the family regained strength, though one of them had a narrow escape from death. Thus it will be seen the kitchen is an immense agent in promoting the health, and consequently the happiness of the household. I may say it is the foundation stone of the hygienic structure. But of vast importance too, is sanitary knowledge in all departments of the house. The power of air and sunlight upon all life should be known. I venture the opinion that there are few mistresses who have not experienced the trial of finding the apartments occupied by their maids mephitic with odors from want of proper ventilation. In the colder months this prepares a *nidus* for all kinds of diseases. It is an established fact that such conditions produce more deaths than either bad water or bad food. Yet with what persistence are resisted all efforts to enforce the practice of opening windows to let sunlight and air search the chambers at least for a while every day.

The benighted condition of labor in

the domestic department is so dense and widespread that private instruction from mistress to maid will not meet the exigencies. The mistress may be *au fait* in all relating to sanitary science, but she will find it no idle task to instill even the rudimentary principles in the heads of her maids. In the first place she has neither the time nor the conditions for its accomplishment; and in the next, by some strange fatuity, servants will not receive instruction gracefully from their mistresses. Not that there is cerebral incapacity; the trouble seems to be rather in the moral than the intellectual faculties. Being of the same sex, and in a certain manner brought into intimate contact with the mistress, the girl resents the exercise of authority; hence, orders are neglected, and duties left undischarged. This feeling is the explanation of the preference that women seeking employment give to shop and factory over household work. They can not bear female government, though experience shows how far better they fare under it, generally. Take a few facts from a lady writer who inquired into the state of the shop girls in a large city the other day. Their pay averaged from \$3 to \$5 per week, and after deducting board, washing, car-fare, and fines, there was scarcely enough left in the year's salary to clothe them. Compare this with the house girl's condition. Her board, lodging, lights, fuel are free; besides—if she prove worthy—she has many presents of clothing, so that she need take from her wages only a small sum for clothing. She may thus every year (if she be prudent and economical) lay up a snug sum for the rainy day that, if life lasts, comes to the majority. Another advantage to the houseworker is that, if by faithful service she gains the attachment of the family, and is taken ill, she is saved the anxiety of the shop woman, whose wages are stopped, and when they are gone she is likely to be turned out of her lodging house. The houseworker's wages may be intermitted,

while some one supplies her place for the time, but the wages already earned are not absorbed in board. The relief from solicitude on this account hastens her recovery, and she is earlier able to return to active life.

I have adverted to equality; in perverting this conception lies the trouble: all have equal rights before the law, but not equal faculties or equal conditions. Equality in the absolute sense exists nowhere. It is perversion here that causes oversensitiveness regarding class-names. Why a shop girl should feel her dignity insulted by being called a *saleswoman* surpasses understanding. The good old Saxon word *woman* is tabooed as though some uncanny meaning attached to it. How ridiculously this is carried to extremes. If applied in one instance why not in all? Consistently we should say *salesgentleman*, *coachgentleman*, *ashgentleman*, and so throughout the list. This has reached such a pitch of absurdity that we see such advertisements as this: "LADY wishes a place as first-class cook in private family or general housework. 1632 Sansom street." (Philadelphia paper.) I conclude this matter with an example from personal experience. A note was recently handed me from a laundress applying for my washing. It runs: "Your washlady, you had for so long, recommends you to me. I want your washing, I am the lady that lives near the depot. You can come and see me. I am the lady that washes for Mrs. P. and Mrs. S." The original orthography is not reproduced. It is so illiterate as to be difficult to understand without several readings and some study.

The great mistake arises from the light in which labor is viewed by the masses. It is not ignoble; contrariwise, it dignifies life, and is a God-given blessing. I do not mean the work that over-burdens, but that steady, faithful employment which ennobles a man and makes him feel that honest work can never degrade.

ALICE D. SHIPMAN.

(Conclusion next month.)

THE COURT OF CONSCIENCE.

THERE is nothing right. All day and every day Conscience, the inexorable judge, sits upon the bench, silent and solemn, but with reproach written in every lineament of his stern countenance, while poor Ego, the prisoner at the bar, listens with vain hope to the eloquent pleadings of those born lawyers, the propensities; they seem to have certain arguments which they consider conclusive, but which rarely serve to satisfy the judge. "It is natural," they plead; "the prisoner can not help it, he is so constituted." But the doubtful, half contemptuous expression with which the arguments are received by the supreme official, give little encouragement to the poor culprit, and he turns with more confidence to the superior members of the bar. Self-esteem rises with such dignity and composure that hope revives, and the judge is well-nigh disarmed. There is something in the speech of this highly cultured and progressive attorney that demands attention, and all, including the judge, listen respectfully to his able and eloquent defense. Still, Conscience is not satisfied; even if he excuses this particular fault there are other deeds, which this Ego has done, that must be explained. "But," cries Benevolence, who has a theory that virtue expands and vice contracts, and that one kind act is able to cover a multitude of faults, "look at the good deeds he has done! let me spread them out before you," and as with fluent speech and earnest gesture he brings forward every kind act and generous deed, the heart of Ego glows with pleasure and self-gratulation, but Conscience cries imperiously, "Away with the deeds, let me look at the motives," and while he adjusts his glasses as a prelude to close inspection, Approbativeness sits uneasily, knowing how large a share he has had in the performance of those noble deeds. Secretiveness and Caution blush guiltily, remembering how they have helped to

conceal, even from the prisoner himself, those very motives which the judge is now examining with such scrutiny. How mercilessly he probes into the very heart of every noble deed, searching for some atom of self which he is sure to find. At length the examinations are over and the jury retires to deliberate.

"I'll tell you what I think," says Comparison: "considering his surroundings he is no worse than others; look at his neighbors and fellow-workers, are their motives all good and pure? Do they never do anything wrong, or weak, or foolish? Now place him beside the best of his neighbors and you'll see he is quite as good. And I think you will agree with me, that it is not fair to punish one man, when others who have done the same thing, go free."

"That argument wouldn't count for much with the judge," says Veneration. "You know he says we have nothing to do with the mistakes and foibles of other courts; it is our duty simply to enforce our own laws."

"When it comes to that," cries Destructiveness, "I'm for it. What's the use having laws if you don't enforce them?"

"Yes, if the laws are reasonable," says Causality, "but we must not decide hastily; let us go to the root of the matter and see *why* these deeds were committed."

"What's the use of all that?" says Firmness, "my mind is made up and nothing can change it. Right is right and wrong is wrong, no matter what the causes are."

"Let us leave it all to the future," says Spirituality; "if he deserves punishment he will receive it in the next world."

"I don't believe in that," says Combativeness. "If he deserves punishment he ought to receive it now, and we are the ones to decide."

"Well, hold on," says Caution, "we want to be sure we're right. This is a

weighty matter and we should be very careful in making a decision."

"I think —" says Continuity, but the other members of the jury, *knowing* that if he once gets started he will talk all night, immediately decide the case and return a verdict of guilty, which is quite satisfactory to the judge. He agrees with the jury and sentences the prisoner to one hour of mental torture, at the end of which time, he will probably be brought again before the bar for some other sin which he committed.

Poor Ego! let him go where he will, do what he may; let him strive ever so hard, there is sure to be something wrong, or weak, or selfish in what he does, and there is no escaping the vigilance of the Court of Conscience.

It would seem that he might in time gain wisdom from experience, and cease to commit these sins for which he is daily tried; but alas, he is urged on by his lawyers who assure him that he is right, and promise to defend him. They keep their promise but fail to convince

the judge because he can not be moved by the persuasions of Benevolence, blinded by the veil of Secretiveness, overruled by the dignity and power of Self-esteem, influenced by the logic of Comparison and Causality, or softened by the pleadings of Affection. Stern and relentless he sits, the one judge who can not be bribed, persuaded, or biased. He cares nothing for the decisions of other courts; he has one prisoner to try, and before him he sits in judgment, until the unhappy Ego is almost ready to plead that he might be born again, and this time without a conscience.

But alas, for him, if his prayer is answered, for without a conscience in the court room of the soul, what war there would be among the faculties! what anarchy! what confusion!

Thus it is that the wise Ego patiently submits to the present existence of things. Considering it safer to "bear these ills we have, than fly to others that we know not of."

A. M. COSTELLO.

MY QUILT.

A SATURDAY EVENING'S REVERIE.

WHEN I was a little girl eight years old, getting well of measles, grandma gave me four squares and lots of scraps with which to begin my quilt. This simple little gift afforded me ten times more pleasure than all the goodies and toys she had ever lavished upon me. My cute little thimble was soon used with dexterity, and before three months had passed my quilt was ready for the lining. At this stage it was laid away in the cedar chest, and never taken out until I was a grown up young lady. Then I added a row of squares made of new pieces, and finished it off. As I expect to carry it with me to the Agricultural Fair, fifty years from now, I have determined to take good care of it; and as I shall be quite an old lady then, and will not waste time in writing out

any recollections connected with my first sewing, I propose to do so now while waiting for the mail.

In my fancy's eye, which is critically intuitive, and singularly prophetic, I see myself walking into the department for needlework and curiosities. My step is quite elastic, and I am as straight as a dart. Ear-trumpet? No indeed. Cane? Not any, I thank you. Spectacles? Take them away! And my heart has kept bright all along, for I have resolutely forgotten all sad experiences, and endeavored to keep fresh all the faith and love and joy of life. As I pass on in, I meet a group of pretty children with new-fashioned playthings that I don't know the names of. One says to another: "That old lady is as old as the hills. What does she come to the fair for?"

And another remarks: "Old bonnet is a regular chestnut!"

"But see," exclaims another, "she has a nice face, and looks like the kind to tell fairy stories."

"I'll jus' bet she'd give a fellow all the ginger cake he wants, and meserbs for supper too," says a little jolly boy who possesses a full development in the region of Alimentiveness (I will here observe that before fifty years shall have passed, the science of Phrenology shall be more universally understood, and consequently of great practical use, enabling us to read heads and faces as readily as written music or language). A little further on I meet a brown-eyed boy and his sweet-heart, the grandchildren of my girlhood friends. They think I'm so old that it never occurs to me to imagine they are lovers! Bless their dear young hearts, I'm reading them thro' and thro' like a book. The shy glances, the delicious confusion, the beautiful foolish remarks! And they think I haven't guessed! I pass on further, and whisper a prayer to God above to bless these fair-faced children, and give the happy lovers grace to deal fairly and lovingly with each other.

Violets will forget to pop up, and roses shall cease to unfold their fragrance, and the moon forget her way in the firmament when I, as long as I live, shall forget the lovely past, or cease to pray for a blessing on happy youth.

By and by my quilt is hung up, and fond memory throws the light of other days around me while I look up at it. Many of my friends have passed into the spirit life, and as I stand there I give all my thoughts to those who have gone on before. What is it to be free from this earthly form, these earthly cares, and earthly fetters and walls? What is it to be beyond this beautiful world, out into the bright space that divides the stars? What is it to enjoy the unbounded privileges for gaining knowledge, and helping and comforting those yet in the body? Truly I *shall* know, and oh, how I long to know! If *human* love can sympath-

ize with the suffering and broken-hearted, how much more they, who have been released from the cares of this present existence. If *human* hearts, so prone to doubting, can respond so gladly to the love of God, how much more can the angels and spirits of light! Often when sitting alone with folded hands, by the fire on the hearth, I am conscious of the presence of many who were called to their long home years ago, who care for me yet, and who surround me, imparting blessed thoughts and sweet assurances to my poor old heart.

Presently a dear little relative comes with her friends to hear the story of the quilt.

"You see this pink chintz, dear? Well, little sister and I had dresses alike of that when we were four and five years old; they were made with short sleeves and low necks. This dotted red-and-white grandfather gave us; isn't it sweet? We wore white ruffled aprons with these red dresses. This purple is a piece of my dear grandmother's mourning dress. She wore that the day I was five years old; I remember it well, for I threw some apple cores in the fire place. 'Twas the last time I ever did such a thing, I can never forget her rebuke, for it is the only one she ever gave me. (*Grandmas* are so good, you know.) She said, 'Oh, fie, daughter! let the turkeys have the rinds and cores,' and I had to take the cores out of the ashes with the tongs, wrap them in a paper, and carry them out to the kitchen yard. Don't you think this striped percale is neat? That was mother's, and new when my oldest brother was a baby; and how young and girlish she was then! I seem to see her now, and father was only a boy. He would have her make him a summer necktie like it. My dearie, it seems but yesterday. In this newer row of squares is a piece of Polly's dress that she wore at a Christmas ball, where we were all attired in calico. She is old Mrs. Perkins, you know her. Could she dance? Well, I should say so; she outshone all

the girls that night. I said to her on the stairway, 'Polly, do you intend to say yes to either of these beaux on hand just now?' She answered lightly, 'My stars, Patsy, no! But it would be a come down, I couldn't abide to miss having them all ask me—no sense in refusing a man before he pops the question.' She married well, too, and has led a useful life. Polly was a gentle girl, and a good one for all her coquettish ways; and she has deserved every blessing that has crowned her life.

"This pink gingham was sister's, worn at the same calico ball. It contrasted well with her black glossy hair; she was just as fond of gayety as Polly. What friends they have always been. Did my sister get married? Why certainly. Before I did. I'm talking about your great aunt, old Aunt Nancy Lumpkins. What times Polly and Nancy had when they were girls! What dozens of beaux, and what jolly fun! This pale blue is what I wore the same night. It looked very sweet I was told, and was made more becoming by my having a broad, cherry, watered ribbon-sash round my waist. Now look at this with blue and red roses; how quaint, you say; it is only calico, but it was 15 cents a yard in those days. 'Twas our little brother's sunbonnet when he was one year old, and all my brothers had long-sleeved aprons of this checked blue and white. This diagonal plaid was a summer calico worn by a golden-haired girl of eighteen, Maria Tompkins. Notwithstanding her innocent soft looks, she had an eye to the main chance, and soon captured wealth; but alas! with the gold she had to take decrepitude and age. Love was laid at her feet, but with cruel gilded words she turned from him; turned traitor to her heart's happiness, and gave a death stab to her life's completeness. She was rich, but destitute, and restless and discontented. She roved with her husband from continent to continent, with her heart unsatisfied because devoid of love. She and the beautiful

young man who loved her, and her aged husband, all died long, long ago. Ah me! poor Minnie! 'Tis a sad, sad thing, my children, to cast aside the golden grains of love, the very food of the heart, and choose the fruitless chaff of earthly luxury.

"This is a goods that used to be very fashionable when we were young. We called it 'Sateen.' I had this brown the summer I learned to swim. Could your grandmother swim? you ask. Indeed she could. I wonder what ever became of the handsome doctor who taught us. He was a professor at the University, a microscopist, and his talk was all of *infusoria*, and *bacteria*, and *parasites*, and doubled-barreled *kolpodæ*, and various *animaculaæ*."

"Oh, how charming!" says a little high school girl (for by that time people shall have grown to be very familiar with these interesting subjects), "There were lots of medical doctors when you were young, weren't there m'am?" she continues.

"Oh, thousands and thousands.

"You want to know about that soft gray? Ah, yes, it was made with sleeves as tight as the very skin. I remember I used to wear it when I sat in my grandfather's room and talked with him the last few weeks of his life here. Like Moses he had never used tobacco, and like Moses his eye was not dimmed nor his natural force abated at an extreme old age. He was a grand man, stately and august, and an humble Christian. Day by day he waited to be taken to the spirit world, and there was nothing about his death to cause grief: it was so plainly the glorious liberation of a purified spirit, and it was something wonderfully sweet to meditate upon. It seemed to be a communication with Heaven and Eternity to see him tranquilly pass away.

"Yes, that green and black is antique looking. I recollect I wore the dress like it when I had to say 'No' to a gay young man. When he walked out of

the room I declare he looked a foot taller, he was so mad. The next time I saw him he was a city dude, and he who talked once as if he would risk his sweet young life for me, said so impudently, 'Why, how d'y'e do, Miss Patsy. Not married yet! Chances will be getting slim and few as you push up to thirty.'

"One good chance in a lifetime is as much as most of us need, said I; and he shut up.

"Whose was this garnet? My youngest sister's church dress was of that. What church did we attend? We were all strict Episcopalians, but (I add apologetically) the dawning of this century, my dear, was characterized by ever increasing broad views, great convictions, and vast human kindness, and we see clearly that religion, in a denominational sense, is wholly of man's invention, and now we know all truth to be inspiration, and believe that the light and love of God encircles *all* his children. This makes us feel ashamed that our narrow-minded forefathers took upon themselves to deny everlasting happiness to Jews, Quakers, and others.

"The human mind is rising, my dears, and expanding as it rises. Great are the changes I have witnessed, and greater are yet to come. Great intellectual and spiritual victories have been won."

"That is true," says the thoughtful high-school girl. "Did you ever see any of the pioneers in the Woman's cause, m'am?"

"To be sure I have! I heard Miss Anthony address thousands in the year 1885, and also heard Mrs. Livermore and Mrs. Z. G. Wallace; yes, my child, and shook hands with them and a great many other celebrities. I can never forget one of them, nor their subtle wit and thrilling words. Falsehood and ignorance fled before their winged shafts of *Truth*, and we enjoy the results of their triumph.

"In looking into the little children's faces, I trace the likeness to my old friends, and know that this one sings

and loves harmony, because he is the image of his grandfather, with whom I used to sing duets over fifty years ago; and this one loves everything tasty and beautiful, so much like her Grandma Sarah over again. And see all those daring blue eyes, don't I know them well. Come here, little boy (quick to see a joke, I'll be bound). Did I know your grandpa, honey? Well, I should think so. Ask him who taught him how to waltz. A regularly nice fellow he was, brave and bonnie, a smart rider, and fond of his fox chase, and of his dogs and horses. Are you as full of jokes as grandpa was fifty years ago? And who wouldn't know this brown eyed chap was related to Stephen! He has the same fun-loving spirit, and by and by he will sing tenor *dolcemente*.'

The children run ahead of me as I turn to go. Some of their faces I shall never see again here, but I will meet them on the other side. Soon I shall be there, for the steps I have to go are few. I see my journey's end. Do I fear? Can I fear or falter? No, no, my heart is as light as a lark's. Is it not my Father who has promised? I rejoice that the time is near at hand, and as I go step by step nearer the gates of the Beautiful City, I get so glad I can scarcely wait. What if sorrow has bowed my head? My eyes are dimmed only with the tears of gratitude and love, and my heart sings of praise and glory.

"Come, pet," I call to a dear little relative, "please run and tell your grandpa that grandma is ready to go with him to look at the poultry; after that he and I must return home; it is not prudent for two old people like us to stay out late."

"Here's the mail, Patty. One letter for you!" "Of course there is," I think to myself, as that's what I have been waiting for. "Thank you," I say aloud, and take my letter to skip off to my room to read a precious message from *his* fond heart to mine. Don't I love that dear, beautiful handwriting? Good-night all.

PATTY SPARKLE.

SCIENCE, LABOR, UNITY, CONCILIATION.

(The speech I made (in my mind) at the Socialists' indignation meeting.)

Fellow Citizens of the World :

A GREAT labor crisis is upon us. The whole world is involved. From a terrible revolution but one thing can save us—Truth, and Science is its prophet. If Science is worthy to be the prophet of that which stands above all other things (as, I am sure you will agree with me, Truth does), should it not also be your prophet? And, with such a prophet, would you need at all that other prophet? With such a leader, counsellor and teacher—in a word, with such a god need you hanker after any false gods? Idolators I know you are not. Aye, if Science is worthy to be the prophet and servant of so worthy a master as Truth, let us together rejoice, in humiliation, and at the same time with pride and exaltation, in accepting her as our true prophet and real Moses to lead us out of this wilderness of woe, of carnage and of strife. For, be assured, my brethren—indeed, you know, that as Science advances diversity of opinion dies away, and unity of knowledge takes its place. Mark these two differences, opinion and knowledge, and diversity and unity, for in these differences lie both the difficulty and the remedy. To produce this unity of knowledge for the whole race of man is the magnificent destiny of Science, and the humblest cultivator of such knowledge and promoter of such unity is, like the coral insect, helping to rear an edifice which, emerging from out of this vexed ocean of conflicting opinion, shall be first stable and secure, and at last shall be covered with verdure, flowers and fruit, and bloom beautiful in the face of heaven.

Yes, Truth will give us unity of thought and purpose which we must have, as there is but one Truth. Then we will be able to accomplish the great work which is demanded and which must be achieved first, viz., the organization of labor—the scientific organiza-

tion of labor. This must be the basis of a larger and true social organization. "Ye shall know the Truth and the Truth will make you free," saith Christ. Let us first seek to know the Truth and then act it, and then we will be preachers of righteousness and true priests—priests of Truth and not of barren dogmas or superstition. Let us help Science and Labor to join hands, hearts and hands, as in a marriage, which shall know no divorce forever. And Science will help Labor to bring forth a thousand fold; to "find favor in our sight and honor in the land," and to hasten the time when every valley shall be exalted and every mountain and hill shall be made low, and the crooked shall be made straight and the rough places plain—and when she will "beat our swords into ploughshares and our spears into pruning hooks," and make the "nations to know war no more forever," and make the "wilderness and solitary places glad, and the desert rejoice and blossom as the rose."

But now to closer quarters. You and your treacherous friends are both wrong. Your state socialism is one extreme and their egoistic individualism is the other extreme from the golden mean where the Truth lies. Yet individualism and socialism are both true, not to the exclusion but inclusion of each other, that is when combined in due and proper balance. They are both necessary factors in the equation of life, and are so because human nature is both individual and social, egoistic and altruistic.

They (your friends) say that it is "childish" on your part to expect to carry your theory of the State ownership of all the means of production into practice. And I agree with them, and add that it is not at all necessary to do so in order to gain your object (with which I agree) of substituting for the present competitive cut-throat and

wage system, a co-operative and more fraternal and helpful one, and thereby to eliminate the profit-making fiend, which is the veritable Mephistopheles of the industrial world.

"State Socialism" would violate or bar the liberty of individual initiation and voluntary co-operation in industrial enterprise. It would, in too great a degree, take away the incentive to individual effort and ambition, and conflict unduly with individual freedom generally. It would be tyranny to the minority—should there be a minority. And would not a minority, at times at least, be inevitable? The excuse for this state ownership is to get rid of the profit fiend. It can be got rid of without it. How, I can not wait to tell you now.

But if your expectations are "childish," theirs are babyish. If yours are "too fresh," theirs are more than proportionately too stale. More than a century ago and before the French revolution, the landlords in Europe—never here—were the oppressors of the people. To-day the manufacturing and merchant prince, the railroad king, the money monger, and the stock jobber and speculator have taken their place. And Mammon, all along this line, is infinitely more the oppressor than before, than ever before. And yet these pin-feather economists (your friends), these unsophisticated youths, these innocents, say they expect a land tax would remedy all the gigantic evils, abolish poverty and bring in a reign of justice, "peace and good will to men." It is indeed too "childish" for serious comment. And yet I am tempted to add this other thought: that any mere tyro in economics knows that a tax on any means of production is paid ultimately by the consumer.

Hundreds and thousands of the most capable young men in this country are annually leaving farming, declining to accept farms as gifts and become landlords, but choosing nothing and other chances rather than to live the life of a farmer and landlord.

My father offered me a hundred-acre farm and a setting out on it if I would remain a farmer; but I chose rather nothing and my chances in more inviting fields. And my friends don't think that I may know nothing about labor and the differences in occupation. I have been an employer and employe in all three branches of industry—the agricultural, manufacturing and mercantile. Before of age I took the place and did the work of two men (ordinary hands) in the harvest field. At seventeen I took the place of a man in working a team and plough, and was by my father pronounced a good ploughman. But while my horses were taking in their hay and oats for two hours at noon, I was taking in, besides my dinner, Greek philosophy and the life of Socrates. And ever since then Socrates has been my literary love, so to speak, and to me the consistent and moral hero, *par excellence*, of the ages. Ethics was his forte, and ethics is what I love most, but economics I have made my forte because it is the more immediately concerned with this great and pressing labor question, and it is what the world is now ready to understand and to apply. Ethics will follow it. This is their natural and, therefore, inevitable order—I mean as sciences. The one teaches wisdom, the other justice. And we must know how to be or to do good before we can be or do good. Though it may not be out of place even now to say to those whom it may concern, "Ye who profess to be more than just, even charitable, prepare to be just." Now, as to money, and the importance of its reform, you are both equally delinquent and oblivious. I don't refer to your respective platforms, for these, as platforms usually are, are set or spread to catch votes as the sails of a ship to catch the wind. But I refer to what is known to be the original and real doctrine of each of you. Your friends' platform shows more tact, if not more appreciation, on this point than yours does. This money question and its reform, I am bold to

affirm, is the most important, the most pressing, and, at the same time, the most practicable and easily effected of all the questions involved in this great industrial reform. Besides, being absolutely, in its essence, of social origin, and, therefore, entirely socialistic, how or why you socialists have overlooked the question and have failed to take advantage of this characteristic of it is to me unaccountable and astounding.

As for the success, in any large way, of either of you, that is impossible without the aid of the farmers, and they are opposed, and will remain so, to both the land tax of your friends and the state ownership of the means of production of yourselves. I know whereof I speak. I am a Granger and have been with the farmers in their national associations and conventions and know them well. Indeed both the Grangers and the Knights of Labor are in advance of both you and your friends in real practical measures of reform. But why so concerned about what these people did at Syracuse? They are not the

Labor Party of the United States. They are only the "New York clique," or the "swell head" party of New York, if you will pardon this much slang. The real Labor party, it seems to me, is the Union Labor party, who held a National Convention at Cincinnati last February and issued a good platform, and authorized and invited State organization under it, which has been going on ever since. Why don't you join in with this party?

A word and I am done. You seem too arrogant, too arbitrary and too little docile for your own interests. There seems an air of clanishness about you. You make speeches in German when there seems no occasion for it, and bore those who do not understand you. You do not seem to regard or to comply, or to desire to do so, with the circumstances of the country, or to appreciate the national character of the American people. For your honesty and courage you deserve great praise and a rich reward. Let us all unite under this motto, "In truth we trust."

VOX SCIENTIA.

SOME OBSERVATIONS BY A WOMAN IN PUBLIC LIFE.—No. 2.

FIRST, I wish to tell my young professional friend something more about dress, which I think will be found of interest to all ladies. We will begin with the outfit for travel, and in relation to it consider especially how to be comfortable at least expense; how to care for your health and preserve your beauty. You will travel nearly every day—called by the profession "one night stands." In the Northern States you will need *adjustable clothing* to suit the constantly changing weather—*i. e.* things to put on and off at will. I speak now of everyday or private clothing, and not of stage apparel. The essential idea at all seasons should be *warmth and lightness*. Unusual or heavy garments are not profitable, but such as are *light, strong, and warm* are so. The best material is of pure soft wool. Woolen suits, thin

for summer and thick for winter, should always be worn next the skin, not the cotton and gauze things usually sold for woolen under-wear, but those that are really of wool, otherwise you had better buy soft flannel, *shrink it*, and then cut close-fitting combination garments, and make them yourself; red flannel for every day, if you choose, and white for the platform. You will often go from a very hot dressing room to a cold stage, or the reverse; from cold carriages or omnibusses to hot cars and hotels, in all cases exposing your health and voice. So I pray you heed this part of my advice.

Combination suits of fine knit goods can be bought in any large city, and are not very expensive. The advantage of this style of undergarment is first, that it is suspended from the shoulders; sec-

ondly, being close fitting, it gives a smooth, well-rounded figure for your nice-fitting dresses. For travel, the flannel should go well into the tops of your boots; for the stage, if the ankles are likely to be exposed, they may be worn to the hose only. Next comes the corset or its better self, the health waist, with shoulder straps; and here allow me to remind you that the famous actress, Rachel Felix, never wore a corset, and neither have I, in all my personations of celebrities, subjected myself to corsets or close waists. The strength and sustaining power, which has carried me through two thousand engagements, dressing five times an evening for more than twelve hundred of these evenings, I attribute to the fact, that my garments have been uniformly suspended from the shoulders, and loose enough to admit of the full and natural action of the vital organs. It is true some ladies require support and shaping, on account of superabundance of adipose tissue. Let such persons adopt corded waists with shoulder straps, or Ball's elastic corset, and fasten their skirts to this waist or corset. The hose should also be suspended after the fashion adopted for children. Next comes another combination garment, the corset cover and skirt in one piece; then a Princess skirt, with or without trimming, *i. e.*, a sleeveless waist and skirt, woolen for winter, cotton flannel for spring and fall, and cotton for summer. The latter lengthened are very cool and comfortable in hot weather, under muslin dresses. The trimmings should be soft and light on all undergarments, if you desire the outer covering to appear smooth and well rounded. Heavy tucks, embroideries, and starched ruffles stick out in clumps and humps, besides feeling very uncomfortable. I should prefer no trimming. For traveling dresses, select gentlemen's summer goods, all wool with a surface that will shed the dust. Flannel and bunting and all open goods are simply pepper boxes.

Men's goods, or tailor goods, of firm texture and light weight are the best, and although expensive to start with, most economical at the last, as they will sponge and brush and clean well, and resist sun, dew, fog, rain, and mud, and all other ills of cheaper goods. Place the weight of your clothing upon the shoulders; it will save much strength that you need in your profession. All voice action begins in the abdomen, and therefore the loins and waist should not be crushed with bands or dragged by weights. If you wear skirts and jackets, hang the skirts by suspenders or button them to the jacket.

Avoid the extremely high or French heel shoes, except when required for a short space of time in some impersonations. The most durable hose are of a good quality of unbleached balbrigan or lisle thread. If you have to change to silk or lisle for evening and wear slippers, you had better not wear wool hose at all, but in case of a cold platform or cold weather, wear *both silk and lisle* at the same time, the one over the other according to the color required.

How about chamois waists? I am of opinion that they are too close. The clothing must have ventilation. The air penetrates wool goods, but not chamois. And do not have made to order any *unusual* thing, as wool boots to the knee, or double lining in a dress, for then you take cold whenever you change to ordinary dress. You will always need a warm extra wrap to put on whenever you step from the warm cars, or while sitting where there is no heat—a circular cloak or coat for winter, a soft shawl or wool wrap for summer; and do not wear these wraps all the time, as then you suffer from exposure almost as if you had none. In winter you should have a hood, mittens, leggings, and overshoes for long, omnibus or sleigh rides. When the wind is piercing or a storm is on you will be most thankful that you had them at hand.

HELEN POTTER.



MEDICAL SCIENCE IMPERFECT IN RESULTS.

THE healing art has claimed tribute from the thoughts and studies of man ever since the human race has existed in numbers sufficient to form communities, and while yet, all knowledge remained a crude unformulated mass. As physical decay and its attendant ills assailed the expatriated sons of Adam, the question soon arose how best to mitigate and reduce these inevitable ills. To meet and overcome the mysterious powers of pain and disease, were, perhaps, the first problems given man to solve. The tree of knowledge has borne problematical fruit through the ages. Remedies to assuage pain and to heal wounds were sought out long before the pen of the scientist had touched the healing art.

By slow degrees and uncertain ways, the mysteries of our physical being were studied, and submitted to the curative powers of the "herb of the field." Yet with all the study involved in the unknown, there follows great uncertainty in the results of the practice of medicine. The approach of disease may be so subtle as to be entirely unsuspected. Symptoms may produce no looked for results, and diagnoses often utterly fail to reach the truth. The physician labors in the realm of doubt, conjecture, and uncertainty, each occult phase of disease forming the basis of a new series of experiments, the results of which are

often as unforeseen as the disease is of itself mysterious. So much uncertainty exists in the use of remedial agents, that the celebrated Dr. Raynaud declared "that between skepticism and medicine there always existed a certain degree of affinity." It may well be questioned if the mortal ever existed who *perfectly* understood how to lay his restoring hand upon the "harp of a thousand strings," when tuneless and torn. It may also be questioned if the entire sum of purely medical knowledge, with all its wonders, has sensibly lengthened life, or greatly mitigated human suffering. The restoring powers of nature are often driven from the field, to make room for drugs whose use upon a healthy subject would demand an antidote, or life would be the forfeit. When the sons of the prophets cried out to Elisha, "O, thou man of God, there is death in the pot," and their lives were saved only by direct miracle, — they had ignorantly gathered for their noon-day meal the deadly colocynth, the poisonous extract of which is a conspicuous remedial agent of the present day.

Egypt, the oldest of the historic nations, had formulated medical science, and her priests had written on the treatment of diseases before the time of Abraham. Homer called the Egyptian physicians "sons of Peon, skilled above all men." These priestly physicians

were all specialists, as oculists, dentists, and many others, and each always remained in his own field of labor. Nor did their ideas so far vary from the most advanced thought and practice of the present. Diet held the first and most prominent place in their medical system, improper food being then considered as the great source of all diseases. But the science never progressed in Egypt beyond a certain limit. It retrogressed into a sort of supra-mundane mystery—the heavenly bodies, particularly the moon and planets in their various phases, being the supposed agencies of disease, until exorcism usurped the place of remedies, and medical science passed to the Attic shores. More than a thousand years before the Christian era, the Greek *Æsculapius*, was known as the god of medicine; classic fable names him as the surgeon of the famed Argonautic Expedition, and also represents Pluto as complaining to Jupiter that the realms of the dead would be depopulated by his healing powers. The same legends represent Rome as sending to him to save the city from the plague, and in the guise of a serpent he accomplished this work. The serpent glides through the summer sky, a constellation named in honor of this event.

To ward off suffering, and to arrest disease, has through the ages called forth the wildest energies of man, often with no good results, and again, some of the most potent curatives, far from being evolved from human study, were the accidental discoveries of the denizens of the wild. The fever-stricken savage who quenched his thirst in the stream where the *Cinchona* bough had fallen, was restored by its curative powers, and *quinine* is to-day regarded a sovereign remedy for febrile and malarial diseases.

Experiment turns the furrow in the physician's field of labor, nor can the most skilled lay accurate lines, or mark the boundaries of spirit and matter, after the experiments of four thousand years. "As long as there is life, there is hope,"

is a truth springing outside of the physician's field of research. He digs among mysteries, which, from the divine laws of our being, must always remain so. The Power which created,—despite all that humanity can do, finally changes and dissolves, and medical art, seeking as a mendicant, at the door of the decaying human temple, goes empty away from the veiled shrine. The tractors of Paracelsus were in their brief day as potent and wonderful as the truths proclaimed by Harvey, yet the first was an "empiric" and "charlatan" in the estimation of the "regulars" of his day; and the merits of the second as a scientist and a discoverer were not acknowledged until many years had passed. The circulation of the blood, propelled by the mighty enginery of the heart, though hidden from view only by frail tissues, had been a profound mystery through the ages. Digestion owes its revealment to accidental causes; Dr. Beaumont recorded its processes as he reviewed them in the patient Alexis St. Martin, from whom a mass of flesh had been torn, and the healing left the stomach exposed, thus laying bare another hidden wonder of the human frame. Because there is so much unknown and unknowable in medical science, there arises a temptation to overleap the bounds of matter, and to seek admittance to some spiritual chamber outside and beyond this tenement of clay. The wonders of animal magnetism—one of the vital forces, understood only by the Author of our being,—cause the peerer into hidden things to catch at the idea that the spirit world is almost within material view.

Mind cure, and the falsely called Christian science—phases of the same, and resting on the same foundation,—assure the suffering and disease-stricken that mind can triumph over suffering, and healthful currents again flow through the dried up channel of exhausted energies, independent of remedial agencies; thereby assuming powers that rest only in the hand of the Omnipotent.

The over-drugged patient is the best subject for this phase of modern charlatan-ism, for Nature scorning too many helps, often through inertia or disgust, will for a while lay down her own powers until relieved from the over-pressure. To such, the absence of all medicine may effect a speedy cure, and to the faith-healer marvelous powers be accorded as productive of the result.

To the real sufferer, upon whom organic disease has laid its torturing hand, the "last state is worse than the first." The vital principle has never been measured by mortal line, and the latent strength of the patient is often an unacknowledged factor in successful medical practice. There are no straight lines in this circling globe, whirling in the midst of other circling spheres, and progression,—so-called,—like everything else moves in a circle. The suffering Jobs have sat on their ash heaps and wailed through the ages, and the healing art has in turn mocked, rebuked, and threatened, without avail. When disease is approaching with cautious and stealthy steps to storm the citadel of human life, the ounce of prevention is worth an arsenal of cures. This ounce is not to be weighed out in drugs, but in sanitary laws, understood and obeyed. These have mitigated human ills, and banished from the civilized world some of the hideous diseases of the olden time.

Cleanliness, temperance, and godliness are a pharmacopœia sufficient to sustain and support the human race during its three score and ten, and too often these are utterly ignored among the lower strata of humanity.

In Rome surgeons were slaves, while the tillers of the soil ranked with nobles, and even in later times, and among other nations, the leech's calling was ignoble. Barbers were surgeons, and the striped pole—the barber's sign—is a relic of the days when phlebotomy was in its glory, and the barber was the operator. Now blood-letting is fast becoming obsolete. Some of the remedial agencies of our ancestors must have severely taxed the inventive powers of the originators. Many of the absurd fictions of olden times have passed from the modern mind, and medicine holds a high and honorable place in the learning and science of the civilized world.

Surgery has far outstripped medicine in the race of ages, *because* the surgeon's great success lies in a field within the range of his vision; when he attempts to go beyond this, like the physician, he gropes and grasps in vain at a mystery.

Not all the surgical lore and experiments of the present day could trace the course of the bullet which slew President Garfield, or tell where it finally lodged. Certain it is, the continued probing left little power of healing. The surgeon repairs well; he can almost make anew the outside walls of this tenement of clay, but when he seeks to penetrate within he meets with doubt and mystery. The vital force holds the fortress well. Even the "marble doors" swing inward, and medical science, in seeking to close them, often stumbles, and is lost in the darkness within.

ANNIE E. COLE.

MUCH MORE THAN A CENTENARIAN.

THE accompanying portrait is published on the authority of *Good Health*, in which it is stated that the woman it represents is living in the town of Saint-Just-de-Claix, France, and is nearly one hundred and twenty-seven years old. The photograph from which

the engraving was made was of the instantaneous type, so that the old lady suffered no inconvenience while it was taken. To all appearance, Madame Girard, for such is her name is not more decrepit or feeble than the average old woman of eighty-five or ninety as we

find her in America. The full forehead, broad face, and strong features are evidences of vital tenacity, of the inheritance of those qualities that promise health and long life.

We regret that we have but few particulars of this very remarkable woman. Her manner of life has always been simple and abstemious. In eating, she has lived almost entirely on vegetable food for many years. The account of Madame Girard, if it can be relied upon so far as her age is concerned, would make her one of the very oldest human beings alive. We have heard that a man lives in Mexico who is upward of one hundred and forty years old, but have not seen any trustworthy data relating to him.

In connection with this note the following statement from the *Congregationalist*, regarding the result of an examination of vital statistics in Europe and this country, is interesting.

Physiologists claim that the normal duration of human life is from 80 to 100 years. Those who die at an earlier age are cut off prematurely. Old age is the only natural death. All else is accidental. The average falls far short of this, however, and only two or three in ten thousand reach the goal. The average duration of life in all Europe is estimated in the *Encyclopædia Britannica* to be 34 years; in Prussia, 28.18 years; in Naples, 31.65 years; and in Schleswig-Holstein, 39.8 years. According to Elliott's tables, however, it was 36.7 years in Prussia from 1839 to 1841. In Sweden the average is given as 34.42 years. The most accurate statistics are kept in England. The first English life-tables were published in 1780 by Dr. Price, and were based upon the Parish records of the town of Northampton. These give the average as only 25.18 years. The Carlisle tables, calculated by Mr. Milne from the mortality records of the town of Carlisle from 1779 to 1787, and published in 1816, give an average expectancy of 38.72. It re-

mained for Dr. Farr to construct tables based upon the most accurate records of the greatest number of people of any in existence. These are based upon the mortality records of the entire population of England and Wales for a period of 16 years, from 1838 to 1854. These give an average longevity of 40.85 years for both sexes, males living 39.91 years, and females 41.85 years.

A comparison of these different tables indicates a gradual increase in the average duration of life. Other statistics point in the same direction. Thus in



MADAME GIRARD.

England, out of a definite population, from 1720 to 1730, the number of deaths each year, on the average, was 1,068, in the same population, from 1770 to 1780, it was 857; and from 1810 to 1815, only 612. Again, in Sweden, from 1754 to 1768, the average annual death rate was 1 in 34; while from 1821 to 1825 it was 1 in 45. In England, in 1690, it was 1 in 33, and in 1821, 1 in 68.

The duration of life is greatest among the middle classes. Hufeland tells us that out of 200 Roman and German emperors, only four attained the age of 80; and of 300 popes, only five reached that

age; but in the general average of all classes, about six persons in every hundred reach the age of 85.

Twenty Presidents of the United States have died at the average age of 70 years, 3 months, 9 days. The oldest was John Adams, 90 years, 8 months, 4 days; the youngest, James A. Garfield, 49 years, 10 months. It is a significant fact that considering them by fives, the average age of the first five was 80 years,

17 days; of the second, 75 years, 8 months, 8 days; of the third, 66 years, 11 months, 22 days; and of the last, 58 years, 4 months, 20 days; indicating that, as responsibility increases, longevity diminishes. Sixteen centenarians died in 1885 in Massachusetts. Five were males, eleven females. The oldest was 110, their average age nearly 103. Seven were natives, nine foreigners. All but two had been married.

RINGWORM.

THIS characteristic disease of the skin belongs to the class of parasitic affections, and owes its frequency to its marked contagiousness. A minute vegetable parasite, known as the *Tricophyton tonsurans*, is the cause of the annoying affection. The germs or spores of this parasite having found lodgment upon the skin, develop with great rapidity, burrowing meanwhile between the cells of the epidermis, and into the track of the hairs. The term *tonsurans* is given it because of its effect in cutting down or destroying the outer growth of the hair, when it attacks the scalp. It is rarely found on the head of an adult, but frequently on the heads of children where it forms one of the varieties of scald head. Occasionally, it is seen in the beards of men where it constitutes a mild variety of barber's itch.

Ringworm of the body is by no means so difficult of treatment as ringworm of the scalp or beard, and one reason for this is the fact that the affection generally has time to become pretty firmly established in the haired parts before it is discovered, and then the different nature of the location demands a special treatment.

From the spot where the germ has made a lodgment the disease extends in a circular form in all directions, the skin within the circle having a reddish, scaly appearance with slight itching. If not suppressed the ring will continue to grow, and from it other rings may project their inflamed and slightly raised

margins giving a scalloped appearance. I have seen cases where the neck, arms, or limbs were embroidered, as it were, with these circles of various sizes.

Cause.—It is caused, as we have seen, by a vegetable parasite, but liability to the attack depends upon conditions of health and body; the weak, debilitated, and uncleanly are much more subject to infection by the *tricophyton* than the robust and orderly. Dr. J. V. Shoemaker, who has carefully studied the etiology of the affection, found that in a large percentage of cases the children came of a degraded, drunken parentage. Hence the analogy is apparent between ringworm and other affections of the skin, especially of the parasitic type, which are found much more prevalent among the poor that herd in low tenement quarters, and among the inmates of almshouses and charitable institutions.

The affection frequently occurs in the domestic animals, and may be transmitted from them to children and adults. A number of cases are on record in which it has been communicated directly from cows, calves, oxen, horses, and cats to individuals, and then to other members of the same family. Experiments have been made on cats that furnish strong proof that the fungus can be transmitted from lower animals to children, and from individuals to animals, and also verify the fact that the scales of the scalp are capable of producing by inoculation ringworm on other parts of the body.

Treatment.—This consists in such appli-

cations as will kill the parasite. Having done this the disease no longer exists. Internal remedies are of no service, but external applications of acid solutions of antiseptic strength are usually sufficient to stop the affection on the bare skin. A solution of carbolic acid fifteen or twenty parts to the hundred of water, painted over the ring a few times, or scrubbing the part well with strong soapsuds a few days in succession will effect a cure. The writer when at his desk a year or so ago had his attention drawn to a red spot on his wrist about the size of a dime. The itching and peculiar characteristics of the spot disclosed its nature as a ringworm. Simply charging his pen with ink he rubbed it over the spot, and in a day or two it had entirely disappeared.

Ringworm of the hair or beard may prove "a hard cure" to manage. The first step is to shave off the hair or clip it closely, and to cleanse the whole scalp

or face thoroughly with good soap and warm water in which a little borax has been dissolved. It would be well to repeat this process nearly every day, and follow it with an antiseptic mixture, the preparation of which should be under the care of a physician or experienced person. Sulphur ointment is recommended as a simple specific, but is not to be relied upon in long-standing cases. Sulphurous acid, fresh and applied on cotton is an excellent parasiticide—and must be followed by an emollient dressing, such as olive oil or pure vaseline. In old cases it is necessary to pull out all the hairs of the affected part, with forceps, because the fungous growth involves the roots of the hairs. This done and the ointment or lotion used being well rubbed in the disease will finally disappear, and if the treatment has not been given too late the hair will grow again.

H. S. D.

AN UNFINISHED STORY.

IN the best corner of the literary page of a family paper I found this rhyme:

Over the gate, in the dusk of the evening,
Something's ashine like a wandering star,
'Tis glowing and burning—and now it grows
fainter—
I know what it is—it's somebody's cigar!

Often before in the dusk of the evening,
Over the gate with the small iron bar
I've seen it and knew that for me it was wait-
ing—
Patiently waiting—somebody's cigar!

In the near future no more 'twill be waiting—
I have consented to be his "bright star;"
So, if life has a darkness I'll have for my
beacon

The wonderful light of somebody's cigar!

To the writer of it I would say: You did not finish your story as you can when you have ceased to be his "bright star" and have become his slave. You will find that the "beacon" business will not light you through very dark shadows if it has no purer light than that which emanates from a cigar.

That a woman can so far lose her nor-

mal love of neatness and sweetness as to tolerate a cigar is passing strange, but that she should seek to bring it into the sacred realm of Poesy (?), which should have the homage of none but *pure* subjects, is still more strange.

When the time comes, as come it will, that "somebody" thinks more of his pipe and cigar than he does of the comfort and welfare of his "bright star," the "wonderful light" will pale in the estimation of the would-be "poetess" who celebrates the loafer waiting in the dark, at the gate, for the coming of his "star" instead of seeking her in her own home.

Well, that is a good beginning to the story which she can write ten years hence, when she earns the living for herself and babies and buys the tobacco for the lighting of her "beacon."

At the same time, while she was admiring the "wandering star" and welcoming its owner, the odors exhaled therefrom were equally *unwelcome* in the cleanly domicile to which they pene-

trated. And this is the way the tenants of that home looked at it :

We sat by the window, my lover and I,
And watched the evening star,
And her myriad sisters in the June blue sky,
" Oh bah—somebody's cigar."

" It has poisoned the air we thought so sweet,
Poisoned it—near and far,
I'd like to help a chap on with my feet,
That somebody with a cigar."

" It is always the way, the evening bright;
Some smoker is sure to mar,
The odor vile, as well as the light
Says, " ' Somebody's got a cigar.' "

From babes in their cots, the weary and sick,
'Tis useless to try to bar,
The smoke that comes rolling in so thick,
From somebody's horrid cigar.

The slave of this tyrant so vile and so mean,
Knows not what good manners are;
He scarcely waits to leave church till he's
seen
Puffing his sickening cigar.

Oh, fie on the woman who winks at the sin,
Her womanhood's sure below par,
A warfare in favor of cleanness begin;
Put out—and keep out—the cigar.

A LADY PHYSICIAN.

FRUIT EATING.

At a meeting of the Columbus Horticultural Society, an address was delivered by Prof. A. H. Tuttle on "Fruit Eating for pleasure and profit," in which he made the following remarks. We here make some extracts from it :

Fruits may be generally defined as consisting in part of cellulose, which form their frame work, is tasteless and indigestible, and affects the value of the fruit in proportion to its absence; of starches and sugars, which are foodstuffs in the common acceptance of the term, and whose presence in any large quantity converts the fruit in question into an ordinary article of diet rather than a luxury or a dainty; of juice, which is chiefly water, and which is therefore refreshing and grateful, though in so far as it is water not particularly nutritious or satisfying; and of flavor, which is resident in the juice, these two qualities, juiciness and flavor, deciding for most of us the value of the fruit in question.

The flavor is due to the presence of certain weak acids, known as the "fruity acids"—of which tartaric, citric, and malic acids are familiar examples—they may be separated, and many of them may be artificially prepared—and of certain aromatic ethers, to which the delicate characteristic flavors of the various fruits are chiefly due. When these substances are taken into the

body they undergo oxidation with a consequent tendency not yet clearly understood or explained, to lower the temperature of the blood, or rather to modify our temperature sensations, thus allaying any slight feverishness that may exist; and to excite to moderate activity the secretive organs. Fruits, therefore, are said to be in general, "cooling, aperient, and grateful."

This is their more recondite physiological effect; their more evident one is no less important, they taste good, and this is no insignificant matter. The measure of our health may in some sense be defined as the balance between our pleasurable and unpleasant sensations. Every innocent bodily pleasure is in itself a good thing for the body in its direct physiological effect upon the nervous system. I know about these people who, when asked what is their favorite dish, reply "the one that is nearest;" who "don't care what they eat;" who "have something else to think of than victuals." I have met some of them; most of them I would rather board by the job than by the day. A healthy man eats or should eat for pleasure,—and so eating he finds his profit in it. The particular value of fruit in this respect lies in the fact that in proportion as the fruit is fruit, that is, is juicy and fine flavored, we get a maximum of palate gratification with a minimum

of subsequent labor in the way of digestion.

When ought we to eat fruit? is a question which many of you will first think of in this connection. To this I would answer that you ought to eat it when you eat other food. Perfectly ripe fruit, particularly the riper and juicier kinds, is as easily digested as any other article of diet, more easily than most; nevertheless it is not wise to be constantly and frequently putting into the stomach food of any sort, even in small quantities. Some of you will recall the test proposed by Dr. Holmes for telling whether a person of uncertain age is a boy or a man; offer him confectionery half an hour before dinner time, if he eats freely of it or if he has not yet come to years of discretion, no matter what the calendar says. It is so with fruit as well. As regards the particular meal of the day, I have only to say that when fruit is taken before breakfast the cooling and aperient effect of which I have spoken is likely to be at its maximum; that fruit eaten after dinner adds largely to the pleasure of the palate, while adding but little to the tax upon the digestive apparatus at the time we are most likely to sin against it; and that fruit is an excellent thing to take with lunch in the middle of the day on general principles. I need only add my conviction that if you from time to time find it desirable at an evening party or elsewhere to partake of a late supper, an orange, a pear, or a cluster of grapes will be far less likely to haunt your later slumbers than shrimp salad with mayonnaise dressing, or ice cream and meringues with cake and other sweetmeats.

"How much ought we to eat?" I think I hear some one ask. That, my friend, is a matter for your own conscience. You have—supposing you to be in anything near normal health—a physical conscience as well as a spiritual one. It tells you when you are really hungry and when you are not; what

food really agrees with you and what does not; and most plainly of all, when you have eaten as much as you ought to. If you make a practice of heeding it, it will advise you with no uncertain sound. There is no advice for me to give you, save this: "Stop when you have had enough," which is a very different thing from stopping when you can not hold any more.

There may be temporary pleasure for some but there can be little profit for most of you in eating fruit that is not yet ripened. The compounds which in the purely ripened fruit become the very products that give it its greatest value are in the green fruit not only innutritious, but peculiarly indigestible; a provision of nature by which the brute is taught to leave the fruit until it is matured; while difficult of digestion they are quite prone to decomposition; and their fermentative changes in the alimentary canal give rise as we all know to frequent gastric and intestinal disorders, often of the most serious character. Though we may tamper frequently with unripe fruit without meeting the extreme punishment of our folly, we rarely, if ever, go scot free.

What is true of unripe fruit, is often more true of over ripe or wilted fruit. If it is folly to take into our bodies that which will readily decay or ferment, it is certainly as far from wise to take that in which these destructive changes have already begun.

FINGER NAILS AND DISEASE.—One consideration that makes the care of the nails of high importance, is the fact that every person who labors with the hands is liable to gather, under their free margin, matter, which may be very poisonous. Many cases have occurred in which slight scratches of the skin by means of the finger-nails have resulted in malignant, and even fatal, inflammations.

If, from any cause, the nail becomes thick and inelastic, it soon becomes

rough, and assumes the appearance of an excrescence rather than an ornament. In this condition it is much more difficult to keep clean. To avoid this the hand should not be subjected to the action of strong alkalies, such as quicklime, etc. ; neither should foreign substances be removed from the surface by scraping, as this will usually cause the nail to thicken.

To cleanse the surface and the margin adjoining the skin, a soft nail-brush, mild soap, and soft water should be applied once each day, while the foreign matter accumulated under the margin should be removed as often as the hands are washed, with the use of a hard wood or ivory nail cleaner.

This being done while the nail is wet, one movement will generally be sufficient to remove the substance completely. A knife-blade is objectionable for this purpose because it scratches or roughens the nail surface.

The paring should also be done while the nail is soft from washing, with an instrument which will make a perfectly smooth edge, and sufficiently often to limit the breadth of the free margin to about one-twelfth of an inch. This breadth is best, especially in the case of persons who have to do rough work with the hands, for two reasons : it prevents the breaking of the nail and also the accumulation of much foreign substance. The corners should not be very closely cut, or the troublesome condition known as an ingrown nail may be produced. To prevent the breaking of the skin near the root of the nail (commonly called "hang-nail"), the skin should be pressed, not scraped, by a dull instrument, back from the nail at least once a week.

TOO MUCH FEEDING AND STIMULATION.—"All the vital functions are more or less processes of combustion, and they are subject to laws similar to those which regulate the burning of coal in our fireplaces. The reason why we al-

low our fires to burn low or go out altogether, is that we put on too much coal, or that we allow them to be smothered in ashes. It is the child who pokes the fire from the top to break the coal and make it burn faster; the wise man pokes it from below, so as to rake out the ashes and allow free access of oxygen. And so it is with the functions of life, only that these being less understood, many a man acts in regard to them as a child does to the fire. The man thinks that his brain is not acting because he has not supplied it with food. He takes meat three times a day, and beef tea, to supply its wants, as he thinks, and puts in a poker to stir it up in the shape of a glass of sherry or a nip from the brandy bottle. And yet, all the time, what his brain is suffering from is not lack of fuel, but accumulation of ash, and the more he continues to cram himself with food and to supply himself with stimulants, although they may help him for the moment, the worse he ultimately becomes, just as the child breaking the coal may cause a temporary blaze, but allows the fire all the more quickly to become smothered in ashes. It would seem that vital processes are much more readily arrested by the accumulation of waste products within the organs of the body than by the want of nutriment of the organs themselves."

TO DETECT ALUM IN BREAD.—The simplest method is to dip a slice of the suspected bread in a solution of logwood in water (either the extract or fresh chips may be employed). If alum is present, the bread will become a claret color. Or macerate in three or four tablespoonfuls of water a half slice of bread; strain off the water, and add to it twenty drops of a strong solution of logwood. Then add a large teaspoonful of a strong solution of carbonate of ammonia. If alum is present, the mixture will be changed from pink to a lavender-blue. This test will discover a grain of alum in a pound of bread.

Child-Culture.

AN AUNTIE'S NOTIONS ABOUT CHILDREN.—No. X.

CHILDISH FEARS AND FANCIES.

CHILDREN are surrounded by the unknown, and toward the unknown must always be more or less of fear. A mist of romance, wonder, and mystery hangs about the world in which they move. They early learn that oftentimes things are not what they seem, and they are frequently startled by being warned from the apparently harmless as from certain death. Bright things—always so attractive to a baby—possess concealed dangers; the glowing fire will burn; the shining knife will cut; the pretty, velvet-coated wasp has a sting; the gleaming, crimson berry may hold poison. Seeing, then, that in its ignorance the little one finds itself taught to shun many things of which it would naturally have no distrust, what wonder that it should sometimes shrink in affright where no terror is! The nature, powers, extent, and meaning of the universe around it is in great measure incomprehensible to the child; continually are familiar objects developing qualities hitherto undreamed of, and the more sensitive and imaginative the mind, the more liable to the assaults of fear. Let us then be patient with the needless alarms of the little ones, foolish though they be, and endeavor to feel truly with them, that we may drive the dread away.

Darkness is a most common source of terror to children, although believing that it is often fostered and greatly aggravated by wickedly thoughtless persons telling stories of bogies, ghosts, "warnings," etc., I yet think that it may, in some cases, be purely instinctive. I have known a baby, quite too young to have been frightened in the above mentioned way, to cling and cry when taken into a dark room, or if the light was extinguished in the apartment where he was. To show one's self careless of the darkness, or to send the child on some little errand without a light—not, however, insisting that it be performed alone, if great fear is shown, harshness being no remedy for the evil—will sometimes, if patiently persisted in, effect much good. But we must at the same time remember that the very thing which is a source of strength to us, may be quite the reverse to a child. I recollect an instance in which the idea of "guardian angels round the bed," and the ever-watchful eye of God, were only a shade less terrible than the dreaded bogy itself. That was because God had been regarded only as an often angry Master, and not as a pitiful Father; and His ministers, the angels, were invisible and unknown. We should teach children by reasoning, explanation, and especially by experiment, that everything is just the same in the night as in the light, only we can not see it. If ever a child complains that there is "something" in the passage or behind the door, don't deride, don't scold, don't pass it over with indifference, but go, with his hand in yours, to the dreaded spot; prove by sight and touch that the strange object was only a shadow, or some well-known piece of furniture taking odd shapes in the dim light. If a

"noise" is mentioned, do not, for any trouble, omit, if possible, to ascertain the cause, which will generally turn out to be something simple enough. Do not spare any pains to deliver your children from the thralldom of groundless fear.

But other terrors—strange, unreasonable, and inexplicable—sometimes assail a timid child. I knew a little boy, who, at three or four years of age, had a great dread of going in at an unfamiliar door or gate. "Can we get out again?" he asked one day, when being led through the entrance to a London crescent. What kind of suspicion, haunting memory, or dim impression prompted that inquiry, it was impossible to discover; the source may have been far back in the child's history, or even in that of an ancestor; but there was nothing for it but to gently reassure him, and appeal to his confidence in our knowledge and love. Hard words, would, even had he persisted in his objections, have been out of place; it is bad enough, as some of us may know from experience, to be afraid, without being chidden for it.

Hideous pictures of every kind, and ghastly stories, should be kept from children. I remember hearing, when I was a child, after I had been put to bed one night, a man in the street chanting most dismally the metrical version of a recent murder; the effect on me was simply horrible, and for long after I would lie of a night listening for, yet inexpressibly dreading, his possible return. "The Dream of Eugene Aram," and another poem, called, I think, "The Cross Roads," were *betes noires* to me in my school poetry-book; and I entertained a strong objection to going alone after dark into a room where lay a volume containing an engraving of "The Temptation of St. Anthony." This reminds me of another incident in my own juvenile experience. When not more than two or three years old, I conceived a great dislike of a certain picture in an old spelling book, which represented a lit-

tle boy screaming in pain with his pinafore on fire. As a remedy, my mother pasted another wood-cut over the one that so offended, thus concealing it. But, alas! for some reason that I am unable to explain, probably from the force of imagination, the hidden horror was ten times more horrible to me than when it stood revealed, and the book containing that covered picture—the dreadful thing that was there though it could not be seen—was thenceforth regarded by me with a terror that was almost superstitious in its intensity.

The last mentioned circumstance leads me to believe that familiarity with an object of fear, gently induced, and gradually acquired, is one of the best cures for the groundless dread itself. In support of this I will briefly quote one more instance. A nervous little girl who had learned to play upon a weak-toned square piano, took it into her head to be afraid of her teacher's trichard cottage piano because of its loud tone. Arguments and remonstrances were alike fruitless, and an occasional lesson on the larger instrument was a half-hour of misery, until, one evening at a party, the child was persuaded by a young friend to take liberties with another such awful instrument; *i. e.*, by banging on the bass notes and listening for their deep reverberations at the side. Led on by degrees, and in play, the familiarity thus acquired once and forever cast out the tormenting fear.

Again I say to parents, get your children, by patience, gentleness, and inexhaustible sympathy, to tell you all about their oft-concealed miseries of terror, and never let them fancy that for such confidences they are at any age "getting too big."

JENNIE CHAPPELL.

This is the seed-time; God alone
Beholds the end of what is sown;
Beyond our vision weak and dim,
The harvest-time is hid with him.

A CHAPTER OF "DON'TS" FOR PARENTS.

DON'T forget that you brought your children into the world without their knowledge or consent. You have no right to embitter the life you have thus thrust upon them. I have known parents to make absolute slaves of their children, compelling almost constant attendance, under the popular delusion that young limbs are never tired; and like the old slave-master, giving nothing in return but food and clothes.

2. Don't laugh at and deride your children's hobbies. Remember how much brighter life has seemed to you, when you could realize some cherished dream, and treat them accordingly.

3. Don't forget that youth needs amusement. Your children have not only bodies but minds. Rest for the body and amusement for the mind, are demands of nature which too many parents ignore. If you do not provide for your children healthful and sufficient amusement, then thank God for His mercy on you, if your children do not take to dangerous or wicked pleasures when they are older.

4. Don't forget that your children are beginning life, while you, perhaps, are ending it. Give them the benefit of your experience, but don't expect that your experience will serve them in place of an experience of their own.

5. Don't be impatient with your children when they doubt your estimate of the world's allurements. Remember it is you who have tested these things, not they. You did not see with your father's eyes, neither should you expect your children to see with your eyes.

6. Don't demand respect of your children, or endeavor to enforce it by your authority. Respect is paid not to those who demand, but to those who deserve it.

7. Don't neglect your children's friends. Invite them to your house. Show your children that their friends are your friends, and your children's friends will be such as you will approve.

8. Don't be jealous of your children's friends. If you make your society delightful to your children, they will always prefer you to any other companion. If your child prefers every one else to you, stop and ponder whether you have not compelled him to seek elsewhere the companionship, love, and sympathy he ought to find in you.

9. Don't be afraid to let your children see your love for them. Let a child feel that no matter where he goes, or what he does; no matter whether friends forsake or foes slander him, his parents' love and trust will always follow him—and that child is not only safe for all time, but the thought of this love will shine out like a lamp in a dark place, cheering and strengthening him against all odds.

10. Don't forget that the great Father of all has had infinite trouble with you. You have been just as refractory, ungrateful, and disobedient as any child you have. Let this thought temper your anger, and make you wise to direct a complex human soul.

Truth.

 OFFENDING THE LITTLE ONES.

THE importance of this matter is clearly shown by our Saviour's fearful denunciation of any who should offend a little child. Webster tells us that offend means "to displease, to make angry; to pain; to annoy; to hinder in obedience," and when we stop to consider the

whole meaning of the word, it becomes necessary that we watch ourselves very closely lest we bring ourselves into condemnation.

"Provoke not your children to anger, lest they be discouraged," Paul wisely admonishes, and he must surely have

understood the human heart to have put it in this way, as many a child has been driven no doubt into utter discouragement by constant faultfinding which by arousing its worst nature and destroying its self-esteem led eventually to such a state of dejection as to injure all its after life.

We grown people are always more or less benefited by encouragements, how much more than a little child to whom the delays and disciplines of life must seem as an insurmountable barrier to happiness. It takes but a trifle to please a child; their little hearts open naturally to the least attempt to increase their joy, and even a kind word or an encouraging look is sometimes all that seems necessary to banish a momentary gloom and bring back to the young face the sunshine and smiles so naturally its own.

The loving Saviour desirous of showing to his disciples the important position occupied by these little ones, exalted them above those who would have sent them away. His arms were ever ready to receive them, his heart to hold them, and yet some ignoring the Divine example, willingly and unnecessarily wound their tender sensibilities regardless of the pain inflicted.

There are many ways of giving pain, the least of which is borne by the physical part of our being. The heart of a little child is by nature sensitive. Its capacity to feel has never been blunted by contact with the world, and that

which to older people would seem but a trivial cause for sorrow, to them may be of vital importance.

There are those so devoid of understanding as to purposely annoy a child, that they may get amusement therefrom. A child must be very well brought up indeed which does not attempt to defend itself under such circumstances, and this can not but foster impudence, which of course makes the child anything but lovable. But where lies the fault? Is it not with that unthinking person through whose agency such a state of things has been brought about?

How may the weak mind be brought to a knowledge of God's love except through the careful teaching and practicing of those to whom the child naturally looks for example? And if such fail in their duty are they not "hindering in obedience," and thereby bringing upon themselves the condemnation of our Saviour, "It were better for him that a millstone were hanged about his neck, and that he were drowned in the depth of the sea?"

Unlike those who have seen much of the world and been more or less contaminated by its influence, the spirit of the little child is pure and white before its God, and it is the duty of every one who has to do with it, to use every possible means to keep it so, and instead of doing that which shall foster evil, try to help it to be more sweet and lovable by nourishing the good that is in it.

SUSIE E. KENNEDY.

A FEW GOOD RULES.

ATTEND to them yourself; a go-between betwixt mother and child is like a middle-man in business, who gets the largest share of the profits.

Reflect that a pert child is an abomination; train your children to be respectful and to hold their tongues in the presence of their superiors.

Remember that, although they are all your children, each one has an individ-

ual character, and that tastes and qualities vary indefinitely.

Respect their little secrets; if they have concealments, worrying them will never make them tell, and patience will probably do their work.

Remember that without physical health mental attainment is worthless; let them lead free, happy lives, which will strengthen both mind and body.

Make your boys and girls study physiology ; when they are ill try and make them understand why, how the complaint arose, and the remedy as far as you know it.

Teach boys and girls the actual facts of life as soon as they are old enough to understand them, and give them a sense of responsibility without saddening them.

Impress upon them from early infancy that actions have results, and that they can not escape consequences even by being sorry when they have acted wrongly.

Find out what their special tastes are, and develop them instead of spending time, money, and patience in forcing

them into studies that are repugnant to them.

As your daughters grow up, teach them at least the true merits of house-keeping and cookery ; they will thank you for it in later life a great deal more than for accomplishments.

Maintain a respectful tone to their father before them; if he is not all you wish, still make them respect him; he is always their father, and disrespect to him is a reflection upon yourself.

Try and sympathize with girlish flights of fancy even if they seem absurd to you ; by so doing you will retain your influence over your daughters, and not teach them to seek sympathy elsewhere.

A LESSON FOR FATHERS.

I KNEW a child of exceptionally quick and strenuous impulses. Though affectionate, he was not obedient, and needed to be watched as a weasel to be kept from mischief. His father told him to pick up a pin. The father thought the boy refused, but the father was mistaken. A sharp rebuke. The boy began to sulk (I had rather hear a child swear than sulk). "Come here, sir!" The child did not stir. The father lost his temper. He seized his boy tempestuously; carried him into another room for punishment. The moment's delay brought the man to himself. He sat for a little while with his child in his arms. Then he said: "My son, we have done wrong. I have lost my temper and you have lost yours. It is worse for me to do so than it is for

you, because I am bigger and stronger and ought to be wiser than you. I ask God to forgive me. I ask you. I must be right before I can help you to be right. Help me to be a good father, so that I can help you to be a good son." The sullen defiance left the child's face. His arms clasped the father's neck. "Father, I didn't say what you thought I did!" The child was six years old. He is now sixteen. The father is a quick-tempered man. But I have heard him say repeatedly that, for ten years, he has never had occasion to rebuke his boy, by word or gesture, for the slightest approach to disobedience. The man of fifty and the boy of sixteen appear to live and have their being in each other as a single soul.—*Selected.*

TRAINING CHILDREN.

WITH children, you must mix gentleness with firmness. "A man who is learning to play on a trumpet and a petted child are two very disagreeable companions." If a mother never has headaches through rebuking her little children, she shall have plenty of heart-aches when they grow up.

At the same time, a mother should not hamper her child with unnecessary, foolish restrictions. It is a great mistake to fancy that your boy is made of glass, and to be always telling him not to do this and not to do that, for fear of his breaking himself. On the principle never to give pain unless it is to prevent a greater

pain, you should grant every request which is at all reasonable, and let him see that your denial of a thing is for his own good, and not simply to save trouble; but, once having duly settled a thing, hold to it. Unless a child learns from the first that its mother's yea is yea, and her nay nay, it will get into the habit of whining and endeavoring to coax her out of her refusal; and her authority will soon be gone.

Happiness is the natural condition of every normal child; and, if the small boy or girl has a peculiar facility for any one thing, it is for self-entertainment—with certain granted conditions, of course. One of these is physical freedom, and a few rude and simple playthings. Agreeable occupation is as great a necessity for children as for adults; and, beyond this, almost nothing can be contributed to the real happiness of the child.

"I try so hard to make my children happy!" said a mother, with a sigh, one day, in despair at her efforts. "Stop trying," exclaimed a practical friend at her elbow, "and do as a neighbor of mine does." "And how is that?" she asked, dolefully. "Why, she simply

lets her children grow and develop naturally, only directing their growth properly. She has always thrown them, as far as practical, upon their own resources, taught them to wait upon themselves, no matter how many servants she had, and to construct their own playthings. When she returns home from an absence, they await but one thing,—their mother's kiss. Whatever has been bought for them is bestowed when the needed time comes. Nothing exciting is allowed to them at night, and they go to bed and to sleep in a wholesome mental state that insures restful slumber. They are taught to love nature, and to feel that there is nothing arrayed so finely as the lily of the field, the bees and the butterflies, that there is nothing so mean as a lie nor anything so miserable as disobedience, that it is a disgrace to be sick, and that good health, good teeth, and good temper come from plain food, plenty of sleep, and being good." In order to thrive, children require a certain amount of "letting alone." Supreme faith in the mother, few toys, no finery, plain food, no drugs, and early to bed are the best things for making them happy.

WHAT WAS THE MOTIVE?

"BOYS, have you been smoking?" asked a mother of her little son on whose clothes was a very suspicious odor.

"No." After a few more inquiries which elicited no answer save the one first given, she turned to a little playmate, "Johnny, have the boys been smoking?"

"I don't know; I did not see them," but there was a look in the faces of all three which warranted the use of a little strategy and some one was taken off his guard and betrayed into saying a few words, which closely followed up brought a confession that they had been smoking and Johnny did know it. Evidently he had prevaricated and was entitled to just the same punishment as the others. But

let us think a moment. They had told a falsehood to avert punishment for wilful disobedience. No such motives prompted Johnny. The boys were relatives and in his eyes were faultless. In the seven years of his existence he had not learned to discriminate accurately between right and wrong when any nice points were involved. The smoking was great fun, but he must not tell their mother or she would punish them. To his unscientific mind there was no harm in the one and he was willing to prevent the other by "not telling;" hence when asked about it the only thought in his mind was to shield his companions from the maternal wrath, and he used the means which first offered. Paradoxical as it was he told a lie in order to keep

his word. He has instinctively applied St. Paul's rule and chosen the lesser of two evils, for he accounted it not so great a sin to "know nothing about it" as to turn against a friend and cause his punishment. Was his motive good or bad?

Is it not one of the noblest of human virtues which prompts a man to stand by a fellow creature through his adversity and aid him all he can? And is it not a grand thing to have it inherent in a man's nature to have such a high sense of honor and of right and wrong that his word is as good as his bond? Can this be in the man if not fostered in the child? No; the motive was commendable and revealed a trait of character of which to be proud.

The error was in the judgment. The child did the best he knew under the circumstances. This being the case should he go unreproved? Not at all; the fact still remains that Johnny told a story. How, then, can the falsehood be re-proved without suppressing, but rather developing, the good motive, even though a mistaken one, which prompted it?

He did not intentionally do wrong and his treatment should be very different from that of his playmates. In the present case he should be given a lesson in "looking for motives" to question *why* things are so. He should have the evil effects of smoking shown as the reason of the mother's objections to it; that it was her love for her boys and her anxiety that they should grow up strong and manly—not that she had no sympathy with their pleasures and spent most of her time in depriving them of their enjoyments, but that she was a protector and helper instead of a natural enemy, as so many children seem to regard their parents (and parents are altogether responsible for this idea in the minds of their children). All this, when explained to him, puts a very different face on the matter and affords one of the many opportunities which should never be allowed to pass, to help a child to think and reason for himself and keep before

his mind the question which is ever and always to be answered, "Is it right or wrong."

He may be told that while he should invariably keep his word, he should never pledge himself to wrong, even for friends. While his judgment may be just as defective in the next case as it was in this, he must be taught to weigh questions and think for himself. "Is it *right* to smoke and keep it secret?" And this habit, with the mother's help to see things right in these little talks, will grow with his growth, and when he is a man he will have the judgment of a man.

But let me repeat, when a child does a wrong ask yourself, "What made him do that?" and deal with the thought and not with the act. Did mothers take the time and patience to do this many an innocent little one would be saved an unjust punishment, a thing which none can feel more keenly than a child, and there would be fewer regrets on the mother's part. In all our dealings with these little ones, let it never fade from the mind that One has said, "Except *ye* become as little children *ye* shall not enter the kingdom of heaven."

M. C. F.

TACOMA, WASH. TY., Jan. 3, 1888.

EDITOR CHILD-CULTURE:

Will you permit me to ask a question of the mothers who read your magazine? I am almost isolated here. My husband is so tired when he comes home at night that I do not like to trouble him with my perplexities. My mother has passed on to the spirit land, so that I can not have her counsels. I am a young mother, being only now twenty-four years old, and have three little ones to care for and instruct. My boy, nearly five, is gentle in disposition; my girl of three and baby of one year old are head-strong, wilful, and quarrelsome. If I punish them the eldest is grieved, and they are jealous because he is never punished. I love them equally well but am sorely puzzled. Dear mothers, tell me how to reprove my wilful ones in the best manner,

And so win the gratitude of

MRS. M. J. P.

NOTES IN SCIENCE AND INDUSTRY.

The Anthropological Academy on Criminals.— At the January meeting of this organization, the topic of discussion was Criminal Anthropology — introduced by Dr. Thwing in a short paper, followed by addresses of several gentlemen present. Among them was Clark Bell, Esq., who argued that tendencies to crime were inherited like constitutional predispositions to disease; that the criminal type of mind might be intimated in the cerebral organization by the marked predominance of certain parts of the brain. Localization of function in the brain was accepted by a large and eminently respectable class of physiologists, and the recent Anthropological Convention at Rome showed the hold that this view had obtained upon scientific observers. Dr. Holbrook contended that types of mind that were deviations from the normal were the result of inheritance and the environment, and in studying them we must consider racial and social influences. Dr. Boas looked at the subject from the ethnologist's point of view, and would ask in the first place for a definition of crime; that it was a term of differential meaning, like that of morality; according to the status of a people or race in intelligence, its ideas of crime varied, so that what would be regarded as offensive in one country, would be tolerated by the customs of another. Mr. Wm. Mann deemed it very important that the physiological relations of crime should be defined; that there was great need of reform or improvement in State methods of dealing with criminals, the majority of them being young men showed that their moral training and education were deficient. The prevalence of vice and crime in our community was due in great part to causes that might be removed, and so long as society permitted such causes to exist, it was nursing vice and criminals.

Dr. Drayton exhibited the cast of Deane, a notorious English criminal, and also the skull of Wm. Teller, a counterfeiter and murderer, executed in Connecticut in 1833, as illustrations of the type of development claimed by Benedikt, Bordier, and others to

be characteristic of men with impulses to criminal acts. Such development was regarded as consisting for the most part of disproportionately large temporal lobes, and great breadth of the head between the ears. He believed that a low grade of brain development, if inherited, was susceptible of much modification by judicious training, and that it was essential to the elevation of the moral average of society, that the relation of brain organization to mentality should be understood by those charged with the maintenance of civil order. The President announced that the importance of the subject demanded its further consideration, so that the February meeting would be devoted to it.

A prize of fifty dollars is offered by the President of the Academy for the best original essay on a subject connected with Anthropology. This offer is open to all students of Anthropology, competitors being required if eligible, to become either active, honorary, or corresponding members of the Academy.

H. S. DRAYTON, *Sec.*

Depth of the Charleston Earthquake.— In a communication to the American Academy of Sciences, Captain C. E. Dutton gives a calculation of the depth of the Charleston earthquake centrum, which puts it at the enormous distance of twelve miles below the earth's surface. The calculation by Robert Mallet of the depth at which the Neapolitan earthquake of 1857 originated was the first attempt to solve such a problem. Working on the assumption that the earth wave radiates in straight lines from the origin, and hence at different distances from the center of surface disturbances it has different angles of emergence, Mallet found that lines drawn parallel to these angles, if projected, would intersect each other at a mean depth of about five miles under the surface. From seismometric and other indications, the mean depth of the Yokohama earthquake of 1890 was calculated to have been about three and a quarter miles. While much greater depths of centrum have been assigned to some earthquakes, the accuracy of the calculations has been doubtful. Captain Dutton's new

method of determining the depth of the focal cavity at Charleston gives, therefore, a most remarkable result. But his conclusion is in harmony with the observation of Mallet, that "earthquakes which have a very great area of disturbance have also a very deep seismic focus."

Gases as Liquids and Solids.—Olszewski, the Russian physicist, has been continuing his researches on the condensation of the gases, with some very interesting results. He has shown that the more permanent gases may be liquefied at a moderate pressure by the low temperatures he has been able to produce, and has also determined the boiling points, melting points, and densities of these so-called gases at atmospheric pressure. Liquefied methane boiled at 263 degrees F. below zero, oxygen at 294.5 degrees, nitrogen at 318 degrees, carbon monoxide at 310 degrees, and nitric oxide at 244.5 degrees. Solidified carbon monoxide melted at 353 degrees below zero. At the temperatures and pressures required to retain the liquid form, the density of methane was 0.415, of oxygen 1.124, and of nitrogen 0.885, water at sixty degrees and atmospheric pressure being 1.000. Solid nitrogen, at 373 degrees below zero, gave the lowest temperature yet recorded. The presence of sewer gas in a room may be detected as follows: Saturate unglazed paper with a solution of one Troy ounce of pure acetate of lead in eight fluid ounces of rain water; let it partially dry, then expose in the room suspected of containing sewer gas. The presence of this gas in any considerable quantity soon blackens the test paper.

The Tunnel between France and England.—At a recent meeting of the geological section of the British Association, a report was read on the present condition of the experimental heading for the channel tunnel between Dover and Calais, a distance of twenty-one miles, the completion of the work having been forbidden by the English government. A hole had already been bored seven feet in diameter, one mile and a quarter in length nearly the whole of which is actually beneath the sea bottom. Most of the work was done five years ago, and as it has gone through a chalky formation needing no

lining, it has remained perfectly dry and the substance at the surface of the boring has become harder by exposure to the air. On the French side, where only small progress has been made, as well as upon the English side, no serious obstacle has been found. The report says: "After taking all these facts into consideration, it was clear that the original estimate of £1,527,000 for the English half of the tunnel was amply confirmed by the experience obtained." That would give £3,054,000, say \$15,000,000, as the entire cost of the tunnel. The authors of the report go on to consider and demolish the bugbear of foreign invasion of England, which has been the reason assigned for opposition in that country to the building of the tunnel, as follows: "Water, at the rate of 100,000 cubic feet per minute, could be admitted to the tunnel through the shaft and its connecting gallery, and five or six minutes would be sufficient to render it impassable for traffic of any kind."

Simple Method for Reviving Unconscious Persons.—At a meeting of the last congress of German scientists this subject was discussed, and Dr. H. Frank mentioned that there are but two ways to stimulate the heart; electricity and mechanical concussion of the heart. The first is considered dangerous by him, as it may easily destroy the last power of contraction remaining in the organ; but what is termed "pectoral concussion" is decidedly preferable. F.'s method is as follows: He flexes the hands on the wrist to an obtuse angle, places them both near each other in the ileo-cæcal region, and makes vigorous strokes in the direction of the heart and of the diaphragm. These strokes are repeated from 15 to 20 times, and are succeeded by a pause, during which he strikes the chest over the heart repeatedly with the palm of his hand. In favorable cases this method is early successful, and sometimes a twitching of the lids or the angles of the mouth appears with surprising rapidity as the first sign of returning life. As soon as the symptoms are noted, the simple manipulations above described must be earnestly continued, and persevered in for from a half to one hour, for with their cessation the phenomena indicating beginning return of life also cease. Generally the face assumes a slight reddish

tint, and at the same time a faint pulsation may be felt in the carotoids. By this method Frank has seen life return in fourteen cases, amongst whom were such as had hung themselves, drowned, and asphyxiated by carbonic oxide, and in one case by croup.

Raising Mushrooms.—A correspondent of the *Horticultural Gazette* writes of his experience as follows:

Being very successful in raising mushrooms, the way I raise them may be useful to some one. The bed I am now gathering from has been the most productive I ever had or saw. I made the bed in November, and it commenced cropping early in the year, and has been cropping ever since, and is now as productive as ever it was. The manure had been thrown into a heap, as brought from the stables, and had been some time accumulating when I bought it. I then threw it into a heap, turning it over three times in about ten days, but there was not a great heat in it, and when I made it up the heat was much lower than is considered good for spawning; in fact, it was not more than 60 degrees when I spawned it. In making the bed I trod and beat it down as firm as possible, and after spawning I again beat it well and put on about one and a half inches of common soil. I covered the bed with straw, and left it till mushrooms appeared, after which I kept the straw moist by watering with a rose watering pot, which appears natural as those that in pastures are naturally in the moist grass. In the hot and dry weather we have had, I was a bit troubled with maggots, but have from time to time put a good sized lump of salt in the water, with which I kept the straw moist, and it checked the maggots and appeared to improve the rooms. They look as well now as ever they did, and if I don't get any more they will prove the most profitable crop I ever had, and take much less room.

An Impending Cataclysm?—

Whether there is any real warrant for his ominous statement or not a correspondent of the *Commercial Gazette* very earnestly urges the call of an extra session of Congress to take some action concerning the indiscriminate boring for natural gas in several of our States. He says—that the people of Ohio and Indiana while trying to develop

the gas magazines, do not take time to consider that they are toying with a force that may destroy this country. Two hundred years ago in China there was just such a craze about natural gas as we have in this country to-day. Gas wells were sunk with as much vim and vigor as the Celestials were capable of; but owing to a gas explosion that killed several millions of people and tore up and destroyed a large district of country, leaving a large inland sea, known on the maps as Lake Foo Chang, the boring of any more gas wells was prohibited by law. It seems, according to the Chinese history, that many large and heavy pressure gas wells were struck, and in some districts wells were sunk near to each other. The gas was lighted as soon as struck, as is done in this country. It is stated that one well, with its unusual pressure, by induction or back draft, pulled down into the earth the burning gas of a smaller well, resulting in a dreadful explosion of a large district and destroying the inhabitants thereof. The same catastrophe is imminent in this country unless the laws restrict the boring of so many wells. Should a similar explosion occur there will be such an upheaval as will dwarf the most terrible of earthquakes ever known.

Light from the Stars.—It has been found by experiments on the light emitted by the stars of different order of magnitude that the light of a star of the sixth magnitude amounts to only one-hundredth part of the light of a star of the first magnitude. Hence we conclude (always supposing the stars to be of equal magnitude and splendor) that a star of the sixth magnitude is ten times more remote than a star of the first magnitude. Now the bright star Alpha Centauri may be considered as typical of a star of the first magnitude. Combining our knowledge of the relative distances of Alpha Centauri and the stars of the sixth magnitude with the conclusions above arrived at, it follows that if Alpha Centauri were transported to 750 times its actual distance, it would still be visible in Herschel's 20-foot reflector, and consequently there might be perceptible in such an instrument a star the distance of which is 750 times greater than the actual distance of Alpha Centauri. Now the absolute distance of

Alpha Centauri from the earth, as ascertained by the researches of various astronomers, may be stated in round numbers to be 20,000,000,000 of miles. Hence we arrive at the conclusion that the distance of the stars which are faintly visible in a 20-foot reflecting telescope, such as Herschel employed in his observations, is not less than 15,000,000,000 of miles. Light, which traverses space with a velocity equal to 186,000 miles in a second, would occupy more than 2,000 years in passing from such a star to the earth. Well might Herschel remark that the visibility of a star in the present day is proof—not of its actual existence, but rather of its having existed for hundreds or thousands of years ago.



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THE CONSTITUENTS OF HEALTH.—2.

THE organs chiefly concerned in sustaining the economy of health are the nerves, stomach, heart, and lungs. The great systems of absorption, circulation, secretion, and excretion are but agencies or accessories of these. It can not be said that any two persons are alike in their nervous constitution—having brain, spinal cord, and sympathetic ganglia of the same size and the same capacity for stimulation. Neither can it be said that any two persons have hearts or stomachs or lungs of similar

caliber and extent of function. Measure the heads and different parts of the bodies of a dozen men of the same height and weight with instruments of precision, and considerable variations will be found. It is related of a young Irishman who made a tour in Europe, that in Rome he fell in with a fellow countryman who was pursuing the vocation of a butcher, and who offered to conduct him on a round of sight-seeing. After his return home he related as among his adventures the following :

“The most wonderful thing I saw in Rome was a shtone man.” “A shtone man, is it?” exclaimed one of his auditors. “Yes,” replied Pat, “and they called him the Polly Belvedere. As we were looking at the shtone man, says the butcher to me, says he, ‘Pat, you and the Polly Belvedere are very much aloike.’ And be dad, we measured. I was broader than him in the fut, but he was higher than me in the inshtep. I was larger than him around the ankle, but he had me in the calf of the leg. My knee was larger than his, but he was better than me in the thigh. My belly was twice as large round as his, but his brist was near twice as large round as mine. Then, agin, my neck was much larger than his, but his head was much larger than mine. But, as the butcher said, on the ginerall average we were about the same thing.”

In this humorous sally we have an element of truth that applies to the common observations of intelligent people, with respect to appearances of similarity. Such observations can not be trusted, because they are wanting in technical precision, and technical precision is only to be obtained by the use of in-

struments in the hands of an experienced person.

Health depends upon the normal action of the organs of the body, and that normal action is not to be defined among other things by specifications of size and weight. The action of the heart, as shown by pulsation, may in one person, as compared with another, be very rapid, yet he who has the quick pulsation may possess a larger heart than he whose pulse is slow. An inference of unsoundness drawn merely from the heart's action in the case of the former would be unwarranted, for a difference of twenty beats a minute between the pulse of one person and that of another may exist, and one be as good a specimen of physical vigor as the other. We know that experience warrants the physiologist in saying that a rapid pulse indicates great activity in the processes of tissue change, or in the oxidation of the elements that feed and sustain the general constitution, and that the heart's action may become too great relatively, and the changes of structure go on so rapidly that waste and depletion result, and in their train bring disease. In some persons sixty beats is the normal pulse rate, and seventy beats kept up for a time would inevitably cause sickness. In some the normal rate is seventy-five beats, while eighty would prove enfeebling after a time.

There are also marked differences in the stomach action of individuals; some appear to require double the quantity of food material that others can dispose of comfortably. They do not convert the food elements into appropriate materials for the use of the organism with the facility that belongs to the small eaters ;

and hence there is an intestinal waste, which is peculiar enough, but can not be regarded as abnormal. We have eaten at the same table for months with persons who exhibited a great contrast in the matter of food disposal, whom we well remember because of their physical contrast, one being of full habit, round faced, large waisted, and heavy, but so abstinent at table as to cause frequent remarks; the other, spare in build, and of comparatively light frame; a large, "hearty" feeder at every meal. Both were "great workers," always busy, in vocations closely alike. If there were any difference in amount of work done it lay on the side of the small eater.

We say of such as the latter, that they have superior powers of assimilation, nearly everything that is taken into their stomachs being converted into blood, and consequently their digestive organs and nervous forces are not taxed with protracted work, as in the case of the large feeders. The considerable waste, the drain upon the nerve energies to convert so large a quantity of material, offset in a great degree the nutritive value of the food swallowed by the large eater. We do not forget that vocations exert an important influence in the demand made upon the vital forces, and that one man's employment may require double the expenditure of nerve and muscle elements that another's work requires. The comparisons, therefore, made above are on premises of mental and physical effort that are similar, and concern the constitutional or temperamental peculiarities that differentiate individuals.

It may be comparatively easy to describe one's temperament or the physical characteristics that distinguish him from

other men, but to analyze the how and why of such temperament is a complex procedure that demands the best effort of the physiologist, and we do not wonder at the variety of opinion that is expressed by ethnologists with regard to the origin of races, and the doubts of some profound observers with respect to a unity of descent for all mankind is not to be treated lightly. Limiting our consideration to the races of modern civilization, we do not find it an easy task to account for all the diversities of form and color that are met with in one community, and even in one family. Inheritance is the most important of the causes of individual diversity, and next to this stands the matter of environment that involves all the influences that are productive of formative effects upon mind and body. Parentage furnishes the nucleus, as it were, of the organization, and around that are grouped the nucleoli of association, training, education, climate, place, occupation, etc., all the secondary factors of development. The inheritance of form, like the inheritance of mental nature, can never be obliterated; it may be marked by culture and acquired habit, but its special markings are clearly discerned by the practiced eye, just as the skilful connoisseur detects the character of a piece of statuary ere the wrappings have been cast off.

"SOUND BLINDNESS."

THE phenomena of color-blindness are well known, and have been carefully investigated. We know that some persons can see to great distances, discern minute objects, enjoy works of art, and yet are unable to distinguish certain colors. Physiologists, and especially psychologists, have also found that there

is a similar series of phenomena to be observed in connection with the sense of hearing. If a word were coined to describe these phenomena, it would naturally be "sound deafness," but many who have written on this subject seem to prefer the form "sound blindness." A writer in the *London Journal of Education* uses the term "sound blindness," and seems to have come to the subject from a pedagogic standpoint. He states that the difficulties which some persons have in learning to spell and in learning how to pronounce foreign languages suggested to him the possibility of the existence of such a thing as "sound blindness"—an inability to distinguish particular shades of sound, arising from some organic defect in the ear which is distinct from deafness, as that term is commonly understood.—*Exchange*.

Color-blindness has been traced to deficiency in the brain center relating to color perception. So it will be found, we are satisfied, that inability to distinguish marked differences of tone is due to a lack in the sound organ or center of the brain. A person may have an acute ear for ordinary sounds as those of conversation, of business and the street, yet be deaf to the fine variations of musical tone. We have known many such persons, and what observer of human nature has not? An examination of the ear of the "sound blind" is not more likely to reveal defects in the mechanical apparatus of audition than dissections of the eyes of color-blind persons are likely to show imperfections in the apparatus of seeing. The tympanum, ossicles, organ of Corti, etc., will be found in normal condition, and functionally complete. All the sound cords are there, and would vibrate responsive to the impressions made upon them through the tympanum, but the trou-

ble lies farther back in the structure of the brain, where the mind may be said to lie in intimate connection with the delicate substance that serves for its instrument.

The sound center, like other cerebral centers, may lack development. We should expect this in a man brought up in an isolated place, where he never heard a musical instrument, a song, or any tone above a monochord, other than the roar of the wind. Such a man would be "sound blind" and a sound idiot. There may be an absolute deficiency in the sound center, so that there can not be any recognition of certain tones or keys. But as a general rule, we think, that unless the person is *deaf*, by which is properly meant some imperfection in the auditing apparatus, culture will improve his perception of tone difference. The sound faculty is kindred to the other faculties of sense perception, and its cerebral function is governed by the same laws that preside over brain function in general.

HOLIDAY CHEER.

HE must be a sordid, narrow-soul, or a poor wretch whose human sensibilities have been beaten out of him, who does not gather cheer and inspiration from the influences that surround him in this holiday time. To look around one now, and see the warmth and enthusiasm with which all classes are aglow; to note that differences of station, intelligence, and of religious belief are forgotten or subordinated to the spirit of the season; to understand that benevolence, kindness, good-will are the influences that produce the expansion of feeling that pervades the community, should warm

the coldest heart, and rob the misanthrope of some of his gloom.

Jew, Christian, and infidel are moved by a common impulse of generosity that reflects its tender, cheery radiance upon the weak and dependent. Let one unacquainted with those parts of our great city where dwell the poorest visit them now and climb to the upper stories of the dingy tenement houses, and he will find their young and old occupants filled with an unwonted joy. New hope has entered those squalid rooms, and lighted up the pinched features of the toil-worn and miserable men and women who crowd them.

Enter an asylum or hospital and pass through the wards, and note the cheerful faces that greet you there. The sick and infirm, the blind and deformed, feel that the world has brightness for even them; that the strong, active ones who live in the great open community where they are forbidden to go, have a warm regard for their comfort, and will not forget them, and now will come pouring in their gifts of sympathy and love.

All the civilized world is affected at Christmas time with the spirit that breathes in the old English poem, in which it is said:

"All have to share, none are too poor
When want with winter comes;
The loaf is never all your own,
Then scatter out the crumbs."

Welcome Christmas; welcome the holiday tide that brings such fraternal feeling in its train. What a promise its annual visit is of the time when the human in us will recognize without reserve or selfishness the human in others; when the kinship of mankind shall be everywhere acknowledged!

HURTING THEMSELVES. Senator Morgan, of Michigan, is said to be in favor of inserting a prohibitory liquor "plank" in the platform of his party. We are glad to hear it, and should be glad to hear of many other senators who were moved in the same direction. One of Senator Morgan's reasons for this attitude in politics is, that the liquor sellers of his State have been trying to muzzle every aspirant to office in Michigan by obtaining in advance a pledge from him that he will not act in any way against their interests. Senator Morgan is justly indignant at such a proceeding, and it should incense every senator in the country. Making such a matter public should be sufficient to warn the people against the insidious devices of the liquor dealers. We know how powerful the dram-shop is as a political instrumentality; how it exerts a despotic con-

trol over millions of workingmen, but when it raises its hydra head and would paralyze the nerves of government by turning officials into puppets, it is full time for the people to demand release from its influence. We hope that this matter of dram-shop interference with government, an interference that means corruption, injustice, and inhumanity in legislation and in the conduct of public affairs, will arouse the people to a sense of their peril. It can not be that sixty millions of people will permit themselves to be driven hither and you like sheep, be oppressed, persecuted, and insulted by a few hundred thousand coarse, ignorant, and selfish men who sell whiskey and beer. If such fellows are to dictate whom we shall have to make our laws and execute them, the sooner a prohibition plank is put in the party platform the better.



To Our Correspondents.

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

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

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

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

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

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

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

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

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 to the Editor personally will receive his early attention if this is done.

APPLICATION.—G. F.—Try your best at fixing the attention to whatever you take up. Withdraw from associations that disturb for the purpose. Surroundings that are constantly impressing the senses in one way or the other, and intruding various thoughts or suggestions, are unfriendly to the attempt to cultivate concentration of thought and balance of faculty. Would you expect an artist who should put his easel in the center of a busy street to make a good picture?

OWNERSHIP OF LAND.—C.—If society were organized on the principle of perfect equality between man and man, then occupancy of the land in common would be proper. As we are in this year of grace, 1888, our interrelations generally and particularly suggest anything but equality, and the time appears far distant when all men will be as brothers, or what brothers should be. Yet there are signs of slow improvement, of a tendency toward co-operation in social and industrial affairs, and when co-operation is fully established with its exchange of sympathy and just regard for individual right and obligation, then men may become, and probably will be, to a large extent communists. When the reign of selfishness and greed is past and men are governed by kindness and justice, it will not matter much who owns the land, as it will not be held by any to the disadvantage of others.

RELATION OF ORGANIC DEVELOPMENT.—J. E. P. C.—Account is taken of the depth as well as height of the cerebral mass, in estimating the development of the brain, and in order to obtain useful data we must have an anatomical point from which measurement can be taken. The ear opening furnishes such a point, and is recognized in that light by leading anatomists, like Holden, Gray, and others. We do not say that the fibers proceed *directly* from the medulla to the convolution, but that they radiate from that as a center *via* the great median ganglia at the base of the brain. This fact is recognized by Gray, Foster, Luys, and other anatomists. It is the volume of brain that is sought first to be ascertained by observations of the length of a line, one extremity of which is set at the *medulla* and the other carried along the surface of the head. Next this method of measurement furnishes the com-

parative volume of different regions. We understand the relation of the basilar ganglia and ventricles to the convolutions, and that the ventricles constitute a seeming separation in the *post mesial* region between the superior cerebral parts and the basilar parts—but the temporal convolutions dip down on each side to the level of the medulla, in the cranial fossæ. The experienced phrenologist knows the difference between *depth* and *height*, and considers the relation of the ear opening to the frontal lobe. In criminals the ear is usually found to fall greatly below the level of the eyebrows, showing greater *depth* and breadth of brain in the temporal convolutions than are found in men of good moral character. We have casts of criminals on our shelves in which the elevation of the head seems considerable, but a moment's inspection shows it to be due to the great basilar development, while the height above the brows is inconsiderable. If you will examine the works of the authorities to whom we refer, you will find that the quotation you give from a gentleman of acknowledged eminence is scarcely sustained. On page 622 of Gray's Anatomy, edition of 1883, you will find a "Plan of fibers of Medulla," by which it is shown that the fibers in their course to the convolutions pass through and involve the corpora striata and optic thalamus.

HORACE GREELEY A VEGETARIAN.—Can you settle a dispute, tell me if Horace Greeley was a vegetarian?—W. S. J.—Kansas City, Mo.

ANSWER.

We are glad to be able to answer this question "by authority." We quote from a manuscript now before us.

"I was practically, not perfectly, a vegetarian through the years 1834-5. I believed then, and believe now, that good vegetables and fruits in proper variety, and in their proper freshness, are the most nutritious, healthful, and palatable food for man; and if I were to live henceforth as I could wish, I should probably use no other. Living as I can and do, I eat what seems most convenient and advisable."

"Yours,

"HORACE GREELEY."

MARRYING FOR MONEY.—What organs large, and what poorly developed, would be

looked for in a person who is inclined to marry for money?

ANSWER.

We would expect to find large Acquisitiveness, Secretiveness, and Cautiousness; not large Benevolence, Conscientiousness, Ideality, Approbativeness, or Self-esteem; moderate Combativeness, to make one feel weak, and moderate Hope to make the future look dark, and an insensitive temperament, with a low sentiment of honor in his family and social circle. Where the idea of wealth and power as the chief object of life prevails in a community, persons of naturally better instincts might be carried by the current and deem it necessary to marry in the interest of sordid selfishness, instead of the higher motives.



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

Some Proofs.—I mention here a few facts concerning Phrenology, thinking they may be of interest to those interested in this study. About one year ago I saw a man nearly fifty years of age walking along the road singing and whistling at a rate that indicated mental derangement. I learned at a neighboring house where he stopped for the night, that he sang and whistled almost constantly and expressed his desire to perform on musical instruments. He had at some time received a severe injury on the head, so that a portion of the skull, about one and a quarter inch in diameter, was removed from the outer margin of the forehead, and his brain was yet affected at that point. The injury was located at the organ of Tune.

My attention was called to another case later, in which I think the organ of Tune was also deranged. A young man had been kicked by a horse in the front and outer margin of the forehead. The wound was about two and a half inches long, and covered the organs of Tune, Time, and the outer margin of Locality. On seeing his uncle a few days after the accident, I in-

quired how the young man was getting along. He said that he was whistling and singing at a great rate, but not able to leave his bed. I learned that before he received the injury and after he recovered from it, he rarely if ever sang or whistled. I have also observed where the brain was diseased it caused some derangement or excessive action of certain mental faculties.

MILO WILSON.

The Reciprocity of Faculties.—
EDITOR OF PHRENOLOGICAL JOURNAL.

DEAR SIR.—It is so long since you have heard from me that perhaps you are in hopes "I have gone dead," but not so; I was born to "bob up serenely." Besides, my conscience won't let me rest. I am teaching school at present, and each day I become more convinced of the general truth of the association of faculties I have made, and that they were arranged in the order of mind development. Lately I have devoted all my time to the study of the intellectual faculties and these are the conclusions I have reached.

1. The 7 lower intellectual faculties deal entirely with objects *capable of being perceived* by the physical senses.
2. The 7 upper intellectual faculties are both perceptive and conceptive.
3. There is a direct association between the lower and the higher faculties. The faculty of Constructiveness performs the same office for the higher faculties that Individuality does for the lower, and the faculty of Comparison arranges and classifies the work of the higher faculties, the same as Order does the lower ones. The faculty of Causality performs the same office for the higher faculties that Calculation does for the lower, and the faculties of Size, Weight, and Color deal respectively with the line, square and cube, and the faculties of Time, Location, and Eventuality deal respectively with the curved line, circle, and sphere.

Perhaps these points are worth your consideration; they intimate a natural relation or reciprocity between certain faculties belonging to different classes or types of organic functions:

1. Vitativeness and Benevolence: The desire to live and the desire to let live; or the desire for happiness and the desire to give happiness.

2. **Destructiveness and Veneration:** The desire to have one's own way or will and the desire to let others have their way or will.

3. **Alimentiveness and Firmness:** There is a selfish faculty above the physical one of Alimentiveness which gives the desire to be sustained or upheld; its action is seen in the peevish child, and Firmness is a desire to uphold or sustain patience.

4. **Acquisitiveness and Conscientiousness:** The desire to gain and the desire to let others gain.

5. **Secretiveness and Sublimity:** The desire for power or control, and the desire to acknowledge power and control, cunning and earnestness.

6. **Cautiousness and Ideality:** The desire to care for self and the desire to be careful of others. Ideality is related to and inspires purity of thought.

7. **Combativeness and Humor:** The desire to push self and the desire to agree to being pushed.

8. **Friendship and Imitation:** The desire for sympathy and the desire to give sympathy.

9. **Philoprogenitiveness and Faith:** The desire for faith and the desire to give faith. The child's love of the mother is faith and the mother's love of the child is sympathy.

10. **Continuity and Hope:** The desire to remain the same and the desire to advance.

Hoping that you or some readers will find a hint or two of service in the above I remain,

GEO. H. GALLUP.

Notes from Observations.—I have noticed that the heads of children who were born and reared in the city, have a much better development of the social organs than those who were born and reared in the country. I think it due to the better opportunities of developing the social feeling which the city affords over the country. Am I right?

My attention was recently drawn to two very different developments of the organs of Parental Love. The one (a girl of eleven and a pupil of mine) has a very small development of the organ. Although she is daily brought in contact with a very interesting little boy, yet she will not have any thing to do with him, if it can be avoided. In a composition on "Dolls," she said, "Most girls like dolls, but I do not."

The other is a boy of twelve, now a student in Columbian University, in Washington. He possesses a very large development of the organ of Parental Love. I have seen him leave the company of other boys to hold a three-months'-old baby, which he did for hours as carefully and kindly as any mother could. He is not accustomed to small children, but will beg to hold a baby and will not be satisfied until it is in his arms. I pointed out the development to his parents, who are firm believers in the science of Phrenology.

While these facts might puzzle some persons not acquainted with the subject, they are to a phrenologist quite plain and easy to understand.

S. A. LATMAN.

PERSONAL.

LADY ANNIE BRASSEY died September 14th last, on board her husband's yacht, the *Sunbeam*, of a fever, while on her way to Australia. She was as good a horsewoman as she was a sailor, and a charming hostess. During the intervals of her yachting cruises with her husband she gathered a brilliant circle of prominent politicians, authors, and artists about her at her country-house, Normanhurst Court, in Sussex, and at her house in Park Lane, London.

DANIEL MANNING, Secretary of the Treasury, died on the 24th of December. He was born in Albany, N. Y., Aug. 18, 1831, and in his boyhood was compelled to work hard, having lost his father very early in life. At the age of eleven years he entered the office of the Albany *Atlas* (now the *Argus*) as office boy; but worked his way through the printing office as compositor and foreman, then became a reporter, and afterward an associate editor, rising finally to the executive management of the paper.

His newspaper position gave him prominence in the party he supported, the Democratic, and although he held no civil office he was a leading manager of his party's affairs in the State. His appointment to the Treasury by Mr. Cleveland, however, was a recognition of his services in the past. As Secretary, until the failure of his health in 1886, he exhibited great energy, and was regarded by conservative financiers as a very able executive officer.

A GOLD MEDAL FOR ISAAC PITMAN.—As Fowler & Wells Co. have advocated the use of phonography, and have for years been leaders in the adoption of shorthand writing, it is eminently fitting that we present to our readers fac similes of a gold medal made by Messrs. Tiffany & Co., of New York, which is to be presented to Isaac Pitman, the inventor of phonography, to commemorate the publishing of his first book on phonography in 1837. Isaac Pitman was in early life a teacher, and properly called the father

suitable testimonial to Mr. Pitman, and the contributors voted to send Mr. Pitman a gold medal. Subscribers will have a bronze medal. The medal cost \$400.

WISDOM.

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

There is something wrong within, among all those who are afraid to look within.

Scatter-brained and “afternoon men” spoil much more than their own affair, in spoiling the temper of those who deal with them.—[Emerson.

A true man never frets about his place in the world, but just slides into it by the gravitation of his nature, and swings there as easily as a star.—[Chapin.

Love and passion are too often confounded. They are quite distinct. Love elevates and refines, passion degrades and depresses; love enlarges the heart, passion narrows the mind.

We can not be earnest about anything which does not naturally and strongly engage our thoughts. Far more than mere talents or acquirements, enthusiasm and energy in work carry the day.—[Dr. Tulloch.

MIRTH.

“A little nonsense now and then,
Is relished by the wisest men.”

LADY (to deaf butcher): “Well, Mr. Smallbones, how do you find yourself to-day?”

SMALLBONES: “Well, I’m pretty well used up, mum. Every rib’s gone, they’ve almost tore me to pieces for my shoulders, and I never had such a run on my legs.”

“Do you know him?” asked a gentleman of an Irish friend the other day, in speaking of a third person. “Know him!” said the Irishman. “I know’d him when his father was a little boy!”

JUDGE: “What sort of a man, now, was it whom you saw commit the assault?”

CONSTABLE: “Shure, yer honor, he was a small insignificant craythur—about yer own size, yer honor.”



of phonography by virtue of his influence in spreading the art by publishing two books on the subject, the second one in 1840, and by his persistence in advertising it. The art was introduced into America in 1846 by the late Stephen Pearl Andrews and his associate, Augusta A. Boyle. Forty years ago there were probably not more than six or seven competent stenographers in America; now the art is practiced by thousands, and among them are hundreds of skilful writers. Contributions were solicited in 1887 for a



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.

PUBLICATIONS RECEIVED.

DARING AND SUFFERING. A History of the Andrew's Railroad Raid into Georgia, in 1862; Embracing a Full and Accurate Account of the Secret Journey to the Heart of the Confederacy, and Capture of the Railroad train in the Confederate Camp, the Terrible Chase that followed, and the Subsequent Fortunes of the Leader and his party. By William Pittenger, 8vo., pp. 416, Supplement 55. Cloth, price \$1.50. New York. War Publishing Co.

The author of this book is known because of several publications which have come from his pen during the past fifteen years or so. Among the first is an edition of this book which now appears in a somewhat amplified form. Very properly a "Supplement" is included which gives an account of the subsequent fortunes of the Andrew's Raiders, etc. The strife between the North and South was characterized by many very remarkable achievements on both sides. Raids, incursions, etc., were frequently made by a handful of daring men, and sometimes attended by marvelous success. The Count de Paris, in his "History of the Civil War in America," mentions the occurrence which "Daring and Suffering" details, and comments upon it as an illustration of "what a handful of brave men could undertake." It reads in Mr. Pittenger's style somewhat after the manner of a romance, but Mr. Pittenger is notably conscientious in his renderings of fact, and the reader may trust to the lines as a true account of what was done and what occurred to those who participated in the Raid. A later book, by Mr. Pittenger, "Capturing a Locomotive," is in a similar vein, but the nature of that affair was not so stirring and foolhardy, and not attended with as important results.

ANDREW JACKSON AND MARTIN VAN BUREN.

By William O. Stoddard, Author of the Life of George Washington, James Madi-

son, James Monroe, John Quincy Adams, etc. New York. Frederick A. Stokes.

A fresh addition to the series of the "Lives of the Presidents." The author properly devotes 248 pages to the analysis of the career of that staunch old Democrat and President, Jackson, while of the shrewd Martin Van Buren, whose life and political path lay in calmer waters, a good account is given and an excellent portrait. The spirit of these volumes makes them well adapted to the reading of young people: they are *interesting from the first page.*

HANDBOOK OF VOLAPUK. By Charles E. Sprague, Member of the Academy of Volapuk, etc. New York. Office Co.

The rapid growth of interest here in the newly invented language which is entitled "Volapuk," is properly met by the appearance of this treatise. This "world-language," it may be said for the information of the reader, is one of numerous attempts to solve the problem of a common vehicle for general communication among people of different nationalities. It was invented by Johann Martin Schleier, and accomplished linguist, and first published in 1879. He aimed, in the beginning, to produce a language capable of expressing thought with the greatest clearness and accuracy, and to make its acquisition as easy as possible to the greatest number. His success is certainly evidenced by the wide diffusion that the language has obtained already. It has passed beyond the experimental stage, and is now actually used to some extent in Europe. A manual in the form of a dictionary and a grammar combined calls upon different mental faculties. The radicals or root words were chosen with a view that the greatest number of persons might have but few unfamiliar words to memorize; forty per cent. of the root words are taken from the English, and difficult and unusual sounds and combinations are excluded. The most obvious application of Volapuk is for international correspondence, especially in commercial walks, and that being, perhaps, the most important field to them, it will require no argument to convince the business world that a common language easily learned and once established would be an immense convenience to commerce, and this is the claim that is chiefly put forth, now, in behalf of Volapuk. It does not seem to be sufficiently elastic and comprehensive in its development to be adapted to other spheres. The "Handbook," having but 119 pages, is a contrast to the bulky grammars of modern languages, and yet we are assured that the student will find it quite sufficient for obtaining a good knowledge of the new language.

HEALTH LESSONS. A Primary Book by Jerome Walker, M. D., Lecturer on Hy-

giene at the Long Island College Hospital, etc., pp. 194. D. Appleton & Co.

The preface informs us that in this little book the aim has been to teach health subjects to young children in a truthful and interesting way, and by somewhat different methods than those usually employed. While there is sufficient teaching of the effects of alcoholic stimulants and narcotics on the human system they are presented in a way that is believed will appeal most forcibly to the imagination and moderate reasoning powers of children, and leave the strongest impression on the mind as to the evils attending the use of such things. We are reminded, as we glance through the pages, of two or three other books prepared for children by writers whose motive, also, was to instill the principles of sound physiology. "Man Wonderful," for instance, is not entirely unlike it, although intended for children a little older. The illustrations are appropriate and contain enough of humor to please small children,

DECISION OF THE UNITED STATES SUPREME COURT ON THE KANSAS APPEALS IN THE IMPORTANT LIQUOR CASES. Official copy.

This decision establishes the principle of prohibition, and that without compensation to the owners of property, not only in Kansas but in every State of the Union. It is one of the most important temperance documents ever issued, and has just been published by the National Temperance Society, together with the dissenting opinion of Judge Field. 12mo, 86 pages, 10 cents. J. N. Stearns, Publishing Agent, New York.

ALATYPES, OR STENOTYPOGRAPHY. A System of Condensed Printing, together with the Elements of Alagraphy, or Syllabic Shorthand. By Henry H. Brown, Battle Creek, Mich.

Mr. Brown is one of the many progressive men who would have our cumbrous method of printing language modified to correspond with the advancement of society in most other practical respects. His principles are worthy of respect, but there is so much that is revolutionary in his typographical devices that they are not likely to be appreciated by the mass of the printing trade.

LETTERS-PATENT FOR INVENTIONS. Why they are so often worthless. How to obtain valuable patents. How to avoid the losses and disappointments which befall most inventors and patentees. By J. McC. Perkins, Boston, Practitioner in the Supreme Court of the United States.

A pamphlet in which the author furnishes some useful suggestions for the consideration of the inventing community,

TRANSACTIONS OF VASSAR BROTHERS' INSTITUTE, AND ITS SCIENTIFIC SECTION. Poughkeepsie, N. Y.—1885-1887. Vol. IV.

Poughkeepsie has its Institute, which is sustained by the money of the benevolent Vassars and the cultured interest of a few scientific men. Among them are Dr. W. G. Stevenson, Mr. C. L. Bristol, and Professors Dwight and Van Ingen. The volume under our eye has several notable papers, viz.: "Aerial Navigation." "Ruined Castles in Asia Minor." "The Quiche Story of Creation," "Genius and Mental Disease." "The Top," "The Nicaragua Canal," "Bacteria," by Isabel Mulford, and "The Evolution of Continents." It is gratifying to know of a local scientific association so well sustained.

MORALS vs. ART. By Anthony Comstock. Paper; price 10 cents. J. S. Ogilvie & Co., New York.

A strong plea for the position taken by the Society for the Suppression of Vice, with reference to the public exhibition or sale of pictures that suggest unclean thoughts. It is time some measures were taken by society for the protection of the young and innocent against demoralization. Public morals stand first, and should be respected above the opinion or bias of a class.

SIXTY-NINTH ANNUAL REPORT OF THE TRUSTEES OF THE NEW YORK STATE LIBRARY. Transmitted to the Legislature January 15, 1887.

NERVOUSNESS. Its Nature, Causes, Symptoms, and Treatment. Illustrated. By H. S. Drayton, A. M., M. D. Fowler & Wells Co., Publishers.

This fresh contribution to popular medicine, applies to a growing malady in America, and is, therefore, reasonable. The statements are definite with regard to the common causes of nervousness, and no attempt is apparent to excuse or condone the ignorance or impropriety of life among intelligent people. If fashion, habit, vice be reprehensible the author shows why, and also reflects not a little light upon unintentional errors that people are constantly committing in their ways of life, and for which nature compels a penalty. The cases from the author's own observations are very instructive, and have doubtless many parallels, for which the very reasonable and simple course of treatment will as well serve.

CURRENT EXCHANGES.

The Standard. Weekly. Chicago.

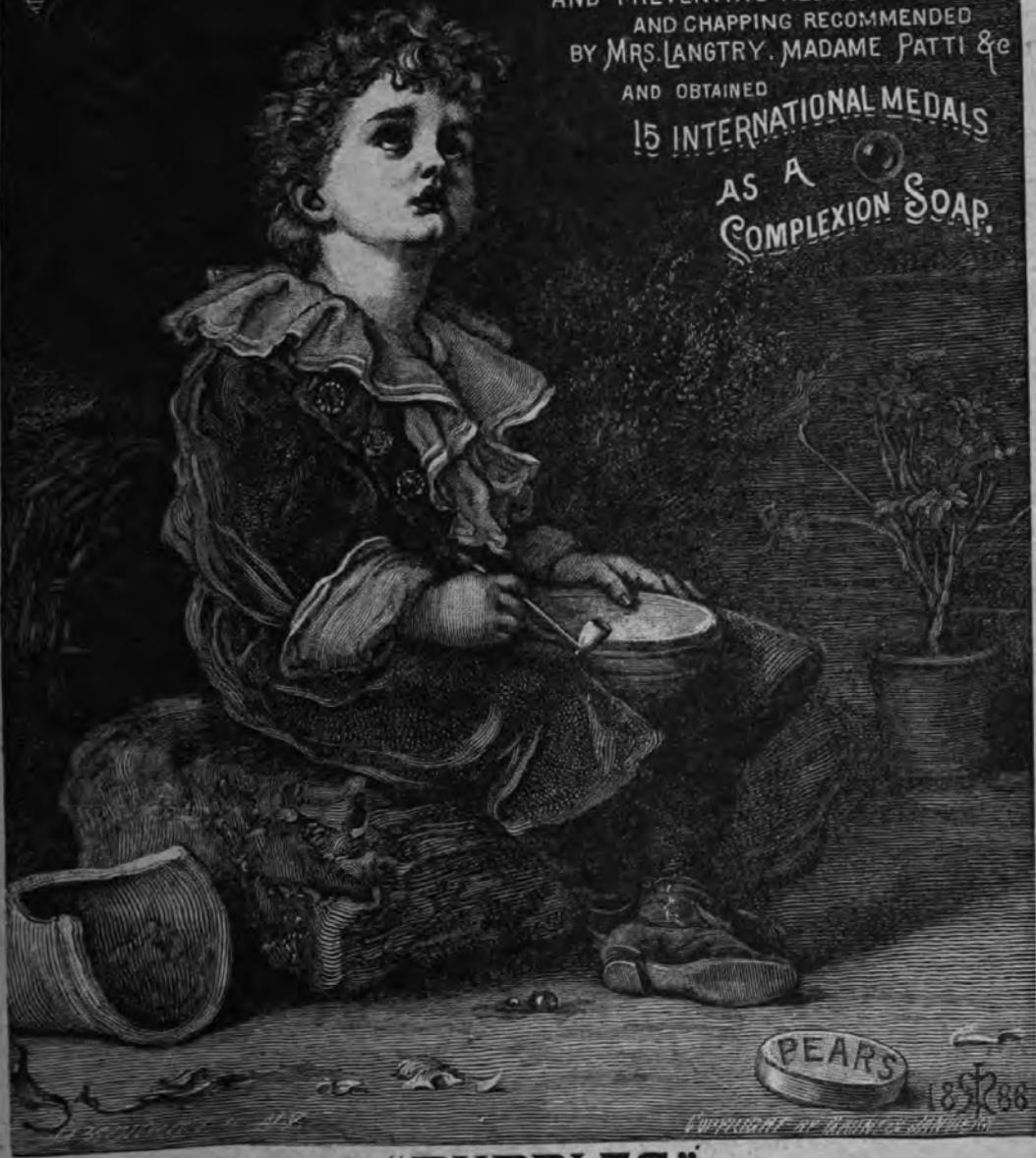
The Journalist. Weekly. New York.

Albany Medical Annals. Monthly. Contains able contributions from our most successful practitioners.

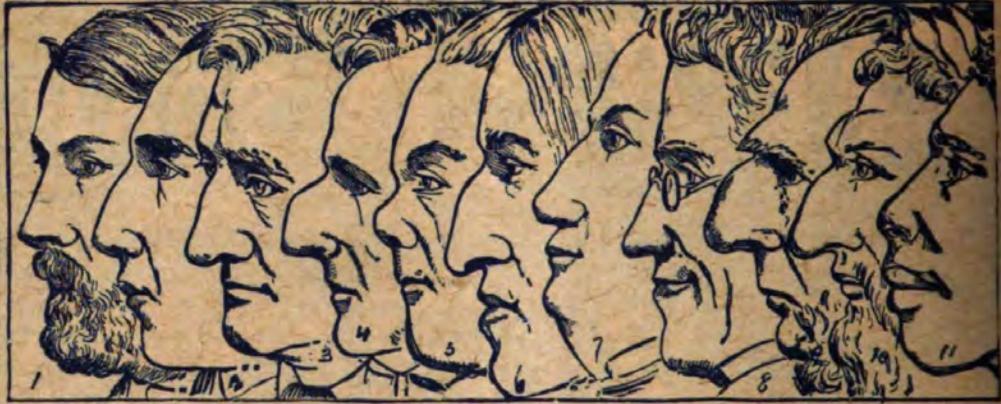
- Book Record.* Monthly. New York.
- Christian Advocate.* Weekly. New York. Organ of the M. E. Church.
- Dental Cosmos.* Monthly. Philadelphia, Pa. One of the oldest magazines of its kind.
- The Churchman.* Weekly. New York. Leading organ of the Episcopalian Church.
- Youth's Companion.* Weekly. Boston, Mass. "Vol. 81" tells the age of this successful and popular paper.
- Woman,* for January, is an improvement on the first number. Its contents are generally interesting. New York.
- Our Little Ones and the Nursery.* Russell Publishing Co. Boston. An illustrated Monthly for very little people.
- New York Weekly Tribune.* Volume forty-seven of this standard family paper was completed with the close of 1887.
- Archives of Dentistry.* December, 1887. Monthly. St. Louis, Mo. Every dentist should be a subscriber to this.
- Mary and Farmer.* Well printed, and vigorously alive to the interests of agriculture and its allied industries. Monthly. Baltimore, Md.
- Medical Summary.* December, 1887. Monthly. Philadelphia, Pa. Many items of interest to the practitioners are embodied in this magazine.
- Rural New Yorker.* Weekly. New York. For forty-six years *The Rural* has been a standard paper for the farmers and suburban residents.
- American Analyst.* Semi-Monthly. New York. Especially valuable to cooks, purveyors, and housekeepers who are interested in securing pure food.
- Lend A Hand.* Monthly. Exponent of organized Philanthropy, is growing in interest with its second volume. E. E. Hale, D. D., Editor. Boston and New York.
- Harper's Young People.* An illustrated Weekly. Harper & Brothers, New York. One of the finest publications issued for the entertainment and instruction of the young.
- The Doctor.* Bi-weekly. Contains information of value to the active physician who would know what other physicians are doing; is independent and sincere. C. A. Welles. New York.
- Lippincott's Magazine* opens the January number with a better novel than usual, Check and Counter-Check. Then follows The Browning Craze, Holyrood (a poem), The Preferences of our Opera Singers, With Gauge and Swallow, Reminiscences, The Grand Duke's Rubies, etc. Philadelphia, Pa.
- The Studio.* A journal devoted to the fine arts.
- Babyhood,* Monthly. New York. A magazine for mothers.
- The Union Reading Circle,* Monthly. Chicago. A journal of self-help, home culture, etc.
- Paper and Press,* "Pertaining to Paper and Printing and the field of Supplies for Printers." W. M. Patton, Phila.
- Public Opinion.* Weekly. New York and Washington. A register of current affairs in all departments, convenient for the busy man and woman.
- Scientific American,* Weekly. New York. A valuable journal to all who are interested in art, science, mechanics, chemistry, or manufacturing.
- The Sanitarian,* for November, contains a good report of the meeting of the American Public Health Association, which really was one of the most important scientific conferences of the year. New York.
- Le Devoir.* Weekly. Paris. A review of social questions. Considerable space is given to the questions of "Socialism in America," the statements of the conditions are fair and the entire subject is considered with a view to justice.
- Harper's Monthly* has a rich conjunction of literary and artistic matters in the January number. The Adoration of the Magi, The Italian Chamber of Deputies, Virginia of Virginia, Modern French Sculpture, The City of Savannah, The Share of America in Westminster Abbey are very attractively illustrated and good reading. New York.
- The Homiletic Review,* January, has Reviews on Progress in Theology, The Christian Evidences, as affected by recent criticisms, Shall Women be Licensed to Preach?—a rather partial and illogical plea on the negative side, etc.; Sermons on Letting go and Giving up, The Leading of the Spirit, Looking unto Jesus, The Friends of Mammon, a blessed Country, etc., besides its usual departments of themes, expositorys, suggestions, etc. Funk & Wagnalls. New York.
- The Century Magazine,* in the January number, confronts the reader with a portrait of that most eccentric of English writers, John Ruskin. A good deal of interest is involved in such topics as these: The Catacombs of Rome, The Graysons, John Gilbert, the well known comedian; Russian Provincial Prisons, The Upper Missouri, A fresh instalment of Abraham Lincoln, Pecuniary Economy of Food, Memoranda of the Civil War, and the editorial sections. The Century Company. New York.

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HEADS AND FACES; HOW TO STUDY THEM.

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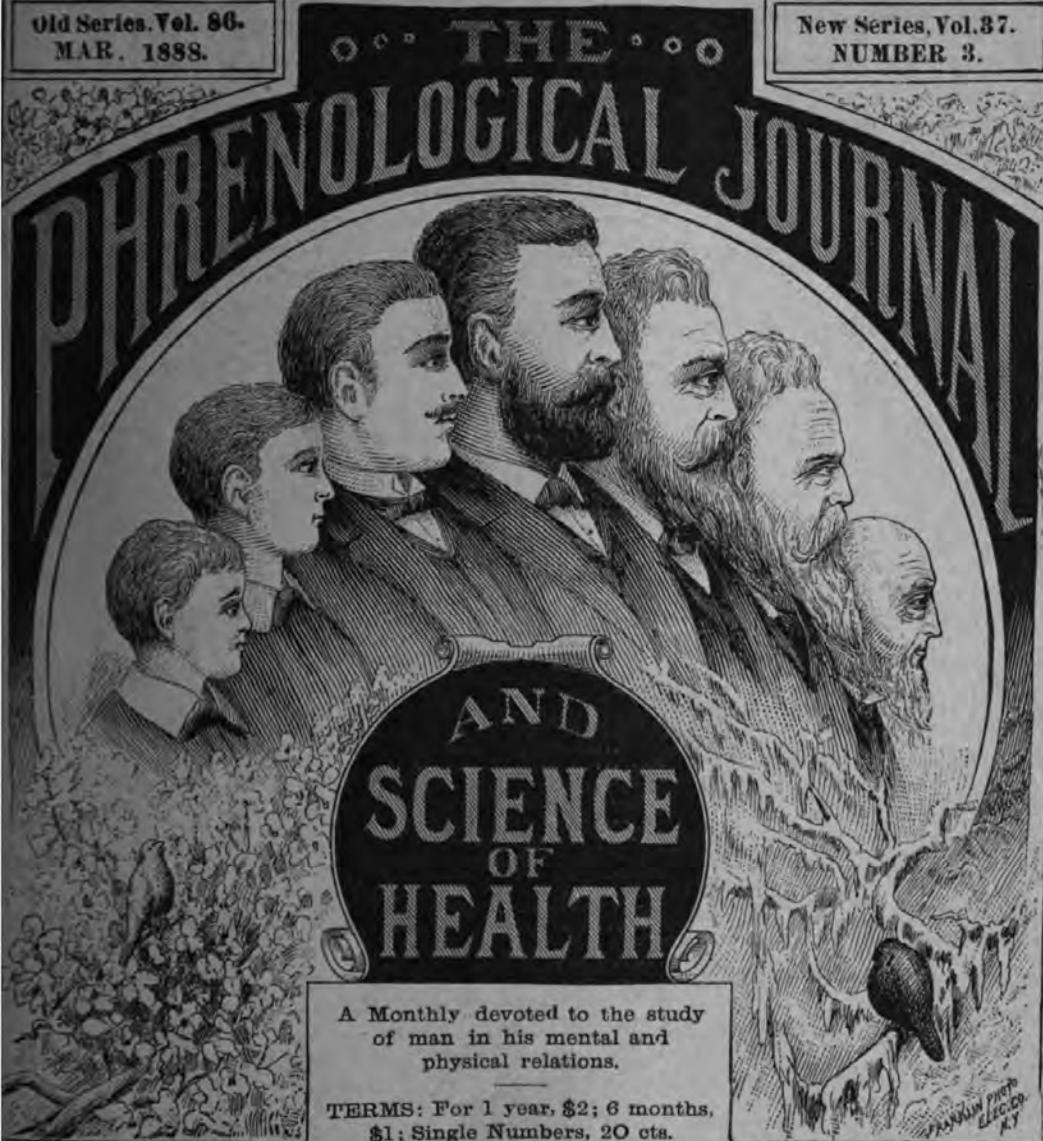
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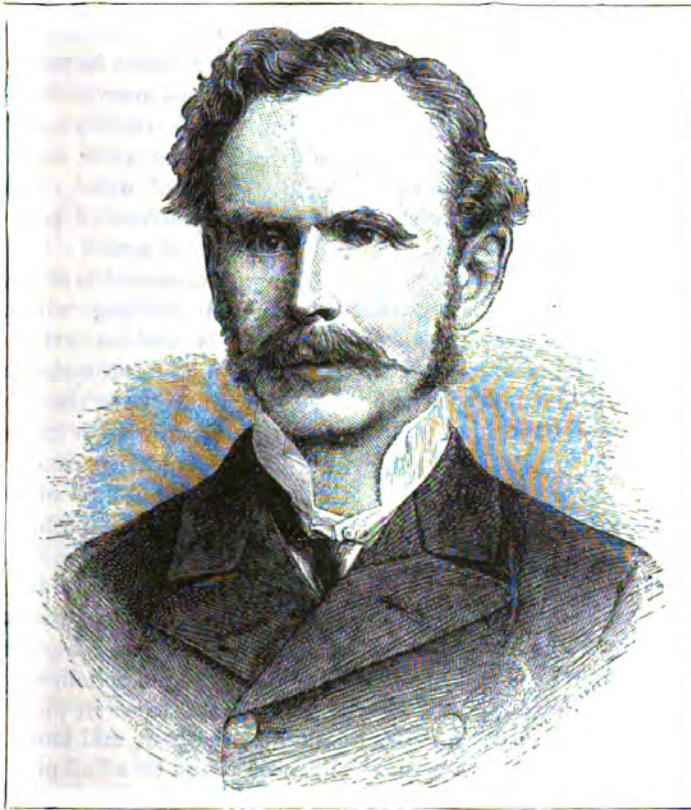
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HENRY DRUMMOND.

NOTABLE CHARACTERS OF THE DAY.—No. 6.

HENRY DRUMMOND.—Very few books of a serious ethical class published within the past ten years have commanded as much attention as "Natural Law in the Spiritual World." Deemed by many of authority in the Christian Church as a successful attempt to apply the principles of modern science

to the elucidation of many things that have been regarded as mysterious in the theological exegesis, this book soon made its author eminent in the world of letters. As the man himself is first presented to the reader in the portrait at the head of this article, we should take note of the reading in character that it offers.

Using the language of Professor Fowler in the London *Phrenological Magazine* :—

The likeness of this gentleman indicates the highest degree of the mental temperament ; his power is peculiarly of the nervous class. He has also a marked degree of the muscular endowments, hence is very active, fond of exercise, and puts much spirit into everything he does. He is thoroughly alive to whatever subject occupies his mind ; he can not be an inactive, quiet, easy-going man ; is liable to overdo and go beyond his strength, and yet he is exceedingly tough and enduring. He should be remarkable for clearness of thought, distinctness of desire, and positiveness of character. His head being so high, and connected with such a temperament, would give special tone to his mind. He takes exalted views of everything ; all his thoughts tend upward ; his standard of action is very high ; his pleasures are intellectual and moral ; his imagination runs in that direction and not with the passions and impulses. His animal brain is not so troublesome to him as that of most men, because he has so much superior power to aid in controlling it. He has a rather extravagant imagination, takes extended and broad views of things, and is liable to use forcible and extravagant language. He can scarcely be medium and commonplace in his style of writing and talking. He is quite original in his mode of thinking ; has peculiar views of all subjects, and would not be likely to lean on others for anything. He is very apt in criticism and in the disposition to notice all kinds of discrepancies and deviations from what he considers true. His perceptive faculties lead to observations peculiar to mental qualities and actions, rather than to study physical phenomena. He is ingenious in constructing arguments, and scarcely stops to qualify what he says. He speaks like a master, is very firm and determined, and not easily changed in his course of action. He is

not so copious as he is strong and positive in his style of talking. His reasoning brain would act with the strongest faculties, which are the moral and spiritual ; hence he would reason upward on subjects peculiar to spiritual life and on the laws that regulate it. It will do to have some men like him to break the way, to open up new courses of thought, and to express their ideas in extravagant forms, for they are needed as leaders, and as those who help other people out of their ruts of thoughts ; but too many of them would produce a radicalism which would result in hasty revolution that would not answer for conservative people. More vitality and animal life, more base to the brain, and more of the worldly type of mind, would help to give greater balance of power and harmony of mental action

Henry Drummond is of Scotch parentage, born in Stirling, where his father lives, and is well-known in the circles of commercial enterprise and moral endeavor there. He received his early education at schools in his native town and Cruff Academy, and later went through a long course of study at the University of Edinburgh, and at the University of Tuebingen, Germany. He pursued special studies in philosophy and natural theology besides those in science, and received high testimonials for capability and scholarship. He was appointed a lecturer in the Free Church College, Glasgow, and later his lectureship was raised to a full professorship.

Being very fond of scientific study, he has availed himself of opportunities for observation and travel, especially giving attention to geology and botany. A few years ago he accompanied Professor Geikie on a survey of the Yellowstone Park and the Rocky Mountain region, and subsequently spent a year in Africa, exploring the interior for the African Lakes Company. While occupied with this commission he discovered the only fossils that have been found in the heart of that country. To

European travel he has also given much time, both the northern and Mediterranean region being visited for purposes of information.

In evangelical work Prof. Casor Drummond has shown a deep interest, as his late visit to this country will attest. He is still comparatively young, but his energy and ardor, associated with the well-trained mind, have given him a position that is rarely achieved at his age.

His book, "Natural Law in the Spiritual World," is an ambitious literary effort, and in some respects, we think, is marked by faulty reasoning and hasty inference. It has been sharply criticised by reviewers on both the religious and scientific sides, some even claiming, like a critic in the *Westminster Review*, that its popularity was not creditable to Christianity at this time, and no such "apology" is needed. Attempts by bright, zealous men to establish religious faith upon scientific principles, and to reconcile the differences between science and theology, however clever and assuring they may appear at first, are found, as a rule, on close inspection, to be specious and sophistical in important particulars. The book is "exceedingly thoughtful," says one writer, and herein consists its main value. It is a book to make a man think, a book that forces upon him the conviction that the eternal issues of his present life depend upon the character which he acquires here, and that in working out his salvation he is grasped by laws, which, so far as we can see, are universal in their nature and operation.

MARY N. MURFREE.—"Charles Egbert Craddock."—This engraving is from a photograph that has been so washed out or burnt out that the effect is very "flat," speaking technically. We must therefore confess ourselves at a disadvantage in studying its lines, or rather want of lines, and having nothing better, beg the reader's indulgence if our predications go wide of the mark. If it be a

fair representation of the lady, it shows an active mind, a nature sensitive and strong. The motive temperament is pronounced and furnishes a good basis for the emphatic expression of character. We think that the forehead is high, although the hair is disposed in such a fashion as to conceal the upper part, and the perspective of the head is such that we think the frontal lobes to be uncommonly large, giving more than usual length to the head in front of the ears. There is also considerable breadth between those organs of sense, a feature of the cerebral development that implies mental energy and industrial capacity in itself. We infer from this and other peculiarities that Miss Murfree belongs to a family in which directness and definiteness of expression are characteristics. The physiognomy is marked by decision and perseverance, and there is not a little of aspiration in the contour. As we study the work of the artist there comes out of it a manifestation of that quality of spirit and determination that is seen in the old Greek nature. We are sure that she is very sensitive, even to irritability, and in the ordinary routine of life may exhibit quickness of temper, but when occasion demands patience and self-control, she can show those virtues admirably. We do not believe that she is secretive, or that she makes any pretence of being a saint, or of being inclined to play the heroine or martyr, but she certainly has an earnest, open, thorough-going nature, with plenty of the stuff of which hard workers are made—an irrepressible spirit when once it is aroused, and which is only content when the goal of accomplishment is reached. Genius in her case is the genius of application and perseverance. She is endowed with faculties of intellect that adapt her for observation and criticism; a love for the natural in variety that stimulates observation, and renders her appreciative of the moving facts in the great outer world.

Miss Murfree's reputation has been

won by her stories of the rude life of the people native to the mountains of East Tennessee. She revealed a type of the provincial American that was found as interesting as the provincial Englishman, and her fidelity in its portraiture compelled the admiration of the severest critic. While a girl her father was induced by stress of fortune, following the

bers of the family. Hence they have been given to the discussion of events and current topics as much among themselves as most persons do in society.

One of our reviewers says :

“For some years the *nom de plume* completely concealed the personality of our young author, for though Charles Egbert Craddock was known by her



“CHARLES EGBERT CRADDOCK.”
MISS MARY N. MURFREE.

late civil war, to retire to East Tennessee, and there the family lived during fifteen years. It is said that Miss Murfree largely owes her style and modes of expression to having been the comrade of her father, who is a Southern gentleman of marked dignity and fastidious tastes, and who has always encouraged the common pursuit of literary studies by the mem-

publishers to be but a *nom de plume*, they thought it the masterly disguise of a man. Whatever the masculine world thought, there was a laudable triumph in womanly circles when even such distinguished judges of character as Mr. Aldrich and her publishers found that they had mistaken, and it was announced that the new and fascinating gentle-

man novelist was Miss Mary N. Murfree. How quietly to herself all those years must she have laughed over the Mr. so conspicuously arrayed before her name!"

To thoughtful watchers of the ways of women, the signal success of Miss Murfree means much. It means "the ability of woman to prove herself worthy of existence in relations of life, independent of sex." She has a gift for just what she does, and she uses it well. Each book has been thought by most of its readers an improvement on what she had written before.

The Boston publishers, Messrs. Houghton, Mifflin & Co., brought out a volume of her stories with the general title "In the Tennessee Mountains." Later appeared "The Prophet of the Great Smoky Mountains," and "In the Clouds." She is as valued a contributor to *The Youth's Companion* and *Wide Awake*, as to *The Atlantic*. Of "The Prophet of the Great Smoky Mountains," a reviewer has said:

"It is something more than a praise of style when we call attention to the sinewy compactness of language which never becomes slack or redundant. Not a word but appears to have been weighed, not an epithet but is like an arrow shot straight at the mark. This is one of the finest gifts of the imagination,—this power of making words vibrant with meaning; and, taken with the economy and reserve of strength shown in the construction of the novel, gives to us a strong faith that this writer has not expended herself, but will, whatever phase of life may present, take counsel of her own rapidly maturing judgment, and give only what she has made thoroughly her own."

Deducing an opinion from her writings, it may be said of her personal character that she is almost purely intellectual, yet having qualities and graces as a woman that would make her home a center of attraction, and give her great social power. "The brightness and vivacity of her face, the witticisms, mirth,

laughter, the play and glow and quaint conceit, and the fascination of an intense originality, attract, amuse, and inspire you. She possesses the enviable quality of putting you entirely at your ease, nay, more than that, of inspiring you to your best possibilities, so that her visitors leave her presence with a very fair opinion of themselves, in addition to a high regard for her."

PRESIDENT PAYNE.—This is an "up-pish" caste of head and face. The brain appears to be built up at the crown



PRESIDENT PAYNE.

in a way that is not often seen, and if that means anything it means moral power, independence, an ambitious spirit, and a sense of confidence in one's own powers. Prof. Payne should be regarded as a clear thinker. He is definite in his views, and definite in their discussion. At once introspective and critical, he should not be satisfied with other people's opinions, but generally inclined to formulate his own. He should be very intuitive, and when intuition is the prime factor in his moral judgment he is most tenacious of the ground that he has taken. His moral standard is a

high one, imparting a delicate scrupulosity to his analysis of duty, truth, and personal responsibility. In his executive transactions, whatever they may concern, the moral bearing of a measure is one of the chief considerations. He is a respectful, devotional man and should command the deference and esteem of others. He believes in respecting and being respected. He has a leaning toward the refined and cultivated sides of life that must be apparent to all who know him, because it makes him avoid people who are coarse and careless in habit and conversation. He is, nevertheless, kindly and suave, and "gets on" well with all sorts of people excepting perhaps the wilfully rude and boorish; for such as these he is inclined to enact the part of the drill sergeant with awkward recruits—make them "toe the mark."

The president of Nashville University has scarcely known any other life than that of the teacher. From the time he left the academy at Macedon, N. Y., to his assumption of his present important chair he has been in schools of one kind or another. He was born at Farmington, Ontario Co., N. Y., and educated mainly in the district schools of that country town. In 1855 he commenced the career of teacher, and three years later removed to Michigan where a new and wide field opened before him. At Three Rivers, Niles, Ypsilanti, and Adrian, he established and organized schools, and proved himself eminently efficient in the highest duties of the teacher. In 1879 he was elected Professor of the Science and Art of Teaching in the University of Michigan. Here was found a field of effort much to his tastes, and out of its experience have come much fruit. In the spring of 1887 the Presidency of Nashville University became vacant by the death of the Rev. Dr. E. S. Sears, and the Hon. J. E. M. Curry, Minister to Spain, was commissioned to select his successor. On his return to this country in September he

went at once to Ann Arbor, and urged the presidency on Professor Payne. Declined at first, the position was finally accepted and on October 5, 1887, Prof. Payne was formally installed Chancellor of the University of Nashville and also President of the Normal College that had been established by the trustees of the University as a monument to the memory of George Peabody.

THE COMTE DE PARIS.—The schemes of the monarchists in France having succeeded in forcing the government as a measure of self-protection to decree the expulsion of the Bourbon claimants of the throne, if the throne could be rein-



COMTE DE PARIS.

stated, public attention was, of course, much given to the Princes and their families who were thus expatriated. The leading "heir apparent" is Louis Philippe d'Orleans, otherwise known as the Comte de Paris, whose portrait is before us. The expression is that of a self-assured, aspiring man, but does not intimate special gifts of mind beyond those commonly possessed by young men of good social position and education. He is not dreamy, capricious, or speculative

in the caste of his mind, as too many princes are inclined to be, but rather positive and practical. He loves life, enjoys its pleasures and benefits, can adapt himself to the ways of the world, yet has a strong individuality of his own, and exhibits it distinctly in his social relations. He is a man whose opinions are but little influenced by others, but he is not disposed to express them in a way that will rasp or irritate the feelings of others. There is evident desire to lead and control in whatever he takes part. The intellect is of the inquiring analytical type that would adapt him to pursuits of a scientific nature, such as geology, zoology, or chemistry.

The Comte de Paris is about forty-nine years of age, and now resides on the historic shores of Lake Lemon, Switzerland. He was invited by many of his countrymen, residents in America, who entertained a sympathetic consideration for his fortunes, to come to this country, but he declined with a courteous expression of gratitude, preferring to remain on the continent and near the land of his nativity. Perhaps he shares the expectation of many Frenchmen, who cling to the old ideas of royalty and a kingdom, that the republic is but a thing of ephemeral expediency; it may be easily overthrown in some popular emergency, and then his chances for a crown will be good. In such an event it were better that he were

at hand than far away. Like the late Louis Napoleon, he might have opportunity for a *coup de main* that would tide him into power. But the little excitement that the exile of the princes awakened among the French people at large, and even in Paris, the stronghold heretofore of Bourbonism, was far from encouraging, we think, to those who hope for a restoration of the throne. We are certainly pleased by the growing regard of the French masses for their new order of political affairs, and it must be that if a discreet or fairly reasonable administration is maintained the republic must grow stronger and stronger. The Comte de Paris is allied to the crown of Portugal by the marriage of a daughter to the young heir to that kingdom. He has several other children, the young Duke of Orleans, a youth of eighteen, who is said to be well educated and an ambitious sportsman. Then there are the Princess Helene, who is fifteen years old and, like all the children of the Comte and Comtesse de Paris, tall and slim. She has a very clear complexion, and a shower of light hair falling round an animated face. The little Princess Isabelle is eight years old. She is an attractive child, with light hair cut short over the forehead but falling in long golden ringlets down the back. There are two younger children—Princess Louise, four years old, and the last comer, a boy of two.

IDEALS, TRUE AND UNTRUE.

AMONG the most precious possessions of humanity are its ideals. Whatever of poverty or hardship, of sickness or sorrow, of disappointments or adversity, of failure or weakness or sin may afflict a man, he has still within him the image of something better, nobler, happier, more successful to hope for and to strive after. To this image, varying though it does with the character and personality of each individual, is society indebted for its continued pro-

gress and improvement in manifold directions. These ideals, however, are not all equally valuable nor equally attainable, and it becomes an important part of self-culture and of education to see to it that those we are cherishing in ourselves, and infusing into the hearts of the young, are not only excellent in themselves, but possible to realize under existing circumstances. One of the most serious mistakes which is made in this direction, as well as one of the most

common, is that of presenting for the aim of everybody the ideal of greatness and eminence. It is not an uncommon thing to urge boys to put forth their utmost endeavors in the hope of some day becoming great statesmen and filling offices of political importance. Instances are presented to them of men who, once simple schoolboys like themselves, have risen to the position of mayor, or governor, or Senator, or even President, and it is more than hinted that equal exertions on their part may produce equal results. Or they are pointed to the great authors and poets, who have instructed and cheered mankind with their thoughts and imaginings; to the great orators, who have thrilled their audiences; to the great inventors or musicians or sculptors whom the world delights to honor, or the merchant princes who have accumulated and dispensed millions, or equally rare and exceptional men of genius in other directions, and they are counseled to read their lives and study their methods, not simply to admire and reverence, but to imitate, that they may rise to the same pinnacles on which these men have stood. The chief reason why such motives should not be presented to the average youth is that they are unsound. It is not even true that most of the young people who are thus addressed can rise to great eminence in any direction. It is not even true that many can. If it were, eminence, ceasing to be exceptional, would lose its meaning. If all, or most, or many reached the same high position which is thus held out as a lure to all it would become merely a common level and lose all its distinctiveness. Neither would it be desirable were it possible. If all were officials, where would be the citizens? If all were architects, where would be the workmen? We may be very sure that the notion that everybody may rise to fill an exceptionally high place in the world is both irrational and undesirable. High places are for those who improve

the talents God has given them. The earnest striver who tries to live the life of someone else, and fails, finds but little energy to live his own, and often sinks down into comparative apathy. He whose sole aim is to reach some special height when he finds that his powers are inadequate will care but little to climb any further. Thus much loss of needed power and effort results from such impossible ideals. The individual does less than he can, and both he and society through him are losers. Besides all this, such elevations are merely artificial. The few who attain them see before them endless heights still waiting their ascent. All is comparative, and the utmost limit that man has yet reached in any direction is but a short distance compared with what lies beyond. The true ideal that should fill a man's heart and fire his energies is excellence in his own sphere; the living of his own particular life just as fully and nobly as he (not somebody else) can. True, this is an unknown quantity, but it is a real, true, and attainable one. Day by day it is rising, and day by day he feels conscious of increased power. Where it may lead him he can not tell, but that by its guidance he will go further and accomplish more than by any other he may rest assured. Whoever cherishes this aim will find full scope for every faculty, full work for every day, and full satisfaction in every success. Attempting nothing impossible, he is doomed to no inevitable disappointment, nor is there any limit at which he may cease to strive. The diffusion of such an ideal is just what society needs for its best welfare and progress. Eminent men and women in every walk of life are great blessings to the State, and we can not too highly value or reverence them. But they are necessarily few, and it is to the large body of people of average abilities that the country must look and on whom it must depend for its character and prosperity.—*Public Ledger*.

THE WIND-SWEPT WHEAT.

Faint, faint and clear—
 Faint as the music that in dreams we hear—
 Shaking the curtain fold of sleep
 That shuts away
 The world's hoarse voice, the sights and sounds
 of day,
 Her sorry joys, her phantoms false and
 fleet—
 So softly, softly stirs
 The wind's low murmur in the rippled wheat!
 From West to East
 The warm breath blows, the slender heads
 drop low,
 As if in prayer.
 Again, more lightly tossed in merry play,
 They bend and bow and sway,
 With measured beat,
 But never rest;
 Through shadow and through sun,
 Goes on the tender rustle of the wheat.
 Dreams, more than sleep,
 Fall on the listening heart and lull its care;
 Dead years send back
 Some treasured half forgotten time,

Ah! long ago,
 When sun and sky were sweet,
 In happy noon,
 We stood breast high mid waves of ripened
 grain,
 And heard the wind make music in the wheat!
 Not for to-day—
 Not for this hour alone—the melody,
 So soft and ceaseless, thrills the dreamer's
 ear!
 Of all that was, and is, of all that yet shall be
 It holds a part—
 Love, sorrow, longing, pain;
 The restlessness that yearns;
 The thirst that burns;
 The bliss that like a fountain overflows;
 The deep repose;
 Good that we might have known, but shall not
 know
 The hope God took, the joy he made com-
 plete—
 Life's chords all answer from the wind-swept
 wheat.

MARY AINGE DE VERE.

THE MOORISH EMPIRE IN SPAIN.

SPANISH historians apply the term Moor to Arabs and Saracens, as well as to the real Moors, who were finally driven from Spain during the reign of Ferdinand and Isabella. The name is derived from "moras" (dark); the English having first called them "Moors." They make their debut in history as allies of the Vandals. Though probably of similar descent, they are not the identical race who first came from Africa and conquered Spain, which land had long been held by the Visigoths.

The primitive Moors lived in a part of Africa called Mauritania, extending from the Atlantic Ocean and the Mediterranean Sea to Egypt. The deserts of Barbary were their southern boundary. Their origin is unknown, though it is believed they came from Asia, and that they were originally an Arab tribe. Whoever was strongest ruled in those days, and the Moors were subjugated in A. D. 427 by the Vandals. A century later the

Vandals were overcome in their turn by the Greeks, and in 647 A. D. the Greeks fell before the Arabs. In this way Northern Africa, once the seat of a high civilization, became a howling desert.

The Moors passed from the dominion of one master after another, indifferent alike to each. Tending their flocks, they wandered hither and thither for pasturage, varying their quiet by occasional revolts when too grossly oppressed, and then flying away into mountain nooks until the clamor was ended.

They were ignorant, and their life was rude: their religion was a jargon of Pagan and Mohammedan ideas; when they were conquered by the Arabs, they became enthusiastic Moslems, and identified themselves with Arab interests. In A. D. 708 the reigning Kalif, Valid I., sent into Egypt an army, said to contain a hundred thousand men, under one of their bravest leaders, General Moussa-Nazir. He subdued the hereditary

enemy of the Moors, of Mauritania, the Berbers of Barbary, gained the allegiance of the Moors, and prepared to carry his victorious spears into Spain. Toward

practiced in vice, still retained their power and place. But Moussa-ben-Nazir came, and upon the battle-field of Xeres de la Frontera, 714 A. D., King



THE GIRALDO (MOORISH TOWER), SEVILLE.

the close of the fifth century the Visigoth, Euric, had gained possession of all Spain, and this line of Visigothic kings, nominally Christians, though learned and

Roderick, the last of the Visigoth rulers, met his death, and in a few months all Spain had fallen under Arab rule.

These Visigoth Spaniards were treated

with leniency by their Arab conquerors; their churches, their religious faith, their officials, remained to them; their conquerors exacted only the tribute they had been accustomed to pay to their kings. The Spanish cities yielded quietly to the Arabs, and Queen Egilona, Roderick's widow, with the consent of both peoples, was married to Abdelazis, son of Gen. Nazir, and he afterward became Governor of Spain. Had the Arabs been content, they might have strengthened their power in Spain and altered all her subsequent history, but they became fired to win France as well, and finally lost all. Charles Martel met them on the battle-field of Tours, 733 A. D. Three hundred thousand men fell, but France was saved. Once again they tried this cause, and once again Charles Martel defeated their purpose.

A Visigothic Prince, Pelagius by name, headed an insurrection about this time, made some conquests, animated the Spanish heart, and laid the foundations of a purpose that finally overthrew the Arab Moors. His son-in-law, who is called King Alphonso I., gained Asturia, and part of Leon, and his kingdom was slowly growing in the following year, while the Arabs were contending who should be Governor. The people over in Damascus had years previously disagreed as to who should be Kalif, and a division was made which to this day separates Turk and Persian. Some had clamored for Ali, the son-in-law of Mohammed, and were called "The Alides." Another party had insisted upon having Moravias Goo of Syria, for Kalif; these are called "The Ommiades." This latter party had conquered and held the power for nearly an hundred years, when the ruling Kalif was supplanted, and the family treacherously murdered, save one called Abderamus. The Arabs in Spain sent for him and made him "Kalif of the West." Spain became independent, and was never reunited with the Arabian Empire.

Abderamus, surnamed "The Just," established the capital at Cordova, where he instituted schools, and encouraged the arts and sciences; medicine, astronomy, and mathematics were especially cultivated. He is said to have been an eloquent poet withal. He built a magnificent palace, and a grand mosque, supported by three hundred marble columns. It had twenty-five bronze doors and was lighted by five thousand lamps. Hither came the faithful Moslems of Spain upon their pilgrimages, as they of Arabia gathered at Mecca.

This new Kalif did not persecute the Spaniards, and he encouraged marriage between the races, but he still continued to exact the tribute of a hundred young women as the price of peace. After Abderamus's death, many petty States sprang up, each having its own Arab ruler. Spanish power steadily increased, and Alphonso, "the Chaste," who held the throne, refused the tribute of an hundred maidens. The entire north of Spain declared itself opposed to Arab-Moorish rule. For fifty years almost continuous warfare was going on, and Alphonso's power grew stronger.

Abderamus II., who had founded a school of music, and had a hundred of his own children to educate, had lived and died. Then came Abderamus III., who ruled at Cordova about 912. He continued the war with the Spanish and had an extensive navy to aid him. This Kalif had a famously beautiful wife, for whom he built a palace, magnificent beyond words. The Emperor of Constantinople sent him forty fine granite pillars, and he had besides, so they tell us, twelve hundred other pillars of Italian and Spanish marble. The walls were covered with gold ornaments set with precious stones, silver fountains sprinkled the courts with perfumed waters, which fell into snowy alabaster basins. There were six thousand women and slaves who dwelt there. Doubtless this story may have been exaggerated, but certainly if such extravagance pre-

vailed there is no reason to wonder that the nation finally fell before their enemies.

This Kalif was, however, the richest monarch in Europe. Under his rule were eighty great cities, and three hundred of the second class. Cordova, the capitol, had two hundred thousand houses, and nine hundred public baths. The Moors held all Portugal and all the finest and most fertile part of Spain. They were proficient in agriculture. They had silver and gold mines; they manufactured silks; they gathered the finest corals, pearls, and rubies from their own domains. Their Arab poets, physicians, and scholars were celebrated. Alphonso even engaged two of their scholars as tutors for his son. Moorish law was very simple. Once a week the Kalif gave a public hearing to his people. The guilty were punished at once. Law-suits were in the hands of the "Cadis." Each party pleaded his cause personally; the sentence was immediately executed.

From the death of Abderamus III., Arabian-Moorish power steadily declined. The people were divided by factions, and now the Spanish King of Castile invited the Moors of Africa to assist him in gaining all Spain for himself and his father-in-law, Benabad, the Arabian King of Seville. Prince Joseph of Morocco accepted, and crossing the sea attacked and conquered King Alphonso 1097, A. D. Then turning against King Benabad of Seville, he overcame the Spanish Arab by strategy; sent him and his sons to prison in Africa and obliged the daughters to work for the support of their family in prison. This action of the Moors united all the Spanish princes against them. They were attacked on all sides. In 1211 the African Moor, Prince El Nazir, proclaimed a "Holy War" and entered Spain with 600,000 men.

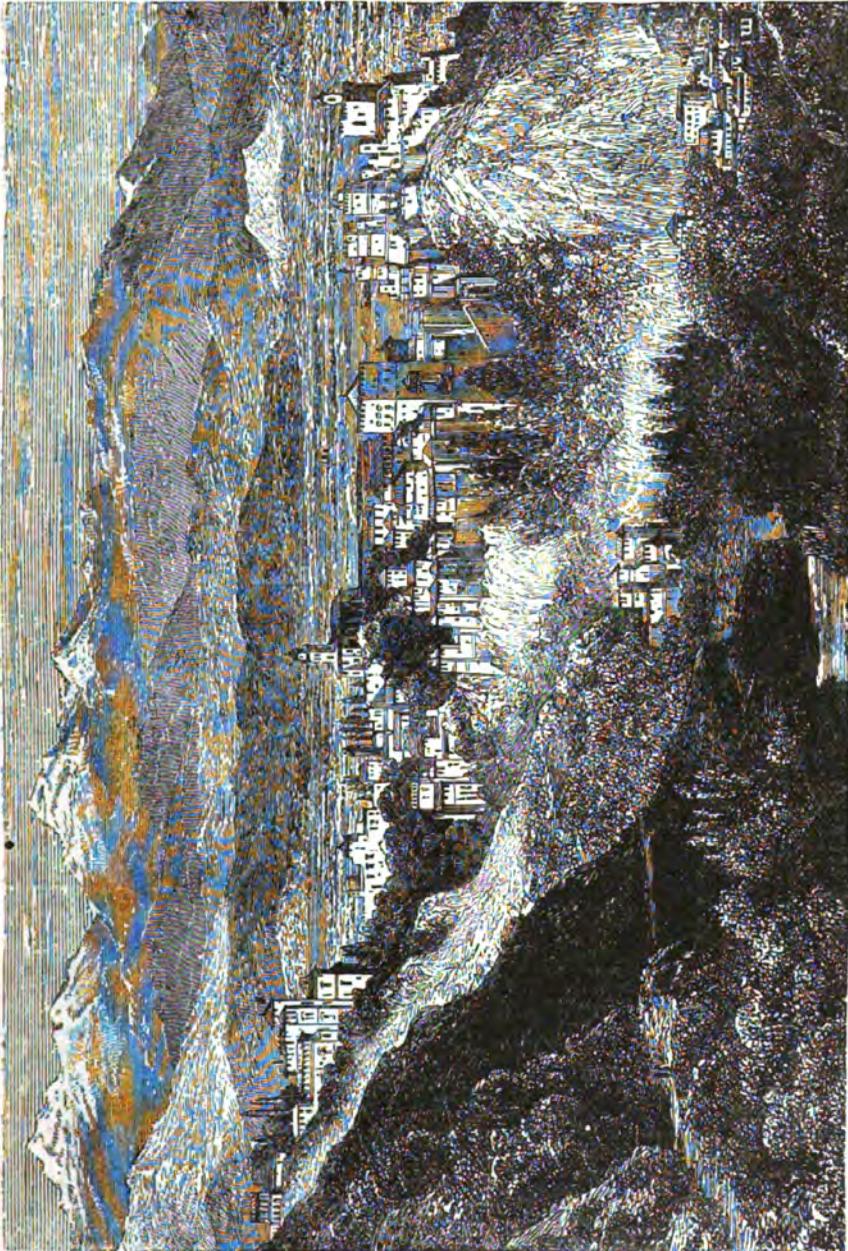
Alphonso, "the Noble," King of Castile, sent to all European courts, begging "the aid of all Christian Princes" Pope

Innocent III. proclaimed a crusade. Roderique, Bishop of Toledo, preached throughout France to raise an army. The place of meeting was Toledo. From Italy and France came 60,000 crusaders. All Spain was in arms. The united forces met the Moors at the foot of the Sierra Morena mountains. El Nazir held the mountain passes, but a shepherd led the opposing army by a secret way, across stream and rock. They prepared for the battle by two days' prayer, by confession, by partaking of the Sacrament. On the 16th of July, 1212, the armies of Spain formed in three divisions, each commanded by a King, and solemnly descended toward the valley. There the Moors were collected without rank or order. El Nazir stationed himself upon a little height, surrounded by a band of chains, with the Koran in one hand and a drawn sabre in the other. They were attacked on all sides. El Nazir fled, thousands were slain. The Archbishop of Toledo chanted a Te Deum upon the field of battle, the famous battle of Toledo. The chances were fearfully against the Moors, as they were armed with lances and were nearly naked. The Christian forces wore armor. The Moorish style of combat was to rush on like lightning, strike a blow, fly away, then wheel suddenly and strike again. Such combatants could never withstand a disciplined force bearing steadily against them.

El Nazir returned to Africa and died. The Moors remained quiet until 1224, when Ferdinand III. of Castile made war upon them, and took Cordova which had been held by the Arab Moors for five hundred years. The grand mosque was converted into a Christian Church. Yet the Moors, consolidated into one people, held Seville and Granada, and the entire coast of Southern Spain. A new leader rose in their emergency, an Arab shepherd named Mohammed Alhamiar; he raised an army, and in 1236 was made king of a new kingdom, having Granada as its capitol.

Each of the two hills of the city was crowned with a fortress. One was called the Alhambra. The city was charmingly situated; one river flowed

lemon trees. The gardens, orchards, and orange groves, with their rich soil, produced all fruits and grains. The climate was one of everlasting summer.



A VIEW OF GRANADA, SPAIN.

through it, another washed its walls. It was surrounded by a broad plain terminated upon the north by the Sierra Nevada mountains; the other sides were enclosed with hills clad with olive and

Mountain breezes softened the air, and flowers bloomed there constantly.

For two hundred years these glorious scenes were traversed, trampled, destroyed by hostile armies, and the sweet air pol-

luted by the dead of two great contending nations. The territory of Granada was eighty leagues in length from Gibraltar to its northern boundary, and thirty leagues wide. There were three fine harbors. There were very rich mines. Two small Moorish States would not join them and soon fell under Spanish power. And revolts among the people of Granada so hampered their King Alhonor that he was obliged to become a vassal of Ferdinand, and even join him in conquering Seville. The banished inhabitants, 100,000, took refuge in Granada. Some years of peace following, their wealth increased. They had a standing army of 100,000 men, and a large corps of warrior knights. In 1252 or thereabouts Alphonso died, and in 1273, the King of Granada passed away, leaving new rulers upon the thrones.

Mohammed II. took the crown of his father, and during his reign the world-famous palace of the Alhambra was built beside the old fortress of Alhambra. The Moors had no special system of architecture, and the exterior of their buildings was not attractive, but within they were lavish of pillars, frescoes, and other ornaments. Mohammed III. came to the throne of Granada; the Spanish States warred against him, Ferdinand IV. took Gibraltar and expelled its inhabitants. As they were marching out an old man passed the King. Said he, "King of Castile, what injury have I done thee or thine? Thy great grandfather drove me from my native Seville; thy grandfather Alphonso drove me from Xeres; thy father exiled me from Tariffe; I came to find a grave at Gibraltar; thy hate pursues me here; tell me where on earth I can die unmolested by the Christians."

"Cross the sea," answered the Prince, and sent the man to Africa.

After Isabella of Castile married Ferdinand of Aragon, and the two kingdoms became one government, they deter-

mined to root the Moors out of Spain. City after city fell until Granada alone remained. The Spanish King laid siege to this in 1491. The city had two hundred thousand inhabitants. The siege lasted nine months. Boabdil retired to Africa January 1st, 1492. The royal pair entered Granada in triumph and the Moorish power had ended, after having lasted 782 years in all, including both the Arabian-Moorish and African-Moorish dynasties.

The Moors were a peculiar people; they were both tender and cruel, delicate and barbarous. The women were wonderfully beautiful, graceful, and slender. They had long, black hair, snowy teeth, scarlet lips; were bright and lively in conversation, and like Turkish women dressed in long linen robes. They live no more as a separate people, but are merged in the Arab races of the Barbary States.

AMELIA V. PETIT, PH. M.

AGNOSTICISM.

"A soul clear from prejudice, has a marvelous advance toward tranquility and repose."
—*Montaigne*.

"A tumultuous life is pleasing to great minds, but those who are mediocre have no pleasure in it; they are machines everywhere."
—*Pascal*.

SONNET.

You point the child to A. B. C., and o'er
And o'er again the symbols mark, 'till he,
Uncomprehending, learns their shape to see,
And in his growing memory to store—
The *open sesame* to learning's golden door;
Quick as the lightning's flash your wrath would
be
Should he in sequence fail to master D,
And answer "I don't know," and nothing
more.
Like Poe's dread Raven,—lo! the reptile
knows—
The tiger affirmation gives—the bird
Leaps to his matin song—all nature spurns
The dullard blind and deaf—She overflows
With positive, sweet music, only heard
By him who from an inward seeing learns.

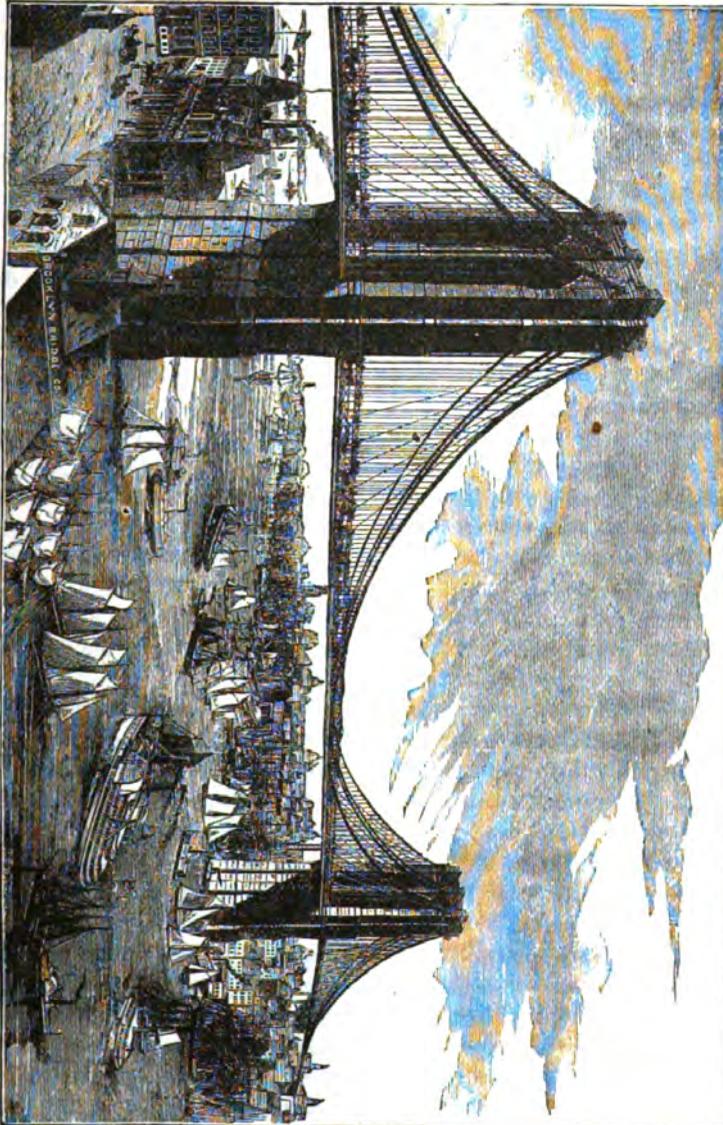
ELIZABETH OAKES SMITH.

THE EAST RIVER BRIDGE AT DAWN.

Who has stood on that bridge amazing,
 In the dawning's early gray,
 When from sleep two cities were waking,
 For the struggle of a day?

Who has stood on the swelling archway,
 Ere the tide of human kind
 Came hustling a-pace in the pass-way,
 Each brow with eagerness lined?

THE EAST RIVER BRIDGE.



Who has gazed down the crested river,
 Expanding into yon bay,
 With vistas of pennant and banner
 Streaming free in tri-colored play?

Who has seen the lights on the river
 Die out in the rising mist,
 And the star lamps glimmering shiver,
 By the sun-glow gently kiss'd?

Who has scann'd those shores northward
bending,

Where moored is a world's marine,
With funnel and mast skyward tending,
A weird yet magnificent scene?

Who has watched while the bars, rich and
golden,

Set tower and gable aflame,
And the river 'gan flashing as molten,
And seemed no longer the same?

Who has stood on that bridge of wonder
At the dawning of the day,
And drank in the magical grandeur,
On the river's bounding way,—

He has gazed on a vision splendid,
Wherein God and man combine;
'Twixt the cities twin suspended—
He has felt the touch sublime.

H. S. DRAYTON.

“OCCULTISM.”

A GREAT deal of inquiry comes to editors of magazines with regard to art or science hidden under the vague mantle of this term. What is “occultism?” is the frequent question. A writer attempts to answer it in the following manner:

“Practical occultism consists, first, of a perfect mastery of the individual's own spirit. No advance whatever can be made in acquiring power over other spirits, such as controlling the lower or supplicating the higher, until the spirit within has acquired such perfect mastery of itself that it can never be moved to anger or emotion—realizes no pleasure, cares for no pain; experiences no mortification at insult, loss, or disappointment—in a word, subdues every emotion that stirs common men's minds.

To arrive at this state, severe and painful as well as long continued discipline is necessary. Having acquired this perfect equilibrium, the next step is power. The individual must be able to awake when he pleases and sleep when he pleases; go in spirit during bodily sleep where he will, and visit—as well as remember when awake—distant scenes.

He must be enabled by practice to telegraph, mentally, with his fellow associates, and present himself spiritually in their midst.

He must by practice acquire psychological control over the minds of any persons—not his associates—beneath his own calibre of mind. He must be able to still a crying infant, subdue fierce

animals or angry men, and by will transfer his thought without speech or outward sign to any person of a mental calibre below himself; he must be enabled to summon to his presence elementary spirits, and if he desires to do so (knowing the penalties attached), to make them serve him in the special departments of nature to which they belong.

He must, by virtue of complete subjugation of his earthly nature, be able to invoke planetary and even solar spirits, and commune with them to a certain degree.

To attain these degrees of power the processes are so difficult that a thorough practical occultist can scarcely become one and yet retain his relations with his fellow-men.

He must continue, from the first to the last degree, a long series of exercises, each one of which must be perfected before another is undertaken.

A practical occultist may be of either sex, but must observe as the first law inviolable chastity—and that with a view of conserving all the virile powers of the organism. No aged person, especially one who has not lived the life of strict chastity, can acquire the full sum of the powers above named. It is better to commence practice in early youth, for after the meridian of life, when the processes of waste prevail over repairs, few of the powers above described can be attained; the full sum never.

Strict abstinence from animal food and all stimulants is necessary. Fre-

quent ablutions and long periods of silent contemplation are essential. Codes of exercises for the attainment of these powers can be prescribed, but few, if any, of the self-indulgent liveries of modern times can perform their routine.

The arts necessary for study to the practical occultist are, in addition to those prescribed in speculative occultism, a knowledge of the quality of drugs, vapors, minerals, electricity, perfumes, fumigations, and all kinds of anæsthetics.

And now, having given in brief as much as is consistent with my position—as the former associate of a secret society—I have simply to add, that, whilst there are, as in Masonry, certain preliminary degrees to pass through there are numerous others to which a thoroughly well organized and faithful association might advance. In each degree there are some valuable elements of practical occultism demanded, whilst the teachings conveyed are essential preliminaries. In a word, speculative occultism must precede practical occult-

ism; the former is love and wisdom, the latter, simply power."

Some comments on this which we find in an exchange are very appropriate: "Occultism," therefore, is a system, that "gives special attention to developing the will power, aiming to produce a sort of giant who shall be able to seize, subdue, and sway all weaker wills, and indeed the natural forces, as the man of mighty muscle twists around his finger the limp forms of pigmies. This hidden science is merely a form of spiritual (psychical) athleticism."

"It is an effort to cultivate into abnormal predominance the heroic, firm, hardy, and spiritual regions of the brain, to the neglect if not suppression of its nobler powers. In suppressing sympathy and sensibility, it impairs the foundation of our most amiable virtues, isolates man from the companionship and love of his fellow beings and comes dangerously near to misanthropy and black magic, or the attempt to use spiritual powers and the spiritual realm for purely selfish purposes."

A GUESS AT THE RIDDLE OF THE NINETEENTH CENTURY.—*Conclusion.*

Epaminondas of old said, "It is not the office that makes the man, but the man that makes the office." At any rate, in whatever sphere our lot may fall, it were wise not to be aggressive. Much of this spirit among working classes comes from aliens who misconceive our institutions. Europe opens her floodgates and humanity flows in a steady stream to our shores—humanity freighted with false hopes and expectations, and thinking to find a land flowing with milk and honey, where work is minimized, and the reward therefor maximized, where the barriers to class-distinction are annihilated, and, in a word, where a new order of things exists. For the gold they expect to gather on every road they find disappointment, the sovereignty of the individual disappears as a fiction, and equality goes the same way. These er-

rors are swept away in a bitter experience. The more advanced, it is true, open their eyes to the fact that this country is an organic growth, not a conventional arrangement arrived at by individuals; that there are social forces higher than the numerical. They find that law is regnant in the New as in the Old World, and that our people, although opening wide their arms to all nationalities and classes, grant no sufferance to disorder in the individual or community. And they must further restrain their private interpretations of liberty and equality, for they will find that liberty has its limitations, and that the inequality of men arises from the difference of their moral and intellectual constitutions; that subordination and obedience are not only public but private virtues. They will have to recognize the

provision of nature which makes the strong and wise the leaders. They will have to abandon the illusion that they can take the directorship on another's domain. That there are natural imprescriptible rights of man is a sacred truth, but these rights or liberties are not licenses to anarchy or insubordination under the government of the household any more than under that of the State. Nature makes a line of demarcation between men, and we may beat our heads against the wall until we are brainless, but we can not thereby change the existing order of things. She has invested the parent, the guardian, the employer with authority, and those who come under their supervision must recognize this fact. The household is but a microcosm, whose orders should be executed with as much alacrity as in larger bodies. It would be impossible to maintain discipline in the navy and army without obedience. Insubordination is quickly punished there. In this respect what holds good of large communities holds good of small. We must at times do violence to inclination. We are all sighing for that perfect freedom which the conditions of this life deny. All can not have the same degree of liberty. There must be some who lead and some who follow. It is a fundamental law of the universe, not only among the tiny ants and bees, who have their workers and their queens, and the birds of the air whose leader guides them in their migratory flights, but in the very globe itself, which with the other planets is following the sun that in turn answers the call of some larger luminary in the fathomless depths of space.

We apparently are in the throes of a social revolution, the main contention of which seems to be increase of wages and decrease of working hours. In the ringing changes of time the hours have been curtailed from twelve to ten, and from ten to nine or eight. At the same rate we shall eventually find, with increase at one end and decrease at the

other, the two extremes meet, and working people, including houseworkers, be mere sinecurists—all remuneration and no labor. Will the hewers of wood and drawers of water disappear and in their place a world of idlers appear?—all work being done by machinery, so constructed as to be run by electricity (or perchance etheric or molecular force) with the least possible human friction? This or worse will happen if rank and file must be generals, if all be capitalists and none laborers, if, in other words, equality (a thing rejected by nature) reign supreme.

I trust the spirit of this paper will not be misinterpreted. Not for the world would I willingly raise my voice against a class, which, as among the toiling millions, has its special burdens. In speaking of their salient faults, I do but hope thereby to lessen their troubles; for unless some changes occur for the better, the number of homes will be reduced, and that of hotels and boarding-houses multiplied. The majority of women are substantially of one mind here, and we find indications of this deplorable tendency in numerous households to-day. The consensus of opinion on this subject is finding expression in newspapers and periodicals. We must not be blinded by optimism to the dangerous antagonism lurking in this discontented state. Manifestly a period has arrived when every nerve should be strained to avert the threatening peril. We must think, we must speak, and action must square speech.

I will specify, roughly but I hope not unfairly, some of the causes from which this antagonism proceeds. The chief and crying difficulty is ignorance; the majority are incompetent for the positions they seek to fill. Next they are insubordinate, disregarding orders which it is their duty and business to execute. Again, most of them are above the work to which fortune has called them, and upon which they have voluntarily entered. Lastly, they have a pseudo-

pride, which frequently goes so far as to interfere with common politeness, making them aggressive and insolent. I have known them to refuse the prefix "sir," or "madam," fancying its use derogated from their importance. Imbued with a false idea of equality, the prestige with which authority or office invests one has no effect on them. A vulgar familiarity displays their self-importance. I have known instances when the mistress, naturally kind to all under her charge, was compelled to entrench herself behind a seeming severity, in order not to be overcome by the freedom of her domestics. From personal experience and observation, these seem to me to be the main sources of difficulty.

How, it will be asked, can this state of ferment, extending to all branches of labor, be arrested? So far as the great army of women seeking domestic service is concerned, the most effective method, I am persuaded, is special education in special schools—*trainingschools*, which should be organized and equipped with paid teachers, like other educational institutions; and those desiring "*helps*" in the sacred precincts of the home should require from the candidate a certificate of capacity, as the medical code requires diplomas from practitioners. The position of a good domestic is of scarcely less importance in the household than the family physician. In truth, she might be the first, as she should be the habitual one, to introduce the best description of medicine—preventive

medicine. Such institutions would promote our well-being not only individually but collectively. They would prove of more importance to society, than such as an *Ecole des Beaux Arts* or a *Conservatoire de Musique*; for, while these appeal to our esthetic natures, the other class would fit us to enjoy life throughout its whole gamut.

My paper is already too long. I will conclude by simply accentuating the importance of thorough training; and the most sanguine theorist can scarcely imagine that there is anything better adapted to effect this than the special education I have proposed. Knowledge is the price of peace in every sphere. The systematic instruction of domestic servants would result in the virtual reconstruction of our homes upon a nobler model and its humanizing influence be felt from the lowest to the highest strata of the social world. When this vexed question of domestic economy is once properly adjusted, we may argue with some hope that the broader, though scarcely more important problem of political economy may find a solution also. In no other way, I fear, can we secure competency and make domestic service mutually beneficial to employer and employed.

Be this as it may, I see no better solution of the narrower question than the one I have pointed out. In my judgment it offers to the family the saving haven.

Alice D. Shipman.

GENEALOGY.

GIBBONS says "a lively desire of knowing and recording our ancestors so generally prevails that it must depend on the influence of some principle in the mind of man."

Perhaps there is no people with whom this desire has less active force than with Americans. We hear occasionally in the east and south of persons who pride themselves on belonging to old

families, but there are few who can trace their pedigree further back than to their grandfathers, and in the more recently settled portions of the Western States there are many who can not even do that.

As the country grows older, more attention is given to the question of ancestry, and there are many who now regret that they did not set about collecting

information relative thereto years ago. In my own case, I am sure there were alive twenty years since many persons from whom I could have procured reliable facts about my family that were not recorded, and are now utterly unattainable.

Some may ask of what use is such knowledge? With such we have nothing to do. There is something more than mere reality to be sought for in this life. We would not encourage worship of ancestors to the extent it is practiced in China and some other countries, nor is pride of birth to be commended; but it seems eminently proper that our ancestors should receive our respectful attention. We are not all of blue blood, but the breed may be good nevertheless; and suppose on inquiry we find in our line there are some whose escutcheons bear the bar-sinister and of whom we may not feel proud?

We believe in heredity, but we know that culture under proper direction is productive of excellent results. Look at the vegetable world and see how the potato has been improved from its apparently worthless ancestry, found in Arizona and New Mexico, and the luscious peach from the unpromising fruit of Western Asia.

One who has done nothing in the way of genealogical research has little idea of the difficulties in the way, and to those who are about to begin I would say, give little credence to mere tradition until you satisfy yourself by close and careful inquiry that it is worthy of attention; and when you are told about three brothers who came to this country in its early days, give the story place with that of the three black crows. It will usually prove to have no better foundation.

The sparsity of records in the olden time is to be deplored. There are the old family Bibles that are usually reliable so far as they go, but they are scarce, and the searcher must fall back on incomplete church and town records, and gravestone inscriptions.

In my work I have found two things that have caused me much trouble—one is the practice in olden time of giving to a child born after the death of another the same name as that of the deceased. Thus it has happened that when a child has been named for its father the records would show four of the same name in one family; the other is that children were given but one Christian name, and when these were common names it became difficult to tell to what families they belonged. It is true that families were unusually large in those days, but it would seem there were names enough to have given each of the boys two.

In my own family the first that was favored in that way was Hector Wesley, born in 1797, and the second name did not seem a greater burden than he could well bear, for he is still hale and hearty.

The novice who succeeds in obtaining much information will find himself at a loss for knowledge how to arrange it that it may be at once concise, and of easy reference.

Much time has been spent, and ingenuity employed in this matter. There are family trees, family charts, and family tables without number, all more or less meritorious, but it is questionable if any exactly suit the case in hand. There is probably no better plan than the one adopted by the publishing committee of the New England Historical and Genealogical Register, Boston, Mass., full information concerning which, I think, will be cheerfully sent on application.

L. A. R.

Get leave to work

In this world—'tis the best you get at all;
For God in cursing, gives us better gifts
Than men in benediction. God says, "Sweat
For foreheads," men say "crowns," and so we
are crowned,

Ay, gashed by some tormenting circle of steel
Which snaps with a secret spring. Get work,
get work;

Be sure 'tis better than what you work to get.

Mrs. Browning

"INTERVENTIONS."

[This story has certain points of moral application that might be useful to many people who do not read the *Christian Union*, in which it was published not long since. Hence we copy it.

ED. P. J.]

THE little dinner in the little dining room was over at last. The maid-of-all-work, who had burned the gravy, and taken up the boiled pudding too soon, had now, with some clatter and stumbling, cleared the room, and arranged it for the evening. The children, who had not minded her failures, and were merry and talkative because there was a guest who smiled upon them, had been coaxed and commanded away to bed.

At last little Mrs. Worden was free to sit down by her friend for a confidential talk, and her husband was free to withdraw from his newspaper, not the library, but to the other side of the table. Mrs. Worden had her work basket in her hand, but she put it aside as she looked into her friend's face—the heart was in her eyes.

"Oh, Margaret, I am so glad to see you!" she said. "It was so selfish of me to ask you to come now, but I never wanted you so before."

"And I never was so glad to come."

"Do you mean it? I used to take such pleasure in making your vacations pleasant, but everything is so different now. Everything is gone that you used to enjoy; the nice large room that I kept for you, and the library, and the pictures, and the carriage, and even the piano."

"But, dear Helen, I didn't come to visit you for those."

"No, but I loved to think you enjoyed them. Now I have brought you to this little, stuffy house, with the children all over it. You can hear their noise from morning till night. There is no Elsie to keep them in the nursery, or to take them off for an airing. They'll torment the life out of you."

"No," said Margaret, "my life will never go that way."

"But everything is so different, You saw Bridget. It is so different keeping house with her from what it used to be with the three nice maids I had. Indeed, I do my best, Margaret, but you saw how it was at dinner. We gave up all our real silver. John would, you know; and we kept only a partly broken set of china. The table doesn't look as it used to."

"Never mind, dear. Indeed, I don't think of that."

"No," said Mrs. Worden, mournfully. "But I can't even give you much of myself this time. I have to be busy every minute till the children are in bed. I ought to be sewing now. We can't have any more nice talks over books and questions, you know. I hardly know such things exist. My mind is full of nothing but housework and children. I've given up the Literary club and the Charity union, and I can not make calls. Those nice people you used to like to meet I seldom see now. I've just dropped out of their way. I can't give any such nice reception for you as we had last year."

"I don't want it, you know I don't."

"When I sent for you last week I was feeling as I could not face New Year's without you. When I think of the change one little year has brought it seems like a nightmare. Everything pleasant went at once. It was hardest to lose our country house. We both loved it; it was so sweet and airy out there, and we had such lovely neighbors. When I looked forward to spending the whole summer in the city with the children it seemed awful."

"And has it proved as bad as you feared?"

"Well, no; I've really been so busy I hardly knew how the days passed. And we have been remarkably well, and John has been so thoughtful for me and the children. Poor John! think what a year this has been for him! He was so

used to the sense of having a fortune to fall back upon. And now I know it fairly frightens him sometimes to think there is only his slender salary between us and want."

"There is more than that," said Margaret. "There's God's large, kind providence."

"Yes," said Helen, humbly, "I know, but forget sometimes."

"I want to tell you something," said Margaret. "I mourned over your losses, dear Helen, but since I've been here I haven't been realizing them as you might think, I've been so happy over the gains."

"What gains?"

"Oh, my dear, you have got rid of the interventions!"

"What do you mean by interventions?"

"Let me try to tell you, Helen. I was a hypocrite often in the days when you were rich, and I visited you. I pretended to be happy, and I did enjoy a great deal that I knew you wanted me to enjoy. But all the while there was such uneasy fears in my heart! Sometimes I thought I would tell you of them; then I blamed myself for a worrying, silly old maid, and was ashamed of them."

"But what was it all about, Margaret?"

"About the interventions; the interventions between you and your children, first of all. The big house with the big rooms seemed one of them. The nursery was so far from your sitting room. How could you know the children as you do now they are thrown right about you here? And Elsie was another. She marshaled them to airings and meals and bed so irreproachably there seemed hardly a chance for them to get at you. And she was jealous when the baby cried for her 'dear lill mamma,' don't you remember? Mabel fidgeted under rule, and wanted to play in the veranda near you instead of walking out with the baby carriage. And when Maurice had those

dreadful outbreaks of temper, and none of you knew what to do with him—forgive me, Helen—it seemed to me sometimes just a protest of his nature against uncongenial companionship. Would not you or I be cross, perhaps, if we had to spend six or eight solid hours of the day with people who did not satisfy our hearts and minds at all? And your children have natures like your own, sensitive to society, and minds like yours, bright and demanding."

"Oh, Margaret! Why did you not speak of this?"

"I could not. It seemed meddling, I was not even sure I was right. But all that is gone now, and I am so glad."

"Maurice," said Mrs. Worden, thoughtfully, "has been the sweetest, best boy this last six months that a mother could ask for."

"And the Literary club," Margaret resumed, "and the Charity union, and the calls, and the shopping—yes, and the new books, and the questions—I was half jealous of them all the time, though they were so good and pleasant. They did intervene. They kept you hours away from home, or took up much time when you were there. All that time the children were among servants—young children, that have such active minds. My dear, I know I'm only a foreboding, anxious old maid; but when I read in the paper the stories that shock us so, about girls who have been reared in wealth and position, and elope with their father's servants, I bethink me that there is a simple reason back of every wonder. If a girl through many hours of her early life has found her best comfort and entertainment from some good-natured cook, or coachman, or gardener, why should we think like associations would prove repulsive to her afterward? Don't you remember what a fascination for your Jessie that slim, handsome mulatto, Jim, had?"

"Margaret, oh, Margaret!"

"I know; but I shivered to see her hovering about the butler's pantry when—

ever she could escape Elsie. He had some monkey tricks and little songs and stories that appealed to her imagination and delighted her. You yourself told me, laughing, how when John was to be away one evening, and Jessie heard you say you would be lonely, she replied: 'Send for Jim, mamma; he's real good company. I love him.'

"But she was only six years old; a little child."

"Yes, but it seems to me even a child of six who had always been her mother's companion would have felt relationships better than that."

"Why did you not speak, Margaret?"

"I could not then. I can now. The danger is over now. Helen, be thankful with me that your work is right at home, where your little girls are, where they may learn to help you in it and be close to you."

Helen drew a long breath, but she did not speak.

"And there are some other suspected interventions that I miss," continued Margaret. "Those two pretty housemaids, with white caps, and the pink cheeks and bright eyes, who swept and dusted and waited so beautifully; and the coachman, with the shining carriage and horses, that came so punctually to your door every morning—they stood between you and your health. I felt almost sure of it. Don't you remember the headache and languor you used to suffer from? And the 'rubbists' that used to visit you, and the doctor's electrical instruments"

"I couldn't afford them now," said Mrs. Worden. "Such bills would ruin us."

"And now you do not need them. You look so firm and active, and you have such color in your cheeks. Forgive me, dear, but I noticed the mouthfuls you took between spreading the baby's bread and cutting Mabel's meat and helping me, and I saw that you were hungry."

"I hardly have time to know it, but I *am* really hungry at meal times. And

I have wondered to find how many hours at a time I could be on my feet. Indeed, I *am* thankful for better health. What should I have done without it?"

"And, my dear, where is John's cigar?"

"Oh, he gave it up? Wasn't it good of him? Right in the midst of the trouble, too. I was frightened to have him do it, and yet I was glad. When I married him I thought I liked the odor of a good cigar: but it was getting to be always in his mouth. I was jealous of it. It seemed to make him indifferent even to me. Yes, I will own that there was an intervention between us, Margaret. And oh! how good and kind he is! If you were not here he would be reading the paper to me, and talking about it, too."

"Then I am an intervention now?"

"No, no; it's far better to talk with you than to hear any newspaper. But, indeed, our trouble has brought us nearer to one another. He has been my great, great comfort."

"And you have been his. Dear Helen, I think you have taken it all so nobly."

"The tears came to Helen's eyes, and she wept a little with her head upon her friend's shoulder. Presently she said:—

"We have learned to say, 'Give us this day our daily bread' with some real asking in the prayer."

"There were interventions between you and God swept away in that loss?"

"Yes; we had come *near* to him, asking for common things—shelter and work, and strength, and sense to know how to live this new life."

"Then, if God has put you in better possession of your health, and your children and your husband, and himself this year, don't you think we ought to have a growing, happy year?"

"Does he always leave the best?" said Helen.

"Always; he only takes what intervenes between us and that."

And there *was* a very happy New Year's next day, when Mr. and Mrs.

Worden, with Maurice, went peacefully to church, and Margaret took Jessie into the kitchen with her and allowed her to help dress the turkey, and make the cranberry sauce and "snow" the potatoes—yes, and even let her make a lemon pudding with her own hands. Over that pudding was more pride and rejoicing than over the finest "royal diplomatique" that ever a French cook manufactured. It is true there were only two courses at that dinner, instead of seven at last year's, and there was no company except Margaret. But there were some flowers, which she had se-

cretly sent Bridget and Mabel and the baby to buy; and there were four good children, who did not come and go with the dessert, but sat through the dinner like little gentlemen and ladies, and were unspeakably happy playing games afterward.

And when they were in bed, the father said, thoughtfully :

"Helen, I believe there are some ways in which this home is a better one for our children than the old one."

"Please God, we will make it so," said Helen, humbly.

ELIZABETH GLOVER.

AGASSIZ AS A MESMERIC SUBJECT.

IT is not often that an eminent scientist shows that degree of interest in hypnotism which the late Professor Louis Agassiz manifested, being willing to submit himself to the manipulations of an operator as a test of his power. In the *Notes Relatives au Magnetisme*, published by Chauncey H. Townshend, is an account written by Agassiz himself of such an experiment, and it is certainly interesting testimony. The following is a translation :

"Desirous to know what to think of mesmerism, I for a long time sought for an opportunity of making some experiments in regard to it upon myself, so as to avoid the doubts which might arise on the nature of the sensations which we have heard described by mesmerized persons. M. Desor yesterday, in a visit which he made to Berne, invited Mr. Townshend, who had previously mesmerized him, to accompany him to Neufchatel and try to mesmerize me.

These gentlemen arrived here with the evening courier and informed me of their arrival. At 8 o'clock I went to them. We continued at supper till half-past nine o'clock, and about ten Mr. Townshend commenced operating on me. While we sat opposite to each other, he, in the first place, only took hold of my hands and looked at me fixedly. I was

firmly resolved to arrive at a knowledge of the truth, whatever it might be, and, therefore, the moment I saw him endeavoring to exert an action upon me I silently addressed the Author of all things, beseeching Him to give me power to resist the influence and to be conscientious in regard to the facts.

I then fixed my eyes upon Mr. Townshend, attentive to whatever passed. I was in very suitable circumstances; the hour being early and one at which I was in the habit of studying, I was far from being disposed to sleep. I was sufficiently master of myself to experience no emotion, and to repress all flights of imagination, even had I been less calm; accordingly it was a long time before I felt any effect of the presence of Mr. Townshend opposite to me. However, after at least a quarter of an hour, I felt a sensation of a current through all my limbs, and from that moment my eyelids grew heavy. I then saw Mr. Townshend extend his hands before my eyes as though he were about to plunge his fingers into them, and then make different circular movements around my eyes, which caused my eyelids to become still heavier.

I had the idea that he was endeavoring to make me close my eyes, and yet it was not as if some one had threatened

my eyes, and in the waking state I had closed them to prevent him. It was an irresistible heaviness of the lids which compelled me to shut them, and by degrees I found that I had no longer the power of keeping them open, but did not the less retain my consciousness of what was going on around me, so that I heard M. Desor speak to Mr. Townshend, understood what they said, and heard what questions they asked me, just as if I had been awake, but I had not the power of answering. I endeavored in vain several times to do so, and when I succeeded I perceived that I was passing out of the state of torpor in which I had been, and which was rather agreeable than painful.

In this state I heard the watchman cry 10 o'clock; then I heard it strike a quarter past; but after that I fell into a deeper sleep, although I never entirely lost my consciousness. It appeared to me that Mr. Townshend was endeavoring to put me into a sound sleep; my movements seemed under his control, for I wished several times to change the position of my arms, but had not sufficient power to do it, or even really to will it; while I felt my head carried to the right or left shoulder, and backward or forward, without wishing it, and indeed in spite of the resistance which I endeavored to oppose; and this happened several times.

I experienced at the same time a feeling of great pleasure in giving way to the attraction which dragged me sometimes to one side, sometimes to the other; then a kind of surprise on feeling my head fall into Mr. Townshend's hand, who appeared to me from that time to be the cause of my attraction. To his inquiry if I were well and what I felt, I found I could not answer, but I smiled. I felt that my features expanded in spite of my resistance. I was inwardly confused at experiencing pleasure from an influence which was mysterious to me. From this moment I wished to wake, and was less at my ease; and yet on

Mr. Townshend asking me whether I wished to be awakened, I made a hesitating movement with my shoulders. Mr. Townshend then repeated some frictions which increased my sleep; yet I was always conscious of what was passing around me.

He then asked me if I wished to become lucid, at the same time continuing, as I felt, the friction from the face to the arms. I then experienced an indescribable sensation of delight, and, for an instant, saw before me rays of dazzling light which instantly disappeared. I was then inwardly sorrowful at this state being prolonged. It appeared to me that enough had been done with me. I wished to awake, but could not. Yet when Mr. Townshend and M. Desor spoke, I heard them. I also heard the clock, and the watchman cry, but I did not know what hour he cried. Mr. Townshend then presented his watch to me, and asked me if I could see the time, and if I saw him; but I could distinguish nothing. I heard the clock strike the quarter, but could not get out of my sleepy state.

Mr. Townshend then awoke me with some quick transverse movements from the middle of the face outward, which instantly caused my eyes to open, and at the same time I got up, saying to him, 'I thank you.' It was quarter past eleven.

He then told me, and M. Desor also repeated the same thing, that the only fact which had satisfied them that I was in a state of mesmeric sleep was the facility with which my head followed all the movements of his hand, although he did not touch me, and the pleasure which I appeared to feel at the moment when, after several repetitions of friction, he thus moved my head at pleasure in all directions." (Signed) AGASSIZ.

[Hypnotized subjects of intelligence sometimes report an experience of a similar kind, a semi-conscious trance that holds them obedient to the agent's control.]

SCORE ONE FOR PHRENOLOGY.

A NEW YORKER myself, I have the cosmopolitan habit of dropping into the restaurant nearest at hand when the pangs of hunger suggest the need of such a move. So it chanced that to-day I dined away down-town, quite out of my usual route or bearings. Near by sat two gentlemen *vis-a-vis*, evidently old friends who had not met for some time.

"I'm so glad to meet you," said one; "how is it that I have not seen you for so long?"

"I am seldom in this part of the city now, since I changed my business."

"Changed your business! What are you doing?"

The answer I failed to catch perfectly.

"Is that so? Why, how did that happen?"

"Well, I got so discouraged and disgusted with the old business; I could not seem to get ahead any in it. I did not like it, was not suited to it somehow; so one day I went into Fowler & Wells—"

"And had your head examined? ha, ha—for *you* to bite at that hum-bug!"

"Now, see here, my boy, when I hear a man talk that way about Phrenology, I make up my mind that he has been there and heard such plain truths about himself that he is a little sore over the matter."

"That doesn't hit me, Frank; I have never been so silly as to waste any money in that way."

"My good fellow, the five dollars that I spent there was the best investment I ever made in my life. I was so blue I couldn't be civil to my best friend, and the day I went in there was determined to see if I was a total failure or not, and that old fellow in the back office—what's his name? oh, Sizer—Professor Nelson Sizer, explained the whole tangle to me,

made it as plain as day why I had not succeeded."

"Knew the whole story beforehand, I suppose."

"Didn't know me from Adam, nor my business either."

"I have been in there lots of times to look around at their cabinet, and I have seen the venerable examiner, and all of them, but I never took stock in it."

"Well, I am a successful, happy man to-day through the advice I got there only six years ago. I turned square about when I left that office, sold out my business, although everybody in the family opposed me for stepping out of father's shoes. I tell you that old fellow is rightly named. The great English Nelson was not a patching to him for bravery; and as to the Sizer, he can size a fellow up to a pennyweight."

COSMOPOLITAN.

RUNAWAY BOYS.—A thing of frequent occurrence is that of runaway boys. The fault will generally be found either on the side of too much indulgence or undue severity on the part of the parents. Where the boy is brought up in ease and luxury he is generally disposed to look for something that shall interest or excite him. The dime novel is ready to his hand and he seizes it with avidity. It abounds in pen-pictures that excite his fancy and are in strong contrast to the life he is leading.

In the want of wholesome occupation his mind becomes enthralled with the false yet fascinating scenes of adventure presented, and he longs to be out on the prairie chasing the buffalo or pursuing the trail of the red man. On the other hand, many unfortunate boys are driven from home by the strife and unhappiness in the family of which he is the daily sharer and witness.



VARIATIONS IN MODE OF BREATHING.

NOT long ago, I read a note in some scientific or medical magazine,—it may have been *Science*; giving a few rather unsatisfactory results concerning the girth of chest in respiration among Indian females. The conclusion reached seemed to indicate to the writer of the note that uncivilized races might perhaps be more prone to breathe abdominally or—which is about the same thing—diaphragmatically—than civilized people; especially in case of females. My own opinion is not by any means confirmed on this question, since the cases quoted seemed unconvincing. I have, however, thought that I might find some interesting figures in regard to the respiration of males (which seems to me very variable) which might go a little way toward showing the fallacy of such conclusions as have been stated; since variations may happen among males met in ordinary life sufficient in number to modify any conclusion whatever on such insufficient grounds.

I copy from my original notes a few cases; noting such particulars as may prove interesting.

Subject *a*:—stature, 67 5-8 in., chest natural, 38 1-2, inflated, 40 3-8. Chest at base of sternum, natural, 36 3-8, inflated, 38 1-8. The same subject previously examined—chest natural, 37, inflated, 38 1-2; base of sternum, natural, 35, inflated, 35 1-2; level of seventh rib, natural, 35, inflated, 36.

Subject *b*:—Stature, 72 inches, chest natural, 39 1-2, inflated, 40 5-8; waist, natural, 35, inflated, 36.

Subject *c*:—Stature, 65 inches, chest, natural, 31 1-2, inflated, 31 3-4; waist natural, 27 1-2, inflated, 28 1-2.

These very meager results—perhaps sufficient for our purpose as an illustration—appear to show:

Subject *a*: expansion at chest during inspiration, first mentioned examination, 1 7-8, at base of sternum, 1 3-4, and upon the previous examination, chest expansion, 1 1-2, sternum expansion, 1-2, level of seventh rib, 1 inch, which declares in this case the most relative expansion during inspiration at the chest; the next at the base of sternum, and a considerable comparative expansion at level of seventh rib.

Subject *b* shows a like method of breathing, principally by lateral expansion of chest, yet with some expansion of waist.

Subject *c*,—a charming example of abdominal breathing, so called,—shows much less expansion at the chest than at the abdominal level, that is, only 1-4 inch play of chest, contrasted with one inch expansion at the waist, or abdominal breathing.

Considerable variation may be observed in the stature and relative chest girth of these three subjects.

My *c* is the best man; wiry, clear-skinned, active, efficient, not unduly sensitive, active and amiable.

B is sensitive even to occasional irritability, shown by a skin easily abraded, while thoroughly active and tractable. *A* is equable-tempered, shown by a firm, lively skin, but as well as *b*, of a rather generous development, inclining to corpulency. All are very good men, but it is enough to say that they breathe decidedly different—one in a marked abdominal expansion.

Everybody knows, after all, that in natural and involuntary breathing, one breathes in a wave-like motion of the contour. And if one casually observe another, he will be assured of this in almost every ordinary case observed;—

the abdominal breathers are, however, as it seems to me, quite as good men as the chest-breathers. I have seen an athletic man measured by a professional gymnastic teacher who exhibited no expansion laterally, although careful measurements were made.

The last person whom I observed appeared to have the greatest expansion in quiet breathing at the anterior margin of the diaphragm, near the base of the sternum.

Enough has been said, I think, to indicate a great variety of modes of breathing among ordinary males.

HENRY CLARK.

MENTAL CAUSES OF DISEASE.

NO one who takes but a cursory view of the relations of mind and body can fail to see their reciprocity of function both in health and disease. Mental vivacity is almost a synonym of health and is certainly a counterpart of harmonious corporal function. Here I may repeat the proposition "Nature answers to mind in physical correspondences," and this she does not only in natural evolution and organization but in those efforts that tend to harmony of function; and as all forces as well as matter are indestructible and persistent, who can tell but some acute or chronic disease may crop out as the effect of some melancholy state of the mind which served as a predisposing cause and rendered the body susceptible till some epidemic or endemic disease prevailed and seized those for its victims that were previously disposed to its attacks? This is long range, but we may bring the cause and effect closer together by noticing the power of the imagination manifested both toward health and disease.

How often are diseases cured by bread, chalk, or sugar pills administered with the assurance of positive and unflinching efficiency? In such cases the belief of a cure gives cheerfulness and tone to the

mind, and it adjusts itself to healthful relations with which the body comes into harmony, and the cure is a natural cure according to the answer of nature to mind in physical correspondences. As facts of mind and matter are inseparable, every fact of mind has its physiological effect. Dr. Pierce says, "Depravity of thought and of secretion go together. Degradation of mind and corruption of the body are concomitants; there is a very close affinity between mental and moral perversion and physical prostitution." Dr. Brown says, "Medical men at least well know that a violent fit of passion will suddenly arrest, alter, or modify the various organic secretions." Dr. Foote says, "The mind constitutes what is called the *vis medicatrix naturæ* or healing power in any animate body by which, when diseased, the system is assisted to recover."

There is a proverb that runs, "Evil to him that thinketh evil." A person who has functional disturbance of the action of the heart may believe for a long time that he has organic heart disease and finally he will have that disease. The organ that manifests the expression of fear is connected with the nerves that stimulate the action of the heart and excites them abnormally. Melancholy is

the synonym of a gloomy, depressed, and unhappy state of mind, derived from *melan*, black, and *cholos*, bile, and has a double significance, meaning a depression of vital power as well as lack of mental tone and vivacity. No one who cultivates a melancholy mood can enjoy good health. There are many who borrow trouble and meet it half way, gathering about them all the imaginary evils conceivable, and they make the case in reality both mentally and physically about what they imagined it to be.

Now let us have the remedy, the prescription will not cost anything, but may be filled from the wide world of wonders and beauties in which a beneficent hand has placed us. Some one who was sensible has said, "Laugh and grow

fat," and a good laugh is often better than the shock of a galvanic battery to arouse the sleeping energies of melancholy people.

A writer on this subject has said :

"Care to our coffin adds a nail, no doubt,
But every grin so merry draws one out."

And another has said, "It is a Christian duty to be cheerful, and a blessed privilege to laugh." Pleasurable emotions stimulate the processes of nutrition and are restorative. Mental tone and vivacity contribute to the healthfulness of the body acting as a stimulus to the flagging powers. A favorite prescription is this ; Adjust yourself so as to look on the bright side of life ; then you will see that the world is full of agencies to bear us on to health and happiness.

D. N. CURTIS.

I AND MY NEIGHBOR.

WHO is my neighbor? What can I do for him or he for me? Can not he live up to his ideas and I to mine? Must we hurt each other inevitably?

Persons whose business in life leads them into daily contact with different people, and who have cultivated their natural powers of observation and reflection by seeing the conduct and studying out the motives of those whom they meet, are not surprised when they perceive how a thought will take possession of a man's mind (or a woman's) and will expand and grow continually until all his faculties are not only partakers of it but eventually become dominated and completely absorbed by the One Idea.

Those who do not understand this often sneer at the sciences of physiology, hygiene, and phrenology. "Why!" they exclaim, "here is a man whose head was declared in his youth to indicate an unusual development of philanthropy and benevolence—now in his old age he is a selfish miser, defrauding others of all comfort and even of their legal rights!"

Very true. And here is a man or woman who in youth was a model of fine health and sound, vigorous physique—now in advanced life suffering untold agonies from a cancer which developed in some vital organ and is sending its poisonous roots faster and faster to the seat of life.

These are our neighbors—do not let us pass them by—let us try to relieve their unimaginable sufferings, and if that can not be done, let us try to keep others from the same fatal course. In rare instances the Idea may be a beautiful one, which leads to excellent results, as when a man gives all that he is and has and gets to the work of teaching barbarous savages to escape from eternal death and win immortal life. Could he to gain this result sacrifice himself alone, our praise might be unrestricted, but clear-seeing justice and knowledge of human nature compels us to condemn the hurts which are inflicted upon others by the undue haste and rashness of the enthusiast.

Years ago a devout and loving woman married with the intention of self-devo-

tion to a good man and the expectation of a happy life with him. This wife once said, "When I was first married I considered my husband as to me a representative of God on earth."

This idolatry brought to her continually new hardships. Before marriage he had declared his intention to remain in his home some years yet, while he fitted himself by study of barbaric languages for the vast new field which he longed for. After marriage he soon suggested that he must save from his small salary all that was possible by the most strenuous effort so that they could go sooner to the land of the heathen. Eager to please the one whom she loved too well, the young wife submitted to this plan, toiled far beyond her strength, ate the cheapest food (in money value) that she could get, shivered without a fire whenever her husband complained of the expense of fuel, and bought no more new clothes, until at last she had scarcely a full suit to go out in. At this time a little baby came, a lovely cherub, but oh, so frail! When the good physician told the kindly neighbors from what cause both mother and baby suffered, they were shocked, and when they learned how great a part of his small salary the young husband had saved to use in the accomplishment of his Idea, they were horrified. But no one could turn him from his purpose.

"I will take my daughter home to me for awhile," said her poor old father, weeping, "and you, my son, may take up what you have saved, to which our church will contribute as much more, I am sure, and you can go on without hindrance and begin your work as far away from your work here as you have planned to do; I hope your efforts will be fruitful and blessed."

The heart of the enthusiast leaped for joy when he realized that indeed he was now about to gratify his one ardent desire; still, a passing throb of human feeling caused him to exclaim:

"But oh, how can I go without my dear wife? I need her! I need her—I

—I will spend all my salary on her now till she gets well; she will not need that in the bank—and then we can go together! Perhaps the church folks will help me then—if—if—you could ask them—for me."

The white-haired old man remained silent a moment with eyes closed; he seemed to be listening—then he arose, grasped the hand of the young enthusiast, and gently said:

"Yes, you shall have money enough to go, to reach your chosen field; I will speak to our men—but you must go alone! My daughter may never be able to rise from her bed; do you go and start your work and get a comfortable place for her so that she will not die when she gets there, and in the meantime mother and I will nurse the two helpless ones, and, with the blessing of Omnipotence, help them to get strong and well. But now you must not speak of this to her—don't excite her and destroy her last chance of life."

Then with an entreating look at the eager young man, the father sought his wife, to whom he quietly unfolded his plan, which she eagerly accepted and begged him to hasten.

"Now, mother," said he, "I will give him the bulk of our savings, but not all. I will save enough to bury you and me, and our darling, too, when her time comes—and though we meant to use this little hoard for our comforts when we grew old, yet we can practice some self-denial yet, can we not?"

"Yes, father, better than ever, especially when 'tis for our darling—to keep her with us!"

"Hush, mother, be careful, he must not suspect my plan."

The old father carried out his intention, and the young husband renounced all claim to earthly happiness for a time, went to the far off land, and began his life-long toil. At first his want of success was very discouraging; he suffered much from unaccustomed toil, from the severity of the climate, and insufficient

food. He wrote frequently to his wife, but advised her not to come until a milder season. Then he found at a remote station whither the natives carried him, a man like himself, and they joined company and worked together while their lives lasted, for they died in the same week, after extreme suffering during a long journey. Meantime his letters to his young wife grew constantly colder, briefer, and less frequent, until for six months she had no word at all. Learning his address from the society who sent him, she wrote a pathetic, earnest reminder of her warm, faithful, and undying love, inquiring if she might join him after a while, at her own expense, since now her parents had both passed away, and her boy was old enough to wish to see his father. Speedily came the response stating his plans for the next three years and forbidding them to come to him.

"You would only hinder me," he wrote, "and where will you get money enough? If you can get money send it to me to help on the Work, and you will receive a blessing. You can work on for your own living as you have done."

The shock affected her for some time; but she did not sell the little old homestead, as she had planned to do, but remained there continuing the fine needlework by which she had bought many comforts for her parents in their feeble age, and had given them much happiness. She lived to be a lovely and beloved old lady, but was always conscious of an unhealing pain, which she hid from almost every one. Her son always found her content, smiling, even at times quite merry, and when she died the poor called her "Blessed."

ELIZABETH DUDLEY.

SOME SIGNS OF A GOOD PHYSICIAN.

A CONTRIBUTOR to the *Independent Practitioner* gets off a little essay on this topic and tells us the truth unvarnished. Fortunately we don't have to go to such organs as the *Ind. Prac.* for the truth about doctors and doctoring, for our contemporaries of the medical press, at least those whom we know, are pretty generally disposed to tell the truth when it is necessary. We are quite willing to help circulate such good counsel as the following, and doubt not that our exchange editors will "lend a hand" to float it further:

To be a doctor, one must first be a man, and a mean man can not be a good doctor any more than he can be a good minister or a good husband; and a really honest, large, and loving man can not make a poor doctor, no matter what his pet party may be. To have good sense as a doctor, one must have good sense as a man. If your doctor is a nincompoop about other things you may be sure that he is a ninny as to medicine and surgery. If your doctor's office is untidy and vile

to smell of, you may be quite certain that he will come short of giving good counsel as to health and tidiness of body. If he be clumsy in hitching his horse you may be sure that he is not handy at surgery or midwifery. If he be a great, coarse, blundering fellow, careless of dress, a two-fisted, farmer-looking man, you may be sure he will lack perception of those finer symptoms by which a good doctor is guided. If he slanders brother physicians who profess a different party, you may be sure that he is himself a quack. Good earnest doctors are too busy to find time to slander their brethren or their rivals. It is all the same with lawyers, ministers, and teachers. The truly good and truly great do not detract from the reputation of others, and they are generous and magnanimous even to rivals. If your doctor flatters you, and humors your lusts and appetites, and helps you out of a bad scrape secretly, without reproof, as if you had done no wrong, distrust him. If you can hire him to do or say what he

would not do without the hire, beware of him. Good doctors can not be bought. Your doctor ought not to be a single man. He ought to have a wife and children, and if you see that his wife respects him, and his children obey him, that is a very good sign that he may be trusted. If your doctor tells you how to keep well, that is a good sign. You come to him with the toothache; he gives you creosote or clove oil for the tooth, and at the same time suggests that you do not wash enough to keep well—that is a good sign. If the children like him, that is a good sign. If you find him reading in his office, that is a good sign, especially if he be a settled, middle-aged

man. If you hear him say: "I once thought so and so, but I was wrong," that is a good sign. If the doctor is neat and handy in rolling pills and folding powders, that is to his credit as a surgeon. If he understands how to bud roses, graft fruit trees, mix strawberry pollen for improved berries, cure chicken pip, and tinker a trunk lock, or put a clock in order, all these are so much to his credit. If, further, you love to meet him, the sight of him quickens you, and you are glad to hear him chat, and you know him to be a lovable, sympathetic man—he's the man for your doctor, your confidential friend; when you find him, trust him.

"OUR PERFECT HOME."

ACCORDING to one of our *Exchanges*, there is one woman who is satisfied with her home. Her name is not given, but what she says with reference to the way that was pursued in making that home is given under the above heading, and as her ideas are in several respects sound and practical on the hygienic side, if not altogether novel, they are worth repetition.

Many years ago I was subject to the feeling of being very much harassed and over-worked. They were always more intense as the time for spring or fall cleaning approached, and when the dreaded ordeal was over, leaving me with empty purse and exhausted energy, I no longer doubted if life under such circumstances were worth the living—I was sure it was not. I imagined a tent life would solve the problem—until I tried it. We camped out one summer, and I do not care to repeat the experiment. It will rain occasionally, even in the best regulated climate, and although a good tent will not leak, there is a dampness about the inside air that can not only be felt, but smelt, and also tasted. Its flavor is like mildewed mold.

But I have solved the problem of housekeeping without dirt and without

the semi-annual siege, and as it may strike a responsive chord in many hearts, I write that others may also be benefited by our perfected home.

First, there is not a carpet nail in the entire house. The floors are all stained, and so covered with rugs that it is never necessary to step on the bare floor, both the noise and the feel of the bare boards being disagreeable to many. The rugs are very handsome, and too heavy to wrinkle or curl, but were not expensive, considering. The one in the library is of velvet, and covers the entire center of the room to within eighteen inches of the walls. I picked this up "at a bargain" many years ago, and it will last a lifetime. The other rugs are made of remnants of the best body Brussels stair-carpeting, cut in lengths to suit, the ends hemmed, and a home-made fringe sewed on them of imported yarn, the colors matching those in the carpet. No one who has not seen these rugs can imagine how handsome and durable they are; and, by getting the remnants, quite inexpensive.

Next, the furniture of "Our Perfect Home" is all built in the walls, with the exception of beds, chairs, and tables. In the library, which is also drawing-

room, sitting-room, and parlor, the bookshelves are built in between the windows, and are so neatly finished as to be ornamental. In one corner is a sofa, extending along the walls under the windows in each direction. Built under this sofa is a shelf, concealed by the upholstering of the sofa, where slippers and such comforts can be ready for a few minutes' relaxation without having to be sought in remote bedrooms. In the dining-room and kitchen the sideboard and safes, etc., are built in the walls; and in the bedrooms the only movable articles of furniture are beds and chairs; dressing-cases, washstands, wardrobes, etc., all being built in the walls. The beds, tables, and heavy easy-chairs are all on well-oiled casters, so there is no heavy furniture to move.

Any bright morning all the rugs in the house can be hung out on the clothes-line and dusted, and the whole house be perfectly cleaned. Stained floors never have to be *scrubbed*. The stain fills and closes the pores of the wood, so that dirt or grease can not be absorbed. A

damp cloth takes off everything; and with a bucket of clean water, in which is mixed a teaspoonful of carbolic acid, in which to dip the cloth, the floor can be made "surgically clean." The floors are all dried, and the rugs back in place, while the sun is still in the east. An occasional sweeping down of the walls with a clean bag drawn over a broom keeps them nice, while the windows can be washed with a weak solution of household ammonia without disarranging anything. Only a few choice pictures and ornaments are to be seen in any of our rooms. The rest are awaiting their turn in the attic closet. There is a three-fold advantage in this—the rooms look better, it saves dusting, and makes a pleasing change.

There is a law in our home against the accumulation of old clothing, etc. If worth giving away, they are given at once; if not, they are destroyed; therefore we have no moths or other insects, and no large chests of trumpery to be periodically aired and dusted.

MASSAGE.

THE somewhat recent introduction in this country of the treatment of certain diseases by manipulation, does not go to show that it is a new device, for the art of massage is of great antiquity. A writer in *Cassell's* remarks: There are always some kind folks who will take the time and trouble to search deep down into the annals of the past and transmit to us the facts they there find recorded. On the question of massage, those who have traced out its history tell us that this system was practiced in very early times by the Chinese, and that the Greek and Romans also resorted to its aid, evidences of which appear in the literature of those two great countries. This ancient art has been revived, in the present day, on the Continent and in America, as well as in England, and is being very exten-

sively practiced. I have spoken of massage as a mechanical mode of treatment—and so it is; but those who undertake to perform it ought to have some head knowledge concerning their work as well as finger dexterity. The masseuse has to make herself acquainted with the structure and the function of the tissues and muscles on which she is called upon to operate, and therefore some study of books on this part of the subject is required. Then there are the necessary dexterous manipulations to be acquired; these particular movements can only be learned from actual demonstrations, and nothing but patient practice will attain the manual dexterity needful to perform the process. The general term of massage includes several kinds of manipulations; these are also designated by French names.

STRONG FOR OATMEAL

A LADY writes to the *Ohio Farmer* in virtuous indignation that a medical man should anonymously praise hot rolls and impugn the value of oatmeal. She says in the language of one who knows from experience—

“The assertion in the article under consideration, that oatmeal is injurious to the stomach and bowels, puts me in mind of the toper who before retiring took a stiff glass of brandy and water. In the night he was taken sick, and the following morning asserted that it was the last time they would catch him putting water in his brandy! So it is with those who think oatmeal not fit to eat unless it has plenty of cream and sugar with it. If you will overload your stomach with coffee, hot rolls, and chops for breakfast, and some kind of meat, white bread, and preserves, and pie for dinner; fried potatoes, two or three kinds of sauce, and cake for supper, having eaten, perhaps only a table-spoonful of oatmeal during the time, you will, if suffering from indigestion, assert that you will never eat oatmeal again; that it does not agree with you. Of course the oatmeal was at fault. The other rich diet had nothing to do with it.”

The Scotch use of oatmeal—the national dish, the health and rosy cheeks and beautiful complexion of the Highland bairnies, impressed Queen Victoria, and upon returning to England she ordered that the young people of her household be given this diet once a day. Mrs. Dickie notes this fact and adds a confirmatory reminiscence and a recipe:

“When I weaned my baby at fourteen months old I fed him three times a day on oatmeal gruel with a little sugar in it. As he grew older I gave brown bread, vegetables, and oatmeal mush. A more healthy child you never saw. My children have had oatmeal—especially in the fall and winter—for nearly five years. Sickness is not known in

our family, and why? Simply because oatmeal, brown bread, and vegetables took the place of meat and hot rolls, especially those of the bakery. Myself and husband used to have dyspepsia very badly; but since we have changed our diet—and don't worry—we have perfect health. Let me say here that if you will grind about three teacups of oatmeal in the coffee-mill and stir it into about three quarts of boiling water, salted, I think you will like it better. If soaked over night in cold water it is much improved and makes more than where it is cooked when you begin to prepare your meals. This can be done only in cool weather, as excessive heat will cause it to sour.”

The proper way to boil oatmeal is in the double boiler introduced by the hygienists, as by this method the grains are thoroughly steamed and broken down, and a fragrant, acceptable porridge the result.

THE NERVOUS ORIGIN OF COLDS.—Whenever, owing to any derangement of the nervous system, the perfect maintenance of animal heat fails to be carried out, disorder ensues, the mildest form of which is a catarrh, namely, the blocking up of the skin or outer surface of the body, with the consequent transference of the excretion to the mucous or inner surface. The deleterious matter which ought to have been removed by the skin, irritates the blood by its retention there, and ultimately expends itself by the nose and throat. For example, if the nervous system be feeble, sweating would probably be induced, and a consequent loss of heat, irrespective of the needs of the body; in which case a cold would most probably follow. As a fact, there are many people with feeble nerves who readily perspire in the coldest weather, and are in consequence liable to frequently recurring colds. The nervous origin of colds also fur-

nishes us with a clue to its treatment in the early stages. The whole history of a cold shows it to be essentially and primarily a state of collapse, demanding early recourse to a stimulating plan of treatment. There is no more dejected

mortal than a patient in the first stage of cold, and both his physical and mental condition point to nervous collapse. Hence we believe the great success of camphor and ammonia inhalations in the early stage.—*Chambers's Journal*.

HOW A MONKEY EATS.

A MONKEY or ape eats naturally until it has been taught the bad habits of modern man. An eminent London physician, Dr. Allison, finds in studying the method of a monkey when taking its food certain points of instruction that are worthy of publication. He says :

"Some time ago I bought a rhesis monkey, intending to study his habits. He is about eighteen inches high, and tame. I feed him on the same food I take myself. He likes fruit best of all ; raw grains and cooked vegetables next. He prefers his potatoes without salt, and his rice without sugar. Peas he will not eat unless very hungry. He always eats with his hands, the same as the Turks ; and as he does not wash them beforehand, he swallows much dirt. When I give him hot food, he has to wait until it cools before he can eat it.

I tried this plan a few times with my porridge and stews, and had to wait before I dare finger them.

"I think that if mankind were forced, like my monkey, to eat with their fingers, we would not damage our teeth and stomachs with hot foods, nor would we indulge in soups. Soups are very good for exhausted people, but not so good for persons in health, as they are not as easily digested as more solid articles ; in fact, the superfluous fluid they contain must be absorbed before digestion goes on. Every food I offered him was, first of all, smelled of ; and then, if the smell was agreeable, he ate it ; if otherwise, he threw it down.

"If mankind would always be guided by the sense of smell, we would eat less rotten cheese, high game, etc., than we do, and consume more delicious fruits, whose aroma naturally attracts us."

WITHOUT PREJUDICE.

IT is not uncommon for us to hear of some melancholy mistake by a druggist in compounding a prescription, but the world does not hear very often of the mistakes or ignorance of physicians in their orders for medicine. Druggists are not inclined to expose the shortcomings of the profession from which they derive much of their support, and it is the part of wisdom that they should not so incline. The *New York World*, however, has been looking into this matter, and the results of its scrutiny, aided by the indefatigable and undaunted reporter, seem to balance the account of error and ignorance that in common belief has been to the discredit of the drug

seller. According to the report published in that newspaper on the 10th of July last, some of our New York physicians are guilty of even criminal carelessness, some of considerable eminence having repeatedly prescribed doses that would have killed their patients in very short time except for the care of the druggist. He either returned the prescription or disregarded it. Morphine was sometimes prescribed instead of quinine, the dose being a fatal one. Strychnine and arsenic would enter into prescriptions in such large proportions as to render the dose fatal if taken. The reporter inquired : "Do you have much trouble with quacks?" "No," replied

the druggist. "Quacks usually give very simple and harmless remedies. It is the regular physician and the physician of high standing who is most apt to be careless."

Fac similes of some of the prescriptions were given, written in such unintelligible characters that they looked like Egyptian hieroglyphics, and in themselves enough to afford a wide margin of mistake to the compounder.

A New York monthly of ultra complexion on medical topics comments sensibly on this matter, to the effect that many "oldschool practitioners deem themselves so much under the protection of the law that they can be careless or reckless in administering medicine or in performing an operation," but the new school or "irregulars," so-called, and this is supposed to embrace the Homœopaths, the Eclectics, and the Independents, are ever reminded that it will not do for them to make mistakes. For this reason an invalid may be safer in the hands of a new school physician than when under the care of an old school man. If some one happens to die under what is called the Mind cure or any other harmless method which has the appearance of doing perhaps nothing at all for the patient, a great noise is made about it, but there are probably hundreds of people killed by over-doses and other doses that the world never hears of.

But we have no prejudice in matters of sectarian medication, only the wish to use the best means for treating disease, and to insist upon the reasonable care of patients by all doctors. If in a given case the best means are from sources alleged to be allopathic, or eclectic, or homœopathic, or hydropathic, what matters? Is it not the part of the true physician to use the best remedy he can find? Does the good lawyer when preparing his brief higggle over the religious bias of his authorities—whether they were Baptist, Methodist, Episcopal or Presbyterian? But sometimes there are comparisons of a general character made that appear to

bid us pause and reflect on the possible superiority of one school of practice over another; and when the organ of one school is found airing an editorial opinion of a rival school in the following candid terms, there is certainly reason for thinking that one has some points of advantage over the other that invite serious consideration. This is what the *Medical Record* of New York published in one of its recent numbers:

"The annual reports of the Cook County Hospital [located at Chicago, and one of the largest in the world], reveal some facts in which the profession should feel some interest. The point that is of real importance is, that both in its totals and in its medical and surgical departments, the mortality of patients treated by the homœopathic medical board is less than that of the regular [old school] board, and this is true not for one year, but apparently for a series of years." It is possible that the cases sent to the homœopathic side are of the less severe and acute character. Unless some such explanation as this exists, the reproach upon the skill of the regular [old school] medical staff is a severe one."

NOTHING BUT LEAVES.

"Nothing but leaves"—the words came low
In saddened tones so full of woe;
My heart with anguish then was stirred,
While to my ears there came a word—
TOBACCO.

Nothing but leaves; yet many a slave
Has early filled a drunkard's grave:
Sadly owned the tempter's power,
And cursed the day and cursed the hour
When first he used tobacco.

Nothing but leaves; yet something more
When once we see the dreadful power
It has upon the sons of men
Who chew and smoke and chew again
The filthy weed—tobacco.

A slave to just a few poor leaves,
No matter whose dear heart it grieves—
Whoever is a slave like this
Can never find in endless bliss
A place for his tobacco.

Child-Culture.

AN AUNTIE'S NOTIONS ABOUT CHILDREN.—No. XI.

ON "GETTING TOO BIG."

AMONG the many new developments, useful, educational, and scientific, of the present age, there is one which we certainly can not regard with unmixed satisfaction, viz.: the tendency to encourage our children to "grow up" as rapidly as possible, regardless of consequences. Some youngsters seem to have very little real childhood left in them; toys are at an early age discarded with contempt, and dress, parties, flirtations, and formal calls—modeled as closely as possible on the pattern of their elders—take their place. And many parents who would be shocked at encouraging such worldliness as the above betray a strange eagerness for their children to prematurely become like men and women, not in name only, but in thought and feeling. Else we should not so often hear the well-worn remonstrance "You must not do so-and-so; you are getting too big," or note the meaning smile of pride and gratification with which a mother sees her small daughter coquettishly inviting the attentions of a knickerbocked *beau*.

And what is the behavior for which children are, as a rule, reprovèd on the ground of age? Not the most censurable, by any means. A little girl (and girls are, I think, the more injured in this respect) will be told that she should give up playing with dolls—"What can a great girl like that want with a doll?"—who is never too old to be selfish, thoughtless, or impertinent. She is chidden for running, or otherwise healthfully exercising her limbs, because she

is "almost a young lady," and ladies never run or romp, they walk with sedate and quiet steps, look charming, and keep cool. Every time a little girl breaks out into a natural, juvenile frolic, forgetting age, clothes, and appearances for one blissful five minutes, she incurs a risk of being pulled up with shocked reproofs and uplifted hands, while a barrier of "prunes and prisms" is straightway erected to keep her in the narrow path of propriety: *i. e.*, affectation and soul-withering self-consciousness. She may simper and mince, fuss over the fashions, and chatter about sweethearts, regarding every boy she meets in the light of a possible admirer, and discuss with repellent precocity the matrimonial prospects of her grown-up friends; but run a race, climb a tree, or nurse her baby-doll, oh, no! she is getting much too big for all this. That is, in such a family as I am now supposing; many, happily, are far otherwise. Yet, if the child's physical being is sufficiently robust to enjoy a romp, and her mind innocent enough to love her doll, why not let her do both as long as she can? She will cease when her nature prompts, which will surely be the only right time. A bud that is allowed to open naturally, even if tardily, to the sunshine, must develop into a more perfect and beautiful flower than one whose petals were impatiently torn apart before their hour had come.

A sadder, though in some respects perhaps less immediately harmful, notion is that which supposes a child, boy, or

girl, to be at a certain age too old for the accustomed expressions of tenderness and love. Some young people, no doubt, at an early age cease to care for caresses, and try to avoid everything which they imagine savors of babyhood. This is not the sweetest spirit, but if natural cannot be easily helped. But it is hard for the loving-hearted little one to find herself when craving for a cuddle—even good-sized children feel like that sometimes—even gently repulsed with the reminder that she is “getting too big” for that sort of thing. Too big to sit on father’s knee; too big to be “tucked up” at night by mamma; too big for the long familiar pet name or sweet abbreviation; too big, if a boy, to be kissed; too big by degrees for all the small tendernesses and comforts of child-life,—a little human lobster being continually pushed out of its shell before it is ready for the change! Don’t fancy, fathers and mothers, that you will make of your children self-reliant men and women a day sooner by weaning them thus early and unsatisfied from the parental love. The heart that is denied its natural food will shrivel and die, or find ailment less safe and wholesome elsewhere. I have sometimes wondered if ever a young girl has been urged by spirit-hunger to accept the blandishments of an unworthy lover, whom she might never have been tempted to encourage had she received all the tenderness she longed for in her mother’s arms.

As I hinted at the close of my last paper, children should never be allowed to feel that they can grow beyond confiding all their thoughts and feelings to their mother. They do so spontaneously at three years old, why not at thirteen?

If a girl shows signs of thinking herself too old to be taking her mother into her confidence with regard to her affairs, the latter should not be above seeking that confidence, not demanding it as a right, but moving it by revealing her own sympathy and love; and if the young heart has not already been too

long shut up, it will unfold itself gladly and freely. I feel convinced that one great cause of misunderstanding that breeds so much unhappiness between parents and their growing sons and daughters, is that somehow or other a time came when their infant open-mindedness received a check, perhaps because of some secret naughtiness which they dared not confess, but oftener, I think, because the parent’s interest flagged, or sympathy abated, or patience failed; then the spring became frozen over, and each succeeding year saw the ice grow harder and more impenetrable. An open door between the child’s heart and that of its mother is essential to the welfare of the former and the happiness of both; but it must be remembered that a little harshness, a little carelessness, perhaps one unintentional repulse, may cause that sensitive portal to become firmly, if not finally closed.

To win and retain the complete trust of children, the parents must first succeed in assuring the little creatures of their perfect, inalienable, unalterable love. They need never be afraid of showing that love, and never afraid of loving too much. JENNIE CHAPPELL.

THE BABES’ REPOSE.

The day is done, and in their cozy nest
The rosy darlings lie in perfect rest,
Their shining tresses softly straying o’er
Those dimpled cheeks that we may kiss once

more
Before we go; but let the kiss be light.
Good night, sweet slumberers,
Good night! Good night!

Anon we see a smile all gentle play
O’er a sweet face, then slowly die away—
The little brain with fairy fancies teems,
And Flossie wanders in the land of dreams;
There she will wander till night’s shadows

flee,
Good night, my little one,
God guardeth thee!

She sees serener sunlight, fairer flowers,
And bluer skies than grace this world of ours,
As down the silent slopes of shadowland
Again she guides her hoop with eager hand,
Or may a mythic butterfly pursue.
Good night, my pretty one!
Till morn, adieu!

"I AM FIVE."

ONCE knew a little girl who so wished to be five years old—not *six* years or *four* years but *five* years—and why, do you ask? Why, because she was four now and five comes next—and Elsie May and Lena Henderson were both five and Elsie had such a cunning little silver thimble on her birthday. It was just like her mamma's, only very small and with "Elsie" in tiny letters on it.

So little Alice asked her mamma how long it would be before *she* would be five, and her mamma told her that when the flowers came she would have her birthday. Alice gave a great sigh, for the snow lay deep on the ground and she knew no flowers could come until the snow had gone.

Pretty soon the days began to grow warmer and warmer and the snow began to disappear. Little Alice could go out into the garden to play every day, and she would go to the beds where her mamma's flowers had been the summer before, and coaxingly say: "Come, pretty flowers, please come out to-day so I can be five." And when she got tired of watching for them she would say: "Oh, you lazy, lazy flowers, do hurry and come, so I can be five."

At last one warm bright day as little Alice was giving her dolly a ride in the front yard, she saw a man pass by the gate carrying a pot of fresh white daisies. Forgetting everything, with a cry of delight she ran into the house to her mamma saying: "Mamma, I'm five, I'm five, the flowers have come."

"Oh, no, my darling," said mamma, "it can not be yet—it is not time for the flowers. Don't you remember there was snow on the ground last week?"

"But I saw them, my own self," said Alice.

"Where, dear?" asked her mamma.

"I saw a man with them go by the

house. Look, mamma, look, there he is now, coming here."

Her mother looked, and sure enough there was the man with the pot of daisies.

"See here, my little girl, don't you know there are some people who build large glass houses and heat them all through so flowers can live in them during the winter when it is cold? But these flowers do not come out of the ground like those we had last summer. Not until you see the flowers come out of the ground in our garden will you be five."

Alice was very much disappointed, but she looked every day to see if there were any flowers. Finally, one warm, summer May morning she awoke to hear the birds singing, and the first thing she did after she was dressed was to run into the garden and look for flowers, and she found some little English violets. She ran into the house, "Oh, mamma," she said, "I *must* be five. I found these flowers in the ground."

"Well, then, my little May flower," said papa, giving her five kisses, "come to breakfast, for I'm very hungry."

When Alice lifted up her plate, what do you think she found under it?

First, there was a little, square, white box, and when she opened it there was a tiny thimble in it, just like Elsie May's, only it had "Alice" on it instead of "Elsie."

Then there was such a cunning little pair of scissors just right to cut out dolly's clothes; and a spool of cotton; and a needle book, which dear grandma had made for her, with needles in it ready to sew with. And then another large square box and in it just the loveliest silver napkin ring with "I am five" on the outside of it, and on the inside her own name so no one else could claim it. And if there, right under her very nose, wasn't that very pot of daisies she had seen the man have that day.

Alice had a perfectly splendid time that birthday, so she always says. For papa took her and her mamma and her sister (who was most a young lady) and Elsie down the river in a boat, and they caught some fish and had dinner at the hotel, where they had all the ice cream

they wanted, and, altogether, when Alice got home at night she was about as happy and tired a little girl as any in the whole city. "I wish, mamma," she said "I wish every day was my birthday, and I was five."

MRS. F. B. CURRIER.

A LESSON IN NATURAL HISTORY.

WHEN school closed to-day I started off for a walk beyond the finest dwellings and out to the homes of the poor. My pupils espied me one by one as I passed along or overtook them on their homeward way. They were delighted to tell me who lived here and there. After a few blocks I passed beyond their homes into another school ward where people of less quality lived and mostly foreigners. There was a crowd around a school house in the distance and loud crying from a little lad whose brother and sister were leading him home. When we met I inquired what was the matter. The child lifted his tear-stained face to mine but he could not utter a word. A large piece of black court-plaster had sealed his lips. "Oh, dear!" I exclaimed, "are his teeth knocked out, or what?" "Why, he told teacher a lie, a naughty wicked lie, and so she's shut up his mouth." "Dear! dear!" I replied, "I hope none of you will ever be served so!" "Oh, but there's a boy as has tried it." "Well, I sha'n't again, you may be sure," he quickly replied. "And you will not," I said to the frightened child. He shook his head and we passed on. I knew their teacher, a red-headed Irish girl from the High School, the only teacher that could for years be found to bring order out of dire confusion. She was not injudicious either, according to the Superintendent's belief. I have been wondering were all liars served in the same way if the court-plaster business would not be a very thriving one.

It reminds me of the teacher that obliged her pupils to wash their mouths

clean after speaking dirty or profane words. In my wanderings I came upon a child petting in her apron a whole family of hop toads. She fed them with crumbs from her hand without fear, as she would cats. She had longed for a kitten but her invalid mother could not tolerate one in the house, and so she had bestowed her love upon these toads. I knew the child to belong to a delicate refined mother and indulgent father, and wondered that they permitted this, but I sat down beside her in the door and had a very pleasant chat with her about her favorites. This was in a new street, the opposite of the house being uncultivated, and there was a large flat rock near the road under which the toads lived. The girl carried her grotesque family home to the rock, then recalled them that I might see them come hopping along. "Hoppy, hoppy, hoppy!" On came Mr. Toad, Mrs. Toad, and the two little Toads. Oh, yes, and another toad that evidently had been napping, for he gaped and stretched out a leg. At her call, however, he awoke and almost flew to her, taking one long leap into her lap. She said her mother thought them "dangerous," but she "didn't see why," and asked if I knew. I had read a chapter on toads in some scientific work and was able to explain to her that they were not at all vicious, the only possible harm that could come to her was from danger of a fly's lighting on her hand while a toad was near, as he was an enemy to flies and bugs, and quick as a flash he would send out a poison to the fly and draw it into his mouth, and might leave some of it on her hand. She promised

to be ever watchful of flies and to tell her mother to ease her mind, for she had very much wanted to know if they were harmful and how. I looked at my

watch ; it was almost six, so I bade the dear child and her Toad family a hasty good-by.

L. R. DE WOLF.

SELF-RELIANCE IN CHILDREN.

MANY kind parents, in this age of activity and hurry, seem unmindful, while urging their children from one task or occupation to another, how indelibly the spirit of rush and hurry (unfortunately too characteristic of Americans) is being impressed upon the young mind.

"Hurry!" says the mother, ambitious to crowd many duties into short hours. "Be quick, Bessie!" "I can't wait!" "What in the world are you doing?"

She is a loving, industrious mother, with the best intentions, always planning for home interest.

Yet the children naturally are of nervous temperament and far from the sort whose ambition requires constant goading.

It would be wise to assign a short task, allowing sufficient time for its thorough performance, yet the excitable, mistaken mother has unconsciously so trained her children that the very thought of work or study means restless haste.

"Haste makes waste." No adage is truer or learned at cost of harder lessons or more tired nerves. Instead of teaching a child to be in constant dread of the impatient "be quick!" the little one may, if the parent will discipline himself to be quiet and patient, be taught in the first place, to rely upon himself by listening attentively to what father, mother, or teacher says to him ; while in the second place, a happy, hopeful way of planning the day's tasks, assuredly leaves the child free temporarily, to develop, in a natural and agreeable manner, his powers of accomplishment.

First, insist kindly but with firmness that your child listen while you speak to him.

Then in giving him directions do not go into details unnecessarily.

Leave him somewhat of freedom.

Be definite ; see to it that he understands you, try to be reasonable in giving him sufficient time to accomplish as he ought (not as some other child may be able to do) whatever you assign ; and wait patiently to see the result.

One means of assisting children to pay attention to your words is to return the courtesy.

"Children must be seen and not heard" say you? With wisdom only can this rule be applied.

The children must indeed be taught to love and honor. Never was the fifth commandment more needed than now; but evoke loving obedience by love and patient discipline.

Do not permit a child to talk too much when there are several guests or older persons forced to withhold conversation in order to listen at length to the boy or girl who may be too forward.

That is unnecessary and usually far from beneficial to the little ones who learn by listening to well-chosen conversation.

Be concise in addressing your child and careful in your requirements.

Speak with moderation, grammatically politely, and you will be repaid by the effect upon the young members of your family.

When you ask your child a question, train him to answer that and not quite a different one.

This, indeed, few of us older children are apt to do habitually. How frequently one meets with difficulty in getting direct answers to questions justly put, receiving instead, wandering, evasive replies, unintentionally but carelessly given.

Emerson says: "A man is relieved and gay when he has put his heart into his work and done his best."

So with the children, give them time to do their best.

With careful guiding, they may be

taught to be self-reliant, and as happy in their work as in their play time.

GEORGINA E. RUSSELL.

SOME ENGLISH CHILDREN OF TO-DAY.

THE Bishop of Rochester is writing for *Good Words* a series of papers on children. In the number for February he touches on some characteristics of children not always observed or understood. He mentions these instances of humor which has degenerated into license :

A great dignitary is in the habit of asking the audiences which he moves and guides by his sinewy dialectics. "Is that right?" One day he had the tables turned upon him from an unexpected quarter, and he is the last man in the world either to resent or to despise the innocent pleasantry of his own child. It is said to be the habit of this eminent person, in his rare moments of leisure, to lie on his back on the grass and look up at the sky. One day his little son interrupted him in his otiose condition, and asked him what he was doing. "Nothing," was the present reply. "Father, is that right?" Another much humbler person, finding himself alone with a daughter of nine years, and anxious to improve a rare opportunity, thought he would invite her to say the Church Catechism. "What is your name?" "My name?" answered the surprised but unsuspecting child; "you know very well what my name is. . . ." "Who gave you that name?" Instantly a look of meek audacity played over the little brown face, and with demure aspect she asked, "Would not you like to know?"

An accomplished *litterateur* was once staying in an English country house, and came down into the breakfast-room before the family appeared. Two small people of the house were there before him, and the guest observed, not without discomposure, and possibly an apprehen-

sion of eventual loss, that the little boy was much occupied with helping himself and his sister to some early strawberries. Rashly, as the event proved, he remonstrated with the child on the impropriety of his conduct, injudiciously explaining that his parents would be displeased if they saw it. The child listened unmoved. The only reply he vouchsafed was, "That what you say is stuff," and his commentary on it was his going on as before. In a minute or two the kind father entered, and, embracing the child, at once proceeded to feed him and his sister with the finest strawberries in the dish. The child triumphed and the guest collapsed.

On an ocean steamer, some four years ago, an English clergyman was in close conversation with a lady, when a small boy of six years old lounged up and coolly joined in. It is only fair to say that the child, while on board, had been utterly demoralized by the lack of all control over him. His mother was sick in her room, and his father seemed quite to forget that he had children on board. The incautious divine thinking it well to administer a reproof to the child, who had become an awful nuisance to everybody, looked as grave as he could, and observed, "My young friend, when I was your age, little boys did not join in the conversation of their elders until they were invited." The reply was instant, and would have been even more crushing but for the fact that the supposed aged one was well under sixty, and did not look his years. But it was straight, and gave much joy. "I guess that was 70 or 80 years ago, you bet."

The Bishop assures us that all these incidents are "from real life," and that he knew some of the children.

NOTES IN SCIENCE AND INDUSTRY.

Volapuk Not Approved.—The committee appointed by the American Philological Society, at Philadelphia, after discussing the universal language "Volapuk," make in substance the following report:

"That, in the vastly increased rapidity of interchange of thought in modern times, some general medium of intercommunication would be welcomed is unquestioned. Wherever there are close commercial relations between nations speaking different tongues such media are sure to arise for the necessities of daily life. Convinced, therefore, that the time is ripe for the promulgation of a general form of speech for the civilized members of the race, we shall now inquire what shall be the requirements of such a tongue to merit the recommendation of this society. We begin by the observation that the Aryan stock is now and has been for 2,000 years the standard-bearer of the civilization of the world, hence a universal language should be based upon the general linguistic principles of that stock. In the Aryan stock the six principal living tongues in the order of their importance and extent may be ranged, English, German, Spanish, Italian, and Russian. It should be the aim of the proposed general tongue to ally itself to those somewhat in the order noted, as thus being more readily acquired by the greater number of active workers in the world at the present time. With an ardent wish for the formation and adoption of a universal tongue, we can not recommend Volapuk as that which is suited to the needs of modern thought. On the contrary, it seems to us a distinct retrogression in linguistic progress. Nor, in this day of combined activities, does it appear to us likely that any one individual can so appreciate the needs of civilized nations as to frame a tongue to suit them all. Such a task should be confined to an international committee from the six or seven leading Aryan nationalities."

Another Warning About Forest Destruction.—William C. Prime, who has a cabin in the Franconia Notch, says that the Pemigewasset last fall, notwith-

standing all the rain of the season, was little more than a dry bed, whereas, 30 years ago, the soil would have retained the moisture which now flows off in wasteful freshets. New Hampshire eagerly encourages every railroad which will penetrate and destroy the forests. His conclusions are weighty, and might be addressed to every New England State.

The State should take possession of the entire White and Franconia mountain country, from Moosilauk to Kearsarge, from Chocorua and Sandwich Notch to Gorham. No road of rail should be hereafter laid in the tract. Good permanent wagon roads should be laid out among, along, and over all the mountains, on which would be the most superb drives in the world. Lands might be leased for hotels and residences, with strict provisions against cutting timber. The whole country should be managed as a private estate. It would thus become, not only a permanent place of summer resort and residence of ten times as many people as come here now, but it would be a source of large revenue to the State, paying directly an enormous interest on the actual money expended, and indirectly much larger revenues to the people of the State. There is nothing extravagant in this. It would have been thought extravagant 30 years ago to plan any railroad any where at an expense of 20 to 50 millions. If instead of selling to lumber companies all her wild lands, for a trifling sum, New Hampshire had 30 years ago, devoted \$100,000 to acquiring possession of the whole mountain country, she would have to-day a property worth many millions. If she had gone steadily on, improving it judiciously, it would have been now paying annually nearly as much as its original cost.

Food Constituents.—The constituents of food that are assimilated by animals are flesh or muscle formers, and fat and heat formers; these comprise the two principal classes, and are found in different substances in different proportions. Prof. Caldwell, of Cornell University, gives the following table, which will be a convenient means of determining the relative

effect of the substances that are being fed to animals :

Food.	Muscle making elements.	Heat and fat elements.
Clover Hay.....	11.4	42.1
Timothy.....	6.4	46.9
Timothy and Red Top....	7.5	46.3
Low Meadow Hay.....	7.7	45.7
Hungarian Hay.....	6.6	44.4
Salt-Marsh Hay.....	5.9	44.7
Corn Fodder (field corn)...	4.3	37.2
Buckwheat Straw.....	3.9	34.8
Oat Straw.....	3.4	39.1
Rye Straw.....	3.0	34.6
Wheat Straw.....	3.1	33.7
Cow-pea Vines.....	15.7	45.0
Potato.....	2.0	2.1
Mangolds.....	1.1	9.2
Sugar Beets.....	1.0	15.5
Rutabagas.....	1.3	9.6
Carrots.....	1.3	9.9
Turnips.....	1.0	6.0
Parsnips.....	1.6	9.0
Cottonseed Cake Meal.....	42.5	36.9
Linseed Cake Meal.....	34.5	41.0
Linseed Cake Meal (new process).....	33.5	41.6

By the above it appears that the cow-pea vines possess greater fat producing properties than any other kind of food named, while its muscle properties are greatly above any of the grasses, a fact that the farmers of the northern section should understand if the cow-pea can be grown in this latitude. It is a vigorous grower on good soil and will produce a large amount of food, where it succeeds.

THERE are twenty blast furnaces in and about Pittsburg, thirty-five rolling mills, thirty-nine steel works, fifteen window glass works, thirty-seven flint glass and eleven green glass works. The blast furnaces make 900,000 tons of iron per year; the rolling mills, 575,000 tons; steel works, 75,000; plate glass works, 3,250,000 square feet; window glass, 900,000. And yet they tell us the iron industries are running down.

Demand for Skilled Mechanics.—A well-known mechanical superintendent of an important manufacturing works recently remarked, says the *American Mechanic*, that few people were aware of the scarcity of really skilled mechanics; there was a demand for them that was far from being supplied.

We hear substantially the same remark every week. It is easy enough to find men

with a little smattering of knowledge of a trade who are ready to go to work as machinists, pattern makers, molders, or boiler makers, as the case may be, but these are not the kind of men that are needed. While there are, as is frequently stated, probably a good many unemployed men, they are certainly not men who learned their trades in this country, and, by a few years' practice and an endeavor to know something more about their business than the mere drudgery of it, have earned the right to be called skilled mechanics. Such men, as this superintendent remarked, are in demand, and always likely to be, just as much as the services of the best doctors or lawyers are always in demand.

There are a good many highly skilled mechanics in the country, but the proportion of those who are working at the trades without any skill to speak of is far too great. There are to-day, speaking of the trades requiring the highest skill, better reasons than ever before why boys should learn them as trades, and better reasons than ever before why manufacturers should give the boys a chance to learn the trades.

The Disappearance of the Blonde.—A highly interesting question is being agitated in Europe. It has been asserted that there has been a gradual decrease of blondes in Germany. Almost 11,000,000 school-children were examined in Germany, Austria, and Belgium, and the result showed that Switzerland has only 11.10, Austria, 19.79, and Germany 31.80 per cent., of pure blondes. Thus the country, which since the days of ancient Rome has been proverbially known as the home of yellow hair, has to-day only thirty-two pure blondes in 100, while the average of pure brunettes is fourteen per cent. The fifty-three per cent. of the mixed type are said to be undergoing a transformation into pure brunettes. Dr. Beddoes, in England, has collected a number of statistics which seem to point in the same direction. Among 726 women he examined he found 369 brunettes and 357 blondes. Of the brunettes he found that seventy-eight per cent. were married, while of the blondes only sixty-eight per cent. were married. Thus it would seem that the brunette has ten chances of getting married in England to a blonde's nine. In

France a similar view has been put forth by M. Adolphe de Candolle. M. de Candolle found that when both parents have eyes of the same color eighty-eight per cent. inherit this color. But it is a curious fact that more females than males have black or brown eyes to the proportion of forty-five to forty-three. It seems that with different colored eyes in the two parents fifty-three per cent. follow the father in being dark-eyed, and fifty per cent. follow the mother in being dark-eyed. An increase of five per cent. of dark eyes in each generation must tell in the course of time.

In America also careful observations have resulted in a similar conclusion—the blonde type of complexion is disappearing.

Relics of Captain Cook.—In pulling down part of a private museum at 22 Soho Square, London, the other day, the workmen found a recess that had been closed up for half a century. On the paneling inside was written, in the handwriting of Sir Joseph Banks, who accompanied Captain Cook, the discoverer, on his voyages, "Instruments used, carvings, weapons, and heads collected by Captain Cook during the voyage of the Endeavor. J. Banks." Among the relics in the recess were two mummied tattooed heads of New Zealand chiefs; a wooden bowl, with a lip, used for handing around human blood in the days of cannibalism; models of native canoes, beautifully carved canoe paddles and a carved wooden sceptre, with the words, presumably scratched on it by Captain Cook, "Made for me by Wanga. J. C."

A Word About West North Carolina.—A resident of Highlands, in that State, says:

This "land of the sky" is 3,000 feet above the sea and is a favorite resort during the summer months. The village where I live is composed of 300 or 400 people, mostly from the North and West. The climate is delightful, the water pure, the scenery grand. The soil is remarkably free from stone for a mountainous country and is fairly productive for corn, rye, oats, potatoes, and garden vegetables. Fruits of all varieties grown in the temperate zone do remarkably well, while dairying and stock-raising, wool-growing and bees offer inducements to capital and labor. Lands vary in price from \$1 to \$10

per acre according to quality and locality. There are a few desirable places and tracts that can be had at a reasonable figure within two miles of the village, some with improvements, others of wild land from 40 acres upward. We have good school facilities, churches, literary and temperance and floral societies, a large hotel and a few private boarding houses. Board is from \$3 to \$5 per week. Provisions are reasonably cheap. The summer temperature ranges between 50 and 60 degrees and rarely goes above 80 degrees. In winter the range is between 20 and 50, seldom reaching zero. We have but little snow, which does not remain long at a time. To any one who has sufficient means to build up a home and is content to make a quiet living, I can cheerfully recommend this section. I have been a resident here for several years and like the country.—[J. Heacock, Highlands, Macon county, N. C.]

Macaroni and Tomato Sauce.—To prepare this nutritious and palatable dish, break the macaroni (small pipe) into two-inch lengths, after having carefully examined it to see that it is good, and drop it into boiling milk and water, equal parts, and boil until perfectly tender. One hour or longer will usually be required for this. Have ready a sauce made as follows: Take a pint of strained, stewed tomatoes, and heat to boiling, thicken with a heaping teaspoonful of flour rubbed smooth in a little water, add salt if desired, and at the last a half cup of hot, sweet cream. Boil up together for a minute. Dish the macaroni, and turn the dressing evenly over it.

A Late Method to Detect Alum in Bread.—Mix the bread with water to a pulp, and place in this a piece of gelatine. At the end of twenty-four hours, wash the gelatine with water containing a little tincture of logwood and solution of ammonium carbonate. If alum be present, the gelatine will turn blue.

Corn in '87.—The estimated corn crop of 1887 in this country was about 1,300,000,000 bushels. The seven corn surplus States, Ohio, Indiana, Illinois, Missouri, Iowa, Kansas, and Nebraska, have during the last seven years produced an average within a fraction of 1,000,000,000 bushels annually.



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THE CONSTITUENTS OF HEALTH.—3.

A MAN comes under inspection; we note a clear, pliant skin of which the color is ruddy enough to intimate a free capillary circulation; the pulse is full, even, and of moderate beat; should he walk briskly up three flights of stairs, the movement would be considerably accelerated for a few minutes, but its rhythm continues regular, and settles back to the average rate when he becomes quiet. His respiration is free and even, averaging less than twenty to the minute, and he does not find it necessary because of nasal obstruction to keep his mouth, as it were, in readiness to assist the nostrils in discharging their duty. The faintness of the blue in the veins of hand and arm shows that his blood is well oxygenized, while the pleasant warmth of the palms is a good augury of the healthful temperature of the capillary tissues. He has, let us say, a good degree of the nervous type of organization, hence is rather spare in build and quick in movement, but his action is easy, elastic, sprightly, without being spasmodic or jerky. The muscles are well nourished and the nerve stimulus

under good control, so that his activity when under the pressure of an unusual occasion is not irregular or perturbed.

We note that he stands erect, the vertebræ of the spinal column sustain mutually the weight of the shoulders and ribs, and in turn are proportionately balanced on the hips, so that undue strain on a few bones or muscles is avoided. Standing thus erect, his chest has full play, and his lungs, although not of the large class, as represented by inches in measuring with the tape line, perform their duty amply. His tongue is smooth, clean, steady, and of the pinkish hue that shows good digestion and freedom of intestinal disturbance. We know from a single glance at it that he is prudent in his choice of food, and avoids excess in eating. An overworked liver, surcharged lymphatics, an excess of area, would be indicated by legible symptoms of disturbance in the skin and nervous surfaces. He has no sense of plethora, no gaseous accumulation in the intestinal folds, no heartburn or regurgitations, no "bilious spells" with their suggestions of liver derangement, or an impending attack of remitting or continued fever. There are, in a word, no evidences of accumulated waste and ashes in the channels of digestion or excretion.

We do not ask if he can walk a mile in six minutes, jump over a five-barred fence, raise a hundred-pound dumb-bell, or drive a "wheel" at the rate of a hundred miles a day; we simply expect him to do the work belonging to his vocation, whatever it may be, in a manner becoming to his experience and opportunity, and as he is not cast in the large and ponderous mould of the athlete, we do

not expect surprising feats of muscle. He says, "I feel well and able to do what comes in my way," and we consider him as a fitter object of applause than the tinsel champion of the circus ring, and reasonably so, for his life is a natural, useful one, while that of the performing athlete is artificial and meretricious.

A few months ago a well-dressed man about forty years of age consulted with us. He had, by original endowment, a fine organization, the elements naturally predominating being the vital and mental. "You ought to be the possessor of better health than the average of men," was our remark. "But you are broken down, prematurely so. What have you been doing?"

"I am a professional athlete," he replied.

"You were better fitted for a profession that employs the nerves more than the muscles."

"I know it," he said, "but when a youth I became interested in athletic sports, and thinking because of my natural agility that I could excel in them and make a fortune, I went into training and gave myself up to the exciting life that surrounded me. After a few years I discovered that it was not the business for which I was best suited; but then it was not easy to change, and now with ruined health I have come to you for advice."

That man had been pursuing a course for twenty years that had kept his muscles and nerves in a high state of tension; both in his athletic practices and his habits he had set the laws of his organization at defiance, and at a time when he should have been at the climax

of his powers, abused and insulted nature, weary of repeated protest and warning, sank down exhausted. He was a wreck.

It may be urged by the reader that the mistake of this man was his taking up a pursuit for which he was not fitted by organization; had he possessed the motive temperament with its special endowment of large bone and muscle, he would have found the exercises he was required to go through of easier performance, and he would have developed gradually so much power and facility that he would not have broken down.

We grant the pertinence of the suggestion, but must answer that the life of the professional athlete is one of emulation; with added strength and facility he must do greater and more startling feats. He is led on and on by the applause of the multitude that throngs to see him tumble and strain at the daily risk of a broken neck. The career of such men is short, as a rule; the prodigious efforts of the muscles become in time too great a tax on the nerves and vital organs, and exhaustion ensues. The excessive use of the brain in the toil of the student and scholar is no more destructive of the harmony and integrity of the physical functions than the excessive cultivation and exercise of the muscles. Given two cases of equal endowment of nutritive power we are inclined to think that the one that was inclined to over-exertion of the mechanical system would sooner succumb to exhaustion than the other whose tendency was toward to over-activity of the nervous organism. The nervous man, using the term nervous in its proper sense, as a rule is longer lived than the muscular man.

BE DISSATISFIED—BUT—

WE can tolerate dissatisfaction that has a moral cause or motive in it, and consequently rises above the plane of mere selfishness. But in the broad consideration of the subject what would the individual or society be without the stimulus that dissatisfaction furnishes to effort? Scarcely more than a humanized barnacle, a feeding, living thing, yet called man. We visited a little town not many years ago, that impressed us the moment we entered its principal street that the town was "running down." We were told that the people were known for their quiet, contented spirit; the "good, old ways" of their forefathers seemed best, and they were strongly adverse to any innovations. They had no railway facilities, and wanted none; the arriving of the postman once a day to the old store, in a corner of which a few pigeon holes served as the post office, was as much of a disturbance of the prevailing quiet as could be tolerated. We remarked to the friend who conducted us through the town: "This place has a very *settled* look." "Yes," he said, "it has remained about as you see it for twenty-five years; it is *settling* into decay for the want of a little energy and enterprise."

"Are there no young people here?" we asked. "A very few, who are satisfied to follow in the old ruts of their fathers and grandfathers," was the answer. "The young men and young women with energy and spirit don't stay; they can't endure the chronic dulness of the place."

Later, in conversation with one of the "pillars" of the community, we remarked, "You don't appear to have many

young people here, Mr. ——?" "No," he replied, "our young men somehow itch to get away from us. They want to go West or into the city. If they could only content themselves and settle down at home they would be so happy. Everything is so quiet and peaceful here, seems to me they ought to be."

"You must do something to keep your young folks with you," we rejoined, "or your town will go to ruin. You must have young, fresh life with its ambitions and progressiveness."

"Ah, the good old ways are best for comfort and peace," the old man sententially remarked with enough of displeasure in his tone to warn against following up our line of argument.

The well-endowed mind has elements that inspire advancement; it is not contented with a passive order of affairs external. It recognizes in the work of every day reflections of itself; its hopes, desires, expectations must have in that work something of realization. We speak of moral purpose; what is that but a high incentive to achieve more than comes to us in the ordinary routine that belongs to vocation? It is that which uplifts the individual and improves the community. We esteem the dissatisfied man or woman who looks upward, who would know more of truth, of duty, of kindness, of the principles that govern human conduct, of the arts that refine and the methods that clear and strengthen the soul.

For the dissatisfaction that is bred of selfishness and cupidity we have little to say in approval; it may indirectly serve a good end, but the motive is not generous; it is self that is uppermost, the securing of material wants, the attainment

of power that will make other men subject to one's will, the gratification of caprices, of appetite, of passion. Here is a rich man who wants more wealth and is planning and scheming that he may gain it, although he knows that his gain is another's loss. Here is a mechanic who earns good wages, and can provide well for his family, but he is discontented because he must work for his living. Here is another who is a trusted clerk in a prosperous business house, but he frets and chafes because he can not add to his savings rapidly enough so that he will be independent. Here is another who aspires to office, the salary and perquisites being the object, not the public service it imposes. Here are women who appear to regard dress and fashionable conventions and conventional routine as the chief end of their being, and if one makes little greater pretensions than others are envious and chagrined. All these are dissatisfied, but there is little help for the world in such dissatisfaction, and nothing that develops the manhood or womanhood of the individual in whose mind its impure influence works.

When the poet speaks of ambition as "a glorious cheat," he does not refer to a sentiment formed by the desire to accomplish good and noble deeds, in which one's neighbor will share, but to those desires that have self emolument, self elevation for their main object, for all experience agrees in declaring that he who makes self foremost in all that he does, reaps in the end disappointment; however brilliant his achievements may appear they are insubstantial and empty, but "glorious cheats."

SELF-CONTROL.

IN its broad and true sense this term means very much; but the common interpretation refers it to ability to restrain the outward expression of excited feeling or emotion. We are pointed to the man who hides his disturbed feelings under a calm exterior, to the irritable man who subdues his tendency to break out with harsh and bitter words, to the meddling woman who keeps her hands off the attractive bric-a-brac of her host, to the garrulous man who keeps a tight rein on his tongue and permits others to have their full share in the conversation. Certainly there is a degree of self regulation in these instances, but in our view *self-control* means far more than the checking of special tendencies of character, or mannerisms that indicate in themselves the necessity of their suppression for the sake of appearing decent or well behaved in society. Self-control has to do with the sources of character, with the training and discipline of the faculties that associate and combine in the expression of one's mental nature. It therefore means genuine self culture, and its effect, if the culture has been judicious, is not to weaken or emasculate, but to make the character orderly and symmetrical. It does not deprive a strong faculty of its strength, it does not rob the man of his natural fire and power, but it gives the force a higher range of action than it would have were it undisciplined, and makes it the backing and impulse for carrying into effect the purposes conceived by the higher sentiments.

The majority of the inmates of our insane asylum are people who were not

disciplined in this respect, and it may be said that they who give way to their feelings easily are in danger of becoming insane. Youth is the period for establishing habits of thinking and doing that accord with propriety and discretion; then that "grip" can be obtained upon the forces and impulses that makes character in the mature man or woman so admirable. When an insane woman who was given to occasional frenzies of rage was told by the keeper "You *must* control yourself," she replied, "The time to say that was when I was a girl. I never controlled myself when I was well, and now I can not."

The parent and teacher must appreciate the relation of conduct to the organization, and treat the irritable, passionate child with intelligent discretion, not excusing, or condoning its weaknesses, not feeding the flame of excitement by gratifying intemperate humors, but firmly and seriously endeavoring to discipline and regulate the excessive mental elements.

Self-control is one of the grandest achievements in character formation. It refines and clarifies the intellectual vision; brings the practical faculties into close harmony with the moral nature, and

raises the quality of the manhood. Out of true self-culture arises true self-control, and that means in a few words a well ordered, balanced mental development.

A NEW MONGREL.—The growing tendency in our every day talk to convert nouns or substantives into verbs is illustrated sometimes very amusingly. In the workshops and printing offices now and then a hand is heard to chide another for "monkeying" with a tool. This manufacture of a verb "to monkey," needs no explanation to one who knows anything of the habits of the four-handed animal. Lately we saw the term used in a letter written by a New York physician, which shows that it has obtained currency in respectable circles. We do not claim enrolment in the ranks of the purists, but we are desirous that our American use of English will not suffer deterioration from having phrases and terms forced upon it that are unnecessary and unbecoming. The indifference of our educated people to this matter has permitted a wild-grass growth of slang and other vicious forms of speech that is formidable to the conscientious lexicographer and most vexatious to the grammarian.

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 pro-

pounded, if a correspondent shall expect us to give him the benefit of an early consideration.

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

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compos-

itors, and this can not be done when both sides are written upon.

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

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

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

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

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

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 to the Editor personally will receive his early attention if this is done.

"SLURRING PHRENOLOGY.—J. P.—This method of treating an important subject is due mainly to ignorance and a capricious spirit. Newspaper men as a rule are not well versed in scientific subjects. They are too busy in their own line to attempt such studies and must depend upon what others say, and are not always to blame for what a prejudiced or dogmatical adviser may represent as the teachings of physiological mental science. We have found, however, that when a calm and definite statement of its teachings were made, newspaper men were among the first to acknowledge the truth in them.

CHEST MEASUREMENT.—D.—A man, six feet in height, of spare build, the mental temperament, may have good health with but thirty-four inches of chest, and a weight of one hundred and forty pounds. A better proportion, for appearance sake at least, would be forty inches of chest, and one hundred and eighty pounds, but the difference might consist mainly of muscle and fat, while the lung capacity be the same.

THE USE OF TIME.—A. J. M.—A person with a strong will, and with habits of self-control, may exhibit the power of limiting

his sleep. If the faculty of time is strong naturally, or by cultivation, this power is more strikingly shown.

Dreams are founded on impressions made upon the mind or sensibilities in the waking or sleeping state. An impression that produces considerable emotional activity is likely to be reproduced in sleep. It is said that those born blind never have dreams in which they see objects, and probably those born deaf do not dream of hearing sounds. If this be scientifically true, dreams depend chiefly upon impressions made by external things.

COMPOSITION OF FRUITS.—C. H. T.—The percentage of organic and inorganic materials in some of the more common fruits, according to Fresenius and others, is the following :

	Apples.	Peaches.	Pears.	Plums.
Sugar	7.58	1.58	7.9	3.4
Free acid	1.04	7.	.05	.87
Albumen	.23			
Pectose	2.72	11.		11.45
Ash	.44	.0	.98	.89
Insoluble Matter	6.05	6.05	4.25	4.15

In the ash are included the salts of potash, soda, lime, and phosphorus.

SPASMODIC JERK IN SLEEP.—D. B.—The sudden, involuntary movements of parts of the body when one is going to sleep or in the early period of sleep, are due to nervous reaction. A man who has been so active during the day that his muscles have been kept at a high tension will be likely to experience such jerks. Excessive effort that induces great nerve strain, will be followed by reactions when one seeks rest, that for a time may be convulsive and disagreeable. Keep a dog on the run for a long time and then let him when tired and worn out go to his kennel for repose. While asleep you will see his limbs twitch and jerk until the muscles have recovered from the effect of their severe tension.

TEMPERAMENTAL CHANGES.—W. J. M.—We can modify the physical manifestations of temperament very much, but not radically. Temperament is an inheritance that marks our family relationship, and so specializes the individual. Those characteristics of hair and complexion that show us to be of the Herefords or the Cunoinghams, like the broad cheek-bones or prominent

chin that may be a feature in the family likeness, can not be effaced by natural means. Out of door life, constant exposures to weather, hard muscular work, may in the course of years develop bone and muscle to such a degree that the motive temperament previously subordinate to the vital or mental becomes prominent and influential, but the light hair and fair complexion will not take on the dark and swarthy hues of the naturally bilious type of the motive. That must be born with the person. The "bilious" is properly a type or variety of the motive temperament, not a temperament in itself.



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

Economy of Life.—No thinking person can fail to see the wonderful adaptation of all things to the accomplishment of life's end. Man is a sentient being deeply rooted in the earth, yet breathing ethereal airs and possessing an intelligence of immortality. The phenomena of nature and the revelation of the moral world are addressed alike to him *as man* possessing a two-fold nature, consisting of soul and body, constantly exercising mutual relations, each being the counterpart of the other.

As he is governed by laws which explain all actions and operations and render him accountable, these laws need an interpreter. Hence God has set apart two classes of men as instructors for the well-being and elevation of our race—the clergyman and the physician, who are expected to give a just interpretation of the natures of revelation and science.

The question why we are initiated into organic physical life is one of the unsolved problems of life, but it is a plain fact that it is a condition best suited to the purposes of Divine wisdom. Man, the last and noblest work of creation, a part of universal mind moving in universal space, possessing a soul "the mother of deep fears and high hopes infinite," has an earthly life "forever conquered by death yet evermore triumphant."

There came to him as such to be his Teacher and Leader one that could walk with him, talk with him, eat with him, grow weary with him, and feel sorrowful and be burdened with him—one that could be touched with the feeling of his infirmity and bear all his griefs and sorrows. In his mission to earth he came as God-Man, *unto man as man*, not unto angels or pure spirits, but unto man as made up of soul and body, and being under the burdens and infirmities of an earthly life rendered abnormal by the curse that rested upon all terrestrial things.

The one who fails or neglects to view life with reference to its grand integrity, sees so much apparent inconsistency as to cause him to ignore the things that God has made, and to disregard the wise beneficence of his administration. When the Creator had made all things, he pronounced them *good*. The earth was fitted for man's temporary home with just such things as we all see around us. It is intended that by a proper use of them they should conduce to our happiness, and that they should be means for the promotion of our highest interests.

No law can be violated with impunity; then it is in obedience to all the laws of our being, physical, intellectual, and moral, that we attain to that economy of life, that equilibrium of all our powers, that will harmonize us with all that is good, great, and noble. It is by the *abuse* of things, the violation of laws, that we bring upon ourselves the denunciations of heaven, that are no less than the penalties annexed to these laws as the inevitable sequence to their violation.

Our highest interests demand the promotion of the public good; hence the institutions of society are put on foot to effect this end, and they ramify into all the different branches that are necessary to meet man's capabilities and responsibilities.

It becomes us as members of society, while we enjoy the fruits of universal learning, to make ourselves acquainted to some extent with all branches of knowledge, as our interests are vested in all departments of effort. While we may not be special adepts in all branches of knowledge, since—

"One science alone can one genius fit,
So broad is human knowledge, so narrow human
wit,"

yet it is to our interest to understand the

means for the accomplishment of the best ends, both as members of society and as individuals.

We all should be members of society, and as such we are designed to be efficient part-takers in such benefits as flow from such membership.

D. N. C.

Napoleon's Head.—

EDITOR OF THE PHRENOLOGICAL JOURNAL.

DEAR SIR:—The size of Napoleon's head is a subject that does not appear to lose in interest, and it would appear that the *data* are insufficient to satisfy the scientific inquirer. We have one fact however, that is worth notice:

It appears that after Waterloo, a British officer did actually try on the Emperor's hat.

At page 175, Vol. I., of the life of Sir W. Napier (English edition), there is a long letter from a Captain Churchill of the Guards, dated 24 June, 1815, giving an account of the battle. He adds, "I rode over yesterday (June 23) with Wellington to see Blucher. "I saw Bonaparte's carriage—his hat, cloak, "and all his orders were in it. His hat fits "me exactly; would I had such a head under it!"

Captain Churchill afterward rose to be a general, and was killed in battle on the 27th of December, 1843, at Gwalior in India. If he when a young man had had a 23 $\frac{3}{4}$ or 24 inch head, with such a position and connections, he would have left a name in history in some manner, it seems to me. Yet Churchill probably had a good sized head and may be safe to say that it was at least 23 inches around. If the Emperor's did not exceed that, the quality of his brain must be taken into account, and we must bear in mind his wonderful opportunities. He himself said (about 1802), "if Louis the 16th had been a "tyrant, I should now be a lieutenant of "artillery."

If his life is examined closely and critically, a great deal of his wonderful success is found to be due to the gross blunders and shortcomings of his adversaries. When they faced him resolutely, and behaved with reasonable common sense, he failed. Although he succeeded wonderfully, he also failed wonderfully, and contrary to all rational forecast, Europe during his time was mostly ruled by half-man monarchs.

As Bonapartism is at present in much disrepute in France, it is probable that if a judicious representation were made to the French Government, it would allow his skull to be examined.

We will venture to say that if this were done, certain deficiencies of the moral nature that were manifest in his lifetime will be found to be confirmed by his cranium.

DISCOVERER.

PERSONAL.

THE MARQUIS OF LANSDOWNE resigned the position of Governor-General of Canada a while since, and takes the place of Lord Dufferin as Viceroy of India. Lord Stanley, appointed to succeed Lansdowne, is expected to be at his post in March. Lord Dufferin returns to England, where he will find important work in the present attitude of political affairs. His Indian services have been highly creditable, and advance his reputation as an executive officer.

PROF. E. A. JOHNSON, of the University of New York, recently completed the fiftieth year of his occupancy of the Latin chair in that well-known institution. Prof. Johnson is very properly beloved by the University students, for if there are any who have ever filled the *role* of a teacher of classical literature and at the same time that of the gentle, patient, and firm gentleman, Prof. Johnson is entitled to be included in the list. To-day, in his seventies, he is the same keen analyst of Latin idioms that he was over twenty-five years ago when the writer enjoyed his instruction.

PROF. ASA GRAY, the eminent botanist, died at the Botanic Gardens, Cambridge, Monday, January 30th, at the age of 77. Few men who stood so high have been known so widely or loved so well. The scholar in Professor Gray was always enveloped in the gentleman, and the gentleman in the friend. Professor Gray was one of the really great men of the time.

WISDOM.

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

"Sympathy is more than silver or than gold."

What delights, what emancipates, not what scares and pains us, is wise and good in speech and in the arts. *Success.*

Seven letters in the alphabet have always been in trouble, while four of them have always been in luck.

Self-reverence, self-knowledge, self-control, These three alone, lead life to sovereign power. *Tennyson.*

Life is a series of surprises, and would not be worth taking or keeping if it were not. God delights to isolate us every day, and hide from us the past and the future. *Experience.*

The man who never acts is a mere parasite on the body of society. Inactivity is the straight road to impotence, and eventually to annihilation. The consequence is, we must exert ourselves. Our watchword must be "Reform;" reform in person and in mass, individual reform and social reform. *Henry Harland.*

MIRTH.

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

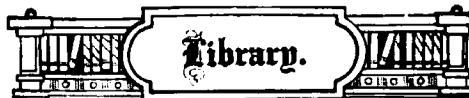
Some mens vas always like der key hole on der back of a clock. Dhey vas behint time.

"What is a 'patent inside'?" the editor was asked. The editor replies: "A digestive apparatus warranted to stand the wear and tear in sampling all the patent medicines advertised in his sheet."

An Irishman put up the following notice: "Whoever is caught trespassing upon these grounds will be given forty lashes upon the bare back. Half the penalty to the informer."

After writing sentences one day, the scholars exchanged work for correction. A small boy marked an error, and then at the foot of the paper made the following explanatory note: "He didn't begin Masseychewsits with a caterpilla."

Robinson (at the window): "Hullo! There goes that woman Brown's so dead sweet on!" Mrs. R. (rushing up with excitement): "Where?—who?—where? What, that—in the gray? Why, George, how ridiculous you are! That's his wife." Robinson: "Exactly, my dear!"



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.

WHAT WORDS SAY. A practical analysis of words for use in elementary schools, by John Kennedy, author of "The School and the Family," etc. New York. Kennedy & Co.

Such hasty examination as we have been enabled to give this book satisfies us that it is valuable in the school-room and also in the home training of the young as a word-book; it seems to us a little in advance of the books of its class. Mr. Kennedy really makes words speak for themselves. He takes the root or key of a class of common words and shows how they are related in meaning one to another. Taking one of the shorter lists to illustrate his method, words beginning with "Alb" for instance, from the Latin meaning white, we have in order. Albino, Albite, Albugo, Album, Albumen, Albuminum, Albein, and following these definitions of the above words in brief, but sufficiently clear for a child's intelligence. We think that he has really succeeded in making words speak with unusual eloquence and so renders the study of words attractive to any average pupil. The old and tedious methods of etymology are ignored as they should be, and while he may be said to be classical, there is nothing of the dry or profound in his classicism.

EXACT PHONOGRAPHY. A system with connectible stroke vowel signs. A Textbook for self and class-instruction. By George R. Bishop, author of "Outlines of a modified Phonography," etc. 12mo, pp. 244. Price, leather, \$2.00.

This exceptionally well-arranged and well printed book is the result of years of study and practice. The author for many years had been convinced of the necessity of the adoption of some devices that should take the place of the old dots and dashes in vocalization, and written in with the word forms, if any decided progress is to be made in phonographic shorthand. Nearly four years ago he outlined his views in a suggestive pamphlet which found circulation

among the practitioners of this time-saving art, and the encouragement of its reception led him on to the completion of the present work.

One who has read the pamphlet probably remembers Mr. Bishop's accentuation of the principle of representing words by such definite characters that legibility will be assured, and the uncertainties of unvocalized phonography as commonly written in reporting styles be avoided. In the introduction to his book he very clearly states the reason that influenced his efforts to produce a treatise that would be an approach toward the object so desirable to the professional stenographers, viz.: "a system as brief as phonography and as exact as common longhand." It would appear that the difficulty of adapting strokes to the old consonant outlines of phonography, which at first seemed great, proved resolvable as the author advanced in his self-appointed task. To be sure he had the system of Lindsley and a later English treatise to satisfy him of the practicability of the undertaking, but they are methods of stenography, not phonography, which is at first sight to be preferred as more consistent with the normal expression of language. The illustrative examples which form the bulk of the volume, and properly so, are admirably executed, the distinction between light and heavy strokes being carefully made, so that no uncertainty in this respect shall annoy the student. In fine, the thought and hand of the learned and proficient reporter are manifest at every step, and in the teaching the results not of a nicely developed theory, but of everyday test and practice are seen.

PATRIOTIC ADDRESSES in America and England from 1850 to 1885, on Slavery, the Civil War, and the Development of Civil Liberty in the United States. By Henry Ward Beecher. Edited by John R. Howard. 8vo, pp. 857. Fords, Howard & Hulbert, Publishers. New York.

Mr. Beecher was at once a man of great intellectual capacities, and very active emotional faculties. To say this is to indicate the reason for the many phases of mental power that he exhibited. With a gift of lingual expression that was rarely surpassed he was enabled to meet every requisition of his pulpit and platform career, however widely different might be the occasion. Whatever may be the difference of opinion with regard to his theology and his preaching, his standing before the world as an example of earnest patriotism is unquestioned, and none is there who will deny that his oratorical power on the side of civil liberty and personal duty to the State was of the highest order. In every great struggle during the past thirty-five years the preacher of Plymouth Church bore a conspicuous part. It was regarded as a matter of course that he

should be a leader of public thought in affairs of public moment. His sincerity as a lover of the country was unquestioned, and when he spoke on a question of serious concern the people listened as a single man.

It is well that such a collection should be published, and the enterprising firm that has undertaken the work will receive the thanks of the community. The editor has made three divisions of the address—I. those on Freedom and Slavery, II. those on the Civil War, III. those on Civil Liberty, together comprising thirty-five topics. The last of the series is the Eulogy on Grant, that was delivered in Tremont Temple, Boston, in October, 1885.

Mr. Howard's review of Mr. Beecher's career occupies 160 pages and is itself an interesting section of the volume. Many personal reminiscences, anecdotes, and letters which enter into a friendship that had existed forty years are recorded *currente calamo*, and possess a freshness that will please. A considerable number of illustrations embellish the book.

The frontispiece is an admirable steel engraving of Beecher at the age of 48, and there are also a portrait of him at 65, and a fine photo-artotype taken during the last year of his life. Besides these, there are portraits of the most eminent men of the Anti-Slavery period and the War period—the contemporaries and co-laborers of Mr. Beecher.

PUBLICATIONS RECEIVED.

THE INTERSTATE PRIMER SUPPLEMENT. Designed as a drill book to supplement the primer and first reader in primary schools. By S. R. Winchell. Small 12mo. cloth, pp. 134. Price 25 cents. Interstate Publishing Company, Boston.

This book is quite as well adapted to home as to school use. The type is large and clear, paper strong, printing good, and the lessons simple as well as pleasing.

ANNUAL REPORT OF THE MORSE DISPENSARY, of Cooper Medical College, for 1887. San Francisco, Cal., according to which upward of 2,000 new cases were treated during the last year.

THE LICK OBSERVATORY. A Lecture and Guide Book.—By the Rev. Geo. W. James—with illustrations—San Francisco. The Bancroft Company.

An interesting pamphlet—the outgrowth of popular lectures, which Mr. James has frequently delivered. The history of the great telescope on Mt. Hamilton is given and particulars relating to the locality and furnishing of the observatory.

THE TRIBUNE ALMANAC and Political Register for 1888. Edward McPherson, Editor.

It is a handy little manual for reference in matters of National and State government. Statistics are given of recent election returns and the platforms of the old and new parties are tabled in full.

TENTH ANNUAL REPORT OF THE EIGHTH WARD MISSION, New York City.

This mission is practically non-sectarian, although under the management of the Protestant Episcopal Church. There are included in it a guild for boys, one for women and girls, a reading-room, school-room, chapel, and sewing circle. The good accomplished by this class of missionary work is like the ever widening circle when something disturbs the surface of placid waters; no human eye can decide where the last circles rest.

BETHLEHEM TO JERUSALEM. A new poem, by George Kingle (author of "Make Thy Way Mine"), with fac similes of water-color sketches of Church of the Nativity, Bethlehem; the Sea of Galilee, from Tiberius; The Mount of Olives, from Jerusalem; and Jerusalem, from Mount Scopus. From studies made in the Holy Land by Harry Fenn.

A sweet Christmas poem beautifully and aptly set to scenes historic in the great Christ drama. The views are striking and creditable to the artist. Frederick A. Stokes & Brother, Publishers. New York.

THE MOVEMENT CURE. An Introduction to the History, Principles, Application, and methods of the Movement Cure. By Mark S. Purdy. Corning, N. Y.

A pamphlet of twenty-five pages in which a good idea of the massage treatment in its variety is supplied.

COOPER MEDICAL COLLEGE, San Francisco. Annual announcement—session of 1888.

A well equipped institution, and apparently organized for serious independent service to the community. We are glad to note that an examination or its equivalent in academic training is required before a student is admitted.

EL SEKA (The Review). A Journal of Medical Science and Hygiene. Editors—Professor H. Rippy Bey, and Ibrahim Mustapha Bey, of the Medical College, Cairo, Egypt.

Through the courtesy of Dr. A. M. Ross, of Toronto, we have received an example of

this Egyptian periodical. The characters in which it is printed have a cabalistic twist to them which puts their significance quite beyond our present intelligence. Yet we can believe that the periodical is a creditable exponent of the medical advancement of Egypt.

CURRENT EXCHANGES.

Wallace's Monthly. Devoted to domesticated animal nature, particularly horse flesh; February number contains an elaborate index of notable stock. N. Y.

La Gazette Medicale. Monthly review of medicine and surgery and the related sciences. Montreal. Recently enlarged with the addition of useful departments.

Our Day. A record and review of current life; field of application broad enough and could be made an instrumentality of great usefulness. Joseph Cook, editor. Boston.

Banker's Magazine and Statistical Register. New York.

The Illustrated Catholic American. Weekly. New York.

Lippincott's for February is entitled by the publisher. "A woman's number," and properly so, as the greater part of its contents are illustrative of the sex in various relations. Besides the leading feature a novel entitled, "The Spell of Home;" the contents are chiefly made up of, My efforts to become a Lawyer, Our Old Homes, Life at a Working Woman's Home, Modern Word Parsimony. Philadelphia.

Chicago Medical Times, organ of the advanced school. G. K. Hazlitt & Co.

Homœtic Review, for February, contains several topics that are worthy of note, The Better Training of Candidates for the Ministry, How may the lack of religious and moral culture in our public schools be remedied? Some sharp but true things are said in this; A Study of Dr. Robert South; How was Adam the Son of God? The Sections are well filled making a number of more than usual bulk. Funk & Wagnalls. New York.

The New England Magazine gives us well illustrated articles on New England Cities and Towns, Block Island, New England Educational Institutions, and a Curious Chapter of Vermont History may be mentioned. Boston.

The Century opens with a portrait of Walter Savage Landor, whose strong face has something of Daniel Webster and Walter Scott in combination. Ranch life in the far West, Some Letters to Miss Mary Boyle, by Landor: A Russian Political Prison, Pictorial Art on the Stage, At the Literary. Living in Paris, Grand Strategy of the War of the Rebellion, Abraham Lincoln. Astrology, Divination and Coincidences are among the more striking titles, and well illustrated.

Book Chat, convenient appendage to the table of the general reader and literary man. Brentano. New York.

Popular Science Monthly, February, has New Chapters in the Warfare of Science. Geology. Progress at Panama, a somewhat technical article relating to that great work; the Moon and the Weather, in which the writer takes the ground that there is something worthy of belief in time-honored notions; Animal Agency in Soil Making, Emotions *versus* Health in Women, Astronomy with an opera glass, Vegetable and Animal Albumen, A Sketch of Sir Joseph Whitworth, with a portrait. D. Appleton & Co. New York.

Medical Advance. Chicago. A pretty staunch advocate of the advance guard of Homeopathy. Evidently believes in provings, although they may lead to somewhat extravagant conclusions.

Christian Thought. New York. A bimonthly. The number with the date of February has Physical Theories of Mind, Depravity and its Cure, Mommsen, Bible Account of Creation in the light of Modern Science, Our Next Summer School, etc.

Harper's Magazine for February has for its frontispiece. Une Jetee en Angleterre, a striking picture of a marine landing; Felix Buhot, painter and etcher. Quebec, besides Ship Railways, Ancient and Modern, Socialism in London, On the Outpost, 1780, The American Shipping Interest, Hyderabad and Golconda, A little Swiss Sojourn, and other topics. A pleasing number and notably American. Harper & Bros. New York.

The Cosmopolitan. Monthly. New York. A growing literary venture of the free lance school.

American Inventor. Monthly. Cincinnati, Ohio.

The American Drug Clerk's Journal. Monthly. Chicago. Has entered upon its second year.

Illustrated Pacific States. Weekly. San Francisco, Cal. Enterprising and entertaining.

The Phrenological Magazine. Monthly. L. N. Fowler, London, England. Well sustained and creditable.

The Literary World. Fortnightly. Boston.

Builder and Woodworker. February. New York. The designs for cottages, etc., in this publication are usually worthy attention. Notably is this true of this number.

The Dietetic Gazette. Monthly. New York. Welcome to this new periodical; it has a sphere of decided usefulness.

The Southern Cultivator. Monthly. Atlanta, Georgia. A well-edited and elaborate farm journal.

Vick's Illustrated Monthly Magazine. Rochester, N. Y. Old and reliable journal of floriculture and gardening.

The Western Rural and American Stockman. Weekly. Chicago, Ill. Practical and sensible on other topics than its specialties.

The Cultivator and Country Gentleman. Weekly. Albany. Fifty-eight years of success are reflected in the excellence of the matter.

MRS. M. J. P.:

Noticing your note in the "Child-Culture" department of the PHRENOLOGICAL JOURNAL for February, I thought an answer to it would be acceptable to perhaps many other mothers besides yourself. I am not a mother, "by a long chalk,"—rather a bachelor of about 30—but I am fond of children.

I read a story in the *Wide Awake* some years ago, in which a Mrs. Horton taught her little girl, Amy, self-control in a way at once sensible and effective. If the child had done anything naughty; or said any naughty word, she would, when night came, and she put her darling to bed, *refuse to kiss her little hands or her lips*; but she would kiss both if the little one had been good. She never permitted the child to go *unkissed* to bed, however; but would kiss Amy's cheek, or her forehead. How does this strike you? Try it on your little ones; perhaps your little darling will climb on your lap when night and bed-time comes, when the little night-dress has been put on, and your precious treasure is ready for bed, and say, in her pretty, childish way, as little Amy did: "Tean hannies to-night, mamma; tean hannies for oo to tiss!" I hope you are bringing up your children in "the nurture and admonition of the Lord," for christianity has a stupendous power for good in the lives of the little ones.

W. S. WELER

"ECHOES" FROM THE CONSULTATION ROOM.

BY PROFESSOR NELSON SIZER.

IF one-tenth part of the interesting incidents which occur in our Phrenological Examination Room could with propriety be presented to the public, it would make a chapter as interesting as a romance, and as readable as a fairy tale. The wonderful "hits," as people call them, in describing character, and the counsel and guidance which they receive in reference to their health, and the right control and management of their talents, skill, force, and faults, and the openings and suggestions which we make to those who wish to improve their relations to life by means of better occupations, would fill volumes.

The writer met at a recent lecture of his in Brooklyn, a bright, energetic young man who came to him and said, "you do not know me, but I shall never forget an interview I had with you four years ago, and the advice you gave me on the subject of a suitable occupation. You told me I was capable of doing something better than I was engaged in; that I ought to be a man on my own account, have a business of my own and be master of it, and not be dancing attendance on some one else, and doing boy's work all my life in a store. You advised me to learn to be a builder, and to study the science of building, namely, architecture. I accepted your advice. I spent three years in learning the business, took lessons in architectural drawing, and now have a trade and a profession, a business of my own, and I am only twenty-two years old."

A few of his friends, we suppose, know what he thinks about it, but the 700,000 people in Brooklyn, with the exception of perhaps twenty people, do not know it. He could have used up the amount, which the advice cost him, in candies, cigarettes, and soda water, and not have been any better, but much the worse in mind, body, and pocket.

Three years ago a lady, healthy, vigorous, and intelligent, called for an examination to be written out in full. She desired to know what she could best do to earn a living henceforth. We said, "If you were not more than eighteen years of age we would advise you by all means to study medicine. You have the talent, the constitution, the practical judgment, the sociability, and the courage to fill the place well." At the close of the interview she said, "You examined and wrote out my character ten years ago, and advised me then, as now, to study medicine. I had never thought of such a thing

as desirable or possible, and I went away disappointed and angry. I would not tolerate the thought of becoming a doctor. But the subject haunted me, and the result was that in a few months I was studying for that profession, in due time graduated, entered upon successful practice, enjoyed the work, saw the great need of a hospital for women and children, and urged the plan upon the people of the city where I reside. A charter was obtained from the Legislature of the State; the hospital was built, and I have been placed at the head of it. During the years of its existence hundreds of patients have been treated, and the institution is very popular, at least among the ladies.

"Now I have come in to express my gratitude, to give you the encouragement which is your due, and to say that you have been the cause of my success. I wanted also to have another examination to see if you would say the same as you did before. It is the same, only you talk stronger now, if there is any difference."

There are men in this city of New York who, by means of a phrenological examination, have been taken away from a worthless business, and recommended and urged to adopt another, in which new business they have acquired hundreds of thousands of dollars that they have saved. Occasionally one of these persons brings in his son for examination as to his future pursuit, and then incidentally tells us the story of what we have done for himself, attributing his choice of business, and the success he has derived from it, simply from following the unexpected advice he got from us regarding the matter.

It seems a little queer that men having thus been put on the right track should know it and feel it, and yet rarely take the trouble just to drop in and speak the truth to us with its encouragement; but when they come they expect us to tell them the whole truth just as they expect that a good physician will heal them when they go to him for relief, and therefore they do not consider it a matter for congratulation with us, though they fully appreciate the service rendered them and are happy in its benefits. They would as soon think of going around to see the engineer who surveyed their farm, or the mason who laid a wall, to thank him over and over for doing what they expected he would do and paid him for doing; so we have to consider it a compliment when they thus take it for granted that we know our advice is worthy to be followed. We get this much from these customers, however; they bring their sons and grandsons for us to "do likewise" for them, and it is only then that we find out how much they believe that they have derived from consultation with us.

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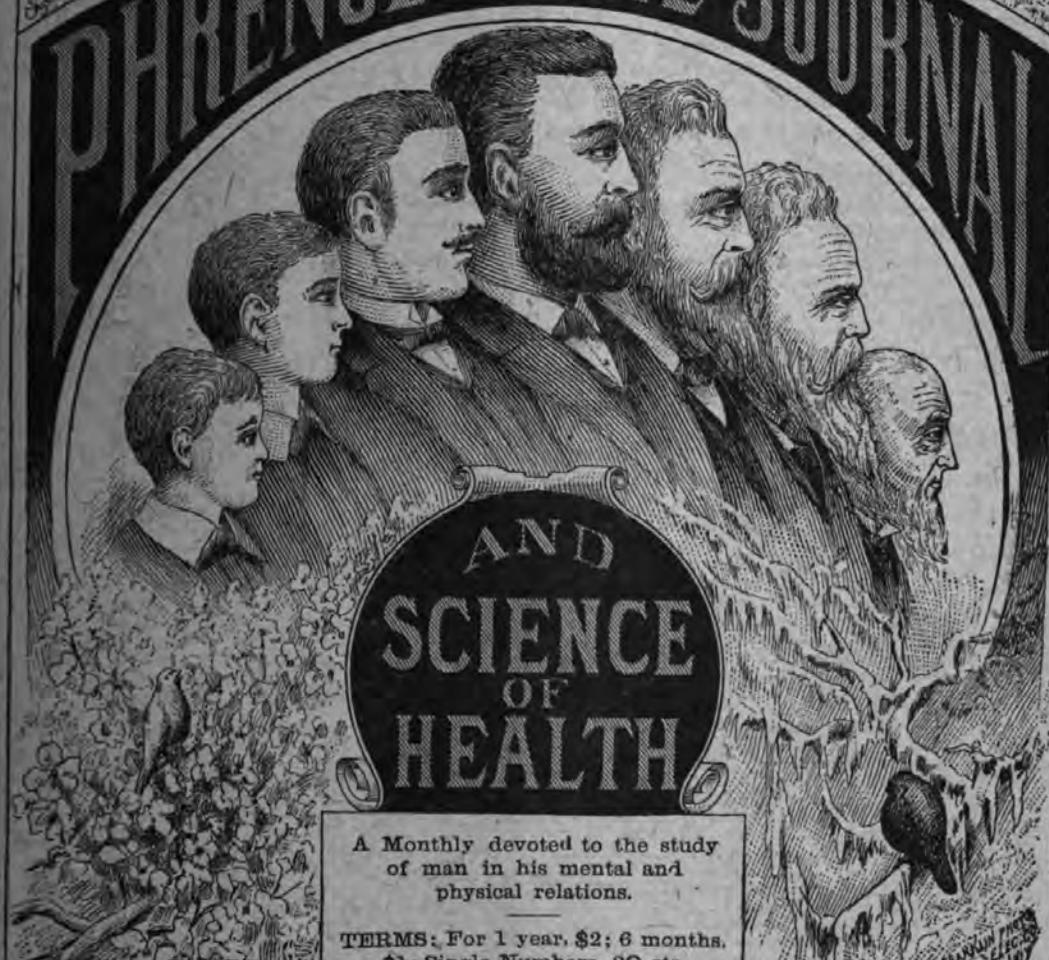
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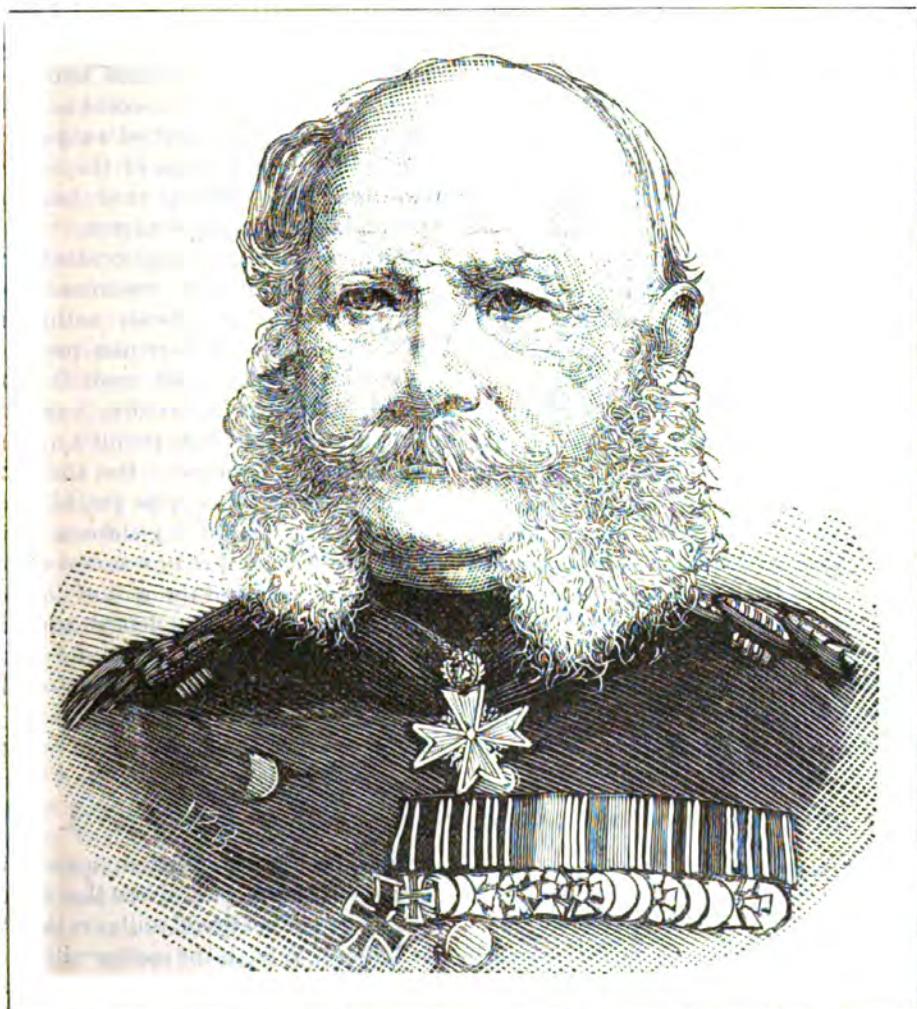
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WILLIAM OF GERMANY.

THE death of the Emperor of Germany, on the 9th of March, is a very important event in the political history of Europe. Over ninety years old, and for a long time of feeble health, his "taking off" has not come unexpectedly, yet such has been the personal influence that he exerted upon the masses of the German

people, and upon the relations subsisting between his Government and other European Governments, that his decease is properly regarded as a critical event. William I. has been a stern, but sagacious ruler, from the time of his accession to the Prussian throne. He has been assisted in the administration of affairs by councilors of rare capabilities, notably, Bismarck and Von Moltke, who adopted his aristocratic views, and with the favoring results of the war of 1870, that stupendous indiscretion of Napoleon III., succeeded in unifying and consolidating the German States into one powerful nation.

The Emperor was a soldier from his cradle, and his rule was a rule of the sword. A knowledge of his Prussian ancestry will account for most of the measures of State that have rendered his reign notable. The gradual development in power of his dynasty from the era of Frederick the Great, is one of the most interesting studies afforded by European history, and the attitude of Germany since the Franco-Prussian war, it might be said, could well be that of conciliation and compromise in the numerous contests of diplomacy fomented by the Eastern puzzle. We have little doubt but that, years ago, the bloody tracks of war would have desolated many fair provinces in Eastern or Western Europe had not the sentence of William been for compromise and peace. The restraint he has exercised in angry national dis-

putes is evident from the many predictions that are current to the effect that now he is gone, the dogs of war will slip their leashes and plunge the Continent into frightful conflict. We hope that this will not be; that the spirit of peace will prevail in the councils of all the nations.

The masses look to the suffering Crown Prince—for whom, alas! the grave seems opening—as the representative of mild government and a harmonious policy. It is a forlorn hope, yet a hope indulged by many that he will triumph over the fell disease that clutches him by the throat, and give to the world an example of a monarch satisfied to guide his people in the cultivation of the arts and manners that develop true humanity and make for certain progress.

Germany as a great and central power can influence public sentiment more than any other European nation, and we believe that the German people *en masse* love peace, and wish it maintained, and are, therefore, averse to being involved in other people's quarrels or schemes of conquest. But the people do not rule in Berlin, as yet, although they have a *quasi* legislature. Who knows, however, that now a new *regime* will be evolved, and the will of the people at large become the determining factor in the measures of king and court? We hope that will be the case for Germany's sake, and for the sake of all Europe.

D.

OBSERVATIONS OF A WOMAN IN PUBLIC LIFE.—No. 3.

“What is the matter with our schools?”
 “Why are our graduates so helpless as a class?”
 “Is something lacking in our education?”

THESE are questions heard on every side. And the answer must come from somebody and in some way. Let us examine into the matter and contribute our mite to a much needed reform. There are ways and means if only parents and teachers would unite and open the doors of their minds to reason. Our

schools are neither sufficient nor efficient to develop the most and best that is in us. Our largest educational mills are the Public Schools. What is the matter with them? First, they are *not sufficiently elastic*—i. e., students are compelled to run their intellects into a uniform mold, to arrive at truth through identical channels of thought, thus destroying all originality in the development of individual talent. A natural growth makes the

most of the material at hand. The young mathematician outstrips his fellows, but is kept back with the slowest of his class, or grows old in his grade, because he can not write a five-minutes' composition to order. An embryo Carlyle or Emerson may stand term after term because figures are too much for him, until, wearied and crushed in spirit, he loses confidence in himself and rushes from the halls of learning in fierce rebellion or despair, according to his temperament. I know a young girl who devoted more time to arithmetic than all her other studies taken together, yet could not master the simplest mathematics, not even the multiplication table, for rapid or off-hand use. So term after term she failed of promotion. Examination day brought only defeat and disgrace. All her energy and labor ended in mortification and tears. Yet she was unusually clever in composition, rhetoric, mental and moral philosophy and that line of studies. Her articles were sought for and published in the town papers while she was a mere child. Then she was taken from the public school and placed in a seminary. Here she fared no better, as the large number of pupils prevented the teachers from giving individual attention to peculiar minds like hers. Like all large schools the mill was put in order and the wheels of the machinery set in motion, and creaked with the weight of the grist to be ground. Regardless of the kind of grain which went into the hopper, all were expected to emerge superfine white flour. What wonder that grit and dust occasionally set Society's teeth on edge and makes it complain! This poor girl wrestled early and late with the "Old Man of the Sea," but all to no purpose. She was denied that *ultimatum* of youthful ambition, the coveted diploma. Her mates swept by her in June sunshine and glory: robed in white and decked with flowers. Commencement came and she crept into a corner of a seat in the church. Music, bustle, fragrance, heat, fans,—at

last order is obtained. The platform and its occupants seemed to recede in darkness before her straining eyes. The speaker's face floated in a mist which threatened to turn to rain. As the class rose in exaltation, she sank in despair. The names of her class-mates sounded from afar. Rolls of paper with blue ribbons were passed and received with blushing bows, and then the organ thundered forth, the storm broke, the heavy rain poured in torrents down her cheeks. Her name was not called. Her friends were not there to send bouquets and rejoice over her. Does any one think of her now? She hopes not, and longs for oblivion. She creeps heavily to her little room, buries her face in the pillows, and shakes with the violence of her sorrow. In vain is all her high philosophy now. Sorrows may come in after years, but none will take hold of her as did this first great disappointment. Here is one instance of the lack of an elastic course of study in our schools.

Another fault in the public school system is *the lack of continuity in study*.

The daily program is a kind of intellectual crazy-quilt, five minutes to this, ten minutes to that, twenty minutes to the other thing; all patched together by 'normal-school-phrase stitches or teachers' vernacular. If eight hundred people could be taken from the sidewalk as they pass a given point on Broadway and could be forced into line and marched without communication into a public school building, and distributed into classes of sixty or a hundred each, in close rooms, forced to race from one subject to another for five or six hours each day for a term of years, as our untrained youth are forced to do, would it be strange if the asylums for lunacy and imbecility received six hundred out of the eight?

"Rat-tat-tat!" geography, "rat-tat-tat!" arithmetic, "rat-tat-tat!" composition, drawing, writing, map-drawing, etc. You say this makes quick and

ready students. Perhaps it does ; but can hardly compensate for the time wasted in raps, signals, and changes from one kind of work to another. Measured by the actual knowledge or skill acquired it is doubtful good, if good at all. I was engaged by a large Boston publishing house to lecture on Industrial Art Education, and I spent two years lecturing to teachers in various cities of this country upon this subject, and it devolved upon me to visit schools, especially the primary and grammar grades, to see how the work was progressing, and to watch the practical application of the lectures to everyday work. Often the thirty minutes given to drawing was largely consumed in preparation. I often timed it, and found that at least one-third of the hour was consumed in getting the material ready and the class at work, besides a few minutes to close and get ready for the next exercise.

Now I do not complain at the military order and precision of movement, but I do contend that having the material in hand and being interested in the work the pupils certainly in the upper and grammar grades should have been allowed at least a full hour's work. The most successful teachers do this ; for example, finding the students interested in spelling, geography, map-drawing, or botany, they follow this study until the interest seems to flag ; then they pursue some other branch in the same way, and at the end of the term, these pupils pass intelligent and most superior examinations. This is the argument in favor of going to Germany or Italy or France for music. High and low, rich and poor, can hum the airs of every popular opera, and there an American student is surrounded by music. He breathes it, hears it, feels it all the time. This is the secret of the success of the Chautauqua movement and of the Concord special school. They meet once a year and devote some time to one single purpose, and it amounts to something. This is the basis of the Potter Institute of Oratory which

holds two sessions each year, and the leading motive of the annual meetings of the American Institute of Phrenology. I assume that a class can learn as much in six or eight weeks twice a year, by giving their entire time to the work, as could be acquired in ten months, meeting once a week.

The third objection to the present system of public schools is *the marked absence of moral training* in all the departments. Duties, obligations, honor, truth, patriotism, humanity, etc., are not in the course of study, and the over-worked teachers have no time for anything not prescribed by school officers. This omission of what should govern knowledge is obvious to every one who will give it a moment's conscientious consideration. You object to sectarian or religious teachings ; just so, but morality is not sectarian, and no reasonable member of society can for a moment object to the inculcation of the principles underlying personal security and national prosperity. Theft, arson, forgery, robbery, and murder are surely not sectarian, although the thief, the house-burner, robber, and murderer may belong to a church, or be very religious, to all outward appearance. *Education without moral principle is trained strength to prey upon society, and the danger is proportioned to the skill attained ;* the more accomplished the artist the more skilful the forger, the more scientific and learned the man the more mysterious his crimes.

Last, but not least, *the education of to-day is not practical ;* not available in time of need. The graduate seems less able to meet the world in active life than one who has little or no education. They seem to be above work, or unable to do more than teach what they have been taught. The best grammarian I ever knew, one who could quote authorities, page, rule, exceptions without fear of rivalry, could not write a graceful note of regret, congratulation, or condolence, much less a leader for a village

paper. Then what was her grammar good for except to teach again. She could not apply it. Had she spent more time in the *use* of language, and less in the *science* of it, she would have added greatly to her usefulness. In mathematics, I remember once, three of us, all ranking high as teachers, journeyed to a convention. We paid the bills, and borrowed change of each other promiscuously, each keeping a memorandum of the expenses. When we returned we

undertook to "settle up," and could not succeed. At last, I proposed that we supply ourselves with plenty of change, begin the journey over again, and pay each other in the order in which the accounts occurred. This we did successfully, and in great glee. One of the three was a college graduate and school director, and the other a teacher of mathematics. Our mathematics lacked something of the practical.

HELEN POTTER.



DEAN RACHEL L. BODLEY.

PROF. Rachel Little Bodley, Dean of the Woman's Medical College of Pennsylvania, is a woman of rare energy and mental strength. She has done much for the uplifting of her sex by showing them what she *has* and they *may* accomplish.

Prof. Bodley is of Scotch-Irish and English descent. Her paternal ancestors were early Americanized, her great grandfather, Wm. Bodley, having served in the Continental Army, under General Washington in the war which

made us free. Her maternal ancestors were Friends, Talbot by name. From them she inherited harmony and strength of character, economy of time and purpose.

Born in Cincinnati, Ohio, she was trained chiefly by her mother, who is a woman of education and rich Christian culture. Mrs. Talbot herself conducted a private school in which the foundation of her daughter's education was laid. When in her twelfth year Rachel entered the first college ever chartered for

women, the Wesleyan Female College, of Cincinnati. After five years of faithful study she was graduated there in 1849. Accepting then, the position immediately tendered her, as assistant teacher in the Wesleyan faculty, she indicated a fondness for and adaptation to the work that were exceptional, and she has gone steadily on ever since that time broadening in knowledge, and earnest in effort to uplift and instruct others. She taught for eleven years in the Wesleyan College, advancing in grade until she was for some time before she left Preceptress in the higher Collegiate studies.

Impelled by the desires of her gifted and comprehensive mind to reach deeper truths she came to Philadelphia in 1860 and attended as a special student in advanced chemistry and physics, the Polytechnic College of Pennsylvania. After a year of attentive study she returned to Cincinnati, and in 1862 was appointed professor of natural sciences in the Cincinnati Female Seminary, where she rendered excellent service for three years. Having much fondness for botanical science, while filling this chair, she arranged and classified Joseph Clark's large collection of plants, publishing a forty-eight page catalogue of the same. The work was so carefully and conscientiously done as to elicit encomiums from high botanical authorities. She would have found further research in this department congenial to her taste and love from nature, but what seemed a higher call came.

In 1865 Miss Bodley took the chair of chemistry and toxicology in the woman's Medical College of Pennsylvania, becoming the first female professor of chemistry on record in the country. In 1847 she was elected Dean of the Faculty. In this relation she has worked untiringly now for over thirteen years and seems yet in the fresh vigor of womanhood. Endowed with great physical endurance and uninterrupted health, her strong mental powers have had their full sway. After accepting the professor-

ship in Philadelphia she completed a regular course of medical study and received the doctorate in medicine. Being accomplished as a writer and lecturer, Dean Bodley's vacations and leisure hours are often spent in imparting bits of knowledge to others, and her nobly unselfish life has given much, and met, during its course, with honor and appreciation. Among the honors conferred on Prof. Bodley we enumerate the following: She is corresponding member of the State Historical Society of Wisconsin, of the Cincinnati Society of Natural History, of the American Chemical Society, of the New York Academy of Sciences, and a member of the Franklin Institute, the Philadelphia Academy of Natural Sciences, and the Public Educational Society.

Her portrait shows her to be a person of agreeable and earnest physiognomy with fine intellectual development. The practical side is well marked giving executive range to her talents. She should be quick in intuitive grasp and spontaneous in expression to the extent of liveliness and vivacity; yet not assuming or pretentious, but dignified in manner, pure and philanthropic in aim, and devout in sentiment. She has done much to uplift American women and reaches out a sympathetic hand to her oppressed sex in India; being, perhaps, the warmest friend and most faithful helper that Pundita Ramabai has in this country.

The Medical College, whose students number this session, 1887-8, one hundred and fifty-nine, is admirably managed. The Dean's home, of which her mother is the central figure, is in Philadelphia, near the college. It is a hospitable home where busy workers often gather for communion and mutual sympathy. The great purpose of Dean Bodley appears to be, to labor in the fear of God to establish a higher standard of human thought and elevate her sex to a better plane of usefulness. The influence of her work will reach far into the future.

S. L. OBERHOLTZER.

NOTABLE PEOPLE OF THE DAY.

ELIZABETH STUART PHELPS.—Who that has read any of this author's books must have been impressed by their tender and elevated style, and if his acquaintance extends to such volumes as "Beyond the Gates," and "The Gates Between," he should have noted the peculiar vein of physical expression that seems due to a belief most strongly held in relations of a spiritual nature subsisting between the world frequently desig-

decline in physical strength. The head is developed mostly in front and centrally, giving her spirit and vigor as a student and thinker, sharpening her sympathies and bringing out into marked notice her personality. The head is well developed in the crown; it is a long crown, having unusual extension backward, and somewhat flattened, we infer, on the top. The tone of the character may be inferred from this to be self-re-



ELIZABETH S. PHELPS.

nated as "the other" and the present mundane existence. One sees at a glance that the mental organization of Miss Phelps, if this engraving be at all like her in form and expression, is reflected by her writing. The whole make-up shows delicacy, fineness, and susceptibility—with an insufficient proportion of the vital temperament to balance the activity of the nervous system. She must needs restrain the exercise of her intellectual and emotional faculties or

liant, spiritual, charitable, and courageous—while not wanting in sensitiveness and desire to please. Miss Phelps is so strongly social that life's best purposes and enjoyments seem to her to be interwoven with the intimate relations of home and domestic life—yet her unmarried career suggests a type of individuality that can rise above such relations. She has ideals that stimulate to effort requiring her best powers, and in such effort lies her best enjoyment. But the

aspiration of such a nature is likely to meet with disappointments, and to experience much of grief. Solace, however, comes for it in self-forgetfulness through the absorption of self in work that is useful and humanitarian.

Elizabeth Stuart Phelps is a native of Boston, having been born there August 31, 1844. In the lines of descent of both her father and mother there are many ministers, chiefly of the Congregational Church, some of whom were writers of ability. Her mother's father, Prof. Moses Stuart, was a Congregational divine of note, and an authority on biblical literature. Austin Phelps, her father, became Professor of Sacred Rhetoric in the Andover Theological Seminary, and has written several well received works, among them "The Still Hour." Her mother, for whom she was named, published many books anonymously, one, "Sunnyside," reached a circulation of upward 100,000 copies. Thus it may be seen that Miss Phelps inherited a certain facility as a writer, especially of stories, which indicated itself very early in her youth; one of these stories written at thirteen found its way two years later into the *Youth's Companion*.

Her education was received at an excellent Andover school, kept by the widow of a professor in the college. It was at this school that she first exercised her gift, and we hear of her relating original tales for the entertainment of her playmates.

"There is a photograph taken of Miss Phelps at sixteen, which shows a tall, slender figure, a classically turned head with a mass of bright brown hair, a sensitive mouth, and an expression of mingled strength and sweetness. There is an air of timidity in the face, but nothing of uncertainty, and a mature impression wholly unusual at that age. Looking at this picture one can not avoid the belief that a skilful teacher, who was strong enough, might have guided her into almost any field as her mind developed; but at nineteen she left school.

"For a few months after leaving school she threw all her energy into mission work in Abbot Village, a little factory settlement a mile or two from her Andover home; but the force in her, for which this gave no scope, soon began to assert itself, and in the spring of 1863 she sent a war story called 'A Sacrifice Consumed,' to *Harper's Magazine*. The editor returned a generous cheque for it, with the request that she should write again. It was appreciation for which she has always been grateful, coming as it did when she was uncertain of her own power, and peculiarly in need of encouragement. She has been a frequent contributor to that magazine from then till now. 'Harper's never refused a story of mine in all my life,' she says, 'with one single exception—that not when I was a beginner. To this uniform encouragement I attribute more than any other one thing what literary success I afterward had.'"

In 1864 Miss Phelps began writing "The Gates Ajar," spending some years at the work. This was followed by "Men, Women, and Ghosts," a collection of short stories, "Hedged In," "The Silent Partner," and "Poetic Studies," comprising her best poems. Of her other stories "A Brave Girl," "An Old Maid's Paradise," "Dr. Zay," "The Story of Avis," and "The Gates Beyond" need but simple mention; their peculiar style and topics are too extensively known.

It should be mentioned that this author's health has been delicate for many years and this probably has interfered with many of her projects. One of these, lecturing in public, she was forced to abandon, after a demonstration that won general acceptance. In 1887 she delivered a course of lectures on "Representative Modern Fiction" before the Boston University, and although this hitherto unheard of effort for an American woman was crowned with great success, it was at the cost of physical prostration.

It is said that she manifested remarkable power in winning the interest of her audience. While her voice in conversation is singularly low and sweet, some peculiar penetrative quality made it distinct without the slightest effort for the listener in every part of a large hall. The audience was of students of both sexes and different ages from various parts of the university. "At the close of every lecture," one who was present said, "they would gather around her, and it seemed as if they would devour her, following her as far as possible when she went away." Something in her face seemed to ask more for love than praise. To them it seemed as if a new and gentler Hypatia had come to speak a sweeter sort of wisdom. Mr. Whittier, who on another occasion heard the lectures, says of them: "They were admirable in manner and matter. I have never heard a woman speak with such magnetic power."

Miss Phelps spends her summers usually in a little cottage that she has built on the rocks of Eastern Point, at one side of Gloucester harbor. There is hardly a more rugged spot on Cape Ann. In looking out on the harbor with the quaint old town of Gloucester at its head, the shore is very picturesque and the harbor is one of the finest on the Atlantic coast.

No sooner was Miss Phelps's summer home planted on the Gloucester shore than the temperance movement appealed to her as vitally connected with the object of her lasting enthusiasm, and in behalf of the fishermen she gave much of her time helping to sustain a reform club of sixty or more members. The club-room was brightened with pictures and music; addresses were delivered and sermons preached to the men; but her personal work was of a deeper and more wearing sort. She made herself the friend of each one. They came to her house with their hopes and despair, their temptations and troubles. As might have been feared, this nervous strain of

sympathy and anxiety, in connection with her literary work, was an overtax, and her strength finally gave away, forcing her to drop the care.

Thus her sympathies must find an outlet in more practical lines than those pathetic descriptions that enlist the tender feelings of her many readers.

EDWARD WESTON.—This is the head and face of a thoughtful, imaginative, ingenious man. Its breadth at the temporal region, where the hair begins to grow at the sides, is extraordinary. This



EDWARD WESTON.

in itself intimates remarkable talent for mechanical construction, and for the appreciation of everything in the realm of art and taste. If we consider the breadth of the face at the level of the eyebrows, it strikes us as unusual also, and suggests extraordinary power at perception. He should have exceedingly nice discrimination regarding the form, size, and relation of objects, and fine capabilities as a mathematician. In art criticism he should be very competent. In all departments of construction, especially those that combine effects derived from esthetic suggestions, he should be at home. He loves precision, nothing is

too nice, delicate or intricate for him, while his aspiration is at the same time very strong for the accomplishment of large, important, and original devices. He has a great amount of energy, a temperament that stimulates endeavor, and impresses his character with that sort of industry that does not hesitate to knuckle down to comparatively low grades of work, if it is necessary to have a special purpose carried into effect. He is a practical man, but it is a practicality that is broad in range and highly illuminated by esthetic conceptions.

The name of Weston has been before the world so many years in connection with electrical devices of important usefulness that no special introduction is required. Edward Weston, indeed, is among the foremost of the electricians and inventors that give prominence to that domain of modern progress.

He was born in England, and came to this country when about twenty years old. He had made experiments in chemistry and electricity as a young man and showed a natural aptitude for mechanics, inherited from his father. Mr. Weston's story is that of most self-made men. It is difficult to believe that the magnificent electrical and chemical laboratory in Newark, N. J., certainly

the most extensive of its kind in the United States, should be built and equipped from earnings that in a few years comparatively this youthful Englishman, who came to America almost without friends and money, had derived from his ingenious electrical contrivances.

It is said that Mr. Weston has taken out upward of 200 patents relating to the practical application of electricity, and many of the most important processes which are now in use in nickel-plating are due to his intimate knowledge of the principles underlying the art as well as to his inventive genius. He was the first who prepared the copper-coated carbons which are so generally used throughout the world in the arc form of electric lighting.

Mr. Weston has devoted a great deal of attention to the production and transmission of light, and to the transmission of power by electricity. In connection with the electric transmission of power, he has constructed several motors of remarkable efficiency which were used for the purpose of propelling electric torpedo-boats. This is comparatively a new field of electric study, and is commanding attention in the world of military and naval affairs. EDITOR.

THE BIRD IN THE BRAIN.

In a legend of the East there sits

A bird with never a mate;

Out of the dead man's brain it flits,—

Too late for a prayer, too late,

Repeating all the sin

Which the beating heart shut in.

Little child of mine, that I kiss and fold,

With your flower-like hand at my breast,

Already within this head all gold

That bird is building a nest!

May it give but one brief cry,

Sweet, when you come to die.

My Lord the king, that shadowy bird

Broods under your crown, I fear;

Take care, sir priest, lest you whisper a word

That Heaven were loth to hear;

Ermine nor lawn will it spare;

Ah, king, ah, priest, take care!

Oh, half-saint sister, so cloister pale,

That bird will be at your bier!

Though you count your beads, though you wear your veil,

Though you hold your cross right dear,

When your funeral tapers come

Will the weird of wing be dumb?

Poor lover, beware of the rose

In the maiden's hand at your side;

She has some secret, the dark bird knows,

Which her youth's fair hair can hide;

Turn, maid, from your lover, too.

The bird knows more than you;

BY MRS. S. M. PIATT.

CRIMINAL ANTHROPOLOGY.

THE PHYSICAL INDICIA OF THE MORAL NATURE.

AT the March meeting of the New York Academy of Anthropology the subject that had been taken up for discussion at the previous meeting, viz.: the Relation of the Physical to the Mental Constitution in Criminals, was further considered. Arthur C. Butts, Esq., of the New York Bar, read a paper of which the following is an abridgement.

Without professing to have made a special study of the science of anthropology or of that branch of it which this society is this night to discuss, I am prepared to say from some observation and reflection that there are certain fundamental characteristics, physical and psychical, that may be distinguished and which criminals display. Under the Statutes of New York the best possible division of crimes is made; as crimes against the person and crimes against property. I believe the future study of this subject will demonstrate that it is possible to classify by well-defined physical and mental characteristics those persons who commit crimes against the person, and those whose offences relate to property.

Let us first inquire what crime is. My definition is that it is the wrongful violation of those rights which the wisdom and experience of mankind have determined to be essential to the well being of individuals with referenc to their persons and their property. Thus, God has given to A his life, and it is wrong for B to kill him without justification. If C has lawfully acquired a chattel it is wrong for D to steal it from him. Unaided by the Decalogue Society, in however primitive a state, would have determined such acts to be wrong in themselves, and thus what we call law would have determined them to be crimes and provided for their punishment.

It must be evident to the thinking mind that in any special study to be made of the relation of persons to crimes

that it is within the realm of the crimes which are *mala in se* as distinguished from those which are *mala prohibita* that we must investigate for results. For although under our laws and the laws of nearly every civilized country, all unlawful acts injurious to persons or their property, and defined by Statute laws, are crimes, yet there are many such crimes which are not felonies but misdemeanors. That is, where the act is not wrong in itself but made so by law. Within this class may be mentioned the laws against lotteries—the excise laws—municipal ordinances, and the like. And even in crimes against the person, which are wrong in themselves, such as homicide and its degrees, some distinction must be observed *ex necessitate* between a crime committed with deliberation through motives of malice or revenge, and one committed upon a sudden impulse, caused by great provocation. In the former case we may find the criminal to be of a peculiar type, one whose whole life has given ample promise of the terrible deed that at last he has committed, while the latter may be a man of gentle disposition whose passions upon a shock to his affections, for instance, have been swollen into an irresistible torrent carrying away the moral and intellectual barriers which otherwise would be effectual to withstand the criminal impulse.

Proceeding a step further, it seems to me that society must be divided into two classes—those who abide by the law, and those who break the law; that among the latter is a class of congenital criminals—men of abnormal moral development, whose tendency to crime no intellectual attainments can control or repressive laws restrain. Men who have no moral conception of the rule of mine and thine—men who have brutal, vindictive natures with no trace of human pity; who revel in a bloody deed

as the wild beast gloats over his prey. We lock and bar our homes and warehouses at night; against whom? Against human thieves and desperadoes. In this city we have nearly 4,000 police officers to protect us; from what? from the ravages of this same class. We establish criminal courts, and prisons, and penal and reformatory institutions; for whom? to try, and punish if found guilty, in a very large degree, these congenital criminals. They may be called the vermin of human society, capable in very many instances of considerable intellectual development, and with an intelligence often times of a high order, with the avenues to honorable effort and success open to them, yet do we not find this class of which I speak traveling irresistibly in the path of crime? Why? Because of their abnormal congenital tendency to crime. In other words, because they are following out natural instincts which neither education nor intelligence, nor punishment have power to control. This class may have an intellectual conception that it is against the law to rob a bank, or snatch a pocketbook, or use the pistol or the bludgeon, and they will take all precautions against being caught in the fangs of the law if they do. Yet every day we see men sentenced in our courts who have been before punished for the same offence. Many thieves will steal with no more moral compunction than Sir Reynard has when he prowls at night for a victim among the fat pullets of the farmyard. Men with the brutal instinct of the lion and wolf abound who yearn for the sight of human blood.

If, then, there is a class of men who have a congenital tendency to crime it would indeed be strange if there were not some fundamental characteristics both physical and psychical which they display.

It seems to me that any intelligent observer when visiting our prisons and penal institutions and carefully noting the physiognomy of certain men there

confined, would come to the conclusion that he had seen men who were as properly there as a rat in a trap or a lion in a cage. There is seen in this class an indescribable something that appeals to the intelligent mind suggesting that they are not men cast in the ordinary human mold.

I believe it, therefore, to be possible to classify by physical characteristics the thief and the burglar. The eye has been appropriately called "the window of the soul." If a man has small, twinkling, restless, furtive eyes, if while conversing he drops his eyes when you look into them, you need not fear personal injury from him, but keep your eye on him, because, ten to one, that man is a thief. In my professional experience at the bar I never had to do with a person charged with theft and who was a thief, who had not such characteristics. The professional burglar generally has this same optical expression, but it is generally of a more sinister and vicious kind than the cunning of the thief. I remember some years ago seeing a man enter a public dining room and my first impression of him was, that man looks like a convict. He had a small, restless, furtive eye, massive jaw, a large mouth, and altogether the appearance of a man who was of a different order from ordinary men. He was the celebrated Edward F. Ruloff, burglar and murderer, hanged for the killing of Merrick, at Binghamton, some years ago. A few years ago I had the case of a boy about thirteen years old who was charged with stealing a box of handkerchiefs from a merchant in this city. Through the kindness of the merchant, and out of sympathy for the boy's broken-hearted mother, he was discharged with a reprimand. But the furtive, hang-dog expression of his eyes convinced me that the boy was a born thief. In less than two weeks his mother came to me again for help. The boy had been arrested for stealing. He was sent to the House of Refuge. Another case was that of a boy charged

with snatching a man's watch and chain, and acquitted for lack of evidence. He had the same general expression above noted. Six months afterward the same fellow was arrested for a similar offence. Cases of this kind might be greatly multiplied. And while it may be harsh to say that all persons who are cursed with an optical expression and its accompanying manner as above described are thieves or burglars, yet I do affirm that I have never seen a thief or burglar of what I call the congenital class of criminals, who did not possess those characteristics. Possessed by a man of regular features with a good frontal development, it seldom impresses one as vicious. This class of men may be set down as those who commit crime against property. But then couple that same almost undefinable expression with a hard, cold, glittering eye, with coarse, brutal features, a depressed forehead showing meager capacity for intellectual development, and you have a man in whose being nature has deposited the germ of vicious destructive crime, and under favorable circumstances its natural development will record some terrible act of lawlessness.

To show that the subject under discussion is engaging the attention of thoughtful minds, let me read an extract from a well-known newspaper :

"Every one knows that men's passions, propensities, and peculiarities, as well as their callings, are reflected in their faces, but it is only the few who have made the study of physiognomy an especial pursuit who are gifted with the power of reading those faces. Judges who have served long terms on the bench, lawyers in large practice, and doctors of eminence possess the power of interpreting physiognomies more largely than other people. But any one can acquire the rudiments of the art by dint of study.

"It is as impossible to disguise a face as a handwriting. When the expert comes the disguise is torn off and the face tells

the true story of the spirit inside the body. One only needs to visit the penitentiary to realize how undeniably vice writes its sign manual on the features. It is not the drunkard only whose red nose, flabby cheeks, and rheumy eyes betray him ; it is the sensualist whose vice is read in his lips, the knave whose propensity is revealed in the shape of his mouth, the man of violence who is surrendered by his eyes. An experienced detective or a trained jailor seldom needs to ask the crime of which the prisoner was guilty. He can tell it by his face.

"It is quite evident that in the future the study of physiognomy is going to be pursued more vigorously than it has been. As a means of preventing crime it may prove invaluable. How constantly do we hear of men 'falling from grace,' as the phrase goes. Yet these men must have carried their crime in their face for a long time. If any one had been able to read their features the mischief might have been averted.

* * * It is well known that every man's face is more or less stamped by the pursuit he follows. An experienced observer can generally detect a lawyer, or a doctor, or a merchant, or a clerk, or a mechanic, or a clergyman, by merely studying his face.

"The study might be carried much further. The same rule which enables an observer to distinguish a lawyer from a merchant will, when followed out, enable keen eyes to separate able lawyers from lawyers who are incompetent, merchants who are going to make a fortune from merchants who are going to fail."

The science of physiognomy from the time of Aristotle has received attention from many learned men, and I need not before this society say more than to observe that the study of the face from the earliest times has demonstrated that it is the index of mental characteristics. I am not aware, however, that any writer has ventured into that larger field in which this society is advancing as a

pioneer, and which certainly should attract the most careful and serious investigation. Criminal statistics prove that the most frequent crimes are grand and petit larceny, homicide, and its degrees, manslaughter, and assault in its several degrees, burglary and robbery. If hereafter, from observation and comparison, the anthropologist can clearly demonstrate that given certain physical characteristics it is reasonable to expect certain psychical phenomena, then a new page of knowledge will have been opened to the world.

Prof. Nelson Sizer said: The excellent paper just read by Judge Butts is a sign of marked advance in the right direction on the subject of criminal anthropology. The idea is a brave and a true one, that organization is related to the manifestations of mind and character. For nearly fifty years it has been evident to me that criminals who make depredations on the person or property of others have a mental development indicating the traits which they manifest, and we are glad to see that jurists and anthropological investigators are reaching the conclusion that mind and character are not mere abstractions, but that favorable organization stands related to correct character and conduct; and that the reverse is also true. In confirmation of this thought, I will show two skulls, which I have brought from the cabinet of the American Institute of Phrenology, showing a marked contrast in the development of the temporal lobes. The skulls are, as you see, about the same in length from front to rear, but one measures an inch and a half broader at the temporal bones above the ear than the other. One is broad and low; the man was a thief, and a receiver of stolen goods. The other has a long and high head, broad on the top, but narrow at the base, and is an excellent type of the moral development; while the first is a marked type of the criminal development.

If the person having a bad head could have been placed in right external rela-

tions to culture and habit, it would have modified his development; and if, three generations earlier, he could have had the right training, his head might have been of a better form, and his character of a higher and better type. The misfortune is that a man falls into evil habits—drinking, for instance—and neglects and badly treats his children, and thus depresses them in development and character. They, in turn, bear children, and badly train them; and so, in a few generations, we have a criminal type of brain. When people learn that training toward virtue will elevate the human race, as training toward speed and strength will improve the breed of horses, the world may hope for good results. Mankind studies and prizes certain “ologies,” but ought to study and prize practical anthropology, if the race is to be elevated and redeemed.

The Secretary of the Academy, Dr. Drayton, read a paper on “Recent Testimony of Science, with respect to the determination of the Criminal type of brain organizations,” of which the following is an abstract:

The physiognomy of mind arrests the attention—the serious attention, of the scientific observer, and its analysis becomes more important as a subject of social economics in accordance with the growth of our power to trace its relations and correspondences. If the unlearned, consciously or unconsciously, draws inferences from form and expression, how much the more should the learned and skilful interpret the workings of mind and brain. Dr. Holden says: “The habitual recurrence of good or evil thoughts, and the indulgence in particular modes of life, call into play corresponding sets of muscles, which, by producing folds and wrinkles, give a permanent cast to the features, and speak a language which all can understand, and which rarely misleads.” With this, most of us here will readily agree, for if there is a psychology of body, it must be founded upon the im-

print of the individual mind. And how comes it that a psychological relation is established between mind and the external of body, unless it be through the recognized instrument of mind—the brain?

Reasoning from the conclusions of



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the first speaker of the evening, it can not be other than a result of cerebral activity in certain habitual lines that markings correspondent to such activity would become manifest. If there be a principle or law of physiognomical expression, this is nothing less than a necessity. Habitual integrity of conduct indicates symmetry of thought, a well correlated flow or evolution of intellectual ideas, with sustained control or balance of the feelings and passions. We naturally associate symmetry and balance of form with such conduct. Irregularity of conduct, want of control over the passional nature, excess that is habitual in any direction, intimates disorder and unbalance in mind function, and we, as naturally, as in the other case, look for want of symmetry and inharmony in him who is so characterized. The ancient Greeks taught this as a principle.

It can be set down, we think, with safety, as a rule, that physiognomical

deviations from the normal in form and volume are indicative of deviation in function, and this rule applies with equal consistence to the head and to the body.

Consider the case of the inveterate, habitually intemperate—the inebriate class. Dr. Wright, of Brooklyn, concludes, after an examination of the inmates of the Fort Hamilton Inebriate Home, that the brain of the confirmed inebriate is a deviation of both organism and function; “he has a greater volume of brain in the middle part of the cranial cavity than the educated man.” This statement is, of course, comparative, and has particular reference to the type of inebriate that may be called “constitutional” or hereditary. The habit of drinking acquired at maturity produces organic modifications that are manifest enough in the conduct, but is scarcely competent to produce conspicuous deviations in the external form of the cranium. In either case, however, the confirmed inebriate is properly regarded as



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a sick or diseased man, and diseased in the focal source of mental, as well as physical vitality—the brain. The congenital and incurable epileptic shows, also, cerebral deviations from the normal, both in structure and function, that are

not unlike those of the confirmed inebriate, and suggest an easy transition from one state to the other.

The confirmed criminal is a defective man, one who has been defrauded of his birthright through the ignorance or misdemeanor of his parents, or inherited abnormalities of disposition have, through improper training in childhood, been aggravated and made so dominant in the character that the man commits acts of a vicious and criminal sort naturally. Brute impulse, or self-gratification, is the arbitrary master of his conduct. The kindly, tender, conscientious sentiments that mark a well-balanced mind are wanting in the criminal type of character; your inveterate robber and marauder does not know their restraining, qualifying influences.

Such decided abnormality must express itself in the physical organization, and write itself in the volume and contour of brain and skull. Special investigation has demonstrated the facts that the heads of criminals differ from those of harmonious and stable in society. Benedikt, Bordier, Galton, Spitzka, and many others, are in agreement that abnormality of structure and form is coincident with inveterate moral turpitude.

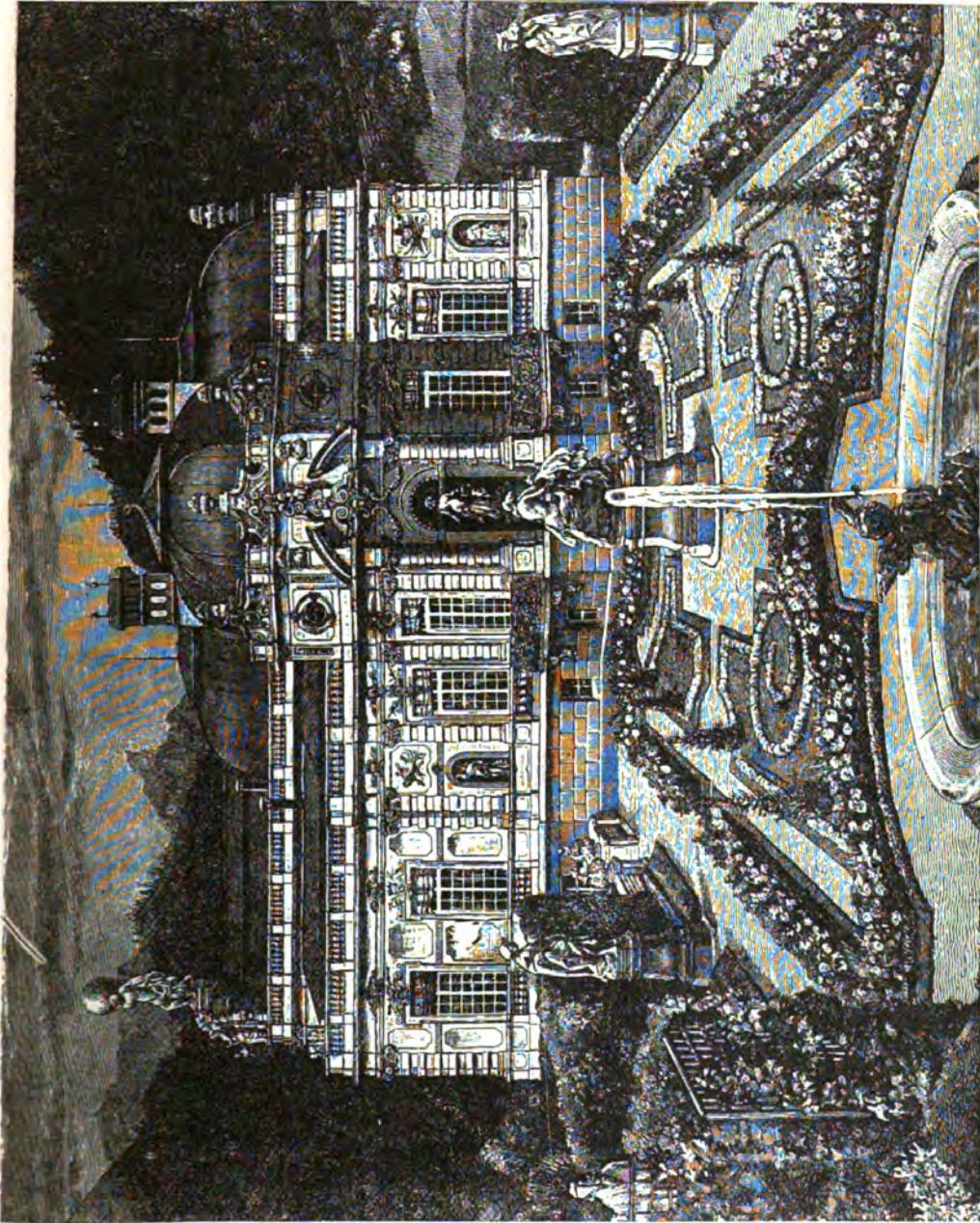
Dr. Benedikt, of Vienna, classifies the principal forms of cerebral deviation from the normal type in the brains of criminals thus: (1.) Absence of symmetry between the two halves of the brain; (2.) an excessive obliquity of the anterior part of the brain or skull—in fact, a continuation upward of a sloping forehead; (3.) a distinct lessening of the posterior part of the skull in its long diameter, and with a diminution in size of the posterior cerebral lobes, so that, as in the lower animals, they are not large enough to hide the cerebellum. The "criminal brain" would seem then to be an approach toward the brute type.

M. Bordier, of Paris, published a study of a series of criminals, in which their skulls were the topic of chief interest, in the French *Anthropological Review*,

from which the following inferences are drawn: "The murderer's skull is developed at the sides mainly, or in the lower part of the parietal and in the temporal lobes." "The sides of the head, it seems," writes a correspondent of the London *Daily News*, "are the seat of the impulses, and the murderer is the creature of impulse. He has far too much mental activity in proportion to a most stinted quantity of reflection (not enough frontal development). The same abnormal development of the sides of the head, the same reckless impulsiveness, marks the savage. He takes no thought for the morrow, but like the Tunghuzians visited by the Vega, eats all the seals he has caught to-day." Quoting the same writer in his reasoning on the mental consequences of such unbalanced brain development: "With a scanty development in the frontal region, and an abundant development in the parietal region of the brain, both savages and murderers are prompted to go straight to their object without pausing to consider the consequences. Now, the difficulties of life are almost invariably caused by the presence of a person *de trop*—a wife, a child, a mistress, a friend, or an enemy—who is sadly in the way. It is but too true that the impulsive savage generally solves the problem with an assegai or a boomerang, and simplifies life considerably by removing one factor altogether out of the sum. The murderer who inherits the structure, and, therefore, the ideas of the savage, does precisely the same thing. He does not stop to think about duty, or morality, the guillotine, or religion, but destroys life that he finds inconvenient." This action is largely the result of his unfortunate brain development; unfortunately it usually is by heritage, and usually, too, made more unfortunate by a vicious training. Society, I would insist, and the speakers here this evening have emphasized the principle, has an important and saving duty to perform in this matter. D.

A LATER GLIMPSE OF KING LUDWIG.

MUCH has been written on the other side of the ocean of the unfortunate Ludwig, King of Bavaria, young monarch many qualities that render him a most interesting subject for consideration. Rarely does the student



THE LINDERHOF CASTLE.

while in this country comparatively little has been said of him. Yet there was in the untrained, wilful, unbalanced

of heredity and Phrenology have a better illustration. He was proud, extravagant, reckless in money matters, yet much be-

loved by his people because he manifested feelings that reflected strongly their own, and staunchly maintained a national spirit. In the *World Travel Gazette*, the editor, Mr. Reigersberg, publishes some fresh facts from the life of the King, and they are specially notable because Mr. Reigersberg was personally acquainted with Ludwig, having served for many years as a Lieutenant in his Guards. From the article we extract the following:

"Over six feet tall, broad shouldered, a head which the chisel of Praxiteles could not have shaped better, luxuriant hair, large unfathomable eyes, and a majestic way of waving his right hand, which alone would have silenced the most turbulent multitude in an instant: this was Ludwig, every inch a king. Still the immeasurably proud monarch was kind and generous with all the fancies of an overgrown child and the romantic fantasies of an immature youth, the sad result of a totally misdirected education. His father never liked to be bothered with the children, and his mother, who never had a will of her own, did not dare to give expression to her love for fear of annoying the king by what he called "silly sentimentalities." Thus the two princes, Ludwig, then crown-prince, and his brother Otto, were left to the tender mercies of intriguing courtiers and the body physician, Dr. Gietl, a man of neither brains nor heart.

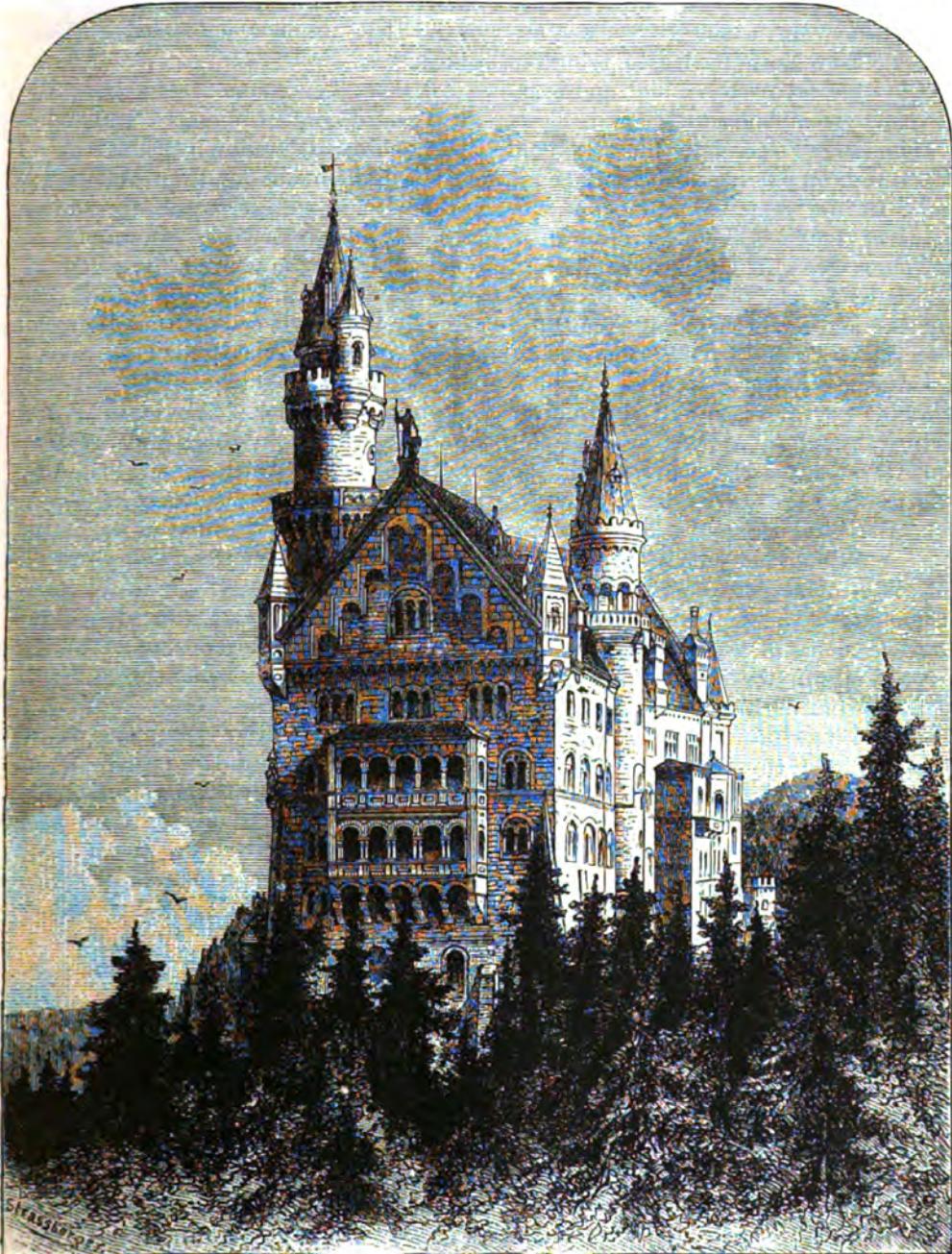
The hours of sunshine and love the queen could give to her children under these circumstances were few and far between, and considering the brutal training they received, it is a wonder that the princes remained as kind and generous as they were. Had they been brought up in a sensible manner, say in the country under their mother's eyes and allowed to be young and to play and romp the same as other children, Ludwig II. in all probability would be alive today as the most beloved monarch Bavaria ever had, and Prince Otto would

have retained his mental powers. Unfortunately, this was not the case, but they were systematically ruined either by the inborn stupidity or wilful maliciousness, if not for worse motives, of those who were entrusted with their education, and it is only an act of justice to the memory of the dead king to lay the blame where it properly belongs. When the time came near that the princes would have to appear on horseback, they were graciously permitted by Dr. Gietl to take riding lessons, and the same generous gentleman allowed them to go to the theater "twice," once to an insignificant comedietta and the other time to hear Lohengrin, the most bewitching of all of Wagner's operas. Was it a wonder that the young prince became a passionate rider, the only pastime he ever was allowed to have in his golden cage, and that he fed his glowing fantasy on the "knight of the swan" and that in his later years he almost worshiped the ungrateful master, whose brilliant work had filled his dreams?

Imagine a youth after such an education, who only yesterday had to obey the behests of petty tyrants, acting by his father's authority, all of a sudden becoming a king, with all the power and greatness this name implies, the absolute master of everybody and everything around him, with a yearly income of over two millions of florins and residences, castles, art treasures, and possessions of all kinds. The way the two unfortunate princes celebrated the ascension to the throne is characteristic: Otto met one of the royal lackeys in the corridors, who, against the orders of the house, carried a big loaf of common brown bread under his arm for his mother. It was the first time the poor prince had seen such a large quantity of substantial bread, and full of childish delight, he gave the lackey a gold piece for the loaf and carried it in triumph to the rooms of his brother, the king since twenty-four hours. He whispered into his ears what he had

found, the king at once dismissed the courtiers and the two princes held a royal feast, until the last crumb of that

King Ludwig, like his grandfather, was a great builder, only his architectural proclivities ran in another direc-



CASTLE OF "NEUSCHWANSTEIN," BUILT BY LUDWIG II.

loaf had disappeared down their throats.

"Thanks be to God, we can eat enough at last," said the King.

tion. While Ludwig I. was an enthusiastic admirer of the old Grecian and Roman architecture, his grandson was

more in favor of the old German and Louis XIV. styles, as will be seen from the illustrations of two of his castles in this paper.

The *Linderhof*, which Mr. W. K. Vanderbilt of New York, has leased, is built in rococo-style, is two stories high and bears a certain resemblance to Trianon. Three granite steps lead into the vestibule which rests on pillars of Untersberg marble. In the center is an equestrian statue of Louis XIV. in bronze on a marble socle, with gilt ornaments and inscriptions. On the ceiling is a radiant sun and the inscription "*Nec Pluribus Impar.*" Two more steps lead to the immense staircase in front of which is a blue Sevres vase with a beautiful picture, "Esther," a present of Napoleon III. To the right and left of the staircase are the rooms for body-servants, the head cook, kitchen, cellars, etc. A little higher up are the dressing and bath-rooms of the king, the walls of the latter being decorated by pictures. The ten rooms of the second story are grouped around the staircase. The first room we enter is the "Western Gobelin Room," the walls of which are covered with gobelin tapestries, all copied from Watteau by Baron Pechmann. Between the pictures are war trophies and emblems of agriculture. The door frames are artistically carved and gilded; the ceiling picture represents "The Evening," by Prof. Hauschild. The canopies and chairs are upholstered with genuine gobelins.

Next to it is the Yellow Cabinet, all the tapestry and upholstery being in yellow silk with rich silver embroideries; the sconces are made of porcelain, pastel painting of illustrious men and women of the times of Louis XIV. and Louis XV. decorate the walls.

From here we pass into the king's study, the walls of which are decorated with large mirrors and emblems of royalty, religion, science, and industry. On the two marble mantel-pieces are statues of Louis XIV. and Louis XV. The

paintings on the ceiling represent "Versailles," "Supper of Louis XV." "Louis XV. receiving the Turkish Embassy," and "The Marriage Ceremony of the Dauphin in the Chapel of Versailles."

All the other rooms are gorgeously fitted and decorated in colors and styles that have given them appropriate names.

The garden surrounding this fairy castle with its statues, vases, fountains, cascades, and waterworks is a marvel of horticultural art and inventive genius. Near the pavilion and above the cascades is the renowned artificial grotto with a waterfall and a small lake which can be illuminated in colors from the bottom of the water. The doors to this grotto are hewn in rocks and rest in movable hinges, which are hardly noticeable from the outside.

Another castle we illustrate is "Neu Schwanstein," built in the Romanic style on top of a rock 600 feet high, and adorned with wonderful wall-paintings illustrating old German legends, particularly those which Wagner made the subjects of his operas.

Castle Berg, on the Starnberg Lake, was the favorite summer residence of the king during the first years of his reign; here he found his sad end, and Hohenschwangau is another castle built by his father, richly decorated with paintings representing legends and scenes from old German and Bavarian history." C. R.

WHY MEN FAIL.—Few men come up to their highest measure of success. Some fail through timidity, or lack of nerve. They are unwilling to take the risks incident to life, and fail through fear in venturing on ordinary duties. Others fail through imprudence, care, or sound judgment. They overestimate the future, and build air castles, and venture beyond their depth. Others, again, fail through lack of application and perseverance. They begin with good resolves, but soon get tired of that, and want a

change, thinking they can do much better at something else. Thus they fritter life away, and succeed at nothing. Thousands fail through ruinous habits ; tobacco, whiskey, and beer spoil them

for business, and scatter their prospects of success. Some fail for want of brains and education, but most fail because of not understanding themselves and their adaptation to the work and duty of life.

“NITCHEGO.”

WITH such a caption as this a story is told of Bismarck when Prussian Ambassador at the Court of the Czar in 1862. The big, bluff officer of twenty-six years ago met more than his match in a simple Russian peasant, and while the story is amusing it also conveys a moral that was of profit to the afterward master of Germany.

Bismarck had been invited to participate in an imperial hunt, and being an enthusiastic hunter, he went to the designated place on the evening before the appointed day, in order to have a little sport by himself. Game was abundant, and Bismarck had a good time, but somehow he lost his way. When the time for the imperial hunt approached, Bismarck found himself fourteen miles away from the place. A peasant offered his service to take Bismarck to the right place. He appeared with a team of ponies and a village sleigh. Bismarck doubted that the Russian driver could get him there in time to engage in the hunt. “Are you sure you can get me there on time?” asked Bismarck. “Nitchego!” answered the moujik, quietly. (“Nitchego” is Russian for “Never mind” or “All right.”) “These are rather rats than horses,” remarked Bismarck, taking a seat in the sleigh. “Nitchego!” was the answer. The peasant whipped his horses and they went as swiftly as a pair of falcons. Bismarck could hardly keep his seat. “You do not spare your horses at all,” remarked the famous passenger, gasping for breath. “Nitchego!” said the driver. “You say ‘nitchego,’ but they may fall dead on the way.” “Nitchego!” The road was hardly distinguishable through the forest, but the peasant con-

tinued his mad run. He brushed against the big trees and went on and on. “You will break my neck!” finally exclaimed Bismarck, scared in good earnest. “Nitchego!” answered the Russian, with a bit of a smile on his face. Presently there was a smash : Bismarck flew against a tree and bruised his face. He jumped up very angry, snatched an iron rod from the sleigh, and rushed at the peasant, threatening vengeance. The driver coolly picked up a handful of snow, with which he good naturedly wiped the blood stains from Bismarck’s face. “Nitchego!” he uttered, as he finished the operation. “That invariable quiet Russian ‘nitchego’ disarmed me,” said Bismarck, telling the story to a Russian diplomatist. “I gave myself up to the will of my driver, sat quietly in the sleigh, and made no remarks. My driver brought me to the place in time. I paid him well, thanking him warmly, and preserved the iron rod. When I returned to St. Petersburg I ordered a jeweler to make me a ring from that rod, with the inscription in Russian, ‘Nitchego.’” The Russian “nitchego” became the watchword of Bismarck’s policy. “Whenever,” said he, “I meet troubles and dangers, I say in Russian ‘nitchego!’ and then I push ahead.

Poor sad Humanity,
Through all the dust and heat,
Turns back with bleeding feet
By the weary road it came,
Unto the simple thought,
By the Great Master taught,
And that remaineth still.
Not he that repeateth the name,
But he that doeth the will.

Longfellow.

HOW THEY LIVED FIVE HUNDRED YEARS AGO.

"Hadst thou not the privilege of antiquity upon thee?"
—*All's Well That Ends Well*. Act 2. Scene III.

IF we know the home life of a people we can account pretty correctly for the various transitions and events of that epoch. Causes produce like results, and there is no better exponent of an age than the dress and daily life of its people. In the days when Chaucer and the Black Prince lived, about five hundred years ago, although there was much external show and splendor, our ancestors lived in many respects in a very rude and barbarous fashion. Even the rich and noble enjoyed very few of the benefits and privileges which all classes enjoy in the age in which we live. They had very few books and very little advantage of instruction to enable them to read those that they had. There were no good roads by which they could travel comfortably from place to place, and no wheeled carriages fit to ride in. Streets were neither paved nor lighted, and persons traveling in the dark were preceded by link-boys bearing torches to light their way. They lived in castles, very strongly built indeed, and very grand and picturesque sometimes in external appearance, but very ill-furnished and comfortless within. The artisans were skilful in fabricating splendid caparisons for the horses, and costly suits of glittering armor for the men, and the architects could construct grand cathedrals and ornament them with sculptures and columns which are the wonder of the present age. But in respect to all the ordinary means and appliances of daily life the people lived barbarously enough.

There was wealth, there was a superfluity of all that was rare and precious, an excess of pomp and pageantry to which modern Europe scarcely offers any parallel, but the show was all external and underneath the glitter the age had none of those elegant conveniences and accommodations that essentially contribute to the comfort and refinement of

modern life. In general, the palace like the pageant, so often admitted within its walls, presented a motely combination of bloated luxury and squalid wretchedness, fantastic elegance and sordid penury. The royal apartments were strewn with rushes; the stairs and floors of the other rooms were often inlaid with filth; and while fires blazed in the great chambers hung with arras, in the smaller rooms the officers were shivering with cold, and some of the attendants were beggars.

Every noble lived in state in his castle like a prince or a petty king. Those of the highest class had their privy councilors, treasurers, marshals, stewards, secretaries, heralds, pages, guards, trumpeters—in short, all the various officers that were to be found in the court of the sovereign. To these were added whole bands of minstrels, mimics, jugglers, tumblers, rope-dancers, and buffoons. Besides these there was always attached to each great castle a large company of priests and monks, who performed divine service according to the usages of those times, in a gorgeously decorated chapel built for this purpose within the castle walls.

The mass of the common people were held in a state of complete vassalage to the will of the barons, very much in the condition of slaves, being compelled to toil in the cultivation of their masters' lands, or to go out as soldiers to fight in their quarrels, for inadequate compensation. Dwelling in mud hovels with thatched roofs over their heads, they often lacked the most common necessities of life. In the long interval between harvest tide and harvest tide, work and food were alike scarce in the mediæval homestead. "I have no penny," says Piers the Ploughman, in such a season, in lines which give us a picture of the farm of the day, "pullets for to buy, nor neither geese nor pigs, but two green cheeses, a few curds and cream, and an olive cake, and two loaves of

beans and bran baked for my children. I have no salt bacon nor no cooked meat collaps for to make, but I have parsley, and leeks, and many cabbage plants, and eke a cow, and a calf, and a cart mare to draw afield my dung while the drought lasteth, and by this livelihood we must all live till Lammas-tide (August), and by that I hope to have harvest in my croft."

From a roll of expenses of Edward III. at one of his castles, year 1371, we gather the rate of wages paid to the different workmen, tradesmen, archers, and laborers at that period: "Carpenters, 14 d. per day; overseers, 6d.; shoeing smiths, 3 d.; smiths, 3 d. and 4 d. per day; sailors of the king, 6d. per day; master masons, 6 d. and workmen 4 d.; cross bowmen, 4 d. per day; mowers, 2 d. per day; spreaders of hay, 1½ d. Hire of cart and three horses, 6 s. 10 d. per day. Carriage of turf, with which the house was covered in which the hay was placed, 1 s. 5 d. For an iron fork to turn the hay, 3d. For the carriage of turves to cover the King's kitchen, 7 s. For twenty-two empty casks bought to make paling, for the Queen's courtyard, 16 s. 4 d. Fishermen, 10d. per day, the Queen's fisherman, and his six companions, 3 d. per day each, fishing in the sea. Repairing the cart of the King, 1 s. 4d. Men carrying shingles to cover the hall of the castle, 2½ d. each per day.

We can see the farmer and laborer of the times as he steps out from Chaucer's "Canterbury Tales," in that early May morning when the merry company left the famed Yabard Inn. He wears a tarbard, or long cloak, with a hat, scrip, and staff. Heavy wooden shoes are on his feet. His ordinary garb was not so comfortable. "Barefoot and hatless must I go one-half the year," groans the poor ploughman. The miller was clothed in a white coat and a blue hood and was armed with a sword and a buckler. His hose on holidays were of red cloth, when he also twisted the tippet

of his hood about his head, a fashion quite common among the gallants of his age. Each pursuit and profession had its characteristic dress. Thus the merchant is represented in "moteley" "garb" i. e., parti-colored with a forked beard and a Flandrish beaver hat, his boots clasped "fayre and fetously." Chaucer's squire wears a short gown, with "sleeves long and wide." His dress was also embroidered,

"As it were a mede."

Alle full of freshe flowers white and rede." His locks were crull as they were laid in press."

The yeoman was clad in a "cote and hoode of greene," his horn was slung to a green baldrick. A sword and buckler hung on one side of him and a dagger on the other, and he bore "a mighty bow" in his hand. In the "Friar's Tale" another yeoman is described wearing "a courtefry of green and a hat with black fringes."

Lords and ladies dressed with the most garish magnificence. In jewelry and rich materials for dress there was great luxury bordering on extravagance. It was an age of foppery and the court set the example. Harding, speaking of the train and servants of King Richard II., says:—

"There was great pride among the officers
And of all men surpassing the compeers
Of rich array and more costous
Than was before cr sith and more precious.
Yeomen and groomes in cloth of silk arrayed,
Satin and damask in doublettes and in
gownes.

In cloth of greene and scarlet, for unpayed
Cut work was great both in court and
townes.

Both in men's hoodes and also in the
gownes.

Broudour (embroidery) and furre and
goldsmith's worke all newe.

In many a wyse each day they did renew.

Over his armor of Milan make the knight wore a long sleeveless gown of silk stuff slit up the sides as far as the thigh. The ordinary dress was a short doublet or jerkin, and for outdoor wear there was worn over this a long robe with sleeves, and frequently bordered

with ermine. His shoes had long peaked toes sometimes chained to the knee. Hats, caps, and high bonnets were worn, and golden girdles, and pouches called gipsins, embroidered with costly jewels, hung from the belts.

The female costume was splendid and fantastic as the male. The gown or kirtle had tight sleeves, with pendent streamers or tippets attached to them. These were faced with fur and terminated in long full skirts. Over this was worn a cotehardie which buttoned in front, and some of which were made with pockets in them. In the vision of Piers Ploughman the poet speaks of a woman richly clothed, her garments purplish, faced and trimmed with fine furs, her robe of scarlet color and splendidly adorned with ribbons of red gold interspersed with precious stones. Her head tire was a crown somewhat like a King's. Her fingers were all embellished with rings of gold set with diamonds and rubies. The gowns, kirtles, and mantles were frequently emblazoned with armorial bearings like the surcoats of the knights. The hair was worn in a gold fret or caul of network, surmounted frequently by a chaplet of goldsmith's work, a coronet, or a veil, according to the wearer's rank or fancy.

Dressed thus richly in this startling garb, the lady of the castle sat in her cell-like apartment lighted only by narrow loopholes, each at the bottom of a deep recess in the deep wall, and whiled away the hours in looking over illuminated missals, listening to wandering minstrels, and in working at her embroidery frame. The embroidery of tapestry was the great attainment, and in this art the noble dames and damosels of the time acquired great skill. This tapestry was used to hang against the walls of some of the more ornamented rooms in the castle, to hide the naked surface of the cold stone, and to serve as protections against the cold draughts of air. In every castle there was also a spinning wheel, and the lady and her

damisels spent the early morning hours in the old fashioned accomplishment. Music, embroidery, and spinning were about the only exercises by which the mediæval dame employed her leisure hours to beguile the tedium of the long confinement which many of them had to endure within their residences.

The housekeeping was very simple. It is difficult for us at this day to conceive how destitute of all the ordinary means of comfort and enjoyment, in comparison with a modern dwelling, the ancient feudal castles must have been. There was little furniture save armor in any of the rooms that must have looked vast and dreary enough with their stone floors and their rudely arched ceilings. In the great hall where the eating and entertainments took place, there were oaken benches for seats, boards placed upon trestles for tables, and tapestry over the dais where the lord and his lady sat. The windows were unglazed, save in a few instances. There were but few chimneys; the fire was placed on a raised platform in the center of the room, and the smoke found its way either through the windows or a hole in the roof. In some of the castles there would be no more than two or three "covers" or rooms where fires could be lit. The rafters above were blackened by the smoke, usually to a good coffee color. In those good old days "poses and rheumatism and catarths" were unknown, says a chronicler, "so wholesome and healthful was the smoke."

We can picture the knight and his lady sitting on the dais, clad in cloth of gold and velvet, embroidered with jewels, serving men by the score running to and fro in their livery, and armed men lining the sides of the hall—the mediæval household. The hounds crouched at their master's feet on the floor pranked with rushes and sweet herbs; the hawks perched above his head. The guests quaffed wines from Greece and Cyprus, and feasted upon lamprey and herring

pies. The common dishes on a mediæval table were manchets and chet loaves, ale and wine, beef and mutton, capons, hens, pigeons, and conies. The buzzard and the raven were then eaten. On fast days salt salmon, salted eels, whittings, gurnet, plaice, and flounders were allowed; fruit was reserved for Lent. Butter was always used in profusion, but there was no sugar, honey largely taking the place of that saccharine. As late as the year 1460 we find Lady Margaret Paston soliciting her lord to bring home *one pound* of sugar, so it was not common even then. It was considered the height of refinement for two guests to eat off the same plate. The only knife used was the clasp-knife, which the male guest took unsheathed from his girdle. There were no forks, but spoons and table napkins were used, and the company was divided by the salt-cellar.

Only a small part of the mediæval mansion was furnished. Four or five rooms were fitted up for the great folks, the rest were merely offices and cabins in which beds of the coarsest kind were provided as occasion required. There was the gallery, the chapel, my lord's chamber, my lady's closet, the nursery, the great chamber, the carved chamber, the paradise, the lower house, the hall, the spicery, and the buttery. The only chairs in these rooms were benches of wood, with the exception of a few stiff, high-backed, heavy seats in the great hall and my lady's chamber. The articles in a gentleman's house were so few that often they were separately bequeathed to individuals, the whole being summed up under the name of "ostelment." In the "Taming of the Shrew," Shakespeare makes Gremio glibly run over the inventory of his property in his town house when he is suing for Bianca, in this wise :

"First, as you know my house within the city

Is richly furnished with plate and gold ;
Basins and ewers, to lave her dainty hands ;
My hangings all of Tyrian tapestry ;
In ivory coffers I have stuffed my crowns ;

In cypress chests my arras, counterpoints ;
Costly apparel, tents, and canopies,
Fine linen, Turkey cushions, bossed with
pearl,

Valance of Venice gold in needle work ;
Pewter and brass, and all things that belong
To house or housekeeping."

Gremio was a rich nobleman of Padua, who had a hundred milk kine at his farm, and "six-score fat oxen standing in his stalls," and yet the enumeration of his household belongings would seem scant to the humblest householder of to-day. There is a great deal said about presses, hutches, chests, and coffers, by which men meant general places of deposit, although the words were used in many ways. Most of these chests and coffers and muniment boxes were made of costly foreign wood elaborately carved and bossed with metal, set upon curious feet and placed as ornamental pieces of furniture in chamber and hall. Gold and jewels, and nice dresses, and the plate and private papers were kept in these various articles of deposit, and they were usually kept locked. In the time of Henry VIII. it was expressly stated that the officers of the squillery shall see silver and pewter vessels kept safe (pewter vessels being then costly), and it was forbidden to the king's attendants to "steal locks or keys from chest or cupboard out of noblemen's or gentlemen's houses when he goes to visit them," a very necessary stipulation when furniture and household articles were so few.

When a noble or gentleman removed from one residence to another, he was obliged to transport his effects over the miry roads to make habitable the one to which he was going, as the supply was not sufficient to furnish more than one habitation. Even the sovereigns on their "progresses" were preceded by a long caravan of carts laden with what was called the "stuff," from bedding and tapestry down to spits and kettles. Even as late as the time of the second Tudor when the king and court removed it used to transport with them the hangings, bedding, and portable furniture. The enormous sum of three hund-

red pounds was allowed in the household book to defray the expenses incidental to each migration.

No contrast could be more striking than what the same mansion presented during the residence or absence of its numerous family, when stripped of all movable furniture, without plate or porcelain, dismantled of its arras, by men and animals alike deserted, it almost realized the image of desolation and proscription so beautifully portrayed in the *Cid*,—"when no hawks were seen on the perches, no cloaks lying on the benches; no voices heard in the hall, which had so lately echoed to the sound of mirth and revelry, and, now like a city desolated by a plague, seemed but one vast sepulcher prepared to receive the dead."

Such was household life in the mansion and the castle in the good old 'days when Chaucer was courting nightingales at Woodstock, and Jean Froissart was penning the pages of his gossipy chronicle at the courts of rival princes. The past is always surrounded by a

glamour of romance, and in particular there is an association that clings to the "ivy mantled towers" of the baronial castle, an emotion inspired by the picturesque splendor of that age as delineated in the pages of "*Ivanhoe*" and "*The Last of the Barons*." In reality the castellated mansion of our forefathers was little calculated to awaken serious thoughts or refined feelings. Life was grim, hard, and comfortless at the best within the castle walls; scarcely was it worse in the villein's cabin. There is no housekeeper of the present time who has a sound roof over her head but that is more comfortable, has more of the necessities of life, greater freedom of action, than all the princesses of Plantagenet or Valois blood. The romance of castle life in the feudal ages exists only in the imagination, and the "*Wife of Bath*" or the patient *Griselda* could have told a tale well calculated to remove all false ideas regarding it, and in telling it, like *Iago*, "have not told half the truth."

F. MYRON COLBY.

A BUDGET OF PAPERS ON PHRENOLOGY.

1. FONDNESS FOR THE STUDY—EARLY EXPERIENCES WITH PHRENOLOGISTS—COLLEGE DAYS—A PHRENOLOGIST'S MISTAKE.

I would rather be classified with all Theologians than with all Phrenologists.—A. C. D.

THE love of man for his fellowmen I inherited from my father, the noblest of men. He loved God with his whole heart, and his fellowmen more than himself. A worthy son of old Yale, he was a prominent writer and editor, a beloved pastor, and the noble "Martyr Chaplain" of the Chicago regiment—the Illinois 89th Volunteers. Sent home by his superior officer he is reclining upon his couch wasted by typhoid fever, perhaps dying in his Northern city home of luxury—when news comes "from the front" his regiment has engaged in battle. "Wounded and dying," to use his own words, "I must go to them. They love me and I love them—every man in the regiment. Some desire to send locks of

hair home and dying messages to loved ones. Some are unprepared for death."

* * * Before the steamer reached Nashville his body was upon ice. It was not the falling of his mantle, but an *inheritance* which he left his sons, better than depreciating bonds or corrupting and corroding gold—a *Godly inheritance*.

This sympathy for, and love of my fellows led me at an early age to study their thoughts and feelings, their ambitions, troubles, temptations, and all I could find out about them. When a study was spoken of which did not tell *about* men, but studied *men*, revealing themselves unto themselves, I was fascinated with the very idea. I longed for this knowledge. I had no idea how

this knowledge had been acquired or was to be gained; or even what had been attained by the advocates of this science. The word "Phrenology"—"a head all filled with pictures"—and "bumps on the head" limited my knowledge of this, even then, attractive study. All during my preparatory school days in New Haven in the oldest school of Connecticut—established in 1660—I gained no further knowledge of what Phrenology was, or of its teachings though one of the "honor-men" of my class. But while there I somehow learned that "some skulls had been found that had an equal enlargement or 'bump' on the inside to correspond with the 'bump' on the outside: and that therefore Phrenology was not true." Not knowing then that what had been asserted of "some skulls" was true of every one in certain places, as the "sutures," the "mastoid processes," and the "occipital spine," I felt the blow of the statement, especially as it came from a physician, and accepted it.

But all this time in my own way I was studying my class-mates and all with whom I came in contact, just as I did the stones and minerals—of which I had a large collection. I knew they differed—looked differently—but how or why I did not know. I now *know them*. Geology and mineralogy have since revealed to me the hidden truths of the rocks, as the science of Phrenology has to me men.

In the freshman or sophomore year at Yale I met a phrenologist for the first time. As I entered Bushnell's room—the back—inside room, ground floor, in the south entry of "North College," I met the faces and the exclamation of an interested group. There was a stranger among them, who fastened his eyes upon me. "Here's a good subject!" "Dill, want your head examined?" Without waiting for my negative reply, the phrenologist at once commenced to describe my character and said "He has a very religious mother." Had he em-

phasized the word "very" he would only have been more correct. He then mentioned correctly the line of study in which I was most proficient. "Good, good," shouted my enthusiastic class-mates, "keep on, you're hitting him," and he was, though I was standing ten feet from him, and had come in the room "by chance" as we incorrectly speak, for God ordereth and bringeth all things to pass.

I left the room in a few moments. Phrenology and phrenologists were little thought of until late one night two or three years later in my senior year. Sitting alone in No. 118. North College, my back to the door and my eyes shaded from the light which was permitted to strike the pages I was perusing, without rising, as I was weighed down and hedged in with many books, I said "come in," in reply to a knock upon the door, and a stranger came in. As I was extricating myself from my books I took note that in one sharp sweeping glance he was taking a general survey of everything in my room. After he had taken a chair, he quickly went forward to see what class of books were upon the shelves near by him, and as quickly back, as if to avoid my noticing it, but of all this I took careful note. Placing the book then in his hand, a copy of which now lies open before me, he said, "Turn to page 34 and you will find your character described. Hugh Miller's photograph was engraved upon that page, and four or five brief descriptions of as many different shades of the Metal temperament, one of these well describing myself. I knew it. My philosophical studies that year under Pres. Porter—one of the *grandest* of living men—in his "Human Intellect" had led me to follow his teachings, that of self-study as the best way to know others. Moreover, broken down by a too severe application to my studies in the Preparatory School, my college life was a constant struggle with the dark-eyed fiend of death. The depressing sensations and

horrors of a nervously weak stomach compelled me to turn my thoughts in upon myself. I studied myself until I *knew myself*. The phrenologist had made a successful application. Perhaps the three or four hundred pounds of geological specimens in my room had led him to turn to that page; but there it was, a brief, terse statement of my own and other characters. I wanted the book, and afterward purchased it; but I refused his offer of an "examination," because in his remarks concerning myself, which he made while I was examining the book, I knew he was judging from what he had seen in my room, and so I replied to him: "You have judged me more from my room than by my head. My room is entirely different from the one from which you have just come," where photographs of actresses and impure works of art poisoned the atmosphere and befouled the mind of a brilliant class-mate, the occupant of No. —.

"My own room was the exponent of my best thoughts, even of my very self. Over the mantel Wagner's famous 'Chariot Race' expressed the ambitious struggle of my life. On the one side of it Raphael's 'Saint Paul' continued the thought of the struggle. Paul has ever been of men my hero. On the other side Raphael's 'Saint Cecilia,' ever my ideal of womanhood expressive of that 'Purity' without which none shall see God, nor win 'the Laurels' of victory in the struggle of life—the overcoming of evil with good."

The large volume of poems which had caught the phrenologist's eye as he bent forward, led him to say: "You read a good deal of poetry." This was not true. I had not read that volume at all then, nor have I since, though it is still among my books. It was a large copy of Byron. I have little time for poetry, though it is in my nature. Once more looking up at me he was just completing his sentence "you do not take exercise enough," when his eye caught the corner of my

room where artistically arranged were my gun, fishing-rod, trout-basket, skates, dumb-bells, *et cetera*. They were there adding to the life and picturesqueness of my college room. I did not use them. I was a hard student, though not a "dig." He choked and coughed at the sight, as if his sentence had been but a slip of the tongue. "E-e-enough. Yes! you do take a good deal of exercise; but still you are overworking the mind to the expense of the body." This last was true enough, but it did not require a phrenologist to see it.

He is a well-known phrenologist, and no doubt earnest and sincere in his work. He erred, as all will who *guess* at the truth. He judged the cause from the effect, rather than the effect from the cause. THIS IS NOT PHRENOLOGICAL SCIENCE. But enough—more in the next paper of this Budget.

ARTHUR CUSHING DILL.

THE NORTH WIND.

O, GREAT stormy wind that hurries
from the north,
What pain and desolation thou hast found
Since bursting from thy icy prison forth!
Through varied scenes thy noisy path hast
wound,
O'er rock-rough hills, white fields, and wastes
of gloom,
Where famine prowls, where terror wildly
cries,
Where strong hope faints, where hardy cour-
age dies.
Art thou the herald of some comet's wrath?
Art thou vengeant spirit of a world
That long ago had wandered from its path
And for this breach of law to atoms hurled?
The wind replies: "Though now but wrath
I bring,
I'll be a gentle zephyr in the spring;
I'm like mankind in war, I never cease
'Till I've destroyed all I have loved in
peace."

J. I. NOEL JOHNSON.

PUBLIC SPIRIT AS A MEASURE OF MANHOOD.*

WAS it not Plato who said, "The man who will discover the *one* in the *many*, him would I follow as a God?"

The loftiest minds of the world seem to be those who are most in love with the *universal*. There is a tendency in the human mind to seek the universal: the one in the many. All efforts at generalization are manifestations of this characteristic. The great generalizers of the world are its great philosophers. The great minds who originate the great synthetic systems of philosophy, whether in the world physical, psychical, social, or theological, or all these together, are the leading exemplars of this tendency, as also the true exemplars of the rest of mankind. Moses's universal Jehovah, Christ's universal love, Plato's universal model republic (for doubtless he so intended it), Humboldt's *Cosmos*, Newton's law of gravitation, Fourier's destiny proportional to passional attraction (which is the extension of Newton's law from the physical to the psychical and social worlds), and Spencer's universal law of evolution, together with the correlation of forces and the conservation of energy, are some leading specific examples. That Alexander, Cæsar, Napoleon, were great generals because they were great generalizers goes almost without saying.** Taken any particular domain of facts or phenomena, we classify and generalize them to find the law or principal which governs them, which constitutes science. Generalizing comes from reflection. At this point of reflection then commences a great difference between two classes of persons, namely, the uncultured and cultured. It is of vital importance to consider this divergence. As it is with the primitive race and the primitive man, the child, so it is the character of the undeveloped and untrained mind to deal in special facts and personal interests and to act from impulse and by "reflex action," and to be unplastic and unchangeable by individual experience; to be fixed in custom and given to imitation. (I am here using some of the language of Spencer.) Such a mind does not reflect; it can not generalize or fix attention, or combine the action of faculties; it is without rational curiosity, has no notions of class abstraction, cause, uniformity, law, truth; and no proper sense of justice or sentiment of altru-

*An *indirect* argument (among other things) to persuade people to join in the work of scientific monetary reform, particularly that phase of it now called "International Bimetallism."

** Public spirit is allied with—when not the same as—the spirit of such men, sentiments, and accomplishments.

ism. It is not impressionable, or expansive, or progressive. In keeping with this state of mind was the old conception of fixity in nature, of fixed types, as practical standards, with no notion of growth, evolution, extension; little of the historical method, and no notion that the law of evolution is the historical method extended. But the more developed, trained, and cultured mind acts in a freer, calmer, more reflective and deliberate, more systematic and rational way. It sees with finer eye, it understands with broader grasp. It is not only sensitive to facts, but penetrates to their subtle relations, and seizes hold of the law thereof—sees the immutability of law, the reign of law. It is as grand and broad in synthesis as it is fine and penetrating in analysis. It arranges, it groups, it weighs, reflects, reasons, generalizes. It sees the one in the many and the many in the one. It has ideas of and understands the significance of class, abstraction, cause, uniformity, law, truth,—and recognizes progress with order in utilizing the historical method and in seeing what comes of it in the theory of evolution. Such minds have, too, a keen sense of justice, of right, and duty, and of devotion; a love for the true, the beautiful, and the good; a sympathy for others, and an appreciation of the true spirit of altruism. In keeping with this class of mind are the new ideas of evolution and a perpetual—in the main—progress of life, superseding the old ideas of a fixed type. Especially is this true of politics and jurisprudence, for example, and it is now being extended to the question of conduct or ethics. And all this, on the one hand, to delineate the man of true public spirit, and, on the other, to point out where may be found the proper objects of his attention and care. The man of public spirit is one who is great enough to care about questions of truth and duty. It was men of public spirit who, upon reflection, seeing pauperism to be the cancer that it is upon the body social, have attempted, and are now attempting, its removal by what has come to be known as "scientific charity." If, then, to do what is most needful to be done; if to do that which will result in the greatest good to the greatest number, is to be the standard of goodness, wisdom, and nobility, then is public spirit the highest standard as a measure of manhood. An Eastern proverb says: They who gather wealth to give to the poor, Their memory shall be fragrant as roses; But they who work with their fellows so that there be no poor, All the perfumes of the garden can not measure their sweetness.

RATIONAL AND EMOTIONAL CHARITY.

Either the words artificial and natural, or indirect and direct, might, with equal propriety, be used here instead of rational and emotional, as above. But the word artificial is here used in the sense (and this is its true sense) that art is rational control of natural phenomena or laws for human advantage; and so, too, therefore, the natural (natural phenomena or laws) are the raw material, so to speak, for art or invention to operate upon or with. (I am here using some of the language of Professor Ward.) Nature's remedy is direct and comparatively inefficient, and produces only effects not greater than the cause, so to speak. The indirect method is art, invention, superadded to nature, nature's forces controlled by invention. The naturally savage man attempts ends by direct means, by brute force. He is on the road to becoming an artificial and civilized man when he invents a canoe, etc., and becomes an artist, and thus adopts the indirect method of crossing the river or navigating the ocean. From the canoe to the steamship, the bow and arrow to the Krupp gun, the wheelbarrow to the locomotive and railroad train, the stone ax to the most improved machinery; from the sickle to the reaper, the flail to the threshing machine, the telescope, microscope, spectroscope, and their wonderful revelations—all come from art, invention. Nature gives us the power of steam, but invention and art give us the steam engine and the indirect method. The savage becomes civilized, then, through invention, and art, and the indirect method.

Now, besides this physical world and its natural laws, where invention and art have done so much, there is this human world—the mental, spiritual, soul, or psychic, and social world—with its phenomena and laws, where invention and art, by way of rational control, have done so little, almost nothing as yet, and where the unreflecting and undeveloped class above described, do not yet conceive or concede the desirability or possibility of any such rational control, and who, accordingly, have been practicing, and would so continue (if not themselves controlled) the direct, natural "brute force" method by which so little has been or can be accomplished. For, in this matter of charity now before us, they act from instinct, from sympathy, by impulse, by reflex action and not from reflection, and so their charity is direct or emotional charity, and not rational charity. The psychic forces, social forces, impulsive forces, may be and are to be rationally controlled, as are the physical forces. Nature's method is here, as elsewhere, the direct and "brute force" method, and life

has been an open struggle; in lower life there are no rights or duties. Our present system of industry, from a moral or social standpoint, is the direct, "brute force," coercive method. Direct charity is of this character. Sympathy is impulsive force like hunger or lust. Even religious or moral persuasion fails to reform the world. And so, this other class (the developed), also above described, seeing all this, essays to apply the rational method also among these higher laws and phenomena, and to deliberately organize charity, not only as a part of our duty to our less fortunate fellows, but for our own interest and salvation.

Count Rumford, who was the first to apply the rational method to the abolition of pauperism and the matter of charity, and who actually succeeded in its abolition in Bavaria, where he was afforded an opportunity, has set an example of public spirit which has been in part attempted to be followed in England and, more recently, in this country, for which we ought to hold him in high esteem and tender to his memory our lasting gratitude. We, too, should be proud of him as an American citizen, as he was. As such he was plain Mr. Thompson. The little kingdom of Bavaria was being almost swamped by pauperism when Mr. Thompson undertook to treat it, and the king was so well pleased with his success and his public spirit that he conferred upon him the above title.

The writer, after twenty years of observation, study, and assisting in experimenting, trying to learn of and to understand all the advanced schemes, projects, and propositions relative to labor, industrial, and social reform, is now of the conviction that this inspiration, this movement in the direction of organized charity, "scientific charity," if consistently, logically, and persistently carried out, is calculated to do more for the immediate need of society than is any other movement now known to him. Meantime, it will, of course, be inferred, from what has preceded, that he holds the cause of pauperism, and largely of crime, to lie in the want of the proper organization of industry, of scientific industry, scientific from an economic, social, and moral standpoint; that is, in the want of the rational control of the selfish instincts or forces—selfishness, pride, vanity, sexual appetite, ambition, etc.; of the emotional impulsive forces—love, hate, fear, hope, despair, veneration, benevolence, malevolence, sympathy, etc.; and of the psychic and social forces; the rational control, through invention and art, of the physical forces being already attained sufficiently for the complete abolition and prevention of pauperism. The degree of public

spirit manifested in this movement shows a recognition, by those taking part in it, of the solidarity of society and of the conception or fact that society is an organism, as the individual man is an animal organism, with its organs and systems of organs and their functions, the health, balance, welfare, and perfect condition of which are absolutely essential to the health, welfare, etc., of the organism itself, and that therefore every part or organ, every class of persons—nay, every individual cell of this social organism—must be in health and in harmony with its fellows, else the organism itself can not be sound and healthy; and contrariwise, if the organism is not well-conditioned, its parts, or any one of them, can not be. Who, then, that has arrived at even an "enlightened self-interest" degree of development and culture would not join in this movement? Public spirit has a conscience or moral intelligence that concerns itself about relations of humanity—human needs

and human wants, and in righteousness. Moral progress in society is correlated with scientific method. Leisure comes from work, reflection from leisure, science from reflection; therefore civilization comes from work,

'Till each man finds his own in all men's good,
And all men work in noble brotherhood.

The more we concern ourselves in truth and duty, the more we will convince our fellows that

This world is full of beauty
As that other world above,
And if man would do his duty
It might be full of love.

There is nothing to which the whole of this brief essay is more applicable than to scientific, and therefore artistic, currency reform (as one means of abolishing pauperism and of organizing industry), especially that phase of it now up before the world, and known as International Bimetallism.

W. M. BOUCHER.

THE INFLUENCE OF THE ENDOWMENT ON RELIGION.

PHILOSOPHIES, religions, institutions, laws, literatures, sciences, and arts are all outgrowths from man's nature, or human creations to meet human needs, and supply human wants. They are the results of the action of the reason, affections, conscience, taste, and faiths of men, as they have been inspired from above, and influenced by the environment in which they lived.

In all forms of civilization we have three great factors—God, man, and Nature—the divine, the human, the natural—inspiration, human effort, and the environment. Of all the progress in philosophies, religions, institutions, laws, governments, sciences, and arts, Man is the human cause as known to consciousness, experience, science, and history. God is the inspiration as known to faith and religion, and nature, or the environment has presented the conditions under which all progress has taken place. All real civilization is therefore Divine, Human, and Natural—from God, Man, and Nature. Hence it has a divine religious side; a spiritual, moral, and social side; and a natural,

scientific, and positive side. In the genesis and history of civilization embracing all its parts, forms, and stages, we see revealed two methods—creation and evolution: creation in the origin, and evolution in the progress, growth, and development of all things. From this we reach the conclusion that all philosophies, religions, institutions, laws, sciences, and arts, have in them elements of divinity, humanity, and truth. God as the great All Father has inspired all his spiritual children in all nations, and all ages. Inspiration is common, universal, constant, but infinitely varied in degree, strength, and intensity.

The reformers, legislators, philosophers, teachers, prophets, and founders of religions, nations, and institutions have all felt and claimed this inspiration as a source of truth and power.

Moses, David, Isaiah, Jesus, Paul, Socrates, Plato, Buddha, Confucius, Mencius, and others, have all claimed spiritual or divine illumination, revelation, and authority. This psychological fact shows that divine, spiritual inspiration is a universal faith, and the need

for divine, spiritual influence, a felt and universal need of the human soul in all nations and ages.

This universal human want is prophetic of a divine supply. This universal faith points to a divine truth in philosophy and religion, and to a fact of human experience and history. We thus find a universal religion existing in all nations and ages, common to every form of civilization, and marking every stage of human progress. It may be called superstition, but we find its impress on all law, literature, language, art, and folk lore.

This universal religion has been modified by the influences of race, climate, sunshine, storm, and physical, social, and natural conditions. The variety in its forms are to be traced largely to the conditions and circumstances under which they have been developed.

WM. TUCKER, D. D.

RIDICULOUSNESS OF THE PERVERSE.

"The essay is not a formal siege, but a series of assaults upon the subject."

IN some one of his essays the philosophical Emerson breaks out with an apostrophe to "the dear old devil!" I do not remember exactly what attribute of this amiable person excited the affections of the philosopher, and perhaps the apostrophe was nothing more than an expression of that natural kindness of heart which men often feel toward moral deformity. At all events, there it stands, and I defy a person to read it for the first time without a certain sympathy. Now this sympathy has its root in what we may call a recognition of *the ridiculousness of the perverse*. For there certainly is an element of the grotesque about everything vicious and wrong.

Humor, as has been often remarked, is the consciousness in us of being superior to the object or mental picture which amuses us. Now this sense of superiority over wrong, by which it becomes ridiculous, is one of the finest of

moral safeguards. The very fact that we are struck by the ridiculousness of the perverse, is evidence that we are above it and refuse to descend to it. Those who are on the same plane with evil see nothing ridiculous or grotesque about it. The thief makes a serious enough business of thieving, and the devil, we may assume, feels none of that whimsical compassion for himself to which Emerson has given utterance. It is the man who keeps his moral balance who naturally looks down upon perverse things with the irresistible consciousness that they are grotesque and out of order.

Instead of being at all unkindly, this feeling is an evidence of the natural benevolence of the human heart. Taken at its best, there are few kindlier emotions than laughter. So it happens that the morally balanced man often loves others for the very things which would make him hate himself. Here is a gracious provision of Divine wisdom, by which a man becomes unwittingly his brother's keeper.

Have we not, then, discovered the reason why there is something winning, after all, about bad people? With Emerson, we almost feel charitable toward the devil himself, because he is so pitifully wrong! Thus, while we laugh at perverse people, while we feel that we are superior to them, yet we love them. And there is method in our strange benevolence. We laugh at bad people in order that we may laugh them out of badness. This is the moral significance of ridicule. Ridicule is a sort of moral spirit-level, by which you may show men how much they are out of the true plane.

From what has been said, it is evident that, when a man gets down to the level of evil, it ceases to be contemptible to him. Then, instead of laughing at others, he himself becomes a laughing stock; and it becomes the privilege—shall we not say the duty?—of morally superior beings to laugh him up again to the right level.

JAMES BUCKHAM.



THE PHYSIOLOGY OF REPAIR.

AN Exchange discusses this subject in connection with the production and healing of sores and common eruptions: The two principal functions which keep animal bodies in a healthy condition, are nutrition and secretion, and each of these functions have their specific organs. Those of the first class, of which the stomach and intestines are the principal ones, serve for supplying the system with the substances needed for repair of worn-out material and the substitution of new material instead; those of the second class, of which the skin, liver, kidneys, and lungs are the principal ones, and serve to separate the worn-out and effete material from the still perfect substances and throw it out of the system. If any of these organs are deficient in their action sickness is the result, and the kind of sickness depends on the organ that is deranged, and on the nature of this derangement. Thus, when the stomach does not act properly, various forms of complaint may result, of which dyspepsia is the most common. When the skin does not act properly in throwing off by perspiration effete volatile material it remains in the system, and various forms of sickness, such as fevers, coughs and colds, rheumatism and gout, etc., may result, according to the constitution of the individual; while a total suppression

of the perspiration over a great part of the body is always fatal within twenty-four hours, as proved by extensive scalding of the body, or the celebrated experiment of varnishing and gilding a naked boy. If the lungs do not act properly in secreting the carbonic acid from the blood and throwing it out with the exhaled air, very serious consequences may result, and in any case the color of the person becomes livid, as seen in cases of suffocation. If the liver does not secrete bile, jaundice may result, if nothing worse: if the kidneys do not secrete urea and other salts, for the elimination of which they are intended, the most fatal diseases are often the consequence. We mention this to prove that the constant activity of proper secretions is an absolute necessity, and if interrupted, injurious material will accumulate in the system. In such a case another function springs up; in its efforts to preserve the individual from rapid destruction, one organ will, to a certain extent, take up the function of another, or at least we may easily notice the tendency to do so; thus by a checked perspiration the kidneys are found to be more active, and *vice versa*; when the kidneys are not active enough there is a tendency to perspiration, and if not promoted the results are serious. But if nature can not succeed

in eliminating the effete, worn out, corrupted material by some regular channel, she creates new channels, and this is the cause of boils and festering sores; and the true philosophy of this interesting phenomenon, as we have attempted to explain, shows the danger of healing them too suddenly without providing other exits, either by stimulating the various regular secretive organs of the body, or by creating other sores in more convenient places by the application of blistering plasters. We have noticed, and many other persons, even those who are not physicians, must have noticed that often the disappearance or healing of a sore has been followed by a serious sickness, and even death of the patient; and physicians who understand their business know that eruptions will

have their course, and, as a general rule, must not be interrupted by local applications, except in peculiar instances, and while always observing proper precautions. In answer to the question of the cure, it is contained in the above remarks. Improve the general health of the patient, give good healthy nourishment, by preference much fresh vegetable food, which acts especially upon the secretions, and, as a general rule, is to be preferred to the administration of drugs. In many instances, however, cleansing the bowels may cause the healing of sores, which are often the result of habitual constipation. This is especially the case with that too common ailment—sore legs, with which nobody ought to be or will be troubled who takes proper care of himself.

THE WATER WE DRINK.

THERE is no question that in all countries water is the natural drink for both man and animals, but there is a great difference in water, some specimens being so contaminated as to be entirely unfit to drink. To go no further, we have the two kinds of water designated as hard and soft. Water as it falls from the clouds is never hard, but spring or river water is often so. If water with good soap will not make a lather or suds it is called hard and will be found to contain lime or magnesia or both. When such water is rubbed in contact with soap some of the constituents of the latter unite with the minerals contained in the water and form an undissolvable compound. On the other hand, soft water holds the soap in solution and makes suds readily.

Of hard water there are two kinds; one is permanently hard and the other can be made soft. When lime and magnesia are found in it in form of sulphates it can not be changed, but when in form of carbonates the hardness can be removed by any process that will eliminate the carbonic acid gas. This is sometimes

done by boiling, when the gas is expelled and the mineral becomes attached to the kettle in form of incrustation; or if anything be added to the water that will combine with the carbonates, they will sink to the bottom and leave the water soft. This is the case when borax or soda is used.

Some have the idea that hard water, because of the mineral it contains, is better than soft for children, because just such ingredients are necessary for the formation of their bones. A sufficient answer to this is, that if it be given to a child not in the habit of using it, ill effects will soon be seen. If it be said that in regions where hard water abounds it is used by old and young alike without apparent harm, we merely call attention to the word "apparent" and add, the human system is of such a nature that it can become habituated to the use of almost any poison, as arsenic, alcohol, or tobacco, frequently for a long time, notwithstanding their evil effects.

But soft water is not always or usually pure water. It holds in solution, as a

rule, more or less organic matter, mostly vegetable, that contains the seeds of disease and death, and should be cleansed from these by filtering, boiling, or other means. No house in the country or city should be without its cistern or tank for the reception of rain or soft spring water, with an attached filter of gravel and charcoal, through which all that is used for drinking and cooking should be drawn. It is true that so far as cooking is concerned, the boiling in a great measure remedies the evil—but it is better to have no evil to remedy.

The old adage, "prevention is better than cure," should be kept in mind. Pure water is tasteless, inodorous, and transparent. Rain as it falls from the clouds is doubtless the best of all waters. When rain first begins to fall, especially after a season of protracted drouth, it will be found to contain many impurities absorbed from the atmosphere through which it falls, but these are soon exhausted, and the water as it can then be collected will be found nearer pure than that which can be otherwise obtained. Spring water is rain collected after having percolated through earth, where it may have parted with some of its impurities, and, perhaps, taken on others. In a limestone region it usually becomes hard.

River water is a mixture of rain and spring water, and usually holds in suspension much vegetable matter, from which the others are nearly or quite free.

Well water is obtained by digging or boring into the earth until a spring, or the water from one running in an underground channel, is reached. Well water is of different degrees of impurity.

Sufficient care is not taken to have wells situated away from all possible contamination by drainage into them from cesspools, barn-yards, and other things objectionable. It has become very common to say earth is a perfect filter, disinfectant, and deodorizer, but it must be remembered that the best filters become stopped and impaired by long use,

so much so that even pure water passing through them becomes polluted. A little care and forethought will prevent trouble from this source. In some things we find more attention given to the sanitary condition of horses and cattle than to that of their owners, but so far as their drink is concerned, this is not the case, the wells from which they are supplied being most frequently sunk in barn-yards, or in their close proximity. It is true that our domestic animals are not so easily affected by what they take internally as is man, but it is nevertheless desirable that all causes of disease be avoided.

Dr. Pehl, a Russian, believed he had found a way to clear water from bacteria that are often found therein by giving it a rapid motion. If this discovery be confirmed it will become possible to destroy their germs in water by simply passing it through a centrifugal machine. I have no doubt motion has some effect in this destruction, but am inclined to think it is concussion that kills and aeration that purifies. I know of two cisterns, one on either side of an extension to a barn, from one of which water is drawn with a pump, and from the other with a bucket. The difference in the quality of the water thus drawn is so marked no one would believe both cisterns were filled with water from the same roof. The water from the pump, although clear, has a strong musky odor and unpleasant taste, while that drawn with the bucket is odorless, palatable, and when poured from one vessel to another sparkles like spring water. When a bucketful is drawn up some falls back, carrying air with it into the main body and every plunge of the bucket produces concussion.

Many a country boy knows that when fish in a pail of water begin to show signs of dying they will revive at once if a few cupfuls are taken from the pail and poured back from the height of a foot or a little more, just enough to take down air with it.

Some object to the use of rain water for drinking, because, as they say, it tastes flat. Some of the properties well or spring water often holds in combination or solution may be gratifying to the palate, but they are none the less objectionable from a sanitary point of view. Pure rain water may taste flat from want of carbonic acid gas. This can be supplied in great measure by agitation and aeration, and when so supplied, it will be as lively and tasteless as can be desired. When it is wished to have water flow through the house without artificial appliances, tanks should be made in the garret, but when only the lower floor is

to be supplied, cisterns are preferable both on account of economy and as being free from danger of flooding the house by bursting or overflowing, but wherever they are located, they should be built in such a way that all water shall pass through a filter before entering the compartment from which it is drawn for use. There are various ways of attaining this end, some very simple, as by having a cistern divided by a brick wall, of the thickness of the width of a single brick; others more complicated and better, where a complete filter is made of charcoal, sand, and coarse gravel.

L. A. ROBERTS.

PRACTICAL HYGIENE.

THERE can be no question with regard to the influence of hygienic knowledge; the more people learn about themselves and sanitary methods, the less of drug medication do they favor. The lecturer, the independent periodical, the phrenological teacher, have done much to enlighten the public on the necessity of learning and obeying the common truths of physiology and hygiene, and the establishment of well-equipped sanitariums has greatly aided this good work. Now, probably, there is no better place than a good hygienic institution for learning how to live rightly, and the following sketch, abridged somewhat, from an exchange, is but a fair illustration of the work that such a place does for individuals and the community.

It seems that young Harry Styles was "in a decline," and everybody thought sure that he couldn't live, but his father, a good farmer, and sensible man, happened while reading his weekly paper to come upon an account of a certain sanitarium among the hills, and resolved to take his boy Harve' there and see what could be done to save him. He returned highly delighted with the visit, and this is the description he gave of it:

"I tell you," said he, 'Harve' is in

good hands. That's a beautiful place, and there are lots of sick lookin' folks settin' around, not cooped up in a airtight bedroom, but meandering on the piazzas; and the whole house is just full of sunshine and air.

"Things are seen common sense ways. First thing when we arrived, was a lecture; and it *was* a lecture. The doctor gave it to 'em right and left. He said that it's a sin to be a dyspeptic. He said that nature has provided us with good internal organs to digest our food, and it's 'either wilful sin or ignorance that turns a good organ into a bad one.

"When the stomach turns out its work about half done, that makes the other internal machines extra jobs. The nerves get all worked up till they're very sensitive. The blood gets full of crude material not half worked up, and there goes that undigested food a scrapin' through the system into the heart, and the lungs and the liver, till the whole bein' is in a snarl from head to foot, and there's a gone feelin' in the pit; and then folks aint got no more sense than to heave on to it another load.

"Some people, he says, will eat things when they know they'll have a spell of indigestion arter. They'll jest take Thanksgivin' dinners and plum puddin'

and brandy sauce, goose and grease, and cranberry jelly, and doughnuts boiled in lard, and what not, till the poor stomach is sore and irritated beyond endurance. They'll scold their children, and abuse their best friends; and after they cool down they get into despair, a-thinkin' they have committed the unpardonable sin. They need to be pitied, and to be helped to repent and forsake their evil ways, instead of repinin' agin Providence for the ills they've brought on themselves.

"The doctor said to 'em, 'We've got you here to give you a lift; but you have got to do some climbin' yourselves;' and he told 'em to make a business of it; to dart aroun' and take exercise and air, and not to go pokin' aroun' to find out if they'd broke out in a new spot, but to turn their eyes out of themselves. Nature is a very modest creatur', and she won't tend to her affairs while you're inspecting her housekeeping."

Several weeks went by, and one morning Harve' returned home. His step had a spring to it, and there was a marked change in his whole appearance. There was new energy in his spirit, a fresh motive to work; and life had an inspiration unknown for many a month.

"Thank you, no, Aunt Sallie," said he, as she urged him to eat of the luxuries prepared in honor of his return, and

in pity for his long abstinence. "I want high thinking, so will eat of simple and healthful food. Grits and fruits are growing delightful to my taste. I want to eat what makes men, not angels. No more *angel-cake* for me. I should call it just the opposite."

Four months in the open air in accordance with the doctor's advice, on the cultivator, the reaper, and mower, shouting to the teams, and living on plain, wholesome food, brought back the glow of health to the young man's cheeks.

"I tell you," said Farmer Styles, after returning from the village hall, where Harve' had delivered a lecture on health and temperance, "Harve' is what I call a hygienic hero. Law! the way his voice rang out to-night, clear as a bell; and there was a swing to his gait that fairly did me good. His education is a-comin' in fairly enough now.

"He told 'em it was their duty to know how to live so as to glorify their Maker and benefit their feller-men, and that this slipshod way folks have of treatin' their physical bein' is a crime. He said he had come to the conclusion that if folks wouldn't use common sense in treatin' their bodies, that their souls wouldn't go with any great vim toward the Kingdom; and that he'd come to this conclusion through logic and experience. And I said 'Amen.'"

THE ONE FLY IN THE APOTHECARY'S OINTMENT.

DID I wish for convincing proof of the Scripture assertion of the "fall" and consequent marring of the human race, it would be found in the unvarying imperfection of every man, woman, child, flower, fruit, and the whole animal creation. God made man "upright." Satan has for an allowed time, certainly, made him otherwise.

I am led to this sorrowful conclusion, from lately hearing a lady—one not wanting in Christian feeling, refinement of manner, and good intellectual endowments—deploring that a neighbor, a

young wife and mother, had not taken "good care of herself;" in other words, "had neglected her complexion, allowing it to become rough." Apparently, to this woman, who certainly could not be charged with neglecting proper devotion to the keeping of good looks by every artifice of the toilet, the proper care of her neighbor for her family, her duties to the world, the moral training of her children, were of minor importance. Such a real regret was in the tones of her voice and her countenance over that complexion as to excite my

pity, if not contempt, that this woman's fine qualities should be so shadowed by vanity of person, and egotism of manner, as to make everyone at all versed in reading character, on first meeting her, to deplore the one "dead fly."

But where do we find perfection? True, "He hath made everything beautiful in his time," but who can fail to believe that the once archangel, cast down to earth, has found means to trail the serpent over all?

To me, who am often accused by friends of not paying heed enough to fashion, of being too severe in regard to apparel, it was inexplicable that this woman could mourn over a neglected complexion in her neighbor, and never give a thought to her neglected children.

This overweening regard to dress adornment, crimping of the hair—how positively awful the waste of time on such artifices! I have known of *hours* consumed by young girls in the attempt to make smooth hair resemble that of a race they call their inferiors. Powdering, rougeing, destroying the complexion, will continue to be to me a mark of the inferiority of our women, and bringing them to the level of the indolent, painted beauties of harem and zenana. I have heard women who were considered of average intelligence declare "it was the duty of all women to keep young and good-looking, and to practice all the arts of the toilet to secure this end." I rarely hear any of this stamp of women talking of duties to the world, to the outcasts and perishing—and if there is a sight upon earth sorrowful and at the same time disgusting, it is that of a woman, long past youth, clinging with despairing eagerness to her powder, cosmetics, false curls, and "bangs," and utterly regardless of her nearness to a world where such doings will have no place.

There has recently been going the rounds of the papers an article that, considering the wise advice as to health, morals, and general welfare of young women usually given by the author,

has astonished me. I refer to a "talk" upon the proper care of the hands—we now have "manicures" specially to keep those members beautiful! Did it ever occur to this wise doctor that there are persons so incessantly employed in caring for their own maintenance, the welfare of their households, the doing good to all as they have opportunity, as to be unmindful of the color of their fingernails, their shape and polish, only being sure that hands and person were clean?

So long as women make the adornment of the person their *chief* end and aim, however much they may engage in works of charity and mercy, whatever their profession of religious principles, their weakness and inferiority must yet be apparent. And saddest of all, these arts of dress are mainly to serve the admiration of the other sex. As though any man's love was worth a thought if it could be won by "bangs," bangles, paint, and whitewash. Can we wonder at the infidelity of men to such women?

A proper care of the person, proper attention to bathing and keeping the body in a healthful condition, need never consume a tithe of the time these devotees of fashion require, these lovers of their persons above their minds.

COUSIN CONSTANCE.

SOMETHING BETTER THAN PIE.—Good wheat bread and butter, or bread and cream and syrup, or a little sugar and good apple sauce, will make a dish superior to any pie I ever met with. Very few cooks know how to make a pie that will be really digestible in stomachs of ordinary capacity. We stew a few apples nearly every day, and usually eat the sauce warm, with bread and butter. Many times it is impossible to get good marketable apples, and we are obliged to use "nubbins," which are scarcely fit for hogs. Yet we make excellent sauce out of such very poor fruit. All the specks and defects are cut out with a knife having a sharp point. Then, the fruit is washed clean and stewed without

being peeled. If one attempts to peel such small trash there will be but a small amount of pulp left. As soon as every part is cooked soft, let the mass be forced through a collander, or small sieve. This process will separate the pulp from the skins, thus making a fair quality of sauce from poor apples. The aroma of the skin will give the sauce an excellent flavor. A little nutmeg grated into the sauce while hot will improve the sauce, for many palates. Sugar, or a little New Orleans molasses, may be mingled with the sauce if much sweet is agreeable to the taste. By stewing apples in the foregoing manner one can use very inferior fruit to a good advantage when large and smooth apples can not be procured. At certain seasons of the year, we can get nothing but half-ripe India rubber-like apples. Yet by stewing them with the skins on, and passing the pulp through a sieve, we make a palatable dish out of apples that most people throw away. Then with good brown bread, or wheaten mush, or grainlet, we have a dish that is fit to place before a queen at a royal banquet. Try it and see if it is not better than pie having a tough, indigestible crust.

ESS E. TEE.

OUR TEARS.

TEARS in redundancy may strikingly express emotion, but that is a mental side, which is but a small part of their function, as we shall see. The principal element in the composition of a tear is, as may be readily supposed, water. The other elements are salt, soda, phosphate of lime, phosphate of soda and mucus, each in small proportions. A dried tear seen through a microscope of good average power presents a peculiar appearance. The water, after evaporation, leaves behind it the saline ingredients, which amalgamate and form themselves into lengthened cross lines and look like a number of minute fish bones. The tears are secreted in what are called the "lachrymal glands," situated

over the eyeball and underneath the lid. The contents of these glands are carried along and under the inner surface of the eyelids by means of six or seven very fine channels, and are discharged a little above the cartilage supporting the lid. The discharge of tears from the lachrymal gland is not occasional and accidental, as is commonly supposed, but continuous. It goes on both day and night—though less abundantly at night—through the "conduits;" and spreads equally over the surface of the pupil, in virtue of the incessant movement of the lids. After serving its purpose the flow is carried away by two little drains situated in that corner of each eye nearest the nose—into which they run—and called the "lachrymal points." The usefulness of this quiet flow of tears, to both men and beasts, is manifest. There is such an immense quantity of fine dust floating in the air and constantly getting in the eyes, that, but for it, they would soon become choked. Very little is requisite to keep the ball free, and when some obnoxious substance—smoke, an insect, or the like that affects the nerves—does make its way in, an increased flow is poured out to sweep it away.

A DINNER MENU; HYGIENIC.

SOUPS.

Cream Pea Soup, or Brown Soup.

GRAINS.

Cracked Wheat, with raisins served with cream and sugar dressing, or Cornolia (a new and delicious preparation of Southern corn), with dressing of fruit juice, Macaroni with stewed tomato dressing.

VEGETABLES.

Baked or Mashed White Potatoes, Canned Sweet Corn or Green Peas.

BREAD.

Whole-wheat Bread, White or Brown Rolls.

RELISHES.

Celery, Cream, Stewed or Baked Apples, Cranberry Sauce.

DESSERT.

Oranges, Almonds, Lemon-Meringue.

Child-Culture.

AN AUNTIE'S NOTIONS ABOUT CHILDREN.—No. XII.

ON "LOVING TOO MUCH."

GEORGE MAC DONALD, in one of his novels, has written, "People talk about loving too much; for my part I think all the mischief comes of loving too little." In this *dictum* I thoroughly concur; moreover it is one of my own notions that a great deal of what is called loving too much, is actually loving *too little*. It often occurs that when a child is early removed from the evil of this present world, that friends and relatives of the parents shake their heads, and say sadly: "Ah, he was thought too much of!" or, "She was made an idol, and so she is taken away." Such remarks always make me angry.

But what do these people mean by their words? Often, I believe, such phrases are the merest cant, and without meaning; but those who really fancy they have ground for their judgment, would, if asked, probably reply: "The parents loved their child too much to administer necessary correction; he was growing tyrannical and unmanageable from having entirely his own way; selfish by reason of excessive indulgence; and vain because of lavish admiration and praise. In short, he was being thoroughly spoiled."

Do you call that loving too much? I call it loving too little; or, at least, with a weak, inferior quality of affection. Loving with a shallow, superficial love, that thought of the child's present indulgence rather than of his future and permanent well-being; an earth stained love that chose to pamper his little fleshly wants and wishes, even at the expense of injury to his immortal spirit; a selfish love that would yield the child a prey to the weakness that, by and by, would grow to hideous sins, rather than

itself suffer the temporary smart of denying the object of such false tenderness a single harmful pleasure, or of inflicting a single needed punishment; that would allow him to forfeit the affection of those around him by his own unamiable temper sooner than it would, by a timely reproof, lose for a moment his capricious favor and smile; a foolish love that taught him to expect his greatest happiness in self pleasing, rather than in the deep and lasting joy of blessing others; a slothful love that would not exert itself in any way to foster within his heart the best and loveliest sentiments, that thought only to enjoy him, to be amused with his funny or clever ways, instead of by its own self mastery, patience, and perseverance, to guide him into the noblest and only truly blissful paths. Children may have been taken from their parents' arms because they were loved not wisely; never, I am convinced, because they were loved too well.

I hold that children can not be "thought too much of." They, their bodies and souls, their training, education, and prospects, constitute the most important work of the parents' lives. Money-getting or pleasure-seeking are nothing compared to it; and even philanthropic work for other people and their children must give way before the claims of one's own. Neither can they have too much tenderness. Many a poor little heart has been half starved for want of tenderness, while the mother's love has found outlet exclusively in working and watching, training and restraining; a practical, and, of course, indispensable expression of affection, but one which the children, unworldly creatures that they are, do not half appreciate. A real, close "good night"

cuddle will go ever so much farther to warm a little child's heart, and make it thank God for dear mother, and smile by and by in its sleep, than a night dress embellished with the most dainty embroidery, or a whole pile of finely darned socks. Certainly no good mother can possibly neglect her little one's bodily comforts, for she knows the value and necessity of such if they do not; but where smiles of love and tender caresses abound, the children would be happier in buttonless jackets and holey pinafores, than in the home where stitches are many and kisses correspondingly few. It is not much, either, for the busiest mother to lay down her work for a minute, put her arm round the little one who stands wistfully at her side, and pressing her cheek to his, call him by some pretty, pet name, though it may shed sunshine in his heart for a whole morning afterward. It is a mistake for her to frame her conduct too strictly by the old fashioned maxim of "actions speak louder than words," for, after all, especially to childish ears, words speak by far the most plainly. Another form of love, of which children can not have too much, is sympathy. I often think that what is the matter with many little people nowadays, is that they have too much indulgence, and too little sympathy. We should, if we want to be a real comfort and help to them, try and put ourselves in their place, to feel *with*, as well as *for* them in their small interests and pleasures, though to our age and experience they might otherwise seem very insignificant; to feel with them by remembering our own childhood, and how differently things appeared to us then from what they do now; to feel with them in their sorrows and disappointments, not that we may encourage them to sink beneath such troubles, but help them to bear up cheerfully; to feel with them, and we need not stoop for this! how easy it is to do wrong, and give way to besetting faults, not that we may excuse or make light of even childish

sins, but that we may best know how gently and patiently to guide the little feet into the upward way.

Mothers and fathers, do not stint your children in love; fold them all round in it, express it daily in sweet and tender looks and words, as well as deeds; let the home nest be lined so soft with love that the firm, protective twigs of rule and order may not chafe the birdies within, and make them want to fly away before the time; make them feel that even their faults can not estrange their parents' love; it will not render them careless, though the thought that your affection for them depends solely upon their own good behavior might have that effect; yet let your love be so grand, and strong, and God-like, that, other means failing (but not until then), you will punish and punish severely, rather than that your darling's nature should be defiled by sin; and while you punish let them still be assured of your love.

Thus will you best prepare their responsive hearts for the reception of that greatest and most beautiful truth the love of the children's God.

JENNIE CHAPPELL.

UNWISE PUNISHMENT. — A school may be governed by the rod alone, and many schools are so governed, but a scholar who is compelled to acquire knowledge and training while continually overshadowed by the black cloud of fear, has every opportunity to become a mental deformity. Most pupils, even the very youngest, can be taught to feel almost to its full extent, their responsibility to themselves, their parents, and their teachers. They will work well and easily when they are once made to feel that they must work, not because work is compulsory merely, but because work is a duty and therefore the most urgent kind of a necessity. Of course there must be restraints and corrections, just as much in a school as in any other portion of the community, but the forbidding, ever present sense of fear should be re-

moved and a freer, happier mental activity would be the result. There are certainly a few cases in which, according to the universal rule that the punishment should fit the crime and as far as possible be of the same nature, corporal punishment should be inflicted, but as a rule the milder and more *inevitable* the punishment, the more effectual will it be.

Many boys are driven from school at an immature age, by the sense of personal humiliation which gross punishments are apt to produce and many more in schools which are often cited as models of discipline, become brutalized by excessive beating.

In conclusion let me say that I am fully aware that there are very many schools all over the land, presided

over by careful, shrewd, and conscientious teachers, and that from these schools come every year thousands of young men and women of the most conscientious training and impulses, whose influence is always good. The true aim of the teacher, as the famous Dr. Arnold said of his own efforts, is to make first, Christians; secondly, ladies and gentlemen; thirdly, scholars. This can never be done as long as the whole time of instructor and instructed is taken up with the acquisition of stupid facts or in endless preparations for examinations. It can only be done by a careful consideration of what the best results of school work should be, and an equally careful consideration of the best means (certainly not the rod) of producing those results.—*Fountain.*

CHILDREN AND SUNDAY.

SUNDAY is a hard day for the children. The regular routine of life is broken up and the "world is out of joint" to them. The oft-repeated expression "it seems as though Satan had entered into the child" appears to have justification then. Nothing is too bad to be undertaken; no remonstrances, no punishments will restrain, or even cool down the insane ardor with which the younger members of the family are possessed. Petulance, temper, dissatisfaction, uneasiness, and a general determination to exasperate are some of the symptoms which usually make their appearance in fullest force after the middle of the day. Rebellion spreads and sooner or later the older members of the family declare war. Then bedlam may be let loose for a time. The result is always doubtful. At times the older people are driven into the same state of mind as the children, and peace is only restored when the last of the rebels tearfully drops off to sleep. If the old New England and Biblical ideas of corporal punishment prevail, peace is proclaimed after an impartial use of

the rod. Even this peace assumes the form of an armed neutrality, and, as diplomatists say, the relations between the parties are decidedly "strained."

Too often the trouble begins as soon as breakfast is finished, by some mild-mannered member of the family making an unheard of demand, and upon refusal displaying a temper unknown on work days, and then sulking. Everything is wrong. Evidently the world is hollow, the doll is stuffed with sawdust, and "if you please I want to be a monk," seems to follow logically. The refusal on the part of mamma or papa to allow the veil to be instantly taken, results in an instant espousal of the works of darkness, and an attempt to establish a synagogue of Satan.

Is this necessary? Is there any remedy for this endless wear and tear? Can a remedy be found for these days of terror which, unfortunately, come at other times, as well as on Sunday? From our experience we do not think the evil beyond reach. The Sunday "possession" is like that which comes when the child is being made ready for the picnic or the

visit, and can be quelled, the demon may be cast out and peace reign.

How this may be done can best be shown by relating an incident. Years ago we were intimate with a Christian family consisting of seven children, the youngest of whom was a girl five years old. The next child was twelve or fourteen. The little one on week days, was as quiet and lovable as could be desired. On Sabbath morning when ready for church she usually became restless; at church she kept the family pretty uncomfortable; dinner made a diversion, but when the afternoon fairly began there was a war which must have delighted his Satanic majesty. The family was large and the child slight for her years, but she often reigned triumphant till some punishment was provoked which utterly exhausted her by a fit of crying. After watching her for some time and considering the case, we took the child in hand one day. She had got through the forenoon fairly well, but when we came up from dinner, made a general attack upon the peace of the household and her father in particular. That was our time, so we said "Come, Fannie, come out into the hall." Several months before we had given the child the outlines of Lewis's free gymnastics without apparatus. So closing the doors, and standing in front of her with her little fists in ours, we went through the arm movements at double quick time. Then she followed with the feet as fast as possible. In less than five minutes she was thoroughly "blown," but the cheeks were rosy, and she had enjoyed the fun. We went back into the parlor, and no sleepy kitten could have been more demure than Fannie as she curled up on the corner of the sofa with her book.

Many a time afterward, when visiting at the house, we took the same course. As the petulance began to show itself, we would say, "Come, Fannie, let us have some exercise." Away we would go to the hall or back parlor, and then,

by sharp work for a few minutes, we would rest the muscles which were weary for their accustomed labors.

When, under unusual restraints, the small children begin to display the symptoms of precocious depravity, ten minutes of simple, lively gymnastics will cause a regeneration, both moral and physical. Its suddenness will be no less refreshing than its completeness. When parents do not understand the Lewis system, almost any physical exercise of arms, legs, and whole body will answer, but it must be something that will produce quick movements. Running is good for the legs. Swinging the arms held straight out, up and down, backward and forward, and in and out, will exercise the upper part of the body. They may play they are flying like birds, or clap hands over the head, and it will all tend toward the desired result—condensed exercise.

The flying exercise is one which is available for the teacher, and, in some respects, better than any other, for when standing, in single or Indian file, across the platform the little wings can rise and fall on each side of the line without touching the neighbors. If the motion is rapid, and the arms carried from 45 degrees above to 45 degrees below the horizontal, the class will get all it can bear in less than a minute.

The reason for this method of treatment is easily seen. When the routine of every-day life is broken up, the child, and sometimes the parent, feels the need of a little exercise. This begets restlessness, both physical and mental. The preparations for an excursion, visit, or journey often keeps a child from its customary exercise, occupation, and play, and in this way prepares it to be fretful and uneasy. Condensed exercise calms the muscles and the mind at once.

When, upon a Sabbath afternoon, children begin the process of "raising Cain," do not think of the rod, nor ascribe any moral significance to the outbreak. Simply proceed to cast out

the evil spirit by some kind of vigorous exercise which will "take the starch out of them" without tears. A single trial,

I am sure, will demonstrate that our position is correct, and the remedy effectual. W. E. PARTRIDGE.

UNJUST CONDEMNATION.

WE mothers need to use the greatest caution, lest we deal unjustly with the tender hearts of our little charges.

One day I felt very certain that my little girl had done something of which she knew I would not approve. It was difficult to believe her capable of such disobedience, but what I thought I saw, I must believe, so I called her to me, not, however, without having first asked guidance of my Heavenly Father, for I was utterly at a loss to know how to proceed.

As she came to my side I looked into the sweet face raised to mine, and felt I must be mistaken, but before I had had time to speak, she saw my troubled face, and from the circumstance divining what was in my mind, denied having done the act. My heart sank. Surely she *must* be guilty, or she would not have denied before having been accused. And my baby, the darling of the household, was not only guilty of this wrong act but had added falsehood to her sin! The sweet blue eyes looking fearlessly into mine, and while the pretty lips protested her innocence, no power on earth could have made me believe my child guilty of such depravity. But here was the proof—or at least I thought it was, and I felt as if it was almost unbearable. If she had been in the habit of deceiving me I should not have been so much astonished. I felt as if I must settle the matter without further delay, and in order to do so, it was necessary for me to wade through the wet grass down into the garden.

Knowing how careful I had need to be of my health, the little one said, warningly, "You will get very wet." "It does not matter," I answered, "I must go," for I felt I could not delegate

the duty to another. Unhesitatingly she followed me to the foot of the garden, and there immediately proved her innocence. How small I felt! How insignificant! I stooped and kissing my darling's lips asked her forgiveness. Loving little heart, she kissed me again and again, not one trace of resentment on her pure face. How *could* I have doubted her!

MRS. SUSIE E. KENNEDY.

MY LITTLE DAUGHTERS.

WOULD you know my little daughters,
Should you meet them on the street?
They wear calf-skin shoes like "papa's,"
On their dainty little feet.

Do you think their shoes are clumsy,
With the heels so broad and low?
With the sole so flat and heavy,
Scotch edge, and a square cut toe?

Shall I tell you all about them?
How they sensibly are dressed!
How their hats are trimmed with ribbon,
Not with bird, or wing, or breast?

All their dresses are of flannel,
And they're made to please their tastes,
But you'll never find a corset—
Cramping small their girlish waists.

Did I hear you say "old fashioned?"
No one ever called them so;
They are straight, and strong, and healthy:
Quite *new* fashioned now, I know.

How I wish that all the people
Would so dress their girls for health
That our country, in the future,
In their women would find wealth.

Wealth of mind, and health of body,
Strength to bear with care and strife;
Strength in turn, to teach their children
How to live a true, brave life.

M. WINCHESTER ADAMS.

NOTES IN SCIENCE AND INDUSTRY.

The Extensive Use of Natural Gas.—The universality of the use of the natural fuel gas in factories and dwellings is the most remarkable to one in a visit to Pittsburgh. It causes great surprise, not only from its novelty, but also its cheapness, for it has given Pittsburgh great advantage as a manufacturing center over every other town in the states. The scientific investigations of the fuel value of the natural gas shows that in weight 1 pound of coal equals 25 cubic feet of gas, but in fuel value as above stated, 1 pound of coal equals $7\frac{1}{2}$ feet of gas. The absolute purity of the gas, too, makes a better quality of iron, steel, or glass than coals. It makes steam more regularly, because there is no opening or shutting of furnace doors, and when properly arranged the flow of gas regulates the steam pressure, leaving the engine man nothing to do but watch the steam gauge. The boilers last longer, and fewer explosions result from unequal expansion and contraction when cold air strikes hot plates.

The various companies supplying Pittsburgh, in their reports, show the expansion of pipe area in transmission, which is plainly demonstrated by the statement that the total area of all the pipes leading from the wells is 1,346,608 square inches, while at the city line this area is expanded to 2,337,063 square inches. The pipes vary in interior diameter from 3 to 30 inches, the greatest amount being 6 inch and 8 inch pipe.

There are 52 natural gas companies already in operation in Western Pennsylvania, besides others in the different States where gas reservoirs have been found. The study of the subject has developed that the amount of gas in any reservoir is a limited quantity. While the processes of nature may even now be making it, nothing is known with certainty, excepting that many of the smaller reservoirs heretofore adequate have been nearly or quite exhausted, although many continued for a long while to supply the limited demand made upon them. No one knows, therefore, but that as the oil pools have been exhausted of the

larger portion of their contents, so it may be expected to exhaust the largest gas reservoir yet reached. But fortunately, the thickness of the porous stratum and its great extent seem to promise a long continuance of the supply. At Cambria, in Knox county, in the central part of Ohio, is a gas well that has been blowing twenty years, and it has been systematically examined during the last fourteen years, with no apparent diminution of the supply during all that time. This development, as instances of the kind are not infrequent, leads many to support the theory that the gas is steadily being distilled, so that the reservoirs are resupplied.—*London Times.*

Tile Drainage in Canada.—About eighteen years ago I became owner of my present home of 160 acres, which was burdened with surplus moisture oozing out all around. I had nothing ahead; buildings and fences in ruins, and my income off the farm yearly amounted to about \$450, with hard labor. I began tile draining on a very small scale, but did something each year, and to-day there are 65,000 tiles doing duty on this farm, or about twelve miles of drains, and they are not making it into a dust heap either, but quietly carrying off the surplus water under ground out of sight. There is now not a square rod of miry land on the place, and the natural water supply for the use of the stock is better every way than before. My income from this farm is now more than three times what it then was with the addition of ten acres more tillable land. Eighteen years ago my stock got water from a small natural spring whose overflow oozed out over several acres; here my cows sucked up a meager supply of muddy water during the drier part of the year. To-day that overflow is discharged into a trough where fifty head of cattle can slake thirst on pure water in a few minutes, and yet the overflow from this trough discharged into a tile drain, and thence into an open ditch fifty rods below, is greater now than it was then, as now there is less waste by evaporation, so that my neighbor below is actually getting a larger and steadier supply than formerly. A spring that ordinary tile drainage would dry up is not worthy the name. I have had a little experience with wet pasture lands and am always sure of a greatly ir-

creased yield in pasture or meadow and of better quality, when such land is thoroughly drained with tile, to say nothing of the other advantages that always follow.

ELIAS MOTT.

(Norwich, Ont.)

HEELS on shoes first originated with the Persians. A person of low stature was regarded as an object of contempt, and, therefore, the heel was the happy or rather *unhappy* thought of some one of the unfortunates, thus providing by art that which nature denied.

Origin of Meteorites.—From an exhaustive study of the very large collection of meteorites at Harvard College, the conclusion has been arrived at that many of the masses of meteoric iron now known are cleavage crystals, broken off probably by the impact of the mass against the atmosphere. It is found that these masses show cleavings parallel to the planes of all the three fundamental forms of the isometric or regular system; the Widmanstätten figures and Neumann lines are sections of planes of crystalline growth parallel to the same three fundamental forms of the isometric system, and, on different sections of meteorites, Widmanstätten figures and Neumann lines can be exhibited in every degree, with no break where a natural line of division can be drawn. The features of the Widmanstätten figures are due to the elimination of incompatible material during the process of crystallization, and the results of this investigation confirm the theory that the process of crystallization must be very slow. From all that appears, the theory has come to be entertained, in respect to the origin of meteorites, that the masses were thrown off from a sun among the fixed stars, and that they were slowly cooled while revolving in a zone of intense heat.

THE area of the dry land of the world is estimated at 55,000,000 square miles, the area of the ocean 137,200,000 square miles. The bulk of the dry land above the level of the sea is 23,450,000 cubic miles, and the volume of the waters of the ocean is 323,800,000 cubic miles. The mean height of the land is 2,250 feet. The mean depth of the whole ocean is 12,480 feet.

Language in Ethnology.—According to Dr. Horatio Hale, ethnology, or "the science of the races of man," will become a true science only when the tribes are grouped by the evidence of language. A scientific treatise on ethnology will commence, like a treatise on chemistry, with the primary ele-

ments, which are the linguistic. It will determine, as far as possible, the mother tongue and the original geographical center of each stock. It will describe the moral and intellectual traits and the physical characteristics of the people. It will ascertain their mythology, their social system, their industries and arts. It will trace their migrations, their interminglings with other sects, and the moral and physical changes caused by these wanderings and mixtures, and by climate, soil, food, manner of life, and all other influences. And, finally, from ascertaining what has been, it will seek to determine what is to come, and to show us something of the future which the human species, in its various divisions, may expect to attain.

Water Supply from the Clouds.

—The average annual amount of rain upon a single square mile in New England is 97,824,400 cubic feet, or a cube measuring 450 feet on a side. This mass would weigh 6,052,712,800 lbs., or 3,026,356 tons. To haul such an amount with four-horse teams, at 4 tons to a load, would take 3,026,356 horses. Supposing each team to occupy 50 feet, they would form a line 5,565 miles in length—more than twice the distance from Boston to San Francisco; or, of railroad trains, at 300 tons to an engine, it would require 10,088 trains. To transport it to a certain place, a train must arrive with 355 tons every 45 minutes, night and day, for 355 working days in the year.

Fitting Shoes to Horses.—The great skill of a horse-shoer depends upon his ability to fit his shoe in such a manner as will be likely to prevent injury to the foot of the horse. Very many, after forming the shoe, heat it hot, and, by applying it to the foot, mark the points where the hoof rests and that needs to come off. Prof. Rich in his article on "Horse-shoeing" says: "I never put a hot shoe near the foot." He recommends that every horse-shoer having a leveling plate, and says, "I have a piece of marble, say twelve inches square and two inches thick. After the shoe has been fitted to the foot I heat it. By gently hammering it on the marble slab I make it perfectly level. After the shoe is made level on the marble slab, I make the foot level to correspond." The necessity of finding the angle of the foot and then bringing the bottom of it to a perfect level as compared with the angle becomes apparent, when it is considered that a slight change in the angle, or making one side a little higher than the other, causes an unequal or an unnatural strain upon the tendons that may result in injury.



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK
April, 1888.

THE SPEECH CENTER AND HEMISPHERICAL FUNCTION.

LATE observations by the new school of cerebralists may be said to have settled the question of the double location of the brain center for language. Dr. Gowers in his lectures to classes in University College, London, admits that "the right hemisphere contains structures of similar position and similar connections. These structures can supplement those in the left hemisphere. Loss of speech due to permanent destruction of the speech region in the left hemisphere has been recovered from; and that this recovery was due to the supplemental action of the corresponding region of the right hemisphere, is proved by the fact that in some of these cases, speech has been again lost when a fresh lesion occurred in this part of the right hemisphere."

In children disturbances of the speech function have strikingly exhibited the dual innervation and the more convincingly because of the rapid transitions in the phenomena. The same author says: "The loss of speech rarely lasts longer than a week, then the child speaks al-

most as well as ever. Hence it is probable that speech processes go on more equally in the two hemispheres in childhood than they do in adult life. It is also highly probable that there are individual differences in this respect among adults. * * * * But in all persons the right hemisphere takes some share in speech processes. Much emotional expression and automatic use of words is effected by it. This is shown by the fact that such emotional and automatic use of words remains, although the *voluntary* use of words is lost by disease of the left hemisphere."

We have italicized the word "voluntary" in the quotation because it evidences a comparatively recent development in the scheme of physiological localization. The left hemisphere appears to be designated as that part of the brain that more especially contains the centers of voluntary innervation, while to the right half is attributed the power of exciting those sensuous expressions that are termed emotions. These emotions are made dependent upon effects that are more physical than psychical. We have ourselves held for several years that the left hemisphere is more exercised, as a rule, in the activities of human life than the right, but are not prepared to go to the length of opinion expressed by Dr. Gowers, because it makes too great a distinction between the functions of the hemispheres. We hold that these are both complementary and reciprocal in organic structure and function, and that in each reside both physical and psychical centers or areas, these being closely related or co-ordinated in accordance with their development and use. We must certainly have more evidence than is available just now before

we can accept so advanced a difference as that intimated above, and in saying this believe that we utter the view taken by the majority of progressive phrenologists on the subject.

THE CONSTITUENTS OF HEALTH.—4.

It is evident from what has been said, that the mental state is the most important factor of constitutional vigor. We may cite statistics in addition to show that the exercise of the mental faculties in lives that require almost unremitting study and thought is conducive to long life and protracted usefulness. The mental temperament when in ascendency indicates an endowment of nerve matter exceeding that of the muscular, bony, and vegetative system, but it does not indicate abnormality of organization. A superabundance of the blood and tissue-making elements, in other words an excess of the vital temperament, is more chargeable with being abnormal because its tendency is greater toward excesses of excitability and consequent disturbance of the harmony of function that is essential to health. Your rotund, double-chinned fellow who eats and drinks with a hearty gusto and digests what he eats with great facility may be jovial enough in pleasant company, but, as a rule, you know that he is quickly set aglow with excitement. A little thing may upset him, and let loose a flood of anger or of tender emotion. Experts in insanity will confirm the statement that the asylum ward is filled mainly with those whose mental endowment was not originally great, and whose loss of mental balance was due to vices or defects of a physical character. The "brain work

ers" are few, therefore, among the insane as compared with the "muscle workers" or those who pursue a simple, every-day routine that requires little expenditure of nerve energy. The Newtons, Pitts, Cavours, Websters, Callhouns, Gladstones, Sewards, and Frelinghuysens of public and private life are not found in those melancholy retreats. In our pamphlet on "Nervousness," it is stated that, "Under proper conditions high intellectual culture, which means extended and thorough exercise of the anterior lobes of the brain, is healthful and invigorating. Statistics show that fewer persons in proportion to their whole number break down while employed in strictly intellectual labor than those others whose work is manual. In the report of the managers of the N. Y. Lunatic Asylum at Utica, for 1885, it is noticeable that the great majority of admissions during the year were from the working classes. Of 392 cases 347 were composed of housekeepers, house servants, farmers, and farm laborers and persons who had been employed in different branches of hand work. The number of the educated and professional and those related to the higher grades of business was but thirty-six."

All this evidences the fact that the mind, through the instrumentality of the brain and nervous system, must control the whole human organism, be its arbiter and manager in accordance with those principles that ages of sanitary experience have formulated, to secure the happiest results.

The interest shown in the so-called "mind cure" of the present day may be mentioned in this connection as a

natural outcome of the general recognition of the principles narrated in this paper, and in a coarser but more scientific form the mastership of the mind over physical functions is exhibited in the quick recovery of trained athletes from injuries received while contesting in the ring. "The highly civilized man," Dr. Harley says, "has it in his own power, not only to bring his recuperative bodily capacity up to, but even far beyond that of the standard of either the savage or of the civilized typical man living in a rude state." The regimen of the training process to which the modern athlete submits in the hope of winning fame and fortune is a product of the best thought and observation of the scientific hygienists, and its effect is the high state of physical strength and endurance that puts the world agape with wonder. The Diak or Eskimo far exceeds the civilized man in digestive capacity: can swallow and dispose of vastly more crude food-material than he, but its conversion into the tissues that sustain nervous and muscular functions is not followed by those potentialities that distinguish the civilized man. The superior mind quality of the latter makes him the superior of the savage in every respect. Transferred to the habitat of the savage, in a short time he has adapted himself to the environment of the savage, and excels him in his hereditary domain.

Wonderful tales have been related by early travelers in Asia and Africa of the endurance and skill in physical powers of barbarous and savage people, but when European nations have come in armed contact with those people, a few disciplined soldiers of the latter are found

to be able to master an entire tribe. A few regiments of English infantry have controlled the millions of India. In Africa, a few companies of French soldiers have usually scattered the whirling swarms of desert warriors.

Thus, the pre-eminence of high civilization in lines of brute force has been established over and over again, and such civilization means but the development of the mental side of human organism to a degree of superiority over the animal organism that renders the latter subjective to moral and intellectual control.

A NEW SUGGESTION.

THAT the origin of color blindness lies in the brain and not in the eye has been suggested by Prof. Ramsay. While engaged in teaching in Brooklyn some years ago, the Principal of a school insisted in treating every case of the sort as dependent on the will of the pupil. His remedy was the rod. This certainly seemed a tyrannical and unwarranted treatment, but the result was favorable to his theory. At first sight it is not perfectly clear why it is that color blindness should be more common among men than among women; yet it is possible that this will be found to bear out the suggestion, for with the discontinuance of the wearing of colors by the men, their interest in colors to a large extent must have ceased, and it may be that with the less use of color by women in their dresses, an increase of color blindness might result among them as well. It is doubtful, however, whether the introduction of the rod as a quick corrective will find many advocates.

—*Science.*

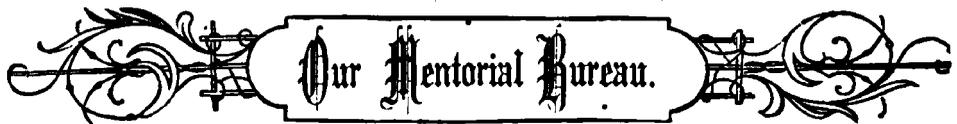
Who "Prof. Ramsay" is, we do not know, but he is most probably of good Scottish family, and should know something of the doings in the "Land of

cakes," many years ago, when the discussion of the functions of the brain occupied so much of the thought of such men as Robert Hunter, Sir James Mac Intosh, Robert Macnish, William Weir, George and Andrew Combe, Robert Chambers, William Gregory, etc. It can not be that *Science* imputes to him a suggestion that will be found to have been pretty thoroughly examined by hundreds of other men in Europe and America, and which has frequently assumed the character of a certainty in the investigations that have been going on for the past fifteen years with reference to "color blindness."

The teacher's idea that a pupil's shortcoming in this respect could be remedied by such medicine as the rod, may have been derived from experience with lazy ones who were slow in putting a and b together, but was a mistake in analogy, a mistake by no means uncommon with teachers who are not conversant with

the physiological side of human nature. The recognition of the facts of heredity have established the relation of every mental faculty to the brain, and as the perception of color is just as much a mental attribute as the perception of form and number, such perception is as subjective as these to the influences that determine and modify brain function.

MISS JESSIE A. FOWLER is now in Australia. A private letter to the Editor of the JOURNAL from a resident of Melbourne describes in approving terms the first appearances of this young phrenological lecturer on the platform in that city, and predicts a successful tour. *The Age* of Melbourne gives a favorable notice of her first lecture in the Athenaeum. With such a father and such teaching as she has received, phrenological science has an advocate in Miss Fowler that will, we are satisfied, do it real service, and herself honor. Australia should prove a ready field for a sincere and well equipped worker, like the daughter of Prof. L. N. Fowler.



To Our Correspondents.

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

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

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

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

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

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

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

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

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 to the Editor personally will receive his early attention if this is done.

HOUSE SERVANT.—J. D. E.—One expected to be efficient as a servant or domestic in a family, should be well developed physically; the motive temperament, if anything, being the strongest, and the perceptive faculties of the intellect active. The head should be rather broad, which indicates an active, working disposition. The social feelings should be strong enough to make her interested in the family. The moral nature should be sufficiently marked also, to render the person faithful, honest, and sympathetic. We have in preparation a number of the "Human Nature Library," that will take up this "servant question" and discuss it at some length.

CIVET-CAT; EASTER WATER.—S. J.—The civet-cat is an animal that may be said to be intermediate between the weasel and fox; of ash color tinged with yellow and marked with dusky spots disposed in rays. It is only two or three feet in length, about ten inches high; is chiefly found in northern Africa, and obtains its name from the use made of it in obtaining civet for the sake of the perfume. The animal has a large gland which secretes this peculiar substance. We suppose that Easter water refers to the celebration of Eastertide; perhaps some reader will give you more definite information.

ELECTRICAL PSYCHOLOGY, AUTHOR OF.—H. C. H.—Dr. Dodds long ago passed to the other life, and we can not give you the name of any person who represents his theory and teaching. His book is still in print and procurable.

BROWN OR WHOLE-MEAL BREAD.—F. C. H.—Of course bread that is made from flour or meal of the whole wheat grain is much more nutritious than the ordinary superfine flour bread. Opinions differ with regard to the varieties of whole wheat flour that are supplied in the market; we think that they are generally good; some contain more of the external coats than others, and perhaps for delicate, dyspeptic stomachs the peeled or decorticated kinds are more suitable.

COLORADO DUGOUT.—R. H. B.—The hut or cabin which you describe may serve a temporary purpose in the dry climate of Colorado, but would be utterly unsuited in a region where there is much dampness. We would advise you to erect a second floor at your earliest convenience, and lodge up there.

THE VOCATION FOR WOMEN.—The common vocations that were deemed favorable to women are becoming more and more crowded. The question is often asked: "Is there not a new and fresh field where we can exercise our faculties, and feel that it is not unbecoming, or especially likely to bring us into disagreeable collision with men?" In thinking of this subject it has occurred to us that pharmacy, or the business of the druggist, has not received due attention, and that here is a sphere for which women, as a rule, are well fitted. As a dispenser of medicines a young woman should display readiness and expertness. The extent to which one will find it necessary to study and practice chemistry is by no means appalling, for if women are apt in telegraphy and phonography, they should be also in the ordinary work of the chemical laboratory. We have noticed in glancing over the columns of a newspaper, that the demands for drug-clerks are always considerable, showing that there is a want for such help.

NASAL DOUCHE.—J. J. B.—The fountain syringe is to be preferred in the treatment of nasal diseases, because the application of water by a current that can be easily regulated in force, is more desirable than an interrupted and variable current. Care, however, must be observed, or injury may result, where the disorder has so far advanced as to have weakened or broken down the membranes. We do not think that deafness is likely to result from the douche, if the liquid used is mild in character and the application is prudently made. We should expect, on the contrary, that such treatment would relieve most cases of Eustachian inflammation.

CHARACTER OF THE HAIR.—W. J. N.—The hair is a process of the skin. Its composition is much the same in different persons, the variation in color being due to the amount of pigment. The coloring matter of the

hair is largely composed of iron, the darker it is, the more iron.

GAMBETTA'S HEAD. — L. W. L.—Since the death of Gambetta in 1883, we have had occasion to consider his head and brain frequently. Only a short time ago in these columns an inquiry was answered. Perhaps we can do no better than to refer you to the September number, 1883, of this magazine, where at some length, and with good authorities, it was shown that Gambetta really had a cranium of good size. During this French statesman's life it was frequently stated that he possessed a very large head, and the inference is certainly natural that his brain was large also. The inspection of the brain after death was certainly imperfect; we can not find any data that are satisfactory. A celebrated Russian physician, Dr. Ivanouski, after a review of the autopsy, came to the conclusion that it was fairly proved that Gambetta's brain weighed no less than that of Byron, and as the brain of the latter is said to have weighed fourteen hundred grammes, a low estimate according to some statisticians, it can not be inferred that Gambetta's head was small.



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 a Subscriber.—The PHRENOLOGICAL JOURNAL is one of the best publications for household reading of which I have any knowledge. I can not see how anyone can read it and not be benefited, morally and intellectually. I heartily endorse your JOURNAL; and if my opinion of it would be of any service, you are welcome to it, and can use it as you may deem fit.
DE. W. R. MCG.—Canada.

A Teacher's Testimony.—My experience in Phrenology has been quite extensive and of practical benefit. Having had charge of an extensive printing establishment, in which position I was hourly associated with strangers, I found my knowledge of human nature of much service. Since pursuing the vocation of instructor in a Western College, I find it

doubly serviceable. The new work, "Heads and Faces," proves a very important help. I began the study of the science of mental and physical man, about five years ago in the PHRENOLOGICAL JOURNAL, and have applied its teaching whenever opportunity offered and with satisfactory results. Particularly do I find great proof of phrenological principles in the evidences of heredity, both in my own and other's individual cases. I am now teaching the elementary principles of Phrenology to a small company of young people at the college. They take great interest in pursuing it, and the study is working up a great interest generally in this neighborhood. We have occasional lectures at the city opera house, and a large audience is always present and very attentive.
A. J. M.

PERSONAL.

HENRY BERGH, the philanthropist, died on Monday, March 12th, closing an illustrious career, at the age of sixty-five. He was the son of a wealthy American ship-builder. In 1862 he was Secretary of Legation at St. Petersburg, Russia, and there began his work in behalf of abused animals. Returning to New York, on account of his health, in 1864, he originated the Society for the Prevention of Cruelty to Animals the following year. It received the prompt sanction of the Legislature in 1866, and Mr. Bergh was given full authority to enforce the laws enacted against cruelty to animals. His work was not confined to brute animals, but was extended to cruelty to children and other defenseless beings. In New York and Brooklyn alone, up to the close of last year, 9,121 persons had been prosecuted for inhuman treatment of animals, besides large numbers elsewhere; and during twenty years, in those two cities 21,291 disabled animals were suspended from work to which they were not equal, in cases where no arrests were made, but the drivers or owners were warned or advised.

Mr. Bergh was one of New York's most conspicuous figures, his peculiar physiognomy at once fastened a stranger's attention. His manner and language expressed the benevolent impress of organization.

AMOS BRONSON ALCOOTT, one of the expon-

ents of that mystic transcendental philosophy known as the Concord School, died on March 4th. He was born in Wolcott, Conn., November 29, 1799. In early life he took up the profession of teaching, which he continued through life—in the schoolroom, on the lecturers' platform, and through his writings, which latter, however, owing to the unpopular philosophy taught in them, were far from successful.

LOUISA MAY ALCOTT, daughter of the above, died within forty-eight hours of her father. She was born also on the 29th of November, but thirty-three years later than her father, at Germantown, Pa. Most of her life was spent in Boston and its vicinity. As a writer of juvenile tales Miss Alcott early gained a high place. Her fame rests chiefly on her first successful story, "Little Women," and it was that story which endeared her to so many thousands in this country and Europe alike. "An Old fashioned Girl" and "Little Men" were nearly equal successes.

DR. JOHN M. WIERING died in Syracuse, N. Y., Feb. 13, 1888. The passing away of this early and constant friend of phrenological science occasions deep regret in the wide circle that knew him. A good physician, an excellent counselor, he was one of those men of whom the world has most need.

WISDOM.

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

THE two great killing powers in the world are *Stuff* and *Fret*.—*Abernethy*.

THE realization of God's presence is the one sovereign remedy against temptation.—*Fenelon*.

JUDGE no one by his relations, whatever criticisms you pass upon his companions. Relations, like features, are thrust upon us; companions, like clothes, are more or less our own selection.

"THE bleakest landscape in the world brightens into something like beauty when the sun shines upon it. So love, the richer, sweeter light of the soul, makes any face beautiful."

Up and away, like the dew of the morn-
ing,
Soaring from earth to its home in the
sun—
So let me steal away, gently and lovingly,
Only remembered by what I have done.
—*Bonar*.

MIRTH.

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

"O, PAPA," exclaimed a little girl in the grand stand at the beginning of a base-ball game, "see the two men with bustles on their faces!"

SCENE—Village in the South of France.
"And is the air healthy in this village?"
"Excellent, monsieur, excellent. One can become a centenarian here in a little while."

THE superiority of man to nature is continually illustrated. Nature needs an immense quantity of quills to make a goose with, but a man can make a goose of himself with one.

MRS. DE SOCIETY.—"What a lovely baby that is we just passed!" Mrs. De Fashion,— "Yes, it is mine." "Indeed?" "Oh, I'm sure of it. I recognized the nurse."

LANDLADY (to boarder)—How is the butter, Mr. Dumley?

Dumley (a produce broker)—Quiet but strong, madam, and in little demand.

GREEN—"Since he had that slander suit, Pryor has gone out of business." Brown—"Why, what was his business?" Green—"Other people's."

"JOHNNY, my boy, I wish you would bring me an armful of wood."

"Haven't got time, ma; I've got an awful hard problem in history to look up."

"What is the problem, my son?"

"I have to find out just at what date Alfred the Great cut his first tooth."

(Exit sympathetic mother after the wood.)

"MA, de fiziology say yere dat de human body am imposed of free fourth watah."
"Waal, yo' bettah mosey off to school, an' git outen dat hot sun, ur fust ting yo' know yo' be 'vaporatin'."

WHERE would the very stones cry out?—
In a howling wilderness.



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.

ACTS AND ANECDOTES OF AUTHORS. Facts for every reader about prominent books, authors, and publishers: English books and authors, publications, translations, dramas, operas, etc., by Charles M. Barrows. 12 mo, pp. 481. \$1.50. Boston Publishing Co.

A convenient series of notes biographical and literary, which the reader of current literature, as well as the literary man, will find convenient and ready. More space is given to the writers of fiction than one might think reasonable, but the writer of fiction to-day, appears to be the leading figure in our literature. Therefore names familiar to us in this department of writing are given abundant room, and some names that are really creditable in lines of thought, scientific and ethical, are omitted, or given very scant space. The American reader will probably find little occasion to complain, however, as Mr. Barrows seems to evince a strong loyalty in his bias toward home talent.

THE WILL POWER; ITS RANGE IN ACTION.

By J. Fothergill, M. D. 12 mo, pp. 184. New York, James Pott & Co.

We are not sure but that the physiologist of experience can write best on topics that are usually relegated to the domain of metaphysics. At this day those who attempt to discuss faculties of the mind are not likely to obtain much attention, unless they take into account physical states, and the better the information of a writer in physiology, the more valuable his analyses of mind: witness the later volumes of Calderwood and Bain.

Dr. Fothergill needs no introduction in these columns. His eminence as a practical physiologist was long ago established. He discusses the will as a factor in every day life. He knows men. He does not attempt any minute analysis of the will, *a la Metaphysique*, but he defines it as seen in the conduct and character of men. The book is in great part an interesting series of incidents drawn from the lives of historical

characters. Weak, vacillating conduct is set over against strong, vigorous, determined action. The necessity for decision and perseverance in this day, if one would achieve success, is earnestly set forth. How will in one affects another, is shown. How superiority of intellect is often made subordinate to intellectual inferiority through will. For instance, he says, "We not uncommonly see in a household, a clever, accomplished, learned man, respected outside of his house by everyone, but a nonentity in it. He is dominated over by a commonplace woman, a shrew, who never possessed either good looks or money to entitle her to rule with despotic sway, yet she does so all the same. Her servants know what she is, yet they feel compelled to obey her; she does not indulge in outbursts of violence, yet she gets her own way."

A man then may possess wealth, position, culture, all the accessories of fortune that may be needed to carry out any undertaking, yet be vastly inferior, so far as exercising influence in the community is concerned, than his neighbor who is poor, ignorant, and of a lower *stratum* by inheritance. The author shows how will is indicated by different phases of mental action, in the quiet and subdued manner of some, as well as in the loud, noisy, aggressive conduct of others; and altogether he has written a little treatise which is of value to all students of human character.

METHODS OF CHURCH WORK, Religious, Social, and Financial. By Rev. Sylvanus Stall, A. N. Author of "How to pay church debts," "Minister's Hand-book to Lutheran hymns," etc. 8 vo, pp. 304. \$1.50. New York. Funk & Wagnalls.

Much has been written in this line of topic by ministers and observers of church work; but Mr. Stall deserves recognition because he has for many years given special attention to the executive branch of church affairs. He has become known, we think, in the East, as one who has something to say, and one who writes a little out of the commonplace with regard to the practical management of religious affairs. This work is a larger and more ambitious attempt than he has heretofore given us, but there are many good points in it which our ministerial brethren would do well to ponder. He discusses such topics as these: "How to make a working church;" "Saving the young;" "The White-Cross Army religious meetings;" "Mission services;" "Joining the church;" "Parochial work;" "What women can do in the church;" "How to pay church debts;" "Clubs;" "Work among the sick," and so on; and his vein is not in that of the mere theorist or the moralist, but eminently practical. He believes in success and in doing that which will secure it; in downright, definite, brawny effort.

He covers a pretty wide field, but it seems to be well covered.

A COMPLETE HAND-BOOK OF TREATMENT.—

Arranged as an alphabetical index of Diseases, to facilitate reference, and containing nearly one thousand formulas. By William Aitken, M. D. F. R. S. Prof. of Pathology in the Army Medical school. Fellow of Sanitary Institute of Great Britain, etc. Edited with notes and additions, by A. D. Rockwell, A. M., M. D. 12 mo, pp. 444. Price \$2. New York: E. B. Treat, Publisher.

This is a very concise and comprehensive volume, the diagnosis of diseases being given in as brief form as is consistent with clearness and abridged notes of the latest treatment recommended by eminent authorities. It is especially a book of treatment, and therefore the title is not a misnomer, and, being derived chiefly from the latest edition of Dr. Aitken's "Science and Practice of Medicine," nothing may be said with regard to the excellence of the advice. Every educated physician in this country, whatever his school or pathy, recognizes the value of such testimony as Dr. Aitken and his colleagues have furnished. The arrangement is alphabetical; beginning with Acne, the book ends with Yellow Fever. Of course, it is necessary that one who reads this book, for information in treating any ailment, must be conversant with medical science. The layman can not expect to find in it available suggestions; the style is technical, the formulæ in the terms familiar only to the physician and pharmacist. The profession, we are quite sure, will heartily welcome the book; very few practitioners can afford the purchase of extensive or elaborate works of practice, as a rule. Take, for instance, Ziemmsens's well-known work, or the recent American "Hand-book of Medical Science;" both most valuable, but very expensive. The busy practitioner has not the time, moreover, to read so much, he must have the facts and *data* in brief form. We think Mr. Treat has done physicians a favor in this epitome of medical experience.

PUBLICATIONS RECEIVED.

A PLEA FOR THE TRAINING OF THE HAND. By D. C. Gilman, LL.D., President John Hopkins University.

MANUAL TRAINING AND THE PUBLIC SCHOOL. By H. H. Belfield, P.H.D., Director of the Chicago Manual Training School. The price of the series is \$1.00 a year, or 20 cents a number. *Industrial Education Association*, New York.

These two monographs under one cover belong to a series issued by the Indus-

trial Education Association of New York, and represent a growing feature in our public school system; a feature that is most desirable because most useful in its outcome.

MOTHER GOOSE FOR TEMPERANCE NURSERIES.

By Julia McNair Wright. Illustrated by C. S. King. Price 25 cents. National Temperance Society, New York.

The good old stories of "Mother Goose" are ever delightful to the little ones, and this adaptation in the line of temperance morals will find its way, we think, to many a nursery. There are thirty-one of these rhymes making up a song or a saying for every little body's birthday, or little recitations that may be learned and spoken for home entertainment.

THE ETIQUETTE OF MEN'S DRESS contains hints that are useful to him who would dress neatly and suitably. An advertisement for the most part, it is nevertheless a publication that combines taste and literary finish. What people should wear at receptions, and at funerals, on the steamer, and when bicycling or driving, or hunting, or traveling, or when engaged in business, etc., is described. Price 25 cents. *The Men's Outfitter*, New York.

SEVEN HUNDRED FAMILIAR PHRASES. Compiled by J. S. Ogilvie. Price 15 cents.

Published by J. S. Ogilvie & Co., New York.

THE PHYSIOLOGICAL ACTION OF ALCOHOL.

By Edward C. Mann, M.D.

A reprint from the *New England Medical Monthly*, and a fair scientific consideration of the alcoholic habit in its influence upon the organization.

THE EIGHTEENTH ANNUAL REPORT OF THE MANHATTAN EYE AND EAR HOSPITAL, WITH THROAT AND NERVOUS DEPARTMENTS, No. 103 Park Avenue, New York.

A philanthropic institution sustained by voluntary contributions, its patients receive treatment from physicians of acknowledged merit.

WRITINGS AND GENIUS OF THE FOUNDER OF CHRISTIAN SCIENCE. Price 25 cents. Hanover P. Smith, Boston.

This essay by an enthusiastic student of this anomalous movement affects the character and teachings of Mrs. M. B. G. Eddy.

CERTAIN HEREDITARY AND PSYCHICAL PHENOMENA OF INEBRIETY is the title of a very interesting paper by Dr. T. D. Crothers, Hartford, Conn. In this he portrays the strange, wonderful, and even preposterous conduct of people who have become victims to the use of alcoholic liquors, or have inherited nerve disease from inebriate parents. Such plain, dispassionate state-

ments by an experienced observer like Dr. Crothers should be circulated broadcast, and we think that their effects would be even more potent than prohibitory legislation that forces upon an unwilling public a system of restriction.

PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF PHYSICAL EDUCATION, at its third annual meeting, Brooklyn, N. Y. Edited by Dr. E. P. Thwing.

A discussion from authoritative quarters of the objects and results of systematic physical training in schools.

TOILETTE MEDICINE. A Manual on the Correction of Bodily Defects, and the Improvement and Preservation of Personal Appearance. By Edward Wooton, Senior Surgical Medallist, London. Published by J. H. Vail & Co., New York.

This pamphlet contains valuable counsel that any one can follow. We believe that the great majority of people would be very much benefited mentally by trying to glorify God in their bodies, and the hints of such publications as this would be of some help. Of course, many of the prescriptions appear to us a little *outré*, or carrying the matter of personal esthetics too far; yet we know that there are thousands who should have their attention called to just such a manual of hygiene as this, the person physical is so closely related to mental improvement.

THE NATIONAL SIN OF LITERARY PIRACY.

By Henry Van Dyke, D.D. Published by Charles Scribner's Sons, New York. Price 5 cents.

This is an earnest plea in behalf of an international copyright. Many of the sins that Dr. Van Dyke charges upon American publishers might be well attributed, also, to English publishers, but the author seems to think that the burden of culpability, or transgression of literary courtesy and decency, lies at the door of Americans.

RECENT IMPORTANT DISCOVERIES IN VITAL SCIENCE; constituting a Philosophic and Practical Basis for an Exact Science of Human Health. By Robert Walter, M. D.

The author, as an observer in a practical way of human ailments, is entitled to respect, although his claim for having obtained results of the high importance mentioned in the title of his pamphlet would seem to be something of an exaggeration. He is enthusiastic in the hygienic line, and personal success may be said to have given its warrant for his views.

GOOD AND TRUE THOUGHTS, from Robert Browning. Selected by Amy Cross.

Published, in blue, by Frederick A. Stokes & Brother, New York.

The man who can write—

"This world is no blot to us, nor blank,
It means intensely, and means good."

And—

"Why stay we on the earth unless to grow?" is certainly worthy of respect on the part of the intelligent compiler of thoughts. Delicately and tastefully bound, as all these publishers' publications are.

THE MONEY FAMINE,—WHY THE PEOPLE ARE SO POOR. In a pamphlet of thirty-four pages C. A. Blodgett, "Teacher and Journalist," considers this double topic.

She is clear, analytical, critical, and emphatic in her method of treatment. The significance of "monometalism," "bimetallism," and "nometalism" respectively, from a reformatory and popular point of view, is gone into, and some decidedly good points made as against the traffickers in national securities and public credit. The claim is made that the people are kept in ignorance of the origin, function, and purpose of money and that it is the policy of the money dealers to keep them so, and in keeping them so the whole nation is subordinated to the banker and bondholder class. The pamphlet is a bold one and merits thoughtful reading.

CURRENT EXCHANGES.

Lippincott's Magazine for March has a complete novel, entitled, "Honored in the Breach;" a spicy paper by Max O'Rell, "A Talk with the President's Son," the son being General John Tyler, now living; "A Retainer in Cupid's Court;" among the titles another instalment of the "prize" questions is furnished. Lippincott & Co. Philadelphia.

Woman for March appears with a considerable array of pictures, by which it can be inferred that the publishers conclude that they must do as others do, or lack a constituency. Of the contributions, "Through a Womanless Land;" "Midwinter in the Paradise of England;" "Where our Seal-Skin Sacques come from;" "Polygamy Unveiled;" "School Mothers and Home Helpers" are noteworthy. We see an increased ratio of men writers.

Harper's Magazine for March has for frontispiece the Last Scene in Hamlet. Modern Art, profusely illustrated; A Visit to a Colonial Estate, in which Reminiscences of Ole Virginny are depicted; Canadian Voyageurs on the Saguenay; Studies of the Great West; A Little Swiss Sojourn, some notes from the travels of Mr. Howells; Chess in America; Portraits of Famous Players; A Gypsy Fair in Surrey, England, illustrated; with minor topics.

- The Dental Cosmos*, Monthly. A record of dental science. S. S. White, Dental Manufacturing Company, Philadelphia.
- The Churchman*, Weekly. Mallory & Company, New York.
- The Home Journal*, leading society organ, New York.
- The Eclectic Magazine*, of Foreign Literature, for March, has selections covering a wide variety of subjects, comprising twenty-two different captions. E. R. Pelton, publisher, New York.
- American Analyst* and *Practical Cook and Housekeeper*: having for its motive the advocacy of pure food: suggestions of use to physician, druggist, and dentist. New York.
- Book News Monthly*. John Wanamaker. Philadelphia.
- Popular Science Monthly* for March supplies us with fresh studies from nature and sociology. Among the topics which appear to invite special thought are Underground Waters as Social Factors; Glimpse at Darwin's Working Life; Weather Prognostics; The Ante-chamber of Consciousness; Curious Facts of Inheritance; Henry Bradford Nason. The editor makes some telling points with regard to the Contradictions of Science.
- Voice of Masonry*, and *Family Magazine*, of literary aspirations, with exceptional neatness in arrangement and typographical effect. Monthly. Chicago. John W. Brown.
- Scientific American*; dipping into all departments of industrial science, and gleanings from the freshest evolutions of art. New York.
- Good Health*. This magazine, although considered the representative of a special business venture in sanitary lines, is earnest in its advocacy of hygienic medication and reform in popular habits.
- Harper's Bazaar*, the well known organ of fashion, pleasure, and instruction, richly illustrated.
- Medical Record*, Weekly Journal of medicine and surgery. Well known. William Wood & Co., publishers, New York.
- The Century* for March occupies some space with a sketch of Bismarck, which comes very seasonably, in fact anticipating the death of the Emperor; The Home Ranch; The Graysons, a story of Illinois; Salisbury Cathedral; Some Pupils of Liszt; Au Large; Franklin's Home and Host in France; Colonel Rose's Tunnel at Libby Prison. These articles are richly illustrated. The last mentioned will attract the special attention of readers because of its vivid character, being a thrilling account of a remarkable escape from that famous war building.
- The Annals of Surgery*, Monthly Review of surgical science and practice; edited by Dr. L. S. Pilcher, of Brooklyn, New York, and C. W. Keetley, of London, England. This deserves notice because it is the only American publication of a strong character devoted entirely to the discussion of surgery. The corps of editors comprises many of the eminent surgeons of this country and Europe. It is independent and progressive, and for that reason deserves the support of American physicians. J. H. Chambers & Co., of St. Louis, Missouri.
- Health*. A new monthly. Official organ of the Sanitary Aid Society. New York.
- Journal of the American Akademe*. Devoted to the consideration of the higher mysteries of mind-being. Alexander Wilder, Editor, Orange, N. J.
- Le Progres Medical*. Weekly report of hospital service, clinics, scientific societies, etc. Paris, France.
- The Western Rural and American Stockman*. Weekly. Chicago, Ill.
- Youth's Companion*. Weekly. Perry Mason & Co. Boston, Mass.
- The Pulpit Treasury* for April contains a sketch of Emory College, Ga., and of its president. Sermons and other matter appropriate to the Easter season occupy considerable space. The Preacher not an Apologist, Was Christ the product of His age? The Progress of Christianity, Helpful Hints, and a variety of notes and suggestions in their several departments fill up a good number. E. B. Treat. New York.
- The New England Medical Gazette*. Monthly Journal of Homoeopathic Medicine. J. P. Sutherland, M. D., Editor. Boston, Mass.
- The National Temperance Advocate*. Organ of the National Temperance Society. Monthly. New York.
- Christian at Work*. Weekly. Later numbers appear to have fresh blood in their matter; there is more spirit and vim than heretofore. J. N. Hallock, Pub. New York.

ECHOES FROM THE CONSULTATION ROOM.

BY PROF. NELSON SIZER.

SINCE the reception of the following letter permission has been obtained from the writer to publish it.

150 Madison St., Brooklyn, N. Y.
Feb. 28, 1888.

MR. NELSON SIZER.

Dear Sir: I can not excuse myself from the obligation to write you a few lines. I went into your office last December an entire stranger to you, and you not only gave me a correct reading, in every part, of my disposition and capabilities, but you added some very wise suggestions as to my future course of action which I feel will be of great value to me in the near future. In this age of art and study the most valuable knowledge we can obtain is to know ourselves. The enlightenment of our 19th century must soon demand that this subject be introduced into our schools as one of the most necessary studies.

Hoping that you may live long to carry on this great work and benefit humanity, I remain, Very Truly, (MISS) A. P. BEEBE.

A——— College, Pa., Sept. 1887

" PROF. NELSON SIZER.

Dear Sir: On the 31st of May, 1882, you gave a description of my character from photographs. It was perfectly accurate. I was then a clerk in the backwoods of Canada. You advised me to seek an education and take my choice of the professions, naming first the ministry. I am in my last year at A——— College, and am an ordained minister in the Methodist Episcopal church. Your description directed and encouraged me many a time.

I am yours sincerely,
—————."

As this letter was not written for publication we disguise the locality and suppress the name. We sometimes meet men who are successful in a given pursuit and are satisfied with it, and yet who carry talents for other pursuits which seem to them so opposite to that in which they are engaged that they laugh at the idea of their having talents in some other directions when the fact is stated to them. I remember a case in point.

A well-to-do, middle-aged gentleman

came in with a sunny countenance as if he had a bone to pick with us, and said, "I had my head examined and the description in full written out by you eight years ago, and you told me I could do many things well enough, but that the very best place for me would be in a large sugar refinery, as a chemist, doing the scientific part of the work. I was then in the dry goods business, was successful and contented, and for several years after you examined my head I had a good laugh at your expense whenever I read over, or talked about, your description of me. Strange as it may seem, I have incidentally become an owner in a large glucose, or corn-syrup, factory, and am its chemist, and like it better than any business I was ever before engaged in. I am now happily fixed, I think, for life, and the laugh has turned at last in your favor, so I thought you might like to hear about it."

This very day, March 28, 1888, a stranger came for an examination, and I found him with a very strong, bony, muscular structure, with large features and a high crown to his head. I described him as resembling his father in his frame, giving strength and endurance, bravery and pride, and the spirit of domination, but his skin was as soft as an infant's. We told him he resembled his mother in the external tissues, and in the sympathetic side of his character. He resembled her in intellect, and intuition, and affection, and he resembled his father in lordly power and positiveness. We also said to him that he was very fond of children and of pets, and that if a lost dog were to come into a railway station where he and twenty other men might be waiting for a train, the dog would select him from among the others, and would say as plainly as dog action could say, "I believe in you—I think you like dogs. If you are without a dog, I am without a home or master, and I will be glad to serve you." He laughed, and said, "That is so; animals like me. I have a stock farm in the West, and have several hundred cattle, and if I feed these cattle myself for a month I can handle any of them and they will be perfectly docile under my hands, although they would not be so with others."

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THE PAPILLAE.

We have recently published a volume containing a story of Human Nature which will be found of interest. It is called "The MAN WONDERFUL in the HOUSE BEAUTIFUL," and is an

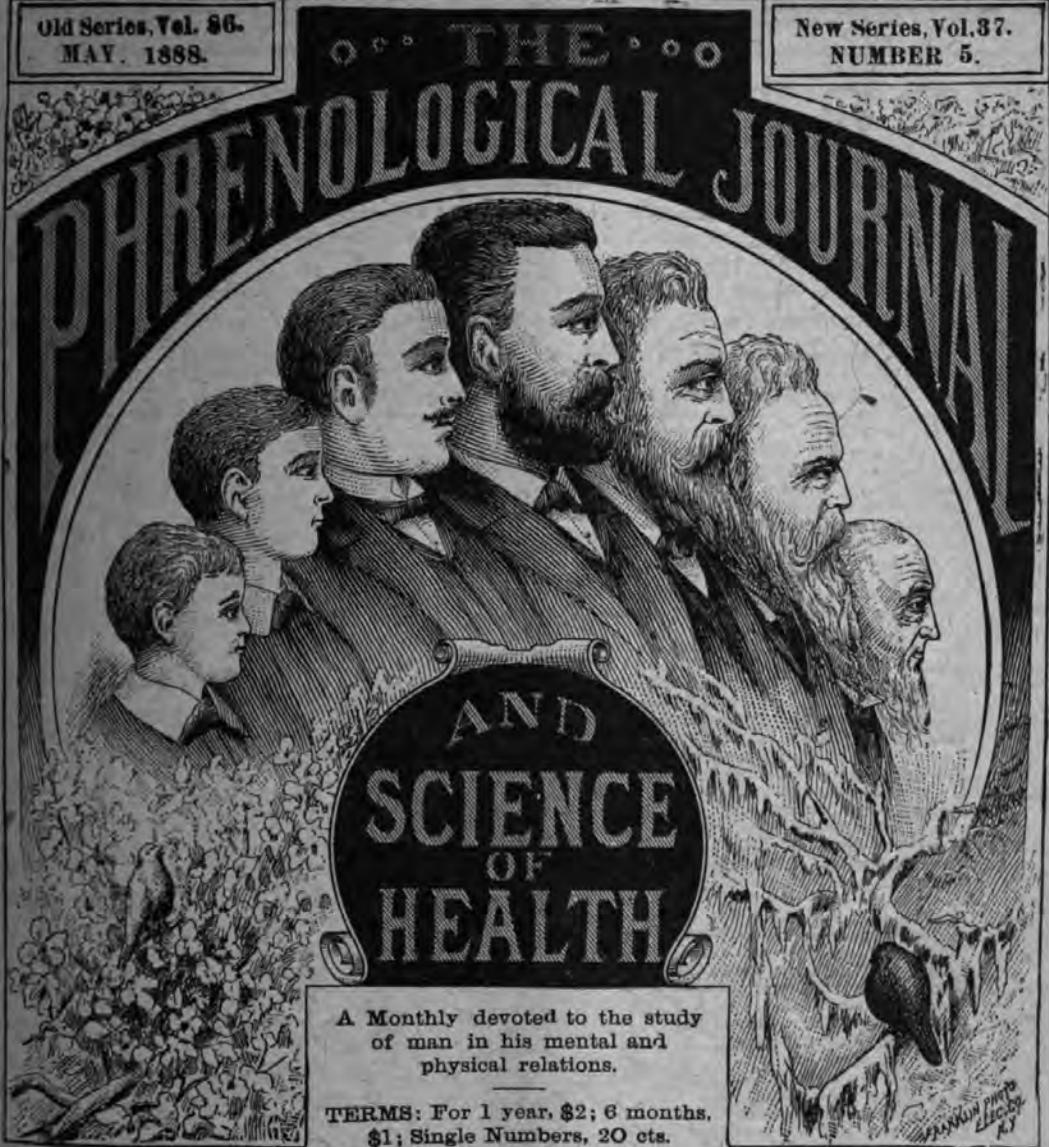
allegory, teaching the principles of Physiology and Hygiene, and the effects of Stimulants and Narcotics, and is to this subject what Pilgrim's Progress is to religious thought and teaching. The House is the Body, in which the Foundations are the Bones, the Walls are Muscles, the Skin and Hair the Siding and Shingles, the Head an Observa-

tory in which are found a pair of Telescopes, and radiating from it are the nerves which are compared to a Telegraph, while communications are kept up with the Kitchen, Dining-room, Pantry, Laundry, etc. The House is heated with a Furnace, supplied with Telephone and Telegraph Appointments and a Wonderful Phonograph. There are also Mysterious Chambers, and the whole is protected by a Burglar Alarm. In this charming story we learn all about how we grow, how we See, Hear, Feel, and Smell, and Talk; how food is made a part of our bodies. In studying the inhabitant of the House, the "Man Wonderful," we learn of his growth, development, and habits of the guests whom he introduces. He finds that some of them are friends, others are doubtful acquaintances, and some decidedly wicked. Under this form, we ascertain the effects of Food and Drink, Narcotics and Stimulants.

It is a wonderful work, and placed in the hands of children will lead them to the study of Physiology and Hygiene, and the Laws of Life and Health in a way that will never be forgotten. The book will prove of great interest even to adults and those familiar with the subject. The authors, Drs. C. B. and Mary A. Allen, are both regular physicians, and therefore the work is accurate and on a scientific basis, and it has been heartily commended by President Thos. Hunter, of the Normal College, and other instructors in this school, many clergymen, and other leading educators. "Science in Story" has never been presented in a more attractive form. It is universally admitted that a large proportion of sickness comes from violations of the laws of Life and Health, and therefore it is important that this subject should be understood by all, as in this way we may become familiar with all the avoidable causes of disease. The reading of this book will very largely accomplish this end. Send for it and you will find it the best investment ever made. It is a handsome volume, very fully illustrated, and will be sent securely by mail, prepaid, on receipt of price, which is only \$1.50.

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THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 87. 1888.

NUMBER 5.]

May, 1888.

[WHOLE No. 593



JOSEPH CUMMINGS, D. D., LL. D.

PRESIDENT NORTHWESTERN UNIVERSITY, EVANSTON, ILL.

THE portrait before us represents a strong and handsome and harmonious organization. The regularity of his features, the definiteness of the lines of the face, and the ample anterior and upward development of the brain, indicate talent, worth, culture, temperance, and, if we may say it, godliness. He is a man who

can look his fellow-men clearly in the face and not flinch nor wince nor feel small or guilty in the ordinary sense of those terms. That fine face evinces delicacy of constitution, clearness of thought and harmony of character, with refinement, intelligence, and vigor, and that is in keeping with the prominent brow

and the fulness and massiveness of the forehead. The fulness in the lower part of the forehead indicates the scholar, that in the middle section the historian, able to retain the knowledge required. The upper part of the forehead is found with thinkers and logicians and especially with men who can harmonize facts and phenomena and show their power and value in human affairs. He has the indications of order and system, and of power to study mind and motive. He reads character instinctively, and is generally right, and those who deal with him think he is right in his estimate of them. He has a good deal of the magisterial spirit, the elements of equity and justice, can harmonize the moral obligations with the intellectual powers in himself, and can appreciate their harmony or want of it in others. He has a pretty high crown of head, showing self-reliance, dignity, determination, integrity, and expectation. The back head appears to be full and massive, hence we infer that his social nature is one of the strong factors which make up his life and character. To such a head most lines of knowledge and duty seem clear and easy. If he had been educated a lawyer, he would have been a capital jurist, and would inevitably have been made welcome to a seat on the bench.

From the appearance of the shoulders in the picture we judge that he is a man of rather large proportions, and from the harmony of the face, we conclude that the different functions of the body are performed with healthfulness and vigor. He would be more likely to suffer from a tendency to dyspepsia than from pulmonary or heart troubles. The circulation, we think, is steady and strong, and the system thereby amply nourished, and that the breathing power is ample to charge the blood with vitality for the work it performs.

We seldom find so smooth and harmonious an organization. Study and intellectual work have sharpened his sensibilities and his criticism, and made him

very definite and distinct, as a rule, in the action of his mind and in the purposes of his will.

Rev. Joseph Cummings, D. D., LL. D., President of Northwestern University, was born in Falmouth, Maine, March 3, 1817. He paid his way through the Maine Wesleyan Seminary by his own hard work, a powerful physical constitution enabling him to bear an extraordinary amount of labor with brain and hands. Then he entered the Wesleyan University at Middletown, Conn., in 1836 and was granted his diploma in 1840. He was absent from college during a large part of his course, but kept up with his class in their studies and passed successfully all the required examinations. While a student at college he was a teacher in and subsequently principal of the high school in Augusta, Maine.

Immediately after graduation he became the teacher of Natural Science and Mathematics in Amenia Seminary, in New York. From 1843 to 1846 he was principal of this school, which was then regarded as one of the best academic institutions in the State. In 1846 he joined the New England Conference of the Methodist Episcopal Church, and was successively pastor of several prominent churches of New England, the rule of the Church then in force limiting a pastorate to two years. In 1853 he was elected Professor of Theology in the Methodist Biblical Institute at Concord, N. H. In the same year he was also elected President of Genesee College, N. Y., and accepted the office, after a release from his engagement at Concord had been obtained. In the year in which he entered upon his duties as a college president, he received the degree of D. D. from Wesleyan University, and three years later was elected to the presidency of that institution.

He began the duties of this office in the spring of 1858 and resigned in 1875. The years of his presidency were among the

most prosperous and progressive of that well-known institution. The scholarship of the institution was greatly improved, and its resources were largely increased. costing \$75,000, erected in memory of the alumni and students who died in the late war, and the Orange Judd Hall of Science, which cost \$100,000. Later he



NORTHWESTERN UNIVERSITY. MAIN BUILDING.

Several important buildings were erected, among which may be named a well-equipped gymnasium, an astronomical observatory, a library building sufficient for 100,000 volumes, a memorial chapel

resigned the presidency, but retained for two years the professorship of Mental Philosophy and Political Economy. On resigning this professorship in 1877 he became pastor for the second time of the

M. E. Church at Malden, Mass. In 1880 he became pastor of the Harvard Street Methodist Church in Cambridgeport, Mass.

In 1881 he was elected president of the Northwestern University, Evanston, Ill. During his presidency of this institution an addition of \$200,000 through the generosity of its friends has been made to its endowment. A large, well-furnished

schools of medicine and pharmacy (located in Chicago), a woman's college, and schools of music and art. The *campus* extends over a broad area of thirty acres, with other land in reserve. Of the numerous buildings, space can be allowed for two only—University Hall, and the Woman's College, the latter in itself a considerable structure, and a testimony of the success to which the associated



THE WOMAN'S COLLEGE. NORTHWESTERN UNIVERSITY.

hall of science has been erected. The Dearborn Observatory with all its valuable instruments has recently been transferred to the university, and the funds for an observatory building have been secured. Several new departments have been added, and the number of instructors and students has been greatly increased. The institution now comprises, besides its classical and scientific departments, a school of theology, a school of law,

education of young men and young women has been carried by the Northwestern.

As we have seen by this brief recital, most of the life of Dr. Cummings has been passed as an officer and instructor in higher institutions of learning, and he has officially signed, it is said, more diplomas than any other minister of the Church with which he is connected. He received the degree of D. D. from

Harvard University in 1861 and the degree of LL. D. from Northwestern University in 1866. He is a fellow of the American Association for the Advancement of Science, of which he is one of the oldest members, having been elected in 1859.

The engrossing duties of the offices he has held have not allowed him much time for authorship, but his pen has nevertheless not been idle. He has edited "Butler's Analogy," written several pamphlets on important controversial subjects, and numerous articles for newspapers, magazines, and reviews. As a preacher Dr. Cummings is clear, strong, and cogent in matter and style.

His great strength lies in his knowl-

edge of practical affairs, and that unflinching tact and good sense that enable a man to co-operate with others in great enterprises. He has risen to his high place as an educator purely by merit and without any of the arts of the clerical politician. The Methodist Church saw his power, and without his solicitation put him as one of her representative men into some of her most important offices. The university of which he is now the head has more than 1,200 students and 100 professors.

Although over seventy years of age, he is still a hale, active man, able to perform as much duty and service in the line of his experience, as most men twenty-five years younger. D.

TWO VIEWS OF CHRISTIAN SCIENCE.

1. IN FAVOR.

A CRITIC says the title is a misnomer. About the thing so called he declares there is nothing either Christian or scientific. If this be so, he will suffer us the present use of the term in lieu of something more fitting which he has failed to offer.

The advocates themselves are divided about the name of an Eternal Fact which they vainly suppose they have discovered, and for which they assume to stand sponsor although it is older than the foundations of the world.

There is almost as much dissension among the latter-day interpreters of the Christ as among their predecessors who have rent their forces into countless factions with no essential difference except in their distinguishing titles.

But the solid phalanx of materialism is not split on any such rock. The student of Nature who considers himself a scientist in the truest import of the word, smiles disdainfully at the bare assumptions of the "Christian Scientist," in whose claims he can discern no vestige of reason. In the whole movement he sees but a revival of superstition as ab-

surd and ridiculous as the witchcraft of Salem, and the modern necromancy of the materialization of spirits. It is all, in his view, a juggler's play on the credulous fancy of ignorant and undeveloped minds.

With due respect for his judgment, which is infallible when it does not pass his bounds, it yet appears that our philosopher of matter is disqualified by his position for any clear understanding of the subject on which, none the less, he is perfectly free to pronounce. With no recognition of the alleged power of Spirit his investigations are necessarily limited to the mere externals of evidence, which are quite explainable on his theory of imposture and weak human credulity. He sights with unerring eye the loose points in the armor of the arrogant pretender, and he rarely fails in his encounters with the vainglorious knight of the Spirit to fling down a broken limb or a mutilated body, bidding an exhibition of the vaunted power of instantaneous healing. We have never heard that the challenge, if accepted, results in a convincing test. But the scoffer at mental

methods in such emergencies shows the superiority of his skilled mechanical work with absence of all trust in super-human aids. He binds, he stitches, he plasters, and he arranges the parts immovably in a natural position. And then? Is the healing accomplished? No! His work is done. For the rest he trusts—mark, he *trusts*—to some subtle, unknown, yet certain force which he calls Nature. He knows the exact process by which the chemical decompositions and recombinations in every tissue move toward the desired end, but he can not define the essential quality of this occult power on which he depends for the completion of his work. It is something that creates the body—predisposes it to health—repairs it when broken—deserts it when its laws are unfulfilled. Without its co-operation all surgical and medical skill fall dead, and the body is but a lump of putrefaction, good only for fertilizing purposes though often profanely cheated of even that use. Unassisted by this powerful ally in the human frame, the apothecary might as well empty his potent vials in the mouth of a heathen god,—the sanitarian apply his remedial measures and health-restoring processes to the dead soldiers on the field,—the phrenologist urge the cranial developments of expanding character upon a block of stone, which, indeed, is more susceptible of such improvement than a bit of soulless, human clay.

This inexplicable God-like force on which we all rely, is, in the nomenclature of the "Christian Scientist"—Spirit. As regards physical amendment from this influence alone, we do not have to seek testimonials from the lists furnished by "Christian Scientists," however. Medical records and the private experiences of any liberal, candid, clear-seeing physician, will give numberless instances of recovery under conditions independent of any recuperative processes but those of the inherent living force within, call it by whatever name we will. Every honest and successful practitioner, of

whatever school, will admit the incalculable power of mental states on their patients, and grant how imperative beyond every other measure is the necessity to banish fear, and to inspire faith in the methods employed to bring about their restoration. These self-evident truths being conceded, the natural and the Christian Scientist appear to us practically upon the same ground, though in theory and method of operation they may be quite antipodal. When the first fails altogether we allow the latter a trial, while we deny him the support of our saving faith, and if he too fails, we declare him an arrant knave and a humbug as, of course, we knew from the beginning.

Under such conditions it is remarkable that the worker in mental physics—if the term can be allowed—has acquired even his present reputation for success. But this, says his opponent, is due wholly to the patronage of weak, unbalanced natures of both sexes, but particularly of women; idle, emotional, impressible women, whom nothing but a disordered fancy has made physically ill.

This, too, we believe is the argument of the "mind-healer." If the case be so, there is still very much to be thankful for. If once in a hundred failures one weak human soul is withdrawn from the contemplation of its imaginary ills, and thrown upon its own interior source of strength, learns to possess itself, and to control the lower conditions which had previously overmastered it, then, whatever may be the name of the educative force, we can but bid it a reverent God-speed. It may not do the work exactly by our methods, but we must none the less rejoice in the result. Anaesthetics, bread pills, vapor baths, movements, if they secured the desired end no sooner, are certainly no better. The sane creature is what we want, and how to attain her—or him—is our foremost consideration. Not that there may not be divers opinions on the sanity of the creature when she or he is actually produced.

But to aim, first of all, at the basic quality of human nature—the soul—may not be so unscientific as some of us suppose. On the whole, we are delighted with the suggestion that our power over the material elements of existence may be cultivated to a well-nigh illimitable extent. But the outlook in that direction is too infinite for present brief discussion.

What surprises most of all the impartial observer of this movement, named "Christian Science," is the scornful and doubting spirit in which professing Christians view it. Is it because they have so long satisfied themselves with sins washed away in the blood of a crucified and dying Christ that they can not abide the quickening influence of the living spirit? Have the cold formulas of church faith so utterly deadened the spiritual sense that there is no perception of the present and eternal significance of that life whose sacrifice alone they appear to count as an atonement?

From the standpoint of the cool speculator on these themes, interested but in the *truth* of Christian claims, whether of this organization or another, it appears that the "Christian scientists"—self-styled—have alone taken the Master at His Word, and are attempting, with laudable purpose, to reveal the fulfilment of promises by no means vague or uncertain, although they have been faithlessly disregarded for so many centuries by professing believers. It is true there is much confusion in the ranks of the latter-day disciples, and we laugh sneeringly over their incoherencies, and return to our school-day habit of sticking the label, "Fool!" on the backs of some of those preposterous figures, for the old leaven of self still protrudes like the snake's head, which few are yet able to bruise so that it will not rear again.

But, nevertheless, setting aside its personal limitations and profanations, and looking at the principle of Christian Science *per se*, we must declare our conviction that it is in its essence true, or

the Gospel of Jesus is false. Either we are to accept and act upon the present and abiding assurances of One who spake as a God, or we must acknowledge ourselves only dead-alive followers of the faith we confess, tithing mint, anise, cummin, and rice, and omitting the weightier matters of the spiritual law more clearly and absolutely taught than anything else.

After all, what does it avail to set the dogs on these extraordinary workers of phenomena that from time to time rise and flash across our low horizon with the wonderful corruscations of the aurora borealis? Though they vanish, others will come after them with phantasma more startling and inexplicable except to the student of natural laws, who has learned enough to know that these laws are illimitable.

For there is a principle in human nature that ever more seeks to ally itself with the Divine, and in one form or another it will unconsciously strive until the implanted Ideal is made Real.

A. L. M.

2. AGAINST.

This is a phase of Tatian's encratitism, or self-controlism. It's a craze, like roller skating. It is the most marvelous manifestation of self-esteem that has characterized the century. Marked by obliviousness to frequent failures in the work claimed to be accomplished, it may properly be called an egotistic insanity were it not, as Wallenstein says, "Most mad men are proud."

Philosophically, this encratitism is Berkleyism, or a peculiar phase of absolute idealism, and lands in almost, if not quite, nihilism, for it is nihilism of all sense and reason. You must deny your very individuality—species and genius, too, disappear. Mind is all, and matter is not. Spiritual personalities count no more than embodied shapes, for impersonality rules supreme. Principles that are the properties of none are mistily discoursed in verbiage that deceives in

its very utterance, for the sense is meaningless in your terms.

Theologically, Christ is made much of only to be minified, while the love that builds up is lost in the knowledge that puffeth up. It is Docetism as to Jesus's human nature, and Plymouthism as to Christ. The resurrection is past already, or will never come, for they are saved by "subjective evolution," the neatest nomenclature for self-righteousness ever invented.

Therapeutically, no science of medicine, or hygienic practice, is anything—all are false. Its sweep is most bold, its tone defiant, till the magnificence of its egotism actually commands our admiration.

But, it's business! It is the cutest money-making scheme the fertile American brain has ever conceived. One man lately came to Lincoln, Nebraska, and in twelve lessons carried off seventeen hundred dollars from seventeen dupes.

As Dr. Buckley, in the July *Century*, to which we refer our readers for quotations that the brevity of this article will not allow, shows, it is marked by a peculiarly selfish strife for gain. Its sects are numerous, its differing "Professors" are legion, and its colleges vie with the edifices of mushroom Western towns in the rapidity of their rise! The sense of goneness when they shall fold their tents and steal away will be the most vacuous of any financial bubble that ever burst and made the surprised rub their eyes.

The causes of its great influence as far as it itself is concerned are chiefly to be found in the following facts:

1. Its method of treating the disease is the method of the ministry, or other soul seekers, in saving from sin. Mrs. Eddy's "Chemicalization," is nothing but Christian Convictions for sin. Its disturbance and these so-called scientists' "treatment of the situation" is paralleled in a Christian's management of a sinner troubled over his lost estate. The fourth

grade of faith—or faith sense perception, of which I wrote in my seventh Phrenological Comment, is imitated on the baseless fabric of a visionary Christ who never died for a sinner because there are none, by a peculiar meditative, voiceless prayer, wherein they seek to rise to heights sublime and come into union with the impersonally divine! They talk of being "in Christ" with the part of the real Scriptural Christ left out. Their phraseology deceives the very elect.

2. Their apparent reverence for the Bible goes a long way with the believer and devout, and has really done much, as they claim, but only temporarily so.

3 The unintended but secure delay for the operation of the *vis medicatrix naturae*, and the appeal, though denied so vehemently, to the face of the patients, well and imaginative.

These three are the chief causes of any value which have attached to this delusion which has taken twenty-one years to cross the Continent and will be dead and derided out of hand ere long in this practical West. This is not only my opinion but also that of many who study this phenomenon. That it has made many think and philosophize out of the dull routine of the everyday "sameness that doubles care," let us rejoice, but it is enough to make the most obdurate weep to see the false and visionary basis on which the thoughtfulness was built. This apotheosis of egotism has marked the American the idealist of the age and her chief fool!

ALEXANDER DARLEY.

TEMPERANCE.

OUR appetites should be controll'd
 No matter what their founding ;
 The body's health we should uphold,
 Not by excess confounding.
 The tongue, and heart, should be restrained
 Lest they may bring disaster ;
 Ambition curbed—the passions chained
 And "Temperance" will master.

NOTABLE PEOPLE OF THE DAY.—No. 8.

WILLIAM WILSON CORCORAN.
—One of the most conspicuous figures of Washington society for many years was this philanthropic rich man. The portrait has the type of expression that we should expect in one who had employed much of his time during the past thirty years in matters of kindness and charity, being desirous that a good proportion of the large revenue that

an obligation whether assumed verbally or expressed in writing, and could be severe in pressing a claim, but his head does not appear to have the breadth in the lower side region that impresses character with that degree of hardness which in business transactions is recognized as cruelty. He could read men sufficiently to know whether he could trust this one or that, and not be



WILLIAM WILSON CORCORAN.

business success had early secured to him should be distributed for public and private good. Mr. Corcoran was no ordinary schemer in financial affairs; he was shrewd and cautious in his dealings—was finely constituted, intellectually, to measure the probabilities of a transaction and to estimate the persons with whom he had dealings. We doubt not that he fully appreciated the nature of

compelled to force a man to perform what he had promised. He was a man of strong will. The height of the head, the prominence of the nose, all these indicate positiveness and emphasis. He was a man of pride as well as positiveness and with enough desire for approval to make his pride largely dependent upon true merit. He greatly desired success and would labor for it in channels

that he was sure were legitimate, and if the success furthered his place in society as well as added to his bank account, gave him the respect of men whose opinion he valued, he was highly content. Mr. Corcoran was an acquisitive man; his acquisitiveness stimulated endeavor, but he was not a selfish man in the low sense of the term selfish. With so elevated a head as that is, he would scarcely have a chance to grow selfish. Men with such benevolence so easily betray their inclination toward acts of kindness and sympathy that incidents and opportunities constantly occur to them. But such an organization with its will power, with its talent in discrimination, its ability to judge offhand regarding the merits of men and things is not easily led to do extravagant or foolish things in the name of Benevolence.

Mr. Corcoran was born in the city where he died at the age of eighty-nine, having been born Dec. 27, 1798. Receiving a good education for a young man of his time, he became a clerk in a dry goods store, and devoted himself to mercantile affairs until he was about forty-five, when he withdrew and formed a partnership for carrying on the banking business. When the Mexican war was undertaken, Mr. Corcoran was chiefly instrumental in negotiating for the supply of funds required by the Government to carry on the military campaigns. His profits in this financial transaction were large and his success in it greatly extended the field of his operations. He became enormously wealthy; but if all accounts of him are true, he was as broad in his sympathies and as generously disposed as his balances were large.

George Peabody, also well known for his philanthropy, was a boyhood's friend of Mr. Corcoran, and appears to have been stimulated to charitable works by the latter's example. Mr. Peabody went to London and accumulated his fortune in banking there. In one of his letters to his old friend he said: "I am here in

England, and can not keep pace with your noble acts of charity at home; but one of these days I am coming home, and then, if my feelings do not change, and I have a fortune, I will become a strong competitor with you in benevolence." And a strong competitor he did become. We see here the influence of one noble man upon another.

Mr. Corcoran's beneficence covers a broad field. In Washington, and in many other places, his name is gratefully regarded for valuable donations; colleges, hospitals, homes, cemeteries, and private individuals without number, are the stronger and better off because of his interest in them. But what the world at large knows him for is the great gift of the Art Gallery at Washington which bears his name. This is the largest single gift for art ever made; and the Gallery, being well endowed, is sure to maintain its excellence by constant additions of valuable works.

He did nothing in a careless, promiscuous fashion; his benevolence was as systematic as his business dealings, and hence as efficient in results. How much he did in a quiet way for individuals, it would be impossible, probably, to ascertain, did curiosity lead one to inquire. A writer says that he was an Episcopalian "by inheritance and education, but his purse was open to help the needy of whatever faith and to maintain the excellent charities of all religious sects. The city of Washington and the general American public have taken cognizance of his great donations, but God and the angels, and the obscure ones of earth whom he served and solaced, alone know of his astonishingly widespread charity."

For over forty-five years Mr. Corcoran had lived a widower. He had also survived the few children that marriage brought him. Three grand-children, however, who lived with him in the splendid mansion near the White House, receive in the large bequests that he has made to them ample testimony, so far as money goes, of his regard.

JOSEPH JEFFERSON.—To mention this name is to suggest to the reader at once that most humorous portraiture of Irving's "Rip Van Winkle." Probably no American comedian can be said to match Mr. Jefferson in the delineation of this quaint creature of the great novelist's imagination. Two generations of playgoers have split their buttons over Mr. Jefferson's Rip Van Winkle; and perhaps have shown nearly as much delight in

country with the full acceptance of their audiences.

The fulness of the top of the head in the picture indicates large imitation; and the whole face shows that extreme mobility and elasticity characteristic in a person who is highly emotional. None can doubt for a moment that Mr. Jefferson possesses great warmth of feeling. The expression is very kind; he should be a genial, hearty man; possessing aspiration, much taste, and a strong sense



JOSEPH JEFFERSON.

his impersonation of Bob Acres in "The Rivals."

You look into the face of the man, even as a tolerable engraving like ours presents him, and you can gather an idea of the sources of his talent as a player. The quality was inborn; Mr. Jefferson's great-grandfather was an actor, connected with the company which was made illustrious by association with David Garrick. Then his grandfather and father were members of "the profession," performing in this

of duty. There is much of the natural artist shown in the picture, also; training and study would have given him a good place among painters.

Joseph Jefferson was born in Philadelphia February 20, 1829. He was very early introduced to the public; it is said that when but four years old he danced and sang before a professional audience, who declared him to be a juvenile prodigy; and at eight years he was regularly engaged with his parents to act in a theater. Much of his education was ob-

tained at home, or in the world of movement. At twenty he won his first success in "The Heir at Law." Here his fund of humor and refinement of feeling found expression; and an appreciative audience discovered the actor. A writer says, "So marked, indeed, was the quality of Mr. Jefferson's feeling, taste, delicacy, and refinement that it made him the butt of a good deal of ridicule among the less scrupulous members of his company, who named him the 'Sunday school comedian.'"

The part of "Asa Trenchard" was one fitted to his organization, and he won remarkable success in it. But it was in "Rip Van Winkle" that Mr. Jefferson scored his chief triumphs. It is properly said that he made the character, and American and English audiences never tire of his repetition.

In private life Mr. Jefferson has been thoroughly straightforward and honorable. Many years of hard work have enabled him to lay by a handsome fortune, and with this achievement he can carry into effect any favorite scheme, but much of his leisure is occupied in sketching and painting. As an amateur artist he shows high skill; some of his pictures having gained the praise of the severest critics.

HENRY B. PLANT.—The Southern man, one who is born on the soil, and to the "manner," carries a peculiar individuality wherever he goes, which by the student of character is readily interpreted. To be sure, as in the North, there are differences temperamentally; the Southern Atlantic sea-board has peculiarities of form and feature that differ from those possessed by the Southern Gulf States and the southwest. In the man who has made the South his residence, coming from the North or elsewhere, a change takes place in the course of a long period; his constitution undergoes a climatic modification, and his Southern connection becomes recognizable. The assimilation depends upon certain

essential characteristics, some people being much more plastic than others; but the immigrant never attains the full expression of the born Southerner, — that is not to be expected.

In Mr. Plant, whose relations to the South, by reason of business and residence, have been very intimate, there are traces of the Southern impression. We are not sufficiently conversant with his family history to form an opinion upon the biological reasons for this, but he reminds us at first sight of a South Carolinian: the face is somewhat fuller, if anything, than that of the typical



HENRY B. PLANT.

Southern, yet there is an expression and pose of the head that are very similar to what we find in Southern men. That he is a resident of New York and of Northern birth, we know. Nevertheless, he would, we think, pass the average observer in the South as having taken on not a little of the expression of that section of the country. The form of the head, the contour of the nose, show an energetic disposition. The mental temperament is marked, showing a sprightly, impressive, prompt, intellect; he should be a good talker, clear

and precise; a definite analyst, quick to perceive irregularity and incongruity; he has fine mechanical talents and esthetic taste, which renders his judgment very close and nice. The breadth of the frontal region intimates breadth of view and comprehensiveness, ability to grasp details, and apply them in his schemes and projections.

Mr. Plant was born in Connecticut, the old town of Bradford being his native place. As a boy he did not have many advantages in the way of education, and there were few influences at his command to secure an easy entrance upon the world of life. He became connected with the New Haven Steamboat line in a clerical capacity, and there his prompt intelligence made progress sure in similar enterprises. Entering the service of the Adams Express Company, he pushed its business in the South, and by the purchase and combination of other transportation companies, formed the Southern Express Company, was elected president, and still remains in that position.

Twenty-five years ago Mr. Plant recognized the advantages which Florida offered to settlement and agricultural development. Through his negotiation the Savannah & Charleston and Atlantic & Gulf Railways were purchased by a company of gentlemen and reconstructed; the name of the first being changed to the Charleston & Savannah, and that of the second to the Savannah,

Florida, and Western Railways. The latter he extended to the Chattahoochee River, then to Jacksonville and Gainesville. Subsequently he constructed a road between Waycross, Georgia, and Jacksonville and Live Oak and Gainesville, and also placed steamship lines on the Chattahoochee and St. John Rivers, connecting the railroad at Jacksonville with Sanford on Lake Munroe. Later he was instrumental in the building of the South Florida Railway, extending the road already mentioned to Bartow and Tampa, also establishing steamship communication to the Manatee River and other points on Tampa Bay. More recently he has made several improvements in the facilities for transportation in that land of soft skies and midwinter flowers, by establishing steamboat lines between Tampa, Key West, and Havana, shortening the trip from New York to Havana by rail and steamboat very considerably as compared with the old ocean trip. In fact, one can now go all the way to Cuba in three days, and enjoy a variety of scenery, both landscape and waterscape, to say nothing of exchanging in winter the rigors of our Northern climate for the agreeable temperature of the island of Cuba.

The operations of Mr. Plant have earned him the title of the "Railroad King of the South." New York is his residence, where he lives in much retirement, and outside of a certain circle of acquaintances is but little known to general society.

EDITOR.

PATIENCE.

THE young blood tingles with impatient thrills,
 Youth brooks no barrier to the thing it wills,
 It hastes to grapple with life's giant foes,
 And laughs a challenge to predicted woes.
 Each towering peak the young man seeks to scale,
 Nor deems it possible that he may fail—
 A few bold strides the summit must attain,
 How small the effort and how great the gain!
 There are no pauses in the plan he makes,
 So much is counted for each step he takes.

But there are those whom wisdom has endowed,
 Great men of whom the world is justly proud,
 And they have learned that he who wins must wait,
 For there is more in patience than in fate.
 Persistent toil was never found in vain,
 Though Genius often fails her point to gain;
 Because, forsooth, before the gold is tried,
 She grows impatient, casts the ore aside,
 And seeks the tinsel, all too quickly found,
 Delusive nothings that do so abound.

Why make provision for unseen delays ?
 Life's generous measure is so full of days;
 Both columns of his book are marked to gain,
 No thought of losses racks his youthful brain ;
 But as he toils impatient for success
 The work grows harder, the reward seems
 less;
 He chides his luck and grumbles at his fate,
 And learns life's needful lessons all too late ;
 From youth's wild dream, at length, the man
 awakes
 To wonder at his follies and mistakes.

The master-hand that paints with rapid grace
 The perfect features of some saintly face,
 Or carves a bust with wondrous ease and skill
 And shapes the rigid marble as it will,
 Has gained its power through years of ceaseless
 toil,
 And patient courage no restraint could foil.
 All natural gifts are gems within the mine,
 That must be found and polished ere they shine.
 True honor is the crown the toiler wears,
 And greatness is the fruit which patience
 bears.

ALMEDA COSTELLO.

THE RELATION OF PHRENOLOGY TO LAW.

LAW, like religion and morality, is an outgrowth of man's nature, relations, and wants. It is a form of social science. It is of social origin and growth. It is never found outside of society, and society is never found without some forms or elements of law. It is man's social nature and relations that make the science of jurisprudence necessary and possible. Obligations grow out of relations; duty is the measure of obligations, and law is the legal element of our social duties.

It is only by the application of the principles of the science of Phrenology that we can understand the nature and relations of man as a personal and social being, out of which all law has grown. Domestic and family law which regulates the relations and prescribes the legal rights, duties, and obligations of husbands and wives, parents and children, guardian, and ward, has sprung from man's amativeness and conjugality the influence of which Phrenology alone fully explains to us. It is in the light of the teaching of this science that we come to understand the organic basis of the domestic affections, and the principles by which they should be regulated in practical life. Every statesman, legislator, and jurist should understand these principles before attempting to embody them in laws for the government of men in their sexual, domestic, and social relations. The laws of property have grown up in society as

experience has demonstrated the necessity of a code of rules to regulate and restrain the activity of acquisitiveness. But to enact such laws in practical wisdom men should understand the faculty, its organ and its function.

This understanding can be secured by the study of Phrenology as the only system of mental philosophy that treats it scientifically. The abnormal development and destructive action of certain organs is the source of all crime, which makes criminal law necessary. In order to enact and successfully apply a system of criminal jurisprudence men should understand the physiology, psychology, of criminal impulse and action. This Phrenology alone teaches us.

The law of hereditary transmission of evil, as well as good tendencies in human nature, should be thoroughly understood by every legislator and jurist. The tendencies to crime are as really and truly hereditary as the tendencies to disease, and it is just as important that statesmen understand this subject as it is that physicians should. We need healthy minds as much as we need healthy bodies: and laws that would suppress crime by reforming criminals must be based on a knowledge of the causes of crime.

Thus the science of Phrenology teaches us more clearly than any other system of human philosophy. It should therefore be carefully studied by all statesmen, jurists, and reformers.

I do not see how we could possibly have a complete science of medical jurisprudence without the contributions of Phrenology any more than we could have such a science without the contributions and discoveries of chemistry, anatomy, botany, and physiology.

In the study of the origin, growth, and philosophy of law, I have been more benefited by Phrenology than any other one science. It gave me a knowledge of

the nature of man in which all law has its origin, and helped me to understand the source of legal principles in the affections, emotions, passions, and appetites of man as presented in the organs it has described and located.

I would certainly advise every student of law to make himself familiar with its principles.

WILLIAM TUCKER, D. D.

Mt. Gilead, Ohio.

OUR WANTS.

“**M**AN wants but little here below, nor wants that little long,” may with some show of truth be said of man in a wild and barbarous state where he remains content if comfortably warmed and fed, the war dance and hunting giving him satisfactory exercise. But where man has been differently placed and educated up to the better things, he is transfigured into another being, his eyes are opened so that he sees with a broader range and deeper insight, his increased capacities crave other delights and higher interests. He is no more content to take his dress coat at second hand from the back of some wild beast, but he would now be clothed in the purple and fine linen; his dwelling no longer a mere place of shelter but a *home* of comfort, ease, and elegance; beauty and refinement reign supreme. Books, pictures, music, times for retirement and congenial society are numbered among the necessities of life.

Not only the full-sized man but the small boy has his wants innumerable. One of the first of his well-known big wants is the first new pair of boots, to his boyish pride and joy the sum of happiness. Then there are marbles, kites, balls, books, a velocipede, a pony; and he never gets quite enough to eat; he wants to be a man some day, so he takes his measure very often, stands upon his tip-toes, eats more and stretches himself out taller, and stronger each

day, and after a while he is going to have everything he wants, he is sure of it. Then there is a little girl with her head and heart full of wants. Maybe she has dreams of being a second Miss Willard or somebody greater.

Brimful of wants and hopes are the dear little folks, and if some melancholy individual with a long face and a white cravat takes them on his knee and tells them that their wants are but shining bubbles, thin and hollow, and at the first touch will explode into fragments of nothing, they will not believe it, not one word of it. Neither would the youth and maiden, with increasing faith and wants, believe that there was other than a golden future in store for them.

Even the hoary head and slow step has not yet reached the goal of his wants; but mayhap he has discovered that there are wants that can be fully satisfied, those that belong to our higher nature.

From the cradle to the grave is this never ceasing cry for something more. The tiny hand of the infant reaches out after everything and nothing. Yet more idle appear the reaching out of long-legged, long-armed fellows, yet infants in moral strength; acting without an increase of wisdom to their added years. The bloated, quivering drunkard reached for the glittering wine-cup, and with a tightness hard to unloose he grasped sorrow, poverty, and disgrace. And that old shrew never took into the

bargain all those scowls and frowns, and cross-barred wrinkles and that shrill voice; she merely wanted her baser feelings to have free play, and they played havoc with all her finer womanly nature.

There are wants that are ignoble and like a burning thirst in high fever, ever relentlessly craving more; and there are noble desires, pure, healthful, satisfying.

There once bent a mother over her dying child and tenderly asked: "My darling, is there anything you want?" A sweet smile played over the features as the little one answered: "Just one thing, mamma, I want God's love." A gleam of sunshine mingled with the mother's tears as she replied, "When I awake in thy likeness I shall be satisfied."

A great, deep desire for the higher good of one's being, and for the best welfare of humanity, fills the heart with a satisfying love that is the essence of happiness.

It has been said that the greatness of the soul is measured by the number, intensity, and quality of its desires, and if the desire be for the highest good of our being, for the perfecting of the inner and outer life, there will be reached a satisfying crown of goodness; and when qualities that belong to heaven are desired, the life will be good in proportion to the intensity of the desire.

Man is composed of a three-fold nature, physical, mental, and spiritual, and he only can account himself full-grown who has attained the full stature in all, with the physical subservient to the intellectual, crowned and mastered by the spiritual nature.

Let one tell you the innermost cravings of his heart, and you may know pretty much what sort of a man he is. Let one tell you what he most wants, and you can know what he is. He that hungers and thirsts after good shall be filled with good.

LISSA B.

THE UNSEEN VICTOR.

THERE are no perils that the valiant
hearted
Will fear to meet, if they but serve the right.
A noble purpose planted in the spirit;
Will give to every one an arm of might.

We need not fear, though hosts should rise
against us,||

If in the path of duty we are found;
We shall be victors in the battle tempest
Though to the cross our bleeding forms be
bound.

It is the soul that triumphs, not the faggots
That, burning, slay the martyrs at the stake.
From rock and dungeon oft have risen the spirit
That caused earth's tyrants on their thrones
to shake.

Better by far it is to toil and struggle
And bear life's burden o'er a thorny way,
Than to sit idly down where gilded Pleasure
Holdeth her court, and cheats her votaries gay.

Better the wealth of heart, the gifts of feeling,
Though worn with suffering, penury, and
toil,
Than all the diamonds in the mines that glis-
ten
Or all the gold in California's soil.

We cheat ourselves when earthly treasures win
us
From our allegiance to the cause of truth.
We sell our souls, or make them "aproned
waiters"
To passions that but work us care and ruth.

There are defeats that mar the plans we cher-
ish,
That may be triumphs in the years to come;
And battle scars that we shall wear as tro-
phies
Of victories won, when we have wandered
home.

BELLE HUSH.

A BUDGET OF PAPERS ON PHRENOLOGY.—2.

LEADINGS INTO PHRENOLOGY.

"Know thyself", Solon,—but
 "Who can understand his errors; cleanse thou
 me from secret faults."—Ps. xix., 12.

By leadings oft unseen
 We're led on hill-sides green;
 Where Truth's fair lillies fairer grow
 To those who ponder, ere they know.

THREE years later, to continue the narrative of my first paper, I was writing at my desk in my Seminary room at Union, No. 9, University Place, New York City. My pen was flying very fast. Without stopping I said "come in," to the gentle rap upon the door, and another phrenologist stood before me. Passing his card to me upon it I read, in his own handwriting, "Z. E. G—, Phrenologist." I honored the man for being a "gentle" man, and his card because it was in his own handwriting. The rap and the card had revealed much of the man; but this is not Phrenology. As politely and as quickly as I could I said, "In the first place, Sir, I do not believe in your science. In the second, I am very busy. I shall have to say to you, good morning." As he was withdrawing he politely remarked that he had examined a large number at Princeton, and quite a number already at Union. That all seemed pleased and that he only charged twenty-five cents for an oral examination. The old longing and fascination suddenly came back. It was not the "twenty-five cents" which had won me. I replied "If I thought you knew anything about the science I would give you five minutes." "I can not say much for myself," he modestly replied. Stating that he had never had the advantages of the Institute, but that he had studied HEADS for twenty years, and had given public examinations for five. I turned my chair and looked upon the "Chariot race," and the Thracian youth who cared not for Emperor; who did not turn to see what the vast concourse of Romans thought or said, but was determined to win the race. The phrenologist made

two measurements of the head with his hand and his eye, and then stepped back and spoke rapidly for five minutes. I will omit all he said in speaking well of me and give only the censure. "Whatever you are doing you are undertaking too much. You are working at too high a pressure. You have two engines in one hull." I was at that time taking my third year in theology, and teaching in the classical department of Steven's Institute five hours each day, and preaching on the Sabbath. "You have too deep a sense of responsibility resting upon you." "Learn to play lazy; calm yourself down in prayer." "You believe in work. You have not enough faith in God." This last remark startled me. It almost angered me. I, who had been an active Christian worker for more than twelve years and already in the work of the Ministry, "not enough faith in God!" I was indignant. But as I looked into the face of St. Paul, the apostle of mighty faith, as well as indefatigable work, I was humbled.

I detained him five minutes longer questioning him, and forced upon him twice the amount he asked, fully satisfied I had been helped. I knew before he entered that I had strong faith in work, but he had said "you are not hopeful. You lack in faith," not in yourself nor in men, but "in God." This was a revelation of myself to me. I was deeply impressed and thought much over it. I could then trace the influence of these two factors all along the past.

If physically and phrenologically I was lacking in those two, "Spiritually I never will be!" was my steadfast resolve. This perhaps too personal narrative,—for I am still a young man,—in the fourth or fifth paper will reveal the effect of this steadfast resolve, or how the SPIRIT can rise above the weakness of the flesh even though it be cerebral.

I was determined to study this question farther and see if it was a physical and cerebral fact, that I was lacking in those characteristics, and so I determined to go to the headquarters of Phrenology. I did so, and entered the examination room of the Fowler & Wells Company. As I took the offered chair I said to the old professor there—I knew not then the name of Nelson Sizer, whose hairs have grown gray in the service, “I have not come here out of curiosity, but to see if you can help me.” I did not say in what way. When he came to speak of “hopefulness,” “faith,” etc., I held my breath. I quote his exact words, as the stenographer took them down. “Your hope is not extravagant; and therefore you expect less than a good many who don’t believe in so much that is possible as you. You have a feeling you must work out your success so

far as duty is concerned, just as if there were no Providence to help you.” I had never seen Prof. Sizer before. He had never seen the self-taught visitor to my Seminary room.

Those two examinations cost me but five and a half—as many thousand of dollars could not have helped me so much. I now was determined to study physical man as I had the stars and the rocks under the most honored professors of those branches, and no longer base my knowledge of Phrenology upon the ignorance of her enemies and scoffers.

Eight months later, after leaving the Seminary, I entered the American Institute of Phrenology, with these words upon my lips, “I do not believe at all in your philosophy, but somehow YOU KNOW MEN, and this knowledge I want.” I was yet to be convinced.

A. CUSHING DILL.

EMPEROR WILLIAM'S TOMB.

“**A**FTER life’s fitful fever he sleeps well.” This may be said with truth of the Emperor William of Germany. His was a much diversified career, and during the past twenty-five years which witnessed his transition from the kingship of a comparatively small nation to the head of the most powerful government in Europe. “Prussia in 1858 when the failing intellect of Frederick William IV. compelled his brother to take up the reins of government, did not look like a State which within thirteen years would overthrow and expel the House of Hapsburg from the Bund, inflict a crushing defeat in France, crown an Emperor in the palace of Louis XIV. and establish German Unity.” If any statesman had at that time ventured a prediction of the towering greatness of a Prusso-German empire to be created within twenty years he would have been ridiculed by everybody out of Prussia who claimed to know about statecraft, and future developments. But we now look back over the

course and interpret events in the light of opportunities that were seen by a sagacious and determined ruler, and his most able councilors, and made use of to the most profitable extent.

After the lying in state at the Domkirche and the funeral ceremonies, the dead emperor was borne to the royal mausoleum of the Prussian kings, a very familiar place to the Berlinite. It stands in Charlottenberg (Charlotte’s town), the western suburb of Berlin named after Queen Charlotte. The visitor to Berlin usually goes to the pretty suburb to see it and the park and castle. In less than half an hour the city railway takes him out of the heart of Berlin to the “West End,” where most of the wealthy and illustrious citizens have their residence.

One who has visited the place says: “So deeply is the mausoleum hidden by the trees which surround it, that the visitor must keep steadily to the main road, bordered by mighty pines and firs, or he easily loses his way among the winding

paths. Down that road William I. was borne to his grave on Friday, March 16, to take his place in the silent tomb side by side with his venerated mother and

“Outside its gates stands day after day a veteran sentinel of stalwart frame, guarding the chamber of death. The pines whisper mysteriously overhead,

INTERIOR OF MAUSOLEUM OF THE PRUSSIAN KINGS—SHOWING TONDS OF THE PARENTS OF EMPEROR WILLIAM.



his noble father. It is a place of tender and hallowed associations with him, for there in the most solemn hours of his life he had been accustomed to go for meditation and prayer.

but no harsh, loud sound disturbs the solemn peace. Every head is bared as the door at the top of the broad steps is opened, and the visitors enter the mausoleum.

The illustrations are views of two monuments raised to the memory of Emperor William's father and mother, effigies of each in marble delicately

records of her a heroic character that is rarely known in royal places. During the war against Napoleon I., when Napoleon had triumphed at Jena, Berlin



THE FIGURE OF QUEEN LOUISA IN THE ROYAL MAUSOLEUM.

carved being placed upon the beautiful sarcophagi The Queen Louisa, wife of Frederick William III., mother of William, was one of the most beautiful women of Europe in her day, and history

was occupied by French troops, and the Prussian Royal family was driven from their capital. Queen Louisa lived with her children at Königsberg in much poverty, but proudly braved the insults

and threats of the conqueror, while she labored for years to arouse German patriotism to fresh efforts to cast out the foreign invader. Queen Louisa died in July, 1810; both her sons, the elder who afterward became King Frederick William IV., and the second who succeeded his brother as King William I. of Prussia, stood beside her death-bed. The Royal family had been enabled to return

to Berlin only six months before, after leaving it in 1806, when the war had broken out. These youthful experiences of Prince William, with the example of his mother vividly before him and that of his father, at whose side he fought in 1813, must naturally have influenced the mind of the late Emperor, and may have contributed to his life-long zeal for German national unity.

THE NEEDS AND POSSIBILITIES OF ANTHROPOMETRY.

EVERY science depends upon facts : but such facts as are best suited to understanding it are the most desirable. We have a large array of statistics in anthropometry, but we need more ; for the reason stated, the desirability of useful facts and observations.

One of the most imperative data now demanded is the following, to wit : such as identify the subject and distinguish him as in a diagram from all others.

To make this plainer, let me say, that of all the data yet well known and in constant use, I do not know how to select a moderate number, suitable to construct an intelligible figure such as will show to the eye at a glance, by applying one diagram to another, the differentiation of a subject from a normal type, or from himself at a former period, or from some other man. This, then, I say is imperatively needed; and for this end we need five other preliminary dimensions at least; *distances* (a) upright to umbilicus (navel), or, which is the same thing, to summit of pelvis; (b) to base of sternum or which is the same thing, the origin of manubrium, (c) to nipples or swell of pectoralis major; (d) to *pomum Adami*; (e) to trochanter major of femur, and this dimension on either side

Any one on reflection must instantly come to this conclusion, since not a dimension can be spared less than given at the points mentioned. We need evidently, in order to understand the general make-up of the subject, to know as

many girths as of the neck at Adam's apple; chest at nipples, inflated and natural; at manubrium; at waist; at trochanters.

Having then both girth and elevation of each dimension, it is possible that a diagram someway can be invented to show just what we want to know—the differentiations between one and another subject, and this at once on applying a diagram to the lines of another. Two things then are needed ; certain new dimensions upright ; and some intelligible way of expressing our man to the life in a diagram.

Many are the inventions of anthropologists upon conjectural hypothesis, expressing a supposed relation of the parts of a human living body by all sorts of whimsical figures ; as a circle inclosing or surrounding a square, I have forgot which, and a triangle within ; or an arc inserted within a triangle ; or curves juxtaposed back to back : but any one who has only begun the study of anthropometry must have learned very early how few—if, indeed, there are any—are the even numerical ratios of any one set of dimensions to another set, or of any of these to stature. In fact, the longer we study, the more irregular we find figures to be. It is futile to endeavor to construct a diagrammatic figure in any proportion whatever which can be expressed by ratios. Some laws of growth may indeed, I suppose, be so expressed ; but I am not speaking of growth.

For some time past I have been endeavoring to make a figure of a man, outlined, and have tried to ascertain whether the several dimensions could be intelligibly laid out thereupon so as to show proportions, reckoning each man's dimensions by stature in ratios; I can not conceive how to lay out girths, unless I assume a certain diameter to be constant—which would be a very good way:—that is, divide the girth by some convenient decimal which will reduce the dimension to an assumed lateral line which may be applied to the figure, and so of all girth dimensions, drawing the outline to correspond. This I have never even succeeded in attempting to carry out in a single case, owing to the absence of *data* for points on an upright line on which to set lateral dimensions.

Something is to be said on the possibilities of anthropometry. I think, if

we could attain to a sufficient number of characteristic proportionate dimensions, and lay them out on a figure and apply the figure to another, and if we could then project a figure like the one I have mentioned, of sufficiently ample size to distinguish one from the other, we should, perhaps, be able to judge whatever can be known of a man by dimensions, and perhaps with such other *data* as we could gain in every way possible, could predicate with scientific accuracy what comparative qualities he possesses; and so, with such important data added to the observations of phrenologists, we shall know to a certainty the race, family, presumed propensities, habits, and abilities of a given subject.

Thus, these are some of the needs and possibilities of this most fascinating science.

HENRY CLARK.

ARE WE SATISFIED?

AGES since all service was done by compulsion, now the work is, for the most part, a work of Love. Hence we are in a state of departure from savages. We now look to the nobility in our nature for best service to each other and service is not now a disgrace as of old, but an honor.

The man who spends hours in the closet denying himself all recreation and rest to bring a blessing on mankind is now hailed as greater than a king; and Royalty is no longer happy in idleness and dissipation. Some are still ambitious for military fame, but that is fast dying out; reason, arbitration, and a higher ambition take its place. To be literary and scientific, to be serviceable and entertaining, no longer to exist and be amused is the ambition of Royalty. Lo, the sovereigns of Europe, how they strive for honors well earned! Servers they would be, and consider it an honor, and such homage as true worth obtains is all they seek.

Youths pampered in the lap of luxury,

born to high estate, you who can not spend the income flowing unearned upon you, you who command all earth's advantages, by birth and not by desert, by inheritance rather than by effort, remember all the true measure of manhood is the same. What avails wealth if it gives not leisure to pursue what the heart desires. If you spend your time and wealth upon amusements, they pall at last, dress; jewels, epicurean feasts, all food and drinks have their day, and the insatiate soul cries for something more—something not yet found. Be assured, O worker upon the crude materials of earth, you are vastly happier than he who sits and meditates only upon what he can next enjoy.

So it comes to pass that the man of powerful wealth, surfeited goes to the other extreme and makes of himself a hermit or a misanthrope—and pines away, wasting his God-given powers in idleness and darkness such as is known to him alone. Now therefore advance to a higher plane. New avenues of

thought and education must open to these children of leisure to take them from this lethargy and make them good and vigorous, and efficient servants of mankind.

And here comes the thought, why not have schools; schools as far beyond Yale and Harvard as purity and truth are beyond Greek and Latin. Schools of philosophy, science, and the highest realms of art—the like of which does not now exist in all the world? Every person possesses a quality we call individuality, which distinguishes that person from all other persons. So has a school, a town, a nation. The dominant spirit of the school or town pervades all the immediate surroundings. When we leave school or college are we satisfied? Remove the central power or pervading spirit and the school, town, or nation is no longer the same; a new individuality slowly, but surely, assumes control. Thus it is that a scientific school, founded in the spirit of philanthropy, to help the farmers' sons and sons of working people, has drifted from its moorings and we have another classical college, Cornell, for rich men's sons. There the poor boy is no longer at home. He feels out of place and had rather remain in ignorance than submit to the prevailing spirit of superiority.

Do we feel that we are educated, that no more can be expected of us in the way of culture? Does the school and the college fit us to meet the world or bring us happiness or peace. Alas, no. A few strive for greater heights and are not content until the bright light of the ancient seers flows in upon them. No longer students of the schools, they seek a place for themselves, and become the servers of others. Poor old Socrates, barefooted teacher of the few youths who were willing to learn of him, was a happier man than Belshazzar at his feast. So the mountain tops were in view, he cared not for food, or raiment, or gold, or equipage. There are servers of men to-day who are greater princes by virtue of thought than any living monarch.

To bring about discoveries and inventions, to explore the unknown in science, to climb the ways of art to the blue skies of the infinite is a joy unknown to pleasure seekers. These heights are not climbed in a day. Untrained ears must learn to hear music unknown to common ears; eyes must learn to see the infinite beauties and wonders of creation, and the human soul, reaching up beyond this life, must feel the ineffable glory of inspiration.

HELEN POTTER.

AARON BURR AND MRS. HAMILTON.—An old diplomatist relates the following: When on an official visit to the United States in 1853, I spent a day or two at Mr. Stewart Browne's on the New Jersey shore of the Hudson River, above Hoboken. General Taylor, of Ohio, was another guest, and as the house was at no great distance from the spot where the fatal duel between Burr and Hamilton took place (July 12, 1804), a conversation arose on the event, and the characteristics, public and private, of the two men. General Taylor told us, that when a very young man, studying at West Point, he was one day on board a riverboat, and among the passengers were Mrs. Hamilton, widow of Alexander Hamilton, and Aaron Burr, who had returned to the United States after his enforced absence in Europe in consequence of his treasonable practices. Burr was then an old man, but still retained much of his former confidence and manner, especially with ladies. To the astonishment of those who knew him, on discovering that Mrs. Hamilton was aboard the steamboat, he approached her, took off his hat, and bowing, said "Mrs. Hamilton, I believe! My name is Burr."

The effect upon the lady, now well advanced in years, was electric. Rising from her seat, she gathered up her dress, as if to touch Burr with it would be contamination, drew herself up, and

looking at him from head to foot, swept away with a dignity and grace worthy of her best days, and left him standing abashed, if he were capable of feeling so, before the spectators. Burr replaced his hat upon his head and slowly moved

back to the seat he had left purposely to make his experiment upon the feelings of the widow of the man he had slain, for one can not suppose that he had any intention to apologize or explain, since that was impossible.

SONG OF THE RACE.

THE world swings round and the world swings by,

With the rush and shout of a maddening race,

We feel the breath and we hear the cry
Of eager runners for power and place.

The world rolls round, and the world rolls on,
With clamor or drums and bugle sound,
And battles are lost and battles are won,
And heroes are sung, and kings are crowned.

The world goes up, and the world goes down,
We whirl and drift on its fickle tide ;
And now by its smile, and now by its frown,
We are canonized—we are crucified.

But what do we care if friends are true,
And hearts fail not that we trusted in ?
The Truth that we patiently pursue,
By the Law of Good we yet shall win.

THOS. H. MUZZEY.

CHINESE BABIES OUT TO GRASS.—One day when traveling through China on my bicycle tour around the world, says Mr. Stevens, I came upon a very novel and interesting sight. It is the first thing of the kind I ever saw or heard about. My overland journey led me through many out-of-the-way districts where the people are primitive and curious in many respects. In one of these obscure communities in the foothills of the Mac-Ling Mountains I saw about twenty Chinese infants tethered to stakes on a patch of greensward, like so many goats or pet lambs.

The length of each baby's tether was about ten feet, and the bamboo stakes were set far enough apart so that the babies wouldn't get tangled up. Each baby had a sort of girdle or kammerbund around its waist, and the end of the tether-string was tied to the back of this.

Some of the little Celestials were crawling about on all-fours ; others were taking their first lessons in the feat of standing upright by steadying themselves against the stakes they were tied to. What queer little Chinese

mortals they all looked, to be sure, picketed out on the grass-land like a lot of young calves whose mothers were away for the day!

In this respect they did, indeed, resemble young calves, for I could see their mothers at work in a rice field a few hundred yards away. All the babies seemed quite contented with their treatment. I stood and looked at them for several minutes, from pure amusement at their unique positions ; but although they regarded me with wide-eyed curiosity, I never heard a whimper from any of them. Nobody was paying the slightest attention to them, and from appearances I should conclude that they were most likely picketed out in this manner every fine day while their mothers worked in the neighboring fields. Very probably these Chinese babies soon come to regard their daily outing at the stake with the same degree of satisfaction that very Young America derives from his perambulator ride on sunny afternoons in the park.

And better that all little ones should be out in the air most of the day, than shut in a close nursery.

PHRENOLOGY AND THE TAXATION OF LAND VALUES.

IN the January number of the PHRENOLOGICAL the editor gave a brief introduction to Henry George, and if he will allow it of one who is fairly familiar with Mr. George's teachings, and who thinks he sees in them an important practical bearing upon Phrenology, I will avail myself of the opportunity to somewhat further elucidate those teachings for the consideration of that earnest class of men and women who read the PHRENOLOGICAL JOURNAL.

The simple statement that Mr. George proposes Government ownership of all land in its dominions is repulsive to those not further informed on Mr. George's views. It leads one to think of no security in the possession of a home, of land improvements, of the products of one's labor, of power on the part of the Government to raise or lower rents at the pleasure of its officers, and of eviction without notice. How far from the truth is such a view of the political economy taught by Mr. George will appear as we proceed.

That writer believes that all men have equal right to natural opportunities, to justice, liberty, and the pursuit of happiness; that the earth was not made by man; that men are born into the world without their consent, therefore that all men have an equal right to the use of the earth, and the full right to the fruits of their own labor exerted upon the earth; that this right is inalienable; being a birthright bestowed by the Creator; it can not in justice be bartered or given away to any man or Government. He believes that the earth is amply large to supply the wants of all its inhabitants now and henceforth; that invention develops the productive power of the earth more rapidly than population increases; that poverty and apparent overpopulation are due, not to limited productive power of the earth, but to individuals withholding from use large portions of the earth, and to unequal, unjust, distribution of the products of labor.

Are not these self-evident truths to all who believe the Creator is a just and good God, and not the creator of inevitable human mystery?

But all know that under our Government and other Governments men have not equal right to the use of the earth: that thousands of children are born into the world, deprived of their birth-right; that the most favored in worldly possessions is liable to lose his; that there is apparent overpopulation, men seeking for work and unable to find it, and unable to employ themselves; children and grown people suffering and dying from want, some on account of poverty unable to marry, others married but refusing because of poverty or fear of poverty to raise children. We see thousands upon thousands of acres of land, building lots, iron mines, coal mines, oil wells, etc., etc., not in use or far from being put to their best use; we see unjust distribution in that hundreds and thousands who labor but little or only at unproductive labor, yet have property to the value of thousands or millions of dollars. Regarding these facts Mr. George and those opposed to him must agree; they can be demonstrated on every hand. But how about the remedy?

The poor say, give us a remedy, but they may not recognize the remedy when it is offered them; many of the rich say, we are satisfied, for are not our wants provided for? Are not we the flower of the earth?

In order to secure each person born into the world his right to the use of the earth, and security in the enjoyment of the products of his labor, Mr. George, while allowing the title of land to rest where it now rests, proposes to take in the form of taxes the rental value of all land independent of improvements thereon, and to abolish all other forms of taxation.

Before pursuing this thought further, let us diverge a moment to calm the fears

of those who may think that after years of struggle they are by this new political scheme to be deprived of the fruits of their labor; that the little they have accumulated is now in the false name of charity and justice to be divided up among all the people, and they shall have to start the race anew and accept all its former uncertainties.

Benjamin Franklin said, I can not quote his exact words, that man by four hours' labor a day could supply his wants; the remainder of the twenty-four hours could be devoted to study, amusement, and sleep. Since Franklin's time there have been invented the railroad, telegraph, navigation by steam, etc., etc., devices multiplying the productive power of human labor many times, and of course diminishing the hours of daily toil necessary to produce a comfortable living. Yet all know there are men to-day compelled to work from ten to sixteen hours of the twenty-four for less than a comfortable living.

How many of the readers of this article would be willing to work on the average four hours a day if thereby they could be assured that all men would have a comfortable living? Doubtless all, for those who read the PHRENOLOGICAL JOURNAL belong to that class of men who feel an interest in the welfare of their fellows. Yet by the wonderful increase in the productive power of human labor aided by machinery what could be produced during four hours of labor in Franklin's time would now be greatly multiplied, and therefore might go toward gratifying the esthetic faculties or toward the reduction of the hours of labor. But the difficulty appears when we reach the question of distribution.

Henry George claims that his system will bring about fair, just, distribution. If it will do so, would it not be absurd for any person not at present reveling in luxury and puffed up with pride, fed on artificial distinctions among men, to oppose that system on the ground that

it might deprive him of the paltry sum he had been able to hide from the eyes of the monopolistic robber? You are among the fortunate if you and your family are now able to live comfortably and on an equality with the best in your neighborhood, and yet do not have to work more than four hours a day.

Let the intelligent reader give a conscientious answer to the questions here propounded.

Is not the rental value of land, aside from the value of improvements made by the individual, due to the growth of the community or to the inherent quality of that land? Does it not, therefore, belong to the community? If individuals are allowed to take such rental value, will it not encourage them to grab all the land they can get? Must not love of power, or the fear of poverty, which would result if others took possession of that land, necessarily lead to such a result? Has it not led in our country, where there are immense areas of unused land, to that point where there is scarcely any accessible unclaimed land? But if the rental value created by the community were taken by the community in the form of taxes, would it not deprive the individual of any profit pertaining to land except that growing out of his own labor exerted upon it? If so, would not each person be content to take only as much land as he could profitably use? Would this not destroy all speculation in land of any kind? Would it not insure to each individual his right to the use of the earth? and of any portion of the earth he chose to dwell upon?

It should be borne in mind that the rental value of land would, in thinly settled districts at least, be much less than what man is able by his labor to produce from it. Therefore, no one need fear that under the system proposed by Mr. George the State would take from him all the fruits of his labor. Indeed, there would probably be in every community some land practically without a land tax.

Would a person now owning a piece of land be deprived thereof, together with improvements, under that system? No, for what else would the Government do than tax it in proportion to equally desirable, but unimproved land, lying about it? When the individual paid that tax the Government could ask no more; it could not at will raise that tax above the rental value of like land in that neighborhood. It could not evict any person having the title, and replace him by some one else, except in the manner it does now, by selling the land for unpaid taxes. Thus there would be the same security of the home and of permanent improvements as at present. Titles to land would be as good as now, but no person would pay for land more than the value of its improvements.

In addition to thus opening up natural opportunities to the people, Mr. George would have the Government own things in themselves, monopolies, such as railroads and the telegraph, which are now used by individuals or corporations to tax, and that unmercifully, producers; he would have it issue money, the representative of values, the medium of exchange, which in all conscience should not, as now, be so much controlled by unscrupulous speculators.]

Suppose the Government owned the railroads and means of transportation in general, and charged no more than the cost of economic management, would it not cause the rental value of land to rise, and, under the present system, add to the wealth of landlords and those who flourish indirectly as landlords? Suppose a just monetary system were established, making money an unprofitable field for speculation, would not that also cause land values to rise, which at present would chiefly benefit landlords and those who flourish indirectly as landlords? Suppose, as the union labor party proposes (Henry George is a member of the united labor party, not of the union labor party),

the extent of land which an individual could hold were limited by Government, would that not insure to each of us equal right to the use of the earth, equal natural opportunities, equally valuable land, at any place where we chose to live? How often would a new distribution have to be made to give the newly born their share? Would not men in selling their improvements also be selling their birthright which should be inalienable? Suppose the Prohibitionists could effectually prohibit the use of intoxicating liquors, would not land values go up in proportion to the capacity of temperate people to bring forth from the earth more wealth than could the intemperate? And under the present system would not that increase rental values going to landlords and those who flourish indirectly as landlords? Would not the same result follow increased capacity to develop wealth from the earth by co-operative societies?

It matters not whether the land of a country be monopolized by a few landlords who are wealthy, or whether it be monopolized by many who are poor, but who do not, either because they will not or can not, use it at all or put it to its best use, the restrictive effect upon production and the paralyzing effect upon trade are the same, although different in degree.

It should be remembered that all other social reforms which do not include land reform can give only partial and temporary relief from poverty, distress, and injustice; that the land reform system proposed by Mr. George does not imply, as do some other reform systems, redivision of existing wealth, leaving the fountain of unjust distribution undisturbed. On the contrary, it proposes taking possession of the fountain of production, but letting those who have been permitted to fill their buckets therefrom to drink of the same unmolested until, having consumed it, they will have to return to the fountain for a new sup-

ply on an equality with the humblest citizen : that every step in the direction of taking taxes off the products of human labor, whether they be in the form of a tariff, internal revenue, or on houses and land improvements to put them on land values will be a step toward increasing production and causing fairer distribution ; that such a reform can be begun at once without any additional, but rather with less, governmental machinery ; that it will probably take place so gradually as to cause no crash ; but whether it take place by degrees or at once, the whole people will be made free and prosperous thereby.

That man, with the aid of machinery, free labor and getting the full value of his labor, could produce sufficient to supply his wants by very few hours daily toil, is evident from the fact that at present we feed, clothe, and house over sixty million people, yet during the year there are hundreds of thousands unable to obtain employment ; other hundreds of thousands employed only for a brief season of the year ; other tens of thousands doing nothing but

consuming wealth unjustly distributed ; other tens of thousands compelled to labor at comparatively unproductive labor ; other thousands driven to theft because unable to live decently by labor, other thousands disabled from work by sickness the outgrowth of privation, other thousands hindering production by interfering with trade, etc., etc., etc. Thus with all the present restrictions upon production, upon trade, upon freedom of the individual to employ himself on natural opportunities, sixty million people are supported in this country probably with an average amount of labor to each individual of not more than two or three hours a day. How much better could they live without such restrictions and with just distribution ; and how much faster would our productive powers increase, if young people, relieved of all fear of poverty, should follow their natural dispositions, marry, and raise families ?

But what has all this to do with Phrenology ?

R.

(To be Continued.)

THE WILL POWER IN INHERITED CHARACTER.

The following extract is taken from Dr. G. Miller Fothergill's recent volume on "The Will Power:"

THE day has gone by when critical analysis of character is regarded as essentially hostile ; or to investigate a character to involve "running down," a most odious term indicative of malice. We are beginning, at the present time, to study character analytically ; and to calculate its elements with the same keen judicial scrutiny that we examine a hand at whist, or the peculiarities of structure of natural objects. We look at each card to determine its value. See how many are trumps, and what they are ; whether the trumps are well backed up by court cards ; and then play accordingly. In the natural object we see how the structure bears on function in plant or animal. So with chil-

dren. Parents sometimes consult the phrenologist as to a child's character, and what to put it to in the battle of life. This is getting a stranger to do imperfectly for them what they not only ought to be able to do for themselves, but even to do it a great deal better. [Dr. Fothergill here evidently means that a parent who systematically studies his child's character has opportunities for learning and knowing it better than a stranger, however versed in the art of reading the mental constitution, who is required at a moment's notice to give an estimate of the mental capacity of a child he had never seen before.—ED.] The family mind is as distinctly notable as the family physique, or constitution. Hence parents should study their family traits and qualities : and further

should look into themselves; and not stop the inquisition if, and when they come upon something they do not quite like. That factor has to be taken into consideration just as much as the matters we are justly proud of. Self-introspection, which only recognizes the good points of ourselves, is imperfect and misleading. By such combined outward and inward observations, they would soon get the general outline of the character. Then careful scrutiny of the child would furnish the individual mental features. The amount of will would represent the trumps in the hand at whist; the other qualities are the rest. The play goes according to the cards. The child should be trained according to what it possesses. If it has little will power, it may be well to place it where it can draw a salary or a stipend. If it has a strong will, giving perseverance and persistence, then it may safely be sent where its efforts will effect its own interests. The other qualities are not without value. Of what value are nice manners or a sympathetic nature to an accountant or a director of a company? These are of incalculable value, however, to a medical man or a clergyman.

The estimate of what it is potentially should determine the lot of each child. Not, of course, that its future would always harmonize with the forecast, but there would be a strong probability in its favor, as compared to the present haphazard method of meeting the difficulty: one parent leaving the child choosé for itself; another deciding its lot without the slightest reference not to its wishes only, but even as to its capacities. 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-introspection 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 ourselves; and it adds much to our comfort to be able to do 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. If the bloody-minded Guise-Stuarts had practiced such self introspection, had formed a just estimate of themselves, on the one hand, and as carefully weighed the different elements in the English character on the other, they would never have committed themselves to the struggle entered upon—they would have seen that defeat was inevitable. Old Vanderbilt, the New York financier, once gave this notable advice to his son: "Sonny, never sell what you have not got." He might have to pay a deal more for it in its acquisition than he had sold it for. So in determining how to place a child in life, he should never be handicapped too heavily; or put to what he can not do, what is beyond his power. The proportion of his will to his other qualities should always be carefully calculated; which will bear far more relation to the family traits than to any individualism. One family is high principled, another of lax morals, a third lacks honesty, a fourth can not bear responsibility, a fifth is thrifty, a sixth extravagant. "The apple never falls from the tree." "As the old cock crows so the young one learns." "Breed is stronger than pasture." "What is bred in the bone will come out in the flesh." All these axioms are lights upon the subject. Both Napoleons were bad men; but Napoleon the First was a stupendous villain. "Napoleon the Little," was a self made emperor, too, but after all he was only a disreputable scoundrel. With the Napoleous patriotism was nothing, and ambition everything. With Oliver Cromwell and George Washington the case was reversed.



OXYGEN STARVATION.

IF we are asked, declares a writer, whose name is not given in the exchange from which this article is copied, which of the many necessities of life is best entitled to the chief place, we must surely reply, Oxygen. This gas forms about one-fifth of the atmosphere, and our wants are supplied by the act of breathing, so regularly and ceaselessly performed by every one. It is possible to live for a long time without the protection of a house or of clothing; it is even possible to live for many days without food; but if we are deprived for only one or two minutes of oxygen, the consequences are serious, and may be fatal. This is perhaps one reason why, of all things that our bodies require, oxygen is the only one whose regular supply does not depend upon our own attention. The pangs of hunger and of thirst warn us when food and drink are necessary, but they can only be satisfied by our putting forth conscious effort. A man may be hungry, but if he is too lazy to seek out food and raise it to his mouth, he will starve. But it is not so with oxygen. We have power, it is true, temporarily to stop our breathing or to increase its rapidity by an act of will; but even when we forget all about it, the breathing continues. This is one of the many mysteries of our being, always before us, but seldom thought of; and yet it is very striking. This frequent and important fact of our daily

life has not been entrusted to our care, but has been so arranged for that it is performed every three or four seconds from the moment of birth until death, without requiring one thought. The breathing apparatus never sleeps. Again, oxygen is so closely connected with the great vital processes upon which our growth and daily energy depend, that food itself is useless unless accompanied by a large supply of it. Indeed, when the quantity of oxygen which a man consumes in his lungs daily is calculated, it is found to be greater in weight than all the dry food he requires during the same period. Yet again, if we wish a house and clothing and food, we must work for them, but for oxygen there is nothing to pay. It is free to all, and lies around us in such abundance that it never runs short. Here, then, we see every means taken to insure that all our demands for oxygen shall be freely and fully met, and yet we are assured by medical authorities that a very large proportion—some say one-fourth—of all the deaths that take place, are caused, directly or indirectly, by oxygen starvation. Now, what unfortunate circumstances prevent so many persons having a sufficiency of this all-important gas? The chief one undoubtedly is congregating in towns. Instead of living in the country, where every household might have a large free space of air around it, we draw together, for the convenience of

business, to great centers. There the houses are crowded closely together, often piled one on the top of the other, so that, instead of an over-abundance, there is only a limited quantity of air for each. This is made unfit for the support of life by the very act of breathing; the impurities are increased by the waste products of manufactories; and oxygen is destroyed by every fire and lamp and gas-light. The winds and certain properties of the atmosphere constantly remove much of the impure air and bring in a pure supply; but the crowding together in many parts of a town is so great, and the production of poisonous matters goes on so continuously, that instead of each breath containing its full proportion of oxygen, the place of that gas is taken up to some extent by what is actually hurtful to life. When this is the condition of the atmosphere outside the dwelling, it is necessarily much worse within it, for there the displacement of impure air by pure can not take place so rapidly. The consequences are

as already stated. Large parts of our town populations never have sufficient oxygen; their lives are feeble and full of suffering, and numbers die before their time. Such facts are painful to contemplate, but a knowledge of them puts the wise man on his guard, and he may do much for himself. In the choice of a house he will remember the advantage of a great air space around it, and of plenty of space within it, so that bedrooms may not be overcrowded. Or, if a large house is beyond his means, he will take care that the rooms are not crowded with furniture, for every piece of furniture excludes an equal bulk of air. When he enters the house, he will see that at all times as much fresh air from the outside is admitted, by means of open doors and windows, as can be allowed without inconvenience from cold; and as often as possible he will have a blow through, to clear out all odd corners where foul air may linger. Pure air and good food make pure blood, and only pure blood will give good health.

HOW SOME GIRLS LIVE.

THEY go to bed at night and fall into a sort of stupor; why not? Is there one breath of fresh air in their sleeping box? Do they ever, except in the heat of summer, have so much as a crack of the window open? If there is a fireplace in their room or a stovepipe hole don't they close it up as tightly as they can? No wonder it is so hard to wake up in the morning. I can hear them groan and moan and yawn and scold now, at the imperative summons to get up. And what do they find on the breakfast table? Sweet fried cakes, something in the shape of meat, generally fried, potatoes either fried or stewed, hot coffee, and probably "griddle cakes," fried of course. Now, I am not going on a crusade against the frying-pan, for it has its uses, but when I see a girl sit down at the breakfast table with dull eyes, a sallow face, a listless manner and pro-

ceed to make that early meal of strong coffee, sweetened cakes, fried pork, and potatoes, with a sequence of griddle cakes liberally buttered and drowned in molasses, I feel like shutting her up for a week's starvation on bread and water.

Then there is dinner; tough meat, baked vegetables, pie, any kind of a pie with a crust either tough or sandy; tasting strongly of lard and filled with things most convenient. A favorite pie in our country homes is constructed of sliced lemon, flour, and molasses, baked in a mass as unfit for the human stomach as a stewed rubber overshoe.

Tea-time brings cakes of various sorts, probably more pie, cheese, fruit preserved, and so ill done it is fermented, or canned fruit which is comparatively harmless, strong tea and hot biscuit. Repasts fit for

"A cassowary,
On the plains of Timbuctoo."

Then to begin the day again. After breakfast they run up stairs and spread up their bed with all the exhalations of their bodies during the night still imprisoned [in it. At bedtime they slip into their unaired beds after hanging the dresses they have worn eight or ten hours in that tight-shut closet, and repeat the experience of the night before.

"Now they have sown the seed,
What will the harvest be?"

If it is winter, a heavy cold; the mis-used lungs, forced to breathe over and over air that has no vitality in it, air that is absolutely noxious, became congested more or less, and they begin to cough and sneeze. If they have scrofula hidden in their constitutions, and how few people have not, the harvest of this planting will be bronchitis or consumption.

The next crop is dyspepsia; they put into that delicate organ, the human stomach, already digested by the hard labor of its next neighbor, the lungs, and weakened by the slow circulation of vitiated blood, vitiated by the bad air, a mass of indigestible stuff that they call food; at first they do not notice any special effect; they are young and strong and can bear a good deal of physical misfortune without much trouble, but after a time food begins to distress them, life gets very tiresome, they have acid tastes in their mouths, heart-burn, flatulence. Yes, I know these are unpleasant things to talk of, but they are a great deal more unpleasant to have.

This is a bad crop; it realizes the primeval curse. "Thorns and briers shall it bring forth unto thee."

So they began to "diet"; but there is a harvest from that corset that abrogates the good of "diet"!

"Oh!" say a host of voices, one after another, "I can't live without my corset! the minute I leave it off I am as weak as a kitten; all gone; I can hardly sit up!"

They have told the story now! They have disabled themselves; they have ruined the wonderful work of God in

their bodies, and the result, the harvest is fearful; their interior organs are all forced out of place, crowded, weakened, congested. Then to all this they add high-heeled shoes. Possibly they do not know that the most delicate organs of their frames are only kept in place by muscular attachments, hung, as it were, on the edge of those wonderful muscles that do the work of life; when they wear high heels they throw these organs forward, where they do not belong; they produce displacement. Do you know that means one kind of torture? That grows into ulceration, another out of anguish; and their lives, their usefulness, their comforts are ruined.

Now when these are gone what can money do for them? what help is marriage? a sickly wife, a helpless mother! Will clothes, however gorgeous, alleviate a backache? or assuage dyspepsia? Will education do their ailments one particle of good?—*Rose Terry Cook.*

♦♦♦

ANYTHING BUT PHYSIC.—Dr. John Radcliffe, the distinguished physician, and Sir Godfrey, Kneller, the famous artist, were neighbors in Bow street, London. Sir Godfrey had a beautiful garden well stocked with flowers and exotics. Dr. Radcliffe also had a garden, and was equally fond of flowers. He suggested to his neighbor that it would be a good thing to knock a hole in the wall separating their gardens, and put a door there, that they might converse together. The arrangement was agreed to, and all went well until the painter, amazed at the injury done by the doctor's servants to his valuable plants, after frequent expostulations sent word to his friend that if the annoyance continued he would be obliged to brick up the door. "Tell Sir Godfrey," said Radcliffe to the messenger, "that he may do what he likes to the door, so long as he does not paint it," to which the good-humored painter replied, "Go back and give my service to Dr. Radcliffe, and tell him I'll take anything from him—but physic."

INJURIES TO THE KNEE JOINT.

THE practiced anatomist regards the articulation of the knee joint among the most complicated of the structures belonging to the human body. A variety of muscular and cartilaginous processes embrace the joint, and a dozen ligaments are interwoven in the spaces between the ends of the femur, tibia, and fibula. Hence the great strength of the joint and the ease of movement. On account of this complication, however, an injury which in almost any other part of the body would be promptly repaired by nature or require but temporary attention, may be attended by serious consequences. Some years ago a gentleman of very active habits mentioned incidentally, in the course of a casual meeting with me, that he had a peculiar pain or twinge in the knee. I at once inquired if he had fallen or received a blow there. At first he said No; but on my asking him to think a little he was reminded that two or three weeks previously, while descending some stone steps, he had twisted the leg slightly, and for a few minutes afterward was annoyed by a rather sharp pain. This, however, wore off, and he had thought no more about it. I advised him to arrange his business so that he could be quiet for a few days, or a week, and to apply treatment to prevent inflammation. He thought, however, that the annoyance was scarcely worth consideration, and went on in his usual way. But a week later I was called to see him, and found him stretched out on a lounge, with a knee so swollen as to suggest the possibility of an early surgical operation. Several weeks elapsed before he was able to go out, and it was fully six months before he could walk with ease and comfort.

A lady says in a letter that we find in an exchange, and which is appropriate here: "For the last two years my five-year-old boy has suffered with a disease of the knee joint, resulting in the loss of the knee-cap, or patella. He was lately operated upon at the Child's Hospital.

If I had taken him there two years ago, he might have been well to-day; now the knee may be several years in healing fully, and there will be a nearly stiff joint for life; while all this might have been spared him, if I had known what a slight worrying of the knee might lead to, and kept him in bed a month."

A slight strain upon the tendinous attachments of the patella, if it causes any inconvenience, should receive attention, for the reason that continued use is so likely to increase the trouble. This was the case of the gentleman I have mentioned. In walking one exercises the knee-joint more than any other articulation of the body; there are demands upon the elasticity and endurance of its muscular connections with every step, and a slight derangement, or want of tone in a single muscle or ligament, or some abnormality in the cartilaginous surfaces, or in the serous secretions, may lead to serious disturbance and permanent lameness. Persons who have any rheumatic affection of the knee can testify to the obstinacy with which it resists treatment.

The reader knows that the surfaces of all joints are lubricated by a viscid fluid, so that the parts shall play upon each other smoothly, without friction. Disease, or over use, or accidental injury, has for one of its common results inflammation of the synovial membrane which secretes this lubricating fluid; a very large proportion of the affections of the knee-joint are due to inflammation of this membrane, and if its indications are neglected, the trouble may extend to the cartilage that covers and cushions the bone ends, and destroy it, thus leaving those important parts bare, so that they rub and grate on each other, to their permanent injury, and the later destruction of the joint. Abscesses may be set up from inflammation of the synovial membrane, and thickening and increase of the secretion effusion may follow, so that adjacent parts of the knee bulge out, the whole process being accompanied by severe

pain. When a child has received an injury to the knee-joint it should be at once attended to. Simple treatment, such as the application of wet compresses (I have found hot water most effica-

cious), and rest, will cure most cases; but if there be subsequent pain and swelling or any intimations of an effusion of fluid, surgical aid should be immediately obtained. H. S. D.

MORE ABOUT BAKED BEANS: SALINE STARVATION.

[Dr. Charles E. Page, of Boston, Mass., author of "The Natural Cure" (of consumption), and "How to Feed the Baby," still finds time to read the JOURNAL regularly, and write an item occasionally for publication. He has a word of criticism to offer on the little slip we printed in the January number on the preparation of baked beans, contributed by Dr. F. Ephraim Cutter to the *Medical Annals*.—ED. P. J.]

DR. Cutter should tell us how baked beans *ought* to be prepared, not simply how a large proportion of people do prepare them. I might tell the reader, for example, how a large proportion of people cook beefsteak—cut thin, well pounded, and fried "well done:" good for door hinges and dyspepsia. It is too true that a good many people do parboil beans and turn off the first water, but in so doing they throw away much that is absolutely essential to nutrition.

"It is an old and a cruel experiment, that of the French Academicians, who fed dogs on washed flesh meat until they died of starvation," says Dr. Charles E. Hunter in the *Herald of Health*. The poor animals soon became aware that it was not food, and refused to eat it. Were our instincts as natural, no charming of the eyes or tickling of the palate by our cook, would persuade us to swallow those washed and whitened foods that deceive us into weakness.

Analysis of the liver and other important vital organs after death shows that in some diseased states these organs contain only one-half of certain saline matters that are invariable in the healthy organ, and not only so, but in proportion to this deficiency the organ is useless for its work. In fact, as the organ

changed its tissue (as does every part of the body, in from one to three or four years, according to various estimates) and was compelled to renew itself in the absence of sufficient potash and phosphates, it did its best to preserve its former structure, much as a fossil does. It rebuilt itself as best it could, of such material as would make tissue with the minimum of potash; but such tissue, while useful and conservative in retaining the form, elasticity, and contractility of the organ, is as useless for secretion and excretion as a fossil liver.

Not only the liver, but the kidneys, spleen, and brain, and the small (blood vessels in every part of the body share in this degeneration of tissue. Strangely enough (and not unlike the French experiment), this amyloid, waxy or lardaceous tissue, is indigestible by the gastric juice. It is *washed flesh* made inside of the body and is good for nothing, either dead or alive.

The washed flesh fed to those poor dogs contained an abundance of nitrogen and carbon; but these alone, as Liebig remarked, were as useless as stones in the absence of saline matters—*not of common salt, be it remembered, for that is found in excess in the fossil organs mentioned*. The essential salines that can be readily washed out of food are chiefly two—potash salts and alkaline phosphates. These are also the two that are found deficient, about fifty per cent. in the waxy form of degenerated tissue. This is the type most common in atrophied children and in persons suffering from consumption and other wasting diseases? but it is not uncommon in the capillaries and small arteries of many who seem in health.

"When vegetables are soaked in cold water to keep them fresh, when they are blanched in hot water to please our eye, or when they are well boiled and their essence turned off that we may eat the depleted residue, those soluble salines are almost entirely extracted. And what is left? Chiefly the less soluble salts of lime and magnesia—just those elements so abundant in the cretaceous degenerated blood vessels.

"No wonder," continues Dr. Hunter, "that this generation finds itself degenerating. Like a ship built of rotten timber, a man fed on depleted food goes all very well in good weather and with a light load; but when one can neither bear an average load nor undergo unusual fatigue, let him cross-question his cook." (See chapter on "Saline starvation" in "The Natural Cure.")

But to return to our beans: After being washed they may be put in a baking pot (a deep earthen vessel with a tight cover, instead of the bread pan commonly used for this purpose outside of New England) and the right quantity of cold water added. A piece of pork, fat and lean, is not so very terrible a matter as many people seem to think, but if the beans are served like "shell beans," being turned upon a ball of nice creamery butter in the serving dish, it is perhaps better than to have either pork or butter cooked in the beans. They should be cooked in a very slow oven from ten hours up. No more delicious dish was ever placed before a hungry person. Dr. Cutter rightly advises us to "take time to eat and chew thoroughly," but when he says, "after eating go out in the open air and walk or work," I think he is obviously in error. I believe that Dr. Oswald's maxim is a very wise one. "Never eat until you have leisure to digest."

I find that baked beans properly prepared are as wholesome as they are nutritious, yet it is true that a great many people discard them on the score of indigestibility. The reason of this is, they

take no account of the nutritive value of the dish, and eat as freely of it as they safely may of fruit or comparatively in-nutritious vegetables. If one eats more than he can digest, indigestion (dyspepsia) is inevitable. A lumberman in good condition, chopping wood in a Canadian or North-Maine logging swamp, in bitter winter weather, may eat a quart of baked beans, with other "fixings" in proportion, for dinner, and feel no inconvenience therefrom; whereas an ill-conditioned dyspeptic, toasting his, or her, shins before the fire and spending most of his time indoors, would not be able to eat more than a tablespoonful without suffering from dyspepsia. At all events, after years of experience, I recommend the use of baked beans to all classes of patients, only demanding that the cooking shall be as above recommended, and that the following rules shall be observed.

1. Never eat unless actually hungry (and, moreover, learn to distinguish between mere appetite and hunger). "Skip" any meal if the least in doubt.

It is astonishing how universally this most natural law is violated. Persons who would in good time have a keen relish for plain food by simply waiting for it, not only strive in every way to forestall the need of food by doctoring up all manner of fancy dishes to tickle the palate, but they even go beyond this and force food upon the stomach when it protests against the introduction of any thing except water.

2. Never eat when tired, but take a little water (hot or cold, as is most agreeable), and rest before eating.

3. Eat slowly, and not more in quantity than you can reasonably expect to digest.

4. Take a rest after eating, which can usually be managed by deferring the meal till the day's labor is over.

In conclusion, I might add a general rule that I find a very safe one as to the distribution of meals: Light breakfast, lighter lunch, and substantial dinner at the close of day.

THE HARM OF MODERATE DRINKING.

THAT the startling prevalence of renal and liver diseases has much to do with the drinking habits of people receives strong confirmation in a note by the editor of the *Medical Record* in a recent number of that weekly, which is published here because of the facts tabulated :

It is very well known that hard drinking surely kills ; it is equally well known that moderate drinking is usually injurious. There are, however, two forms of the latter habit : in one, one individual drinks moderately and only at his meals, in the other, he drinks over a bar, taking a "nip" of whiskey, a "cocktail," "fizz," etc., in accordance with the idiosyncrasy of his palate, his geographical location, or personal associations. These last named indulge in what our continental brethren call "nipping," or "pegging," and the practice of nipping has been apparently shown by Dr. Harley and others to be injurious to health and life.

Dr. Harley gives the following telling statistics :

Death-rate of men between the ages of twenty-five and sixty-five.

MEN EXPOSED TO THE TEMPTATIONS OF "NIPPING."

	Liver diseases.	Urinary diseases.
Commercial travelers...	61	44
Brewers.....	96	55
Innkeepers, publicans, vintners, barmen, and waiters.....	240	83

The comparative death rates of men of the same age engaged in other industries, not exposed to the temptation of "nipping," are, again, as follows :

DEATH RATE OF MEN NOT EXPOSED TO THE TEMPTATIONS OF "NIPPING."

	Liver diseases.	Urinary diseases.
Gardeners and nurserymen	18	39
Printers.....	28	30
Farmers and graziers.....	41	31
Drapers and warehousemen	35	37

In addition to the above Dr. Harley cites the following statistics of beer, which apply to Prussia :

PROBABLE DURATION OF THE LIFE OF MEN.

Age.	In the liquor trade.	Not in the liquor trade.
25.....	26.28	32.08
35.....	20.01	25.92
45.....	15.19	19.92
55.....	11.16	14.45
65.....	8.04	9.72

Further statistics are given, showing the extraordinary excess of mortality from liver disease among innkeepers, bar-tenders, vintners, waiters, and publicans, as compared with persons in other occupations. The ratio is as six to one.

To all this it may be said, on the other hand, that nothing lies like figures, and that, after all, the mortality rate is not greater, for example, in a whiskey-drinking country like Scotland, than in presumably temperate regions like certain States of New England or the West. It is more than probable that Dr. Harley's figures point to the truth ; but the question rises, in view of the pretty even range of mortality in countries of temperate and "nipping habits, whether, if liquor is taken away, some other death-producing agency does not set at work ? We believe that the medical profession must, at any rate, accept the fact that "nipping" shortens life.

THE SCIENTIFIC TREATMENT OF CONSUMPTION.—The *Berlin Medical Journal* recently published the following summary of conclusions reached by Prof. Dettweyer in a paper read at the recent International Congress:—

"1 There is no specific treatment for phthisis.

"2. The essence of treatment consists in regulating tissue changes, which is best accomplished by fresh air, cultivation of bodily endurance, nourishment, and exercise.

"3. A climate free from phthisis does not exist : that climate is best which best permits the treatment described.

"4. Phthisis is curable ; the effort

must be made to cure every case, especially in its early stages.

"5. These points are best gained by treating the phthisical in buildings and localities especially fitted for them."

These propositions agree closely with

views that have been expressed in this magazine by the editor and others, and with the data on which they are founded to give them currency among sensible people, we should expect a strong expression against promiscuous drinking.

THE CHINESE AND TEA POLLUTION.

AT the last meeting of our Health Club we were honored by the presence of Dr. Amelia Armsdale, who has recently returned from China. Her description of the Celestials, and their methods of living, was extended and interesting. It had been pre-arranged that we discuss tea and its effects on the system, and we asked her to tell us something about its preparation in China.

The facts she imparted of the methods of tea gathering, and the health of the Chinese, would make many a lingerer over the "cup that cheers but not inebriates" shudder to read. She says that the entire Chinese nation is more or less afflicted with syphilitic taint, and many of the people are so badly diseased that they have constant sores and scabs upon their persons.

The leaves of the tea shrub are picked off by hand, and of this work much is done by the aged and infirm who can not perform arduous labor. While picking the leaves they often scratch and rub their noses and eyes, stop and dress a sore, and then resume work without washing their hands.

As the tea is picked it is dropped into a bag which is tied in front of the person, apron style, and the droppings from watery noses, eyes, and scabs, find a ready receptacle in the bag among the leaves of tea. There is no doubt that many diseases of skin and scalp originate from the use of tea, and their cause is not suspected.

Mrs. Burns, a member of the club, said: "Mothers injure their offspring pre-natally by the use of tea and coffee. It is a very pretty saying applied to tea, that it 'cheers but does not inebriate.' The very fact that it cheers more than

an article of healthful diet is proof that it stimulates; but after the stimulation subsides, a feeling of languor follows that demands another cup, just as whiskey or any intoxicant does. I am convinced that the child of an habitual tea drinker is liable to become a drunkard by inheriting a craving for stimulants. Many a child is rendered cross, irritable, and peevish because the mother drinks tea while nursing."

"I know that to be true," said Mrs. Chambers. "Before I learned the 'better way,' which we have found in these meetings, I thought, because old women told me so, that I had to use tea to increase the flow of milk. I would fix up a bowl of light bread and tea for my breakfast. I was weak, the child peevish, and I had a miserable existence, and no wonder, upon such slop. I was not nourished, and the milk could not contain the proper elements except at the expense of tissue from my own system.

"Since I feed myself with the healthful preparations of wheat and oatmeal, with other nutritious articles of diet, I am strong while nursing. Instead of drinking tea to stimulate the secretions to unwonted action, thus making fatal drafts upon my vitality, I cook oatmeal and crushed wheat, with enough water that after it is done the grain, or mush, part sinks to the bottom, and the creamy substance remains on top. Some may call this slop, but it is a very nutritious slop that can be appropriated by the system in the shortest possible time. Sweetened a trifle with loaf sugar, and a little cream added, it makes excellent baby food; much better, I think, than any of the 'prepared' foods we find." A. B. C.

Child-Culture.

AN AUNTIE'S NOTIONS ABOUT CHILDREN.—No. XIII.

THE CHILDREN'S GOD.

I HAVE purposely left to the last what few remarks I wish to make upon the most important of all subjects in connection with the training of children, namely, their relation to the Supreme Being, and the manner of conveying to their infant minds some intelligent appreciation of what that relation means.

First impressions, we are told, are both vivid and enduring; and the father, in his own character, whether he will or not, furnishes his children with their earliest idea of God. This is a very serious thought; but I nevertheless believe it to be true. Arguing from the known to the unknown, a natural process of mind, they unconsciously form a conception of the great Power of Whom they hear, but Whom they can not see, from their experience of the lesser power under whose immediate jurisdiction they find themselves placed. In this they are encouraged by the fact that the Creator of all is so often spoken of as their Father in heaven, which leads them, by the same simple reasoning, to accredit the Father whom they do not know with a similar disposition, mode of government, and feeling toward themselves, as the father whom they do know.

What picture, then, of the children's God, are many parents tracing upon their little ones' receptive minds? We dread to think. He who knows not God himself *can not* reveal him to others; and it is but too probable that his conduct will bring disgrace upon the sacred name of father. To the professedly Christian parent, also, this should be a subject for earnest self-judgment. It will be useless for him to tell his children, even should he feel such to be his

duty, of the love and tenderness of God, if he shows himself harsh and unrelenting; of His mercy, while he appears almost eager to punish; of the Divine willingness to forgive, as long as he himself indulges in the resentful habit of taunting his children with offences long past and done with; of His unwavering justice, while his own judgments exhibit a spirit of prejudice or partiality; for the instinct to look to their human father as a type of the Divine, has been planted within them by the Creator, and they will surely, though unknowingly, follow it.

A child's thoughts about God are also largely drawn from the way in which he hears Him alluded to. Often are we grieved to be compelled to listen to the common phrase, "God won't love you if you do that!" applied, perhaps, to some very small fault or frailty. One dear little boy I know, who was far from being a cross or fretful temper, had been told that "God wouldn't love him if he *cried*." What a libel upon the children's God, to whom they may go and sob out of their little bursting hearts all about every trouble, loss, or hurt that vexes them, when human friends are too busy or too careless to notice them! Worse still, some ignorant persons, themselves to be deeply pitied if they believe what they say, will hold over the shrinking heads of children of four or five summers the terrors of eternal punishment. What ideas *can* the poor little creatures thus form of the God Whose name is Love? What wonder that, as they grow older, they turn away from Him, from His laws, and from His book with a mixture of terror and dislike, which, in the end, it may take years of struggling to overcome?

Even good people, enlightened Christians, who would be far from committing such grievous errors as the above, are apt to make a mistake in the kind of tone and atmosphere with which their teachings about God and religious things is surrounded. Though deeply impressed with the necessity of inculcating reverence, and the danger of allowing children to fancy that God regards lightly any real sin, I can not help feeling that, to a sensitive child, the shadow of severity and solemnity, which often, with the best of motives, is made to hover about all reference to the Deity, is likely to prove repellent. If a smile is suddenly extinguished at the mention of His name; if acknowledgments of thankfulness for his goodness are invariably uttered in a minor key, and with a sorrowful shake of the head; if prayer is offered, or the Scripture read in a tone and with an expression of face similar to that accompanying the recital of some terrible calamity; if leaping, or running, or a hearty laugh is considered improper on the Sabbath day, or after attendance at a religious meeting at any other time, it will tend to make piety seem irksome and uninviting to a joy-loving child. That gravity which, to a grown person, may be the appropriate outcome of a subdued and reverential frame of mind, is interpreted by the juvenile to mean that God is mimical to frolic and glee; that they must walk sedately and speak low upon His day, that is, when His eye is especially upon them; that in short, most things that are natural and agreeable to them as young and healthful creatures, are more or less displeasing to him; an idea which must obviously check the development of that confiding love toward Him, which is the basis of all Christian character.

Children need to be assured far oftener than they are that their God is the maker of every sweet, and joyous, and beautiful thing; and that He made these, not only to please Himself with their loveli-

ness, but that they might please us, and that He might joy in our pleasure; that the sight of children at play, the agility of their active limbs, the bloom upon their rounded cheeks, the sparkle of fun and frolic in their eyes, are a delight to Him, as well as the spectacle of them sitting in a decorous row in school or church; that their loving care of a plant or bird to which He has given life, is of interest to Him as much as their learning of a text from the Book which He inspired; that the sound of their innocent laughter is as sweet music in His ear as the roll of an organ or the cadence of a psalm tune; that He only wants them to be good because goodness is such a beautiful thing, and alone able to make them perfectly happy; that it grieves Him to be obliged, even for their own benefit, to send them sorrow and pain. They need to hear Him spoken of with a glad smile, as one would allude to a dear but absent friend; to have Sunday made sweet with good-humor, picture books, and pleasant talks—the brightest instead of the blankest day of the week; to have their religious instruction saturated with tenderness and love; in fine, to have the service and thought of God surrounded by such a golden halo of sunshine and joy, that their young hearts will turn voluntarily toward Him, and yield Him a life of devotion and love; which is, I trust, the highest ambition that the readers of these lines may cherish for the precious little souls whom the Father of all has entrusted to their care.

LITTLE THINGS.

Scorn not the slightest work or deed,
Nor deem it void of power;
There's fruit in each wind-wafted seed,
Waiting its natal hour.

A whispered word may touch the heart,
And call it back to life;
A look of love bid sin depart,
And still unholy strife.

No act falls fruitless; None can tell
How vast its power may be;
Nor what results enfolded dwell
Within it, silently.

SUMMER DAYS AT WILDERMAR.

NO. 1.—A PLEASANT COUNTRY HOME.—ANECDOTES ABOUT MONKEYS.—HOW A MOTHER SERVED HER BABY.

WILDERMAR was the name of a pretty country seat along the line of the Pennsylvania railroad leading directly from Philadelphia to Pittsburg.

It was owned by Richard Carlisle. He had not built it, but he had contributed largely to its adornment. He was a middle-aged, genial, intelligent gentleman, given to scientific pursuits, and devoted to his family. The latter consisted of his wife, who was a most estimable lady, his two children, and a nephew and niece, children of his deceased brother, Rembrant Carlisle.

Fred Carlisle, the son, and Percy Carlisle, the nephew, though about the same age, were widely different in appearance and disposition. The former was sturdy, boisterous, venturesome, wedded to outdoor exercise; the latter was quiet, delicate, demure, timorous, fond of books.

The contrast between Fanny Carlisle, the daughter, and Bessie Carlisle, the niece, was not so marked, except in their ages, the former on the verge of long dresses, the latter but six years old, healthy faced and happy hearted, with a weakness for romping, which was a strong bond of fellowship between her and boisterous Fred.

A stretch of dense woodland belonged to Wildermar, and constituted its northern boundary. Its extreme end sloped gently, and overlooked Chester Valley, as pretty a bit of landscape as anybody would wish to see, either in midsummer or in the fall, when the trees are clad in variegated hues.

One bright summer morning found the children playing in the wood, which echoed with their laughter, and which was sweet with resinous odor.

Fred and Bessie were building a shelter out of green boughs: Percy was lolling under a tree with a book in his hands; Fanny was seated upon a log, her knitting needles flashing in her fin-

gers, and her lap covered with bright-colored Germantown wool.

Bessie manifested her delight at the progress made in the erection of the bower in such a noisy manner that Percy arose, closed his book, and joined her.

She was standing on tip-toe, attempting to fasten a branch of scarlet berries over the doorway of the bower, her plump arms bare to the elbows, her cheeks aglow, her eyes sparkling, little fringes of golden hair a-tangle about her forehead. Percy looked at her with admiring eyes, for he was very fond of his little sister.

"Bessie, allow me to fasten that," he said, taking the branch and fastening it in the form of an arch. Bessie closely watched him, then clapped her hands in appreciation.

"Percy, that's just jolly," she said. "Don't you think it's a cleverly made little bower?"

"It would scarcely keep out the rain," commented Percy. "However, the nest-building apes could not have made a better one."

"Nest-building apes!" exclaimed Bessie. "Apes do not build nests. They just hang on to the limbs of trees with their tails, and chatter."

"And fire down cocoanuts," suggested Fred.

"Do *what*?" asked Fanny, lifting her soft, gray eyes.

"Throw down cocoanuts," corrected Fred.

"Bessie, there are apes that *do* build nests," Percy said in a quiet, yet positive tone. "To protect themselves from the rain they build bowers out of branches, massing them so as to shed water."

"In trees?" asked Bessie.

"Yes, and twenty or thirty feet from the ground," replied Percy.

"As nice a bower as this one?" inquired Bessie.

"Well, perhaps not so decorated with red berries. The shelter does not serve them more than two weeks. The leaves become dry, and fail to keep out the water. Then they build another."

"Does it take them a long while?" Bessie wanted to know.

"Oh, no. Some of them merely bend down and interlace the boughs directly above them. They always select a tree which stands a little apart from the others, and allow no limbs beneath the one upon which the nest is built."

"What is their reason for doing that?" asked Fanny, almost as much interested as Bessie.

"To be safe from the attacks of serpents and other animals," was Percy's reply.

"The reason should have occurred to me," Fanny said, partly to herself.

"I suppose there are no apes of the kind around here," remarked Fred, with an incredulous grin.

"They abound in Western Africa," rejoined Percy.

"No doubt you have some jaw-breaking name for them," observed Fred, a little perversely.

"They are called *Troglodytes Calvus*," was Percy's answer.

"Oh, my!" cried Fred.

"Percy, that's Choctaw," declared Bessie.

"He got it out of Eliot's Indian Bible," Fred said with a laugh, in which the others joined.

Mr. Carlisle, just the evening before, had told them about a word of more than thirty letters in Eliot's Indian Bible, and which signified "kneeling down to him."

"I read last week," observed Fanny, "a queer anecdote about the pranks of an ape in a coffee plantation in the Transvaal. It seems that there grows among the coffee trees a shrub, whose fruit the apes are particularly fond of. A species of wasps, however, select the shrub for a place in which to build their nests, and the apes are often severely stung. Now,

what do you think an old ape did, one day, that he might enjoy his dinner undisturbed?"

"What *did* he do?" asked Bessie.

"He caught some of the young apes and threw them into the shrubs that they might break off the wasp nests with the force of their fall. The little fellows cried piteously while being stung by the angry insects, but the old ape paid no heed to them. While they were suffering he safely regaled himself with the fruit."

"That was a shame!" cried Bessie.

"Mr. Forbes," continued Fanny, "tells a strange story about monkeys demanding their dead. A friend of his shot a monkey, and carried her to his tent. Forty or fifty of her tribe advanced with cries and gestures, but stood still when the gentleman pointed his gun at them. One, however, who appeared to be the chief of the tribe, came forward, chattering in a furious way. Nothing short of firing at him seemed likely to drive him away. At length he approached the door of the tent with every sign of grief and supplication, as if he were begging for the body. It was given to him. He took it in his arms and carried it to his companions with actions expressive of affection, after which they all disappeared."

"A queer mode of revenge is practiced in some of the countries where monkeys reside," Percy said. "In those hot climates the rains are heavy and continuous, and often come up very suddenly. When a man has been injured by another, or fancies that he has been, he throws rice upon the roof of his enemy's house, just as the storm is coming up. The monkeys often harbor on the roof, and are very fond of rice. After eating all the rice that is visible, they begin to tear off the thatch, or tiles, to get at the grains that have lodged in the cracks. They are not long in destroying the roof, and the rain pours down in torrents, and the building is flooded.

"An odd expedient," commented Fred.

"And a mean one," added Fanny.

"It is my turn to contribute something on the subject," said Fred, throwing down the hatchet, with which he had been trimming branches, and taking a seat on the log beside Fanny. "Something that I saw, mind. It didn't happen in a coffee plantation three thousand miles away, but in the Zoo, at Philadelphia."

"Don't say 'Zoo,'" reproved Fanny.

"It's a 'contraption,' eh?" rejoined Fred, using another objectionable word, in his wilfulness. "Well, in the Zoological garden, then," drawlingly and disjointedly pronouncing the syllables, "I went to see the baby monkey. Its

mother was more kind and considerate than the selfish old ape Fanny has been telling us about. I gave the baby monkey an almond, but it did not happen to be a 'paper shell.' The little fellow tried in vain to crack it. Now, what do you think the mother did? She took the almond, put it in her mouth, carefully cracked it, spit out the shell, and——"

"Gave the kernel to her baby," interrupted Bessie, in excited anticipation.

"She didn't do anything of the kind," retorted Fred, with a grin. "*She ate it herself!*"

"Oh!" ejaculated little Bess.

Her look and tone expressed so much sincere disappointment, that Fanny and Percy laughed heartily.

FRANK H. STAUFFER.

FORGOT TO THINK.

"WHY did you do that when I had expressly forbidden it? Answer me at once."

The voice was harsh and threatening, the face was flushed and angry, and in the uplifted hand was a stick sufficiently large to have beaten out the life of the trembling little culprit whose frightened blue eyes were raised entreatingly to the face of the indignant mother, as in spite of fear he answered her the simple truth:

"Because, mamma, I forgot to think."

"Forgot to think, did you? Well, I mean now to give you something that will make you remember to think in the future."

And then followed a scene which it is hard to think of as one often occurring in a country which boasts of its civilization, and among some of the most respected of its citizens.

A few moments later a little quivering bundle of humanity lay sobbing in one corner of a comfortable sofa which was gaily decorated with tidies, and an angry mother was trying to still the inward motherly feeling which was uneasy because of the treatment she had given her

boy, by heaping still more abuse on his unprotected head. "In all the world there was not such a thoughtless child, or one who cared less for his mother's wishes. He was so bad that she almost despaired ever making anything of him, and she was ashamed of him every day of her life."

Hard speeches for a little fellow to hear, who was still sobbing from physical pain, weren't they? This is not an overdrawn picture, but something which occurred in a neighboring dooryard, and to which I was an eyewitness. The mother was not an "unnatural mother," but one who loved her boy dearly, was very indulgent at times, was intellectual, well liked by all who knew her, and a conscientious church member. There are mothers like her in nearly every block in the city of Minneapolis. This degrading scene was enacted because she, like her little boy, "forgot to think," but she will not be so brave about owning to her fault.

Her cruel after speeches were delivered not because she believed them, but because she "forgot to think" how miserably false they were. She was nervous

from overwork, and when her boy "forgot to think" of what she had told him, she "forgot to think" whether there might not be some better method of making him remember, where the heroic method had so often proved a failure.

It may be when night came and her boy was quietly sleeping and she had become a little rested, that she had time to think, and her heart would ache for the little fellow. Very likely she would reprove herself for her harshness, and resolve to be more tender and considerate with him in the future, but the very next time that he would happen to be

disobedient when she was nervous, or tired, or cross, she would "forget to think" again, and the same miserable scene would be repeated and one step more would be taken away from the path which leads to a knowledge of child culture.

Oh, if there were only some way to teach mothers to remember to think, how much more perfectly could they accomplish the duties which are theirs to perform, and how much less often would they find it necessary to resort to the rod as a means of exacting obedience.—*The American*.

A CHILD'S BEST GIFT.

A WISE mother once said, "I have not much to give my little ones, so I give them myself." The children of such a mother are wonderfully blessed, for what greater gift could be bestowed upon a child than the companionship of a conscientious mother? and such we may be sure this was, for only one thoroughly alive to the responsibilities of motherhood would willingly give herself wholly to its interests.

Does this imply a slavish servitude? By no means. That of all things should be avoided, for what more pitiable sight than that of a weary mother who has spent her youth and strength in foolishly waiting upon those who were much better able to wait upon her? In such a case, the mother's injury is very great, but is small in comparison with that sustained by the children, who are literally made good for nothing, unfit to fill any position in life, and the mother who imagines it to be her duty to do this for her children, is their greatest enemy.

The wise little woman of whom I speak was not of this kind, but gave herself to her children in the way which should fit them for a happy and useful life, and I fancy she did not overburden herself to do it, but one thing she did have to do was to deny self constantly, for even a conscientious, loving mother

has no more time than there is, and if the greater part of this is devoted to her little ones, she has but little to devote to herself, and how few there are, if they consulted their own tastes, but would prefer to sit down with a book to joining in games with the children.

There is no possible way in which that "careful culture of mind and body," so essential to perfect manhood or womanhood, may be so surely accomplished as by the constant companionship of a wise and cultured mother, and although she may sometimes long for the opportunity to indulge her taste in some favorite pursuit, she will in future years have reason to rejoice that she gave herself to her children at the most impressionable period of their lives.

SUSIE E. KENNEDY.

THANKFULNESS.

Walking along the shore one morn

A holy man by chance I found,
Who by a tiger had been torn,
And had no salve to heal his wound.
Long time he suffered grievous pain,
But not the less to the Most High
He offered thanks. They asked him why?
For answer he thanked God again;
And then to them: "That I am in
No greater peril than you see;
That what has overtaken me
Is but misfortune and not sin."

R. W. STODDARD.

NOTES IN SCIENCE AND INDUSTRY.

Proof of the Earth's Motion.—Br'er Jasper to the contrary, notwithstanding, any one can prove the rotary motion of the earth on its axis by a simple experiment.

Take a good sized bowl, fill it nearly full of water and place it upon the floor of a room which is not exposed to shaking or jarring from the street. Sprinkle over the surface of the water a coating of lycopodium powder, a white substance, which is sometimes used for the purposes of the toilet, and which can be obtained at almost any apothecary's. Then, upon the surface of this coating of powder, make, with powdered charcoal, a straight, black line, say an inch or two inches in length. Having made this little black mark with the charcoal powder on the surface of the contents of the bowl, lay down upon the floor, close to the bowl, a stick or some other straight object, so that it shall be exactly parallel with the mark. If the line happens to be parallel with a crack in the floor, or with any stationary object in the room, this will serve as well. Leave the bowl undisturbed for a few hours, and then observe the position of the black mark with reference to the object that it was parallel with.

It will be found to have moved about and to have moved from east to west, that is to say, in that direction opposite to the movement of the earth on its axis. The earth, in simply revolving, has carried the water and everything else in the bowl around with it, but the powder on the surface has been left behind a little. The line will always be found to have moved from east to west, which is perfectly good proof that everything else has moved the other way.

Effects of Tobacco upon those Employed in Tobacco Factories.

—According to a Russian physician who has examined more than one thousand men, women, and children employed in tobacco factories, the constant exposure to tobacco dust induces nervous disorders of a marked character, such as dilatation of the pupils, exaggeration of the tendon-reflex, tremor, and dyspnoea. The em-

ployees are also subject to headache, fainting, gastralgia, muscular spasms, and nervous coughs, without any perceptible disease of air passages. The author has made experiments on rabbits and dogs by keeping them in an atmosphere containing tobacco dust, and finds that similar effects are produced.

Testing Atmospheric Purity.—

Recent discoveries by English Scientists with regard to atmospheric constituents and how to ascertain them should be of great interest to all. The following are three of the more important tests.

The test for carbonic acid consists in placing several two-gallon glass bottles side by side and filling them with air, withdrawn from different parts of the room by means of India rubber tubing. Into each bottle is then poured a small quantity of weak baryta water, which, acting upon the carbonic acid, gives rise to a dense white precipitate of barium carbonate, easily separated by filtration and weight.

The germ test is made by means of a glass tube, some two feet long by three inches in diameter, lined inside with coating of transparent gelatine. A certain quantity of air is made to pass through the tube, and the germs deposit themselves upon the gelatine, where they can live and multiply, and where they may be distinguished and identified under the microscope.

For the detection of organic matter, six large glass bottles are filled with distilled water, and are connected with each other by glass tubes. The air, made to pass through the whole series in a continuous stream by means of an aspirator, communicates to the liquid all the organic impurities with which it was charged, and, without visibly affecting its color, causes it to acquire a disagreeable smell. This simple process recommends it to the serious consideration of those who are intrusted with the care of the public health. Public buildings and apartments, in which large bodies of persons daily congregate for business or pleasure, should be provided with the necessary

and inexpensive apparatus. It might be presided over by some intelligent person (not necessarily a scientist), and its frequent use would insure the immediate detection of a noxious element, and we might thus constantly maintain or restore pure air by applying such preventitive or remedial agents as are well known.

A Great Telegraph Office.—It takes nearly a thousand operators to accomplish a day's business in the Western Union. Some of these work in the daytime and some at night, and others do nothing except relieve the regular staff while, in relays of 50 or 75, they go upstairs for luncheon. Thus there is no pause in the eternal rattle of the machines. The problem of perpetual motion is solved in that room as much as it ever can be solved. The messages that come into the office are treated pretty much in the same way as those that go out. The operators who receive them write them out on blanks and send them whizzing off in a jiffy to the little girls in the grand stand. When they are stamped for identification they are dropped down through a sliding tube to the basement floor. A mirror at the bottom enables one to see directly through six stories and catch a glimpse of the pig tails and curly bangs up in the lofty grand stand. As the messages drop they are taken out, slid through steam rollers that copy them and drop them on a revolving endless belt that takes them off to the routing clerks and the messengers.

Simple Treatment for Boils and Carbuncles.—In a communication to the French Academy of Medicine, at a recent meeting, M. Verneuil says:

The topical applications (prominent among which stand the carbolated and borated solutions) employed in a certain way, and particularly in the form of powder used repeatedly and for a long time, are of remarkable efficacy, and at the same time are absolutely harmless and easy of application. These applications of powder quickly abort, with very few exceptions, boils and carbuncles. They arrest the progress of the disease in the gravest cases, ordinarily cause the pains to quickly cease, reduce the fever, disinfect the purulent and gangrenous centers, hasten resolution, and promote the formation of healthy granulations.

This treatment is suitable for all forms and periods of the disease. It is never harmful, and leads to a cure in a large number of cases. It assists surgical interference when that is necessary.

The Great Storm which visited the Middle Atlantic States on March 12, and whose fury was mostly spent in Southern New York and the Hudson Valley, Long Island, Connecticut, and New Jersey was the combination of very high northerly winds and heavy snow. Continually for thirty-six hours it blew a gale of upward of fifty miles an hour. The snow fall was exceptionally heavy, and the high winds drifted the snow so badly, in the cities and in the open country, that for once the wheels of commerce were effectually clogged and the great American metropolis was isolated from the country. There were no trains arriving or departing; no mails; no telegraphic intercourse. After two days of untold hardships the snow embargo was partially raised by herculean efforts on the part of the authorities and private corporations and the citizens, and the busy world began to assume its wonted aspect. Serious disasters on the Middle Atlantic coast followed in the wake of the blizzard. The lives lost in shipwrecks at the Delaware Breakwater number thirty. A New York pilot boat, the *W. H. Starbuck*, No. 6, is believed to have gone to the bottom of the sea with six souls on board, shortly after colliding with a British steamship, the *Japanese*, 25 miles southeast of Barnegat and 95 miles from Sandy Hook, during the gale. Other pilot boats suffered greatly. Considering the storm on all sides it is worthy of *historical record*.

Hypnotic Tests and Faith Cure!—Certain of the French hypnotic specialists have claimed to be able to produce all the effects which follow the administration of any given drug by simply placing a phial containing the preparation of it in contact with the skin of the hypnotized subject. The French Academy of Medicine has just demolished this pretension, which, if well founded, would involve as a necessary corollary the possibility of causing death by poison without leaving any trace of the toxic agent in the organism. A committee of its members, especially appointed for the pur-

pose, recently attended to witness a series of experiments conducted by Dr. Luys, a well-known hypnotist. Sixteen glass tubes, containing various drugs in solution or in powder, were employed and it is not denied that the external application of the phials produced more or less marked effects—muscular contractions, congestive symptoms, impaired respiration, and other emotional manifestations. But the committee failed to trace any correlation in the majority of the cases between the phenomena superinduced and the established therapeutical properties of the substances used. More than this, a perfectly empty tube was found to be as potent in determining the manifestations as any of those previously employed.

The Potato in Civilization.—A mercantile journal writes that the potato has been a great civilizer. It commenced its work three hundred years ago as a native American, and it has gone all over the world, doing its work in all lands quietly yet steadily, and in two ways—first, by being so cheap and abundant that everybody came to like it; next, by failing until everybody missed it and went to hunting all over the world for it. In 1880 this country produced about 170,000,000 bushels of potatoes. Today we are importing potatoes from Germany, Belgium, Scotland, England, Ireland. Our potato crop failed in a great degree last year because of drouth in the West and long continuous rains in the East. Hence, we are now importing potatoes and paying a duty of forty-five cents on them besides freight. If there had been a total failure of the potato crop we would have ransacked the world for them, for now we must have them however high they come. This shows how the potato has become a civilizer. We are short 20,000,000 of bushels, and must call on the world to make up that shortage. Generally, England is short on potatoes. Luckily this year she and all Europe have a surplus. Next year the situation may be reversed. Ireland ran out of potatoes in 1847, and commenced starving until we supplied her. Six years ago we had a great failure and Ireland supplied us. But the year before that England and Ireland had to import potatoes. So the potato appears and disappears, to teach the world mutual dependence. The original potato still flourishes in an island off Chili,

a gnarled and diminutive stock, the ancestor of a long and prolific and beneficent line.

Bishop's Ring around the Sun.

—If there is nothing new under the sun, there is at least something new around it. For the last two years close observers of the sky have noticed that the noonday sun has been surrounded by a corona of dusky, coppery, or reddish light, as it has been variously described, the circle of most distinct color having a radius of about fifteen degrees, and enclosing a brilliant, silvery, or bluish glow close around the solar disk. A similar appearance of much less intensity has been occasionally noticed around the full moon on very clear winter nights.

The most experienced observers of sky-colors are agreed that this corona was not visible before the latter months of 1883. Von Bezold, of Munich, who was considered the most competent meteorologist to prepare a schedule for observations on the colors of the sky for the recent German Arctic Expedition, says that, in spite of the close attention he had previously given to the appearance of the usual whitish glow around the sun, he had never till recently seen the dusky ring. Thollon, of Nice, who had made a special study of the sky around the sun for a series of years, declares confidently that a change occurred in November, 1883. Blackhouse, of Sunderland, who has a careful record of parhelia for twenty-five years, confirms this opinion. We may, therefore, safely accept the conclusion that the change of color from the blue of the open sky to the intense glare of whitish light close around the sun, was until lately effected without the appearance of any reddish tinge in the transitional area.

The new corona, to which the name of "Bishop's ring" has been given after its first observer, has never been a very conspicuous affair, and therefore has not attracted the popular attention that it deserves; but it could easily be seen every clear day last winter, and has repeatedly been noticed since then in the latter months of 1885.—*Popular Science Monthly.*

New Kind of Optical Glass.

Professor Abbe, of Jena, has been experimenting for many years with a view to produce an optical glass which should be free

from the defects incidental to all silica glasses. In particular, he sought to produce a higher degree of achromaticity than was hitherto possible, by diminishing the secondary coloring effects inseparable from the ordinary silicate flint and crown glasses, and to produce a greater multiplicity in the gradations of optical glass in respect to the two great constants of the index of refraction and the mean dispersion. In silicate glasses, those two constants increase and decrease together. Cases often arise in which a different relation is desirable. Professor Abbe has produced glasses in which both objects are fulfilled. He has produced achromatic lenses of a more perfect kind than were ever before obtainable, and has introduced a whole series of new glasses of graduated properties. These glasses are offered freely to the trade without any restriction or patent being allowed to stand in the way of further development.

The New York Academy of Anthropology held its April meeting in Brooklyn, on the 3d. A paper sent by Dr. John Beddoe, of London, England, was read. The subject discussed therein was the stature of ancient Britons as estimated on the length of the long bones that have survived in time, Dr. Beddoe taking issue with most other observers on the score of insufficient allowance for the development of cartilaginous tissues in deducing height, etc., from femur and tibia. As a conclusion from this field of investigation it would appear that the average stature of the modern Englishman is but a little above the Britons of two thousand years ago, while evidences remain of instances of men among them, who exceeded even six feet.

A considerable part of the session was devoted to the discussion of the preliminaries of the International Congress of the Anthropologists to be held in June next. Letters of approval have been received from a large number of eminent scientists and scholars in Europe and America, some offering to contribute papers or otherwise promote the undertaking. As a new venture for American observers in a field comparatively fresh, yet most intimately related to human affairs, it is to be hoped that it will prove a complete success.

Papers are invited by the committee from

original observers in any department of Anthropology, with illustrations or not; the secretary may be addressed on the subject, at 775 Broadway, New York.

H. S. D.

Quince Cultivation.—Those who have attempted to grow the quince, which is one of the best of fruits for preserving and making jellies, are aware of the difficulties attending the effort. One of the obstacles is the destructive work of the borer if it is not arrested in its depredations. By a careful examination of the trunks of the tree the marks of the presence of the borer can be detected and their destruction effected. Hilling up about the tree with hard coal ashes has been by some believed to be a sort of preventive; washing with soft soap suds will sometimes prove effectual in the destruction, but a small wire thrust into the cavity formed in the passage of the worm will serve well in its destruction. Salt strewn upon the surface of the ground seems to promote health, and by some is said to be absolutely essential to success, and the fact that the quince thrives well upon the sea-coast farms that are continually acted on by the salt breeze, seems to favor that idea. But perhaps the most important thing is to keep the surface of the soil dressed with coarse manure to the depth of several inches. An abundance of fertilizing material seems to be of greater effect in the vigorous growth of the tree and the development of excellent fruit than any other thing that can be done.

Painting Estimates.—One coat of paint, says a correspondent of the *Mechanical News*, takes 20 pounds of lead and 4 gallons of oil per 100 square yards; the second coat, 40 pounds of lead and 4 gallons of oil; the third the same as the second—say 100 pounds of lead and 16 gallons of oil per 100 square yards for three coats.

1 gallon of priming color covers	50 sq. yds.
“ white zinc	“ 50 “
“ white lead paint	“ 44 “
“ lead color	“ 50 “
“ black paint	“ 50 “
“ stone color	“ 44 “
“ yellow paint	“ 44 “
“ blue color	“ 45 “
“ green paint	“ 45 “
“ bright emerald	“ 25 “
“ bronze green	“ 75 “



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IS THE HOME DISAPPEARING?

THERE is just cause for alarm in the rapidly increasing number of hotels, lodging houses, and boarding houses in our so-called centers of civilization. Home life real and earnest, the source of that genuine social sentiment that is the want of every true man and woman, is giving place to an artificial and hollow interchange of courtesies, and a desire to be out in the world of fashion and amusement. City people are growing more and more fond of, and inclined to fill up their leisure with, the senseless conventionalities of the drawing room, or the sensuous trivialities of the theater and concert room. The sober, conservative element of our population is affected by the tendency, and the difficulty of obtaining fit servants is leading thousands of those who would greatly prefer to sit by their own fireside and spread their own table to adopt the life of lodgers or boarders. Is it fairly appreciated that the loss of home sentiment is a material loss in moral strength, and therefore an unhappy portent to the community? Solid, noble manhood and womanhood are created and nourished at the home fireside; its cares, anxieties,

and joys build into healthful symmetry the brain and mind, while the loose, irresponsible life of the hotel and boarding house impress upon the young a spirit of flippancy and selfishness. The men and women whose sterling character gives tone and dignity to the society in which they move were subject to culture and discipline when young such as no boarding house knows. The intimate attachments and sympathies that subsist between old and young in the private family can not flourish in an atmosphere of change and uncertainty such as they must breathe who sleep and eat like stalled cattle.

We are ever hearing women complain of the heavy cares and anxieties that housekeeping entails upon them, and are disposed to think that some mismanagement or a want of concerted action, lies at the foundation of their troubles, because in this era of labor saving devices a family can usually adapt itself to the necessary, so as to reduce the hard and toilsome parts of home routine to a minimum. The city housekeeper of to-day has not a quarter part of the hard work to do that the housekeeper of fifty years ago performed cheerfully and as a matter of course. The trouble lies in the fact that with the introduction and growth of modern conveniences, artificial notions of respectability concerning household duties have cropped out, "interventions" in the way of dress and other arbitrary habits, have developed, and both men and women have become indifferent to the essentials of domestic happiness.

The basic sentiments of social feeling in the mind, have become perverted by false notions of what constitutes culture.

THE SCIENTIFIC HUMORIST.

THIS gentleman has appeared again in the field of literature, and this time he is a product of Eastern culture, the West having had for some time past, apparently, a monopoly of this species of horticulture.

Having received several inquiries with regard to an alleged discovery in cerebral structure that had found its way to public notice through the columns of the *New York Tribune*, we were led to examine the communication in the columns of the newspaper itself, and will confess that, notwithstanding an interval of three months has passed since that examination, a lively impression remains of the adroit and scholarly manner in which the writer, Mr. Geo. G. Rockwood, presented his pseudo theory.

Taking for his cue the view that has been entertained by some that the brain is impressed by sights and sounds analogously to the manner in which a photographic plate receives the markings of light, Mr. Rockwood has delineated, in terms at once scientific and persuasive, a series of observations. An elderly man of peculiar habits comes under his notice. Later, in a hospital, he finds the old man dead. He obtains leave to dissect the brain. He had learned incidentally that the old man was extensively versed in the ancient learning of Egypt, and the thought occurred to the well-known New York photographer, why not examine the speech center of this brain with all the aids that microscopy and photography, magnesium and electricity, afford? Perhaps we shall find in the convolution of Broca certain indications of the peculiar scholarship of the dead man.

Sections of substance from the organic center of language were prepared and subjected to the analysis of a powerful microscope, and their magnified images photographed by a most delicate and original procedure. Mr. Rockwood is an original in many of his procedures it is unnecessary to add. Then the prepared negative was again submitted to the microscope, with results that exceeded much the expectations of the enthusiastic investigator. Using his own language:

"Fully convinced that the figures were not of a generally recognized physiological character, I timidly suggested to some of my scientific friends that they might be symbols. One of them, a learned man who had been for years in the East a teacher and missionary, and who is withal a philologist of experience, said 'Yes, they are strangely familiar.' When informed of the nature of the specimen under examination, and told that it was a portion of the brain of a human being who in life was distinguished for his linguistic attainments, his astonishment knew no bounds. Looking at them still more closely, he then assured us that the images so unintelligible to ordinary eyes were in truth characters in the Ethiopic, ancient Syriac, and Phœnician languages. He pointed out the differences between them, and as far as he could do so, gave their names and meaning, and in brief so fully identified them as to remove all suspicion of a merely accidental coincidence. Naturally the minuteness of the microscopic field prevented intelligent combinations, for the tracery was so complex, irregular, and involved as to forbid the hope of unraveling by any means now known

the tangled records of thought, if such they were, so manifestly inscribed upon that bit of brain."

After having gone so far in the hypothetical, the earnest motive of the writer in contributing a bit of personal testimony to the great store of *data* in the hands and brains of the localizationists, is apparent; but it is a clear evasion of duty on the part of one so well equipped for carrying research to exhaustive conclusions, to plead the demands of private business as an excuse for discontinuing such all-important observations. The world is agape for revelations in just this line, and after arousing its wonder to the extreme of agonizing suspense, to say that "whole lives of patient experiment and profound study must be expended upon a perplexing field of investigation before anything practical shall result from this discovery" deserves condign punishment. Ah, Mr. Rockwood, you are marvelously facile in catching the transient smile on the face of a "difficult subject!" Would that we could portray the varying expressions of humor that must have passed over your mobile features as you penned that extraordinary communication!

THE MOTOR CENTERS "DISSEMINATED."

CONFUSION and disagreement are on the increase among the observers and experimenters in motor and sensory localization. What a contrast between to-day and eighteen years ago! In 1870 the announcements of Fritsch and Hitzig were received as a kind of special revelation, confirmatory of the general principle of functional centers in the brain, declared by Gall, but defining

with what seemed to be anatomical precision a new class of cerebral activities relating to the exercise of the muscles. The conclusions of Munk, Broca, Charcat, Ferrier, and Luciani were positive as to the places of certain sources of mechanical movement, and of certain sensory impressions. Dr. Exner, of Vienna, after a most painstaking examination of the subject, during which he scrutinized *several thousand cases* of cerebral disease, and sought to adjust his inferences to a rigid standard of logical induction, accepted the doctrine of motor areas. But Goltz, Vulpian, Schiff, Brown-Sequard, Dupuy, and others have been as earnest in refusing to accept such areas as established, putting in evidence results of their own experimentation.

Brown-Sequard in a recent paper, which the reader will find in the April number of the *Forum*, defines the reasons for his rejection of the motor center theory, and states his own opinion with regard to the office of the brain. Admitting that "each distinct mental or physical cerebral function requires for its performance absolutely distinct organs," he nevertheless claims that localization exists not in "aggregated masses of nervous elements, all endowed with similar functional powers forming a special organ, a distinct, well-defined cluster of cells and fibers," but "in nervous elements disseminated in many parts of the eucephalon." He thinks that no serious objection can be taken to this view because "concerted and harmonious actions can take place by means of intervening fibers exactly as well between distant as between neighboring nerve cells."

Dr. Brown-Sequard makes a strong

argument for his position, but does not present, so far as we can see, any fresh *data* from pathological sources that have not been already considered by other writers. The conclusions of Exner are certainly his, if not more deserving, of confidence both on account of the multitude of special cases cited, and the better logic of the reasoning.

This matter of motor localization has gone so far as to be an important feature in the diagnosis of cerebral disease. English and American surgeons, guided by the indications of muscular paralysis, have performed successfully operations for the removal of tumors, or abscesses, from the brain. Mr. Horsley, an eminent surgeon of London, published, not long ago, a list of ten or more cases in which the locality of the lesion was determined by the muscular disturbance.

If "the nervous elements are disseminated in many parts of the eucephalon," it must be that Mr. Horsley owes his success in striking the region of a cerebral tumor to happy chance. But we doubt whether Mr. Horsley and the other surgeons who perform such operations could be persuaded that they are shrewd guessers, and are merely entertaining a serious error with respect to brain function.

Dr. Brown-Sequard and his class of observers point to their experiments as their warrant for what they assert; so do those who differ with them; but is it not more consistent with reason for the physiologist to glean from the evidences of pathology? It seems to us that so long as the experiments are kept up, with the galvanic probe exploring the area of a bleeding wound in the head of an unconscious animal, so long unsatisfactory

and confusing results must be obtained, and the experimenters fail to agree.

THE WOMEN'S CONGRESS.

THE recent International Congress of Women, at Washington, was a noble affair, and, take it all round, one of the most conspicuous expressions of social progress that this decade has yet recorded. In spite of those sneering and invidious journalists who "can see nothing in it," the proceedings of the Congress when considered impartially do honor to the women who were foremost in the organization, and are recognized leaders in the movement it illustrated. So far from having "nothing in it," we believe that the Congress has brought to the attention of the civilized world in a definite and striking manner the fact that woman has advanced well toward the plane of actual equity with man. The poetic sentiment that exalted her virtue, but left her in helpless inactivity as a co-worker with man in the busy spheres of practical life has given way to the prosaic fact of her adaptation to thought and labor in a thousand branches of human industry. She has conquered doubt and prejudice by successful performance of her brother's work and duty by his side and even in his own way.

Necessity has done much, it must be owned, toward the evolution of woman's capacity, but her spirit and earnestness to take her proper place in society have more than supplemented necessity, and pushed her efforts much beyond its margin. He is blind or perverse intellectually, who can not see the immense power woman has acquired in society through organized endeavor, and that power is

gradually increasing. Well may the men who defend the liquor traffic dread it, and tremble at the thought of the time when she will be politically equal as well as socially.

We have had the spectacle of an assembly of women discussing most profound questions of government and social life, and that with all the aids of learning and definite purposes. Statesmen, scholars, savants have looked on with wonder, and we trust have drawn useful lessons

from what has been said. The notion that woman can not consider the practical bearings of civil policy has been exploded; and we think, too, it has been shown clearly enough that in exercising the right to sit in the common hall of popular representation and take part in discussions that involve interests as important to her as they may be to men, she would be doing no unnatural thing and be none the less a woman.

Our Mentorial Bureau.

To Our Correspondents.

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

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

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

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 to the Editor personally will receive his early attention if this is done.

MEMORY OF NAMES.—A. J. M.—To remember names employs more than one faculty, although Language is the chief one because of its relation to the use of words. Names have relation to persons, therefore the qualities and attributes of a person which come within the purview of the perceptive organs enter into the *ensemble* that is distinguished by the name. Of the perceptive faculties it is Individuality, we think, whose assistance is most valuable to Language in the application of names. We meet people with large Language who can memorize well, retain facts of history, and current doings, but will be inaccurate in naming people whom they do not meet often. They will "mix things" in this respect, yet have no trouble so far as the name itself is concerned. They lack facility in specialization, and with that Individuality has most to do. In the analysis of the function of any faculty it is essential to remember that its expression in practical life is

accompanied with the activity of other faculties.

LARGE HEADED CHILD.—Question.—There is a child in Pittsburgh with a head measuring thirty inches around. It is only three years old, and blind. It does not seem very smart. The most of its brain is in front, in the upper part. I would like to have your opinion about it. E. D.

ANSWER.—This abnormal development is probably due to hydrocephalus or dropsy of the brain. Your description is far too brief to warrant anything more than a guess. An inquiry of the child's parents with regard to its history should put you in possession of the required facts.

THE DETERMINATION OF MESMERIC POWER.—E. R.—The only way to ascertain your capability in this respect is by experiment. Probably every one has some degree of power in this respect, but its exercise depends much upon mental organization, especially the faculties that relate to will and self-control. We are of opinion that these matters have passed beyond the sphere of experiment and have entered the higher sphere of practical use, and in proper hands will be a most valuable instrumentality in the treatment of diseases.

SCROFULA.—Question.—“Is it beneficial for scrofulous persons to drink lime water?”

ANSWER.—We have heard of the use of lime salts in scrofula, but their application is to the tuberculous form of the malady. The better course in the treatment of scrofula generally would be to pursue a hygienic method, and see to it that the patient has nourishing food. The disease is so much related to faults of nutrition that the common improprieties of diet should be carefully avoided. In obstinate gastric disturbance, one trouble quite common with the scrofulous, a little lime water taken with milk affords relief and promotes digestion, but the food if well selected will contain enough mineral matter for the repair of tissue, provided the trouble has not gone too far. Iodine, iron, quinine, etc., are prescribed by many physicians but there are others of great experience who rely most upon the best hygienic measures.



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

How Far Shall we go.—I frequently meet with people who say Phrenology is well enough if you don't carry it too far. Some in the higher walks of life, for instance a Doctor of Divinity in a neighboring city, noted for his learning, and who has access to the world's libraries, says it is well enough to study Phrenology a little, but there is not enough in it to be worth while taking much time for. Are there then degrees of truth, and shall we say positive true, comparative more true, superlative more than true? This will not do, and when any person makes an assertion and then turns to a companion to get him to vouch for the truth of what he has said, I begin to look at his face for signs of one as likely to deal in falsehood as in truth; and if there is truth in Phrenology how shall we dare say there is *something* in it but not *much*? Shall we say the ocean is not deep because we have not sounded it?

Others say when they see one getting so interested that they give a deal of time to examining its proofs and making its personal observations—“Oh, you're getting to be a crank!” When I was yet a lad some friends had gathered at the house and were talking of Phrenology. When I entered the room I heard the remark, “It is all right if not carried too far, but the Fowlers carry it even to animals, dogs, and horses.” and an old *Phrenological Journal* was produced in which was a picture of the heads of a Newfoundland dog and a wolf contrasted. The opinion of the company seemed to be that the limit of the science was in studying the human cranial developments but the contrast of the two species of dog was so striking that I thought the Fowlers must be right and the differing shapes of the heads were so strongly impressed on my mind that I still retain them in memory, although it is about twenty years since that incident. Since that time I have investigated this subject to the extent that opportunity has al-

lowed, studying books and nature, and for myself I could never think of setting a bound to its depth. "How much more shall I be able to learn of it," is the question often coming. I find that observation grows with use, and that we learn faster as we learn more.

Then there is the practical side of the science which enables us to measure ourselves with others and not to underrate our powers, and helps us therefore to fill our place and do our duty in social and civil life. It helps us to see the virtues in others and to enjoy the society of the virtuous, to see the faults of others, and their cause, and to go quietly around their sharp corners. There are yet deeper currents of use—for instance the understanding of the laws of existence, the subtle, dark facts of life and death. When a strong woman at the death of a son said in the bitterness of her sorrow, "What have I done? What have I done that this punishment should come upon me?" She received all the consolation the minister could give, "that it was not for some sin that she had committed, but because it seemed good in His sight." Nevertheless she had violated the immutable laws of the Creator in that while both parents were strong and healthy their children, through too frequent births, were weakly. She must suffer the penalty of breaking the law of nature even though she did it through ignorance. How far shall we go in studying the laws of our being? Can there be a limit? Shall we not go to the very bottom of our capacity to obtain knowledge? The more we know the safer and better our life.

A. E. RITTENHOUSE.

The Indian Question.—There is so much said on this topic that I feel it will not be amiss to place before the readers of the JOURNAL a few statements of facts based upon my own observation while residing in localities bordering on the Indian reservations. I suppose all are aware that the Government, which comprises indirectly all voting citizens of the United States, not only gives to the Indians immense tracts of land, but in most cases a liberal allowance of money, and that it in many cases even distributes among them, every two weeks, a supply of provisions, while horses, wagons, and clothing are semi-annually given them.

Why these people should be treated with such beneficence by our Government is more than I can understand. I am aware that some say that they are the legal owners of all the lands comprising our great country, but we know of no law of equity that makes simple possession absolute ownership. Would justice give a clear title to any vast body of land that might be discovered uninhabited to the few persons who should be the first to walk over it?

The land question is one of profound import, and it is not my intention in these brief remarks to attempt an exposition of its merits *pro* or *con*! but this I would say, that to most of those who have seen the Indian in his habitat acting out his true characters the question occurs, how are his rights superior to the balance of mankind, or to the white population of the country in particular? and why is it best to support him in idleness? We all know that idleness begets crime, and to culture indolence is to promote sin.

We were talking once with an old scout of considerable intelligence, when he made the following remark, "If the kind-hearted tenderfoot of the East could stand where I have stood and see the cowardly brutes take a little babe by its feet and dash out its brains over a wagon wheel, I believe their sympathy would be turned from the stout and lazy savage to the little infant and its pioneer parents."

There is a class that derives much financial benefit from the liberality of the Government—that class is the saloon men, or whiskey sellers, near the reservations. I was once in Arkansas City, Kansas, on the day after the regular free distribution of money to the Indians of that portion of the territory lying south of said city, and I never saw more drunkenness, heard more noisy haranguing in a little town than I saw and heard that day. There are many towns and cities where this is not an uncommon occurrence.

I can not think that many, even of our law-makers and politicians, realize what extensive munificence these creatures really enjoy. There are in the neighborhood of sixty thousand Indians in the Indian Territory, occupying—not utilizing—as much land as the million-and-half of white population of

Kansas. Each of these sixty thousand—man, woman, and child,—possesses or controls, figuratively speaking, about twelve hundred acres! Thus it will be seen that an average family occupies six thousand acres of land, a very small fraction of which they use at all.

A few weeks ago, while in Pierre, Dakota, we saw the Indians of the Sioux reservation, which lies across the river from that delightful little city, and comprises several million acres of fine prairie lands, receive from the Government agents fifty new wagons, and other things, such as harness, provisions, etc. These were given to a few hundred savages, whose only ambition seems to be to make these supplies last till the next free allotment.

There are in round numbers about fifteen thousand Indians occupying, at the present time, the Sioux reservation. The ratio of the land to its occupants is over eight thousand acres to every family. There are five agencies for this reservation. By an agency we mean Government quarters, where are generally located the Indian agents, and officers and soldiers of the United States army. From these agencies, every two weeks, rations, consisting of flour, meats, tea, coffee, sugar, and other things are distributed. Thousands of fat range-steers are bought yearly by the Government and slaughtered for these red men. Most of these creatures live in tents, huts, and holes dug in the ground within a few miles of the different agencies. Of the numerous supplies received by them they eat that which is eatable, the balance is largely traded off for useless ornaments, guns, knives, and ammunition, of which they generally have a bountiful supply.

Now, if one will imagine a small body of people, about one-half the number composing an average county in our States, living in five squads scattered over an area nearly the size of Massachusetts, New Hampshire, and Vermont combined, to which we, as a Government, give each year hundreds of thousands of dollars worth of food, clothing, horses, wagons, and many other useful articles, they will have pictured to themselves the situation that exists between the Indians on the Sioux reservation and ourselves.

Now, what of the character of the red man? That there have been noble and illustrious examples among the American Indians of this and former generations can not be denied, but to look at the practical side of their character, as a people, to see them as they are in the vast majority, there is no one who has had dealings with them but will say that, for every one among them who shows a degree of genuine ambition and industry, there are hundreds in whom the elements of cruelty, deceit, wantonness, and indolence go to make up the aggregate of their nature. I do not wish to be unjust, but rather desire to have the Indians, living in this country or within the pale of our Government, treated with full justice. If the Indian is cruel, it is because he has never known the happiness of charity. If he is deceitful and treacherous, it is because he does not know the blessing of honesty. If he is intemperate, it is because he has ever lived a slave to his impulses. If he is lazy, it is because he has never had to work. Does any one suppose that the old proverb has lost its truth, and that idleness is conducive to growth and improvement, either morally or physically? Surely not. And would not the Indian be placed in a position more conducive to his improvement, did he personally own his quarter-section of land, and, with a fair start, be compelled to work or suffer from the lack of supplies that would follow?

Is it justice to the people at large, to the industrious and ambitious poor of our country in particular, that one family of indolent savages should occupy in perfect idleness many thousands of acres of productive land, while the hard-working tax-payer feeds and clothes him? Are there not thousands of honest men who would be rich and contented with a very small fraction of this land?

There are laws of growth that every man, powerful and ingenious as he is, can not retard! And as regards this question, I predict the time is near when the Indian will be found in the ranks of industry, and possessing but one hundred and sixty acres in place of his many thousands of to-day. Public sentiment and his education will bring this about.

CHAS. L. HYDE.

PERSONAL.

MATTHEW ARNOLD. In the death of this eminent thinker and writer we record the disappearance from the haunts of men, one of the most cultivated and scholarly lights of modern literature. He was born December 24, 1822, at Laleham, England, the son of Dr. Arnold, the famous teacher of Rugby School. From the first he devoted himself to literature, making its highest departments his special field. In poetry and criticism he had no superior, and his influence was and will be potent for the elevation of his style and purity of his principles. He visited the United States two or three times in the later years of his life, and produced a marked impression in public and private circles, although he seemed to fail to catch the inspiration that pervades and gives tone to our national institutions.

MRS. MARY EDNA HILL GRAY DOW is the president of the Dover, N. H., horse-car railroad, and is the first woman in the world to hold such a position. She owns the controlling stock of the road, which she bought up when she found that a syndicate of Boston men were trying to buy it. Mrs. Dow is forty years of age, is said to be that very rare person, a clever business woman.

ROSCOE CONKLING died in the early hours of April 18th. Born in 1829, he chose the law and was but a young man when he started on an official career that was continued with but few intermissions until his resignation of his seat in the Senate of the United States in 1881. His death was the result of a cranial abscess set up by a catarrhal inflammation of the middle ear. Mr. Conkling was a man of rare mental gifts and physical attractiveness. In both private and public life he exerted great power, his abilities and his moral integrity commanding universal respect. As a critical writer says: "He bore his part well in the great work of shaping legislation which supplemented the heroic achievements of the Union soldiers. He was on the side of emancipation, of unsullied National credit, of suffrage for the black man, of reconstruction in the interest of patriotism, of a pure and well-guarded ballot-box. It is these things, coupled with personal integrity and a certain chivalric constancy in his friend-

ships that are remembered to his praise, and make the State proud of having him on the roll of her sons." It is sad for the Nation to lose such a man. In the January PHRENOLOGICAL for 1881, a full sketch of Mr. Conkling was published from notes furnished by his then private secretary.

WISDOM.

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

THERE can no evil befall a good man, whether he be alive or dead.—*Socrates.*

ONE pound of learning requires ten pounds of common sense to apply it.

POWER is no blessing in itself, but when it is employed to protect the innocent.—*Swift.*

REFRAIN from the belittling censure that springs from common lips like weeds from marshy soil.

MIRTH.

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

MISS BROWNING (of Boston).—"Mr. Berrill, do you believe that a rose of any other name would smell as sweet?" Mr. Berrill (of Chicago). "It would to me." Miss Browning (innocently).—"Why?" Mr. Berrill (miserably).—"Because I have hay fever."



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.

ANIMAL MAGNETISM. By Alfred Binet and Charles Fere. 12 mo, pp. 378. Cloth. Price \$1.50. New York: D. Appleton & Company.

The later evolution of the mysterious sub-

ject that is popularly known as "animal magnetism" and scientifically as "hypnotism," has attracted wide attention the past ten years, and utterances from sources of authority and technical experience are noted with avidity by all classes of persons interested in biological phenomena. A book, therefore, that derives its inspiration in great part from observers who have had the advantage of studying the phenomena of which they write within the walls of an institution, such as the great hospital of La Salpetriere, Paris, should command more than average notice. The researches of Messieurs Binet and Fere were in accordance with the method introduced by M. Charcot, the distinguished superintendent of that hospital, and the aim of the writers was to place on record such details as they considered of value to those who were taking note of hypnotic phenomena elsewhere. A short history of "Animal Magnetism" precedes the discussion proper of the nature of hypnotism, the methods of its production, and the uses to which it may be properly applied.

While it can not be said that much is found in the book that will add to the facts already on record, the experiments made are for the most part of a fresh character, and serve to deepen our wonder in contemplating the influence of this most singular condition upon the mental forces. The differential phenomena of catalepsy and somnambulism are well described, and will clear up, we think it likely, much of the uncertainty that some American observers have entertained with regard to the relation between these two states.

We recognize the point as being clearly enough shown that the cataleptic has no independent personality, but that the somnambulist retains his *ego*, and so displays judgment, impressions, and will.

It should be noted that the authors have not omitted noting one important feature in their observations, viz.: cerebral localization; they have found that "the point where pain is confidently indicated by the subject, coincides in the case of certain forms of hallucinations with the sensory center of the cerebral cortex, just as they have been established by the physiological and anatomical researches of late years."

For this confirmation the cerebralists of the school of Broca and Ferrier should feel devoutly grateful to the hypnotists.

PARISH PROBLEMS. Hints and Helps; For the People; Of the Churches. Edited by Washington Gladden. 8 vo. pp. 479. New York: The Century Co.

The editor in his preface disclaims much title to authorship in this volume, but those who are acquainted with the definite, cogent way in which he puts thing of his own, will know that his editorship means no considerable element in the value of the book. "The labor of many years, the wisdom of many minds, and the fruitage of a rich and manifold experience are harvested in these pages." This is the editor's statement, and it needs but a glance at the table of contents to see from what sources he has drawn the matter of these large, well-packed pages to get strong confirmation of the truth of the statement. What are the topics? Chiefly such as these: The Pastor's Call, Parish Business, Parish Buildings, the Pastoral Work, Helping the Pastor, the People at Work, The Sunday School, Worship. Under these heads a great variety of practical talk is grouped, and although such names as T. T. Munger, Geo. R. Leavitt, H. M. Scudder, Lyman Abbott, H. T. Satterlee, J. H. Vincent, W. F. Sherwin, Waldo S. Pratt, Richard S. Greene, are conspicuous for their excellent contributions, one woman, Margaret Woods Lawrence, has given some of the most useful counsel on the social life of the parish, and the management of the parsonage. The volume, indeed, was begun by this lady, and its scope extended later by the reverend gentleman whose name is on the title page. So much of contention and unhappy disagreement are seen in church circles, that such a book as this is very needful. We would warrant that were it accepted as a manual in the conduct of the ordinary secular affairs of our churches and its advice followed, there would be rare occasions for serious disagreement.

HOW TO GET RICH IN THE SOUTH. Telling what to do, how to do it, and the profits to be realized. By W. H. Harrison, Jr. 12 mo. Cloth. Price \$1. W. H. Harrison, Jr., Publishing Co., Chicago.

There are thousands of people in the South who are very desirous of getting rich,

and there are thousands in the North who would at once pour into the South were they sure of getting rich. Mr. Harrison writes with the air of one who knows what he is talking about. He supplies a good fund of information about the agricultural resources of the Southern country; and is very sanguine that energy and good sense—which includes, of course, a good stock of intelligence—put to use in cultivating the ground or raising sheep, goats, and cattle will secure a competence. He gives numerous instances of success on the part of men who have reaped fortune from the soil with less of mental strain than they could probably have accumulated so much in the haunts of business competition, and thus offers encouragement to the man of moderate means and average capability.

THE POETICAL WORKS OF JONATHAN W. MOSS.

8vo, pp. 230. Illustrated. Published by the author at Cameron, West Va.

This elegantly appointed book, that needs but the exterior finish of embossed Turkey and gilding to make it an *édition de luxe*, comes to us from a source hitherto quite unknown to fame. Forty-five titles give to the collection of verses their divisions which signify as many distinct compositions, while upward of fifty illustrations, most of them full page, original in design and executed with choice artistic skill, impart a special value to the book. It is not often that a writer of verse can so illuminate his publication, and Mr. Moss should be credited with more than the usual share of taste in the choice of designs. Most of the poems cover several pages each and appear to be narratives of incidents that occurred in the early life of the writer, and partake of that sincere, homely character that belongs to old-fashioned country people. The long, slow measure of Carleton is not adopted, but a short line in which the iambic or trochee predominates. This choice of line renders the movement agreeable and in most instances is adapted to the character of the recitals. Mr. Moss is versatile in his choice of subject, and occasionally we find him venturing into imitation, for instance "Mary's Pup," and "Song of the Swiss Emigrant," and "The Old Tattered Coat." As a whole, it must be said, for candor is what the true author likes most, that the book is not a lit-

erary success. Mr. Moss, we fear, will find that his poetry, although so handsomely set, will not sell, and that it had been better, if he has any expectation of financial profit, to have invested his money in approved railway securities.

PUBLICATIONS RECEIVED.

EDUCATION IN BAVARIA. By Sir Philip Magnus, Director of the City and Guilds of London Technical Institute. Edited by Nicholas Murray Butler, Ph. D., Pres. of the Industrial Education Society. Price 20 cents.

It is but just to say that the Industrial Education Society of New York is doing a work that must have a most important and saving influence upon American labor and our social relations.

SIXTH ANNUAL REPORT of the Central Council of the Charity Organization Society of the City of New York for 1887.

A good return of a most valuable enterprise, its object being to help those who are needy and suffering in that practical way that converts to usefulness and moral worth those in whom there is a spark of manhood or womanhood left. Many interesting cases of importance are given that in themselves were a sufficient warrant for the establishment of such a society. Charles D. Kellogg, General Sec.

MEMORANDA OF POISONS. By Thomas H. Tanner, M. D., F. L. S. Sixth American form, the last London edition. Revised by Henry Leffman, M. D.

A concise manual easily slipped into the pocket, for the use of physicians, showing the effects of the different toxic agents, especially those employed in the treatment of diseases by practitioners of most schools of medicine, and supplying the approved treatment when the symptoms indicate dangerous results from overdoses taken by design or accident. Price, in cloth, 75 cents. P. Blakiston, Sons & Co., Philadelphia.

A NEW METHOD for the removal of Laryngeal Growths, with Illustrative Case. By Dr. William C. Jarvis.

An argument for the use of chromic acid as a benign substitute for tracheotomy and other capital operations in certain cases of abnormal laryngeal growths.

TENTH ANNUAL REPORT of the Commissioners of Prisons of the Reformatory Prison for Women at Sherborn, Mass., with Reports of the Superintendent and other officers. Received from Mrs. Ellen C. Johnson, Superintendent.

ELECTRICITY IN MEDICINE, is the title of a recent pamphlet by Ambrose M. Ranney, M. D., of New York, whose specialty is the treatment of nerve diseases.

In this he discusses the latest and best forms of electric generators, and the methods of applying electricity as a therapeutical agent. Many persons in the practice of medicine are led to the purchase of a battery, of one form or another, and find themselves quite at a loss when they come to use it, because of a want of knowledge as to its management. Dr. Ranney furnishes a good many valuable hints from his own large experience.

CURRENT EXCHANGES.

Cincinnati Medical News with its clinical notes, always useful. The microscopical department is a valuable one, which we always examine with interest. Dr. J. A. Thacker, Cincinnati.

The Rural New Yorker evidences further development. New York.

The Western Rural and American Stockman. Weekly. Milton George, Chicago.

Munson's Phonographic News and Teacher. Bi-monthly. New York.

The Quarterly Journal of Inebriety for April is a thick issue, but every page has its interest for the reader, whose sympathy for reformatory science is read. T. D. Crothers, M. D., Editor. Hartford, Ct.

The Old Testament Student. W. R. Harper, Ph. D., Editor. New Haven, Ct.

The American Art Journal, No. 26, Vol. 48, celebrated the twenty-fifth anniversary of this publication in an elaborate fashion; blue ink and numerous illustrations giving its pages an unwonted grace. Sketches and portraits of notable musicians abound, and several readable articles of a historical nature will interest the reader. Mr. Thoms has made his weekly a success.

American Book-Maker. Monthly. Devoted to technical art in the book line. Howard Lockwood & Co., New York.

Popular Science Monthly. The frontispiece is an excellently fine portrait on wood, David A. Wells being the subject. College Athletics and Physical Development. The Struggle for Existence, The Family Life of Fishes, The Earliest Plants, Uniformity of Social Phenomena. The Cause of Character impress us as the most noteworthy of the April contents. D. Appleton & Co. New York.

The Century for April. From Dan to Ber-sheba, The Graysons, The Round up, Robert Louis Stevenson, Marse Phil, Abraham Lincoln, The American Inventors of Telegraph, Two Kentucky Gentle-

men of the Old School, Memoranda of the Civil War are the titles that cover the illustrated articles. The items under "Topics of the Time" and "Open Letters" seem to us to be more than usually suggestive. New York.

Lippincott's for May is appropriately termed a "No Name Number," as the editor has tried another experiment. This time he publishes the articles without the names of the writers, thus challenging the curiosity or intelligence of the readers to supply them. A complete novel entitled "The Old Adam" leads. "Nebuchadrezzar's Wife," "The House of Hate," and "Ding Dong," are quite unique bits of writing. Philadelphia.

The Illustrated Catholic. American. Weekly. True to its Church and versatile in its contents. New York.

Harper's Bazar. A social and fashionable repository. Weekly. New York.

Christian Thought. Bi Monthly. April number discusses the following: The Absolute A Person, History—A Demonstration Under the Moral Law, Scientific Evidences of the Supernatural, The Varieties of Miracles, Conditions of Spiritual Light. An inviting list with minor topics. New York.

The West Shore. Not the West Shore Railroad, but a notable monthly, conducted by L. Samuel, Portland, Oregon.

Building. An architectural weekly, always contains fine designs. New York.

The New England Magazine goes much beyond "down East" in its range of topics. The March number discusses Florida for the winter, and has a thoughtful sketch of Miss Elizabeth Thompson, besides other matters.

Georgia Eclectic Medical Journal. Liberal as all eclectics are supposed to be in regard to medicine, hygiene, and sanitation, Atlanta, Georgia.

The Sanitarian. Strong and positive, fairly reflecting the character of the gentlemen who are concerned in its management. A. N. Bell, M. D., etc. New York.

Medical and Surgical Reporter. Weekly. Is one of the oldest representatives of medical literature in the country, and continues in the good old way. Fifty dollars a year. Randolph and Dulles, Philadelphia.

A WINTER IN ALGIERS. Acting and Authors. Ananias, a Story. Japanese Ivory Carvings, The City of Columbus, O., The Humors of a Minor Theatre. The Leavenworth School, Sweet Nelly, my Heart's Delight, are among the best and most elegantly illustrated topics of the April *Harper*.

"ECHOES" FROM THE CONSULTATION ROOM.

BY PROFESSOR NELSON SIZER.

WHAT to do is the great question with all who have to earn a living, and the right place will give to most persons ample reward. To sell musical instruments one should be able to talk of music to musical people, to show off instruments practically, and to explain their qualities and excellencies. He sells books best who likes books, and has the talent to understand and explain them; on the same principle that he who would sell articles for food should appreciate the flavors, the odors, and the delicacies for the appetite, or he will not be able to supply his customers.

A stranger entered our office for an examination, and I told him among other things, that his temperament and mental organization adapted him to deal in that which requires a nice sense of taste and smell, in order to appreciate the quality of eatables such as butter, cheese, fruit; and, we added, that he would make an excellent grocer in the finer phases of that line of commerce. He was nicely dressed and appeared to be well cared for and prosperous; he seemed to put on a quizzical smile, as much as to say, "Do you suppose I am following that business?" and I remarked in vindication of my position, that it is not every man who has the talents necessary to be a first rate grocer, and so be able to select and supply to people of taste and refinement the nice things they wish to place before themselves and their guests, and I gave as an instance the fact that in New York there is a firm in the fine grocery business named Park & Tilford, which is known around the world for ability in this line of business, and that the best families gave them orders for articles for a banquet, feeling no necessity to go and sample the articles before they should be set before their guests. I thought he would not be inclined to sneer at the thought of being a grocer, since those who are successful in that business require some talents not possessed by all, and not dreamed of by most people as being necessary. Having finished the conversation I inquired the gentleman's name, to be written in his chart, and he gave it as "Park," and told me he was of the firm of Park & Tilford.

Less than a year ago, a handsome, well-dressed young man came in for an examination, and finding similar talents I made a similar statement to him in regard to being a grocer in the finer lines. I was not astonished that he gave me what I considered a half contemptuous smile, and I again vindicated the matter heartily, and gave that firm name as an illustration of the business, and when I had finished he said he was employed at Park & Tilford's establishment.

Another has talent for mechanism. I had under my hands a young man in whom I found fine mechanical talent. I described it and told him he ought to be engaged in inventions and improvements. I asked him what he was doing. He said, "Keeping books." "What! You keeping books? You ought to make transactions and let others record them. You could be an inventor." He took out of his vest pocket a little article called a "snap," which attaches the reins or the halter to a horse's bit. Several had been invented before, but they would slip off; the natural operations of the horse in working around the post getting the thing twisted so that the snap would open and set him free. I instantly saw that he had covered the ground and made a really good thing, and I said, "Of course you have it patented." "Oh, yes," he said; "the firm for whom I am keeping books instantly saw its value, and asked me to get it patented, and they would give me a royalty on all that they made." He added that he was getting \$1,800 a year out of the little affair which he had whittled out during a half a dozen evenings, and this amount just doubled his income.

Yesterday, April 19th, a man brought in his son to see what he could best do, and remarked that twenty years ago his wife's brother brought in his eldest son for my advice, and that I told him he could do one thing almost as well as another, and that he might choose whatever would seem to him to be agreeable, useful, and profitable—there was hardly a choice as to his capability. The man said he chose lithography, and that he now occupied a first rate position in one of the largest establishments in New York, and only two in the city were considered superior to him in work. "You told the truth as to his ability," said he, "I thought I would bring my son."



He won't be
happier
till he
gets it!

A STORY WORTH READING.



THE LABYRINTH.

We have recently published a volume containing a story of Human Nature which will be found of interest. It is called "The MAN WONDERFUL in the HOUSE BEAUTIFUL," and is an



THE PAPILLAE.

allégory, teaching the principles of Physiology and Hygiene, and the effects of Stimulants and Narcotics, and is to this subject what Pilgrim's Progress is to religious thought and teaching. The House is the Body, in which the Foundations are the Bones, the Walls are Muscles, the Skin and Hair the Siding and Shingles, the Head an Observa-

tory in which are found a pair of Telescopes, and radiating from it are the nerves which are compared to a Telegraph, while communications are kept up with the Kitchen, Dining-room, Pantry, Laundry, etc. The House is heated with a Furnace, supplied with Telephone and Telegraph Appointments and a Wonderful Phonograph. There are also Mysterious Chambers, and the whole is protected by a Burglar Alarm. In this charming story we learn all about how we grow, how we See, Hear, Feel, and Smell, and Talk; how food is made a part of our bodies. In studying the inhabitant of the House, the "Man Wonderful," we learn of his growth, development, and habits of the guests whom he introduces. He finds that some of them are friends, others are doubtful acquaintances, and some decidedly wicked. Under this form, we ascertain the effects of Food and Drink, Narcotics and Stimulants.

It is a wonderful work, and placed in the hands of children will lead them to the study of Physiology and Hygiene, and the Laws of Life and Health in a way that will never be forgotten. The book will prove of great interest even to adults and those familiar with the subject. The authors, Drs. C. B. and Mary A. Allen, are both regular physicians, and therefore the work is accurate and on a scientific basis, and it has been heartily commended by President Thos. Hunter, of the Normal College, and other instructors in this school, many clergymen, and other leading educators. "Science in Story" has never been presented in a more attractive form. It is universally admitted that a large proportion of sickness comes from violations of the laws of Life and Health, and therefore it is important that this subject should be understood by all, as in this way we may become familiar with all the avoidable causes of disease. The reading of this book will very largely accomplish this end. Send for it and you will find it the best investment ever made. It is a handsome volume, very fully illustrated, and will be sent securely by mail, prepaid, on receipt of price, which is only \$1.50.

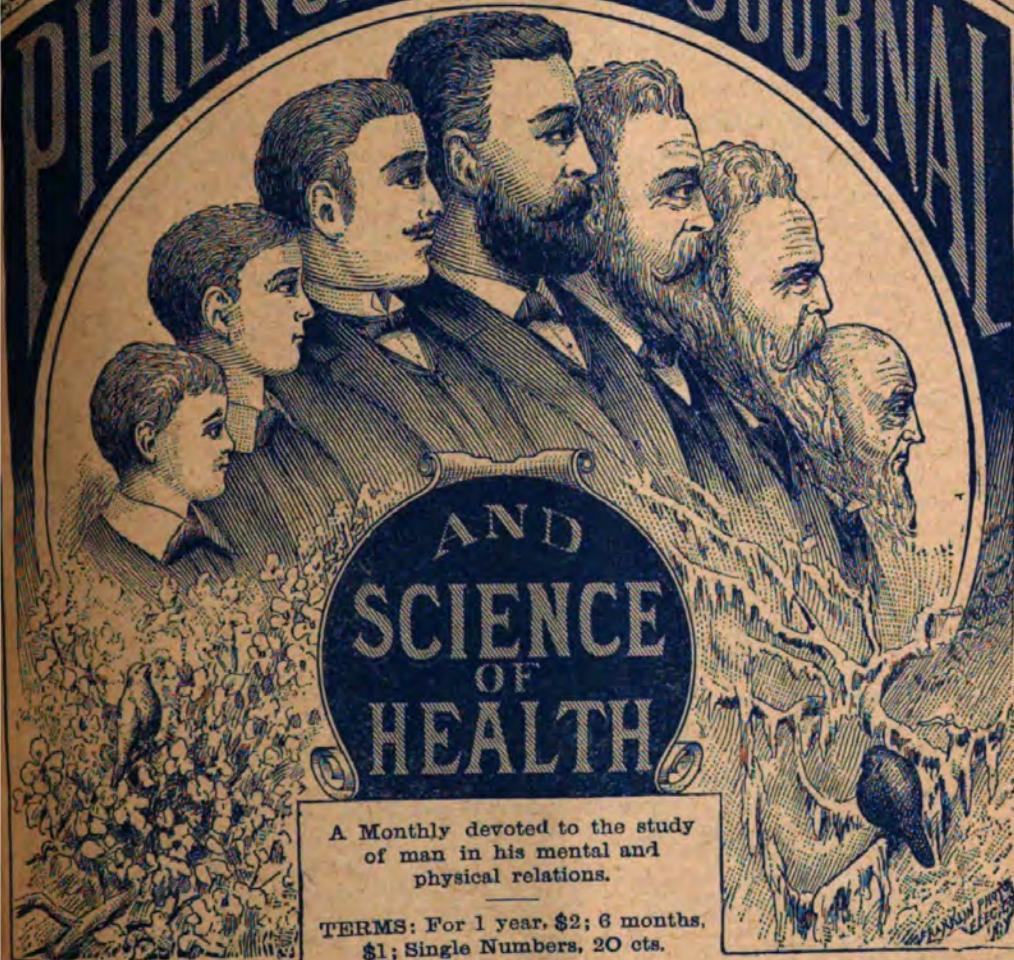
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This work, when first written, attracted very widespread attention among intelligent thinking people. This edition has a new Introduction by the author, and should be widely read by those interested in these subjects, and who is not, for all are affected by them?

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HELEN KELLER.

A PSYCHOLOGICAL PRODIGY.

THE late report of the Perkins Institution for the Blind, at Boston, the establishment which the late Samuel G. Howe developed into marked philanthropic usefulness, and where Laura Bridgman was educated, contains a record of a new and most interesting case of mental evolution in comparison

with which even that of Laura Bridgman seems to be a moderate achievement. A correspondence with the head instructor of the Institution, Mr. M. Anagnos, more than confirmed the statements of the report, and it is with pleasure we place before the readers of the PHRENOLOGICAL an account of the girl

who is the subject under consideration.

Helen Keller is the daughter of well-to-do people residing in Tuscumbia, Ala., who was born June 27, 1880. As an infant her faculties appeared to be as complete as those of any other child of like age, but when about nineteen months old, in February, 1882, she experienced a severe attack of gastric inflammation which resulted in the total loss of both sight and hearing. She had learned to walk, and was beginning to talk. The loss of her senses took place about seven months earlier than in the case of Laura Bridgman. In both cases a slow recovery was made, and a painful inflammation of the eyes set in. It is recorded that she "soon ceased to talk, because she had ceased to hear any sound."

As her strength returned she gave ample evidence of the soundness of her mental faculties. She learned to distinguish the different members of her family and her friends by feeling their features, and took a special interest in the affairs of the household. The little hands were constantly busy in feeling objects and detecting the movements of those about her. She began to imitate these motions, and thus learned to express her wants and meaning by signs, to a remarkable degree. In March, 1887, a skilled pupil from Perkins Institute—Miss Sullivan—was engaged for her. At this age Helen is described as a "bright, active, and well-grown girl," "quick and graceful in her movements, having fortunately not acquired any of those nervous habits so common among the blind. She has a merry laugh, and is fond of romping with other children. Indeed, she is never sad, but has the gayety which belongs to her age and temperament. When alone she is restless, and always flits from place to place as if searching for some thing or somebody." Her sense of touch is developed to an unusual degree, and enables her to recognize her associates upon the slightest contact. Her sense of smell is very

acute, enabling her to separate her own clothing from that of others; and her sense of taste is equally sound. In this respect she has an advantage over Laura Bridgman, in whom both of these senses were reduced almost to extinction. She speedily learned to be neat and orderly about her person, and correct in her deportment. The first lesson was an interesting epoch. A doll had been sent Helen from Boston; and when she had made a satisfactory exploration of it, and was sitting quietly holding it, Miss Sullivan took Helen's hand and passed it over the doll; she then made the letters d o-l-l in the finger alphabet while Helen held her hand. "I began to make the letters a second time. She immediately dropped the doll, and followed the motions of my fingers with one hand, while she repeated the letters with the other. She next tried to spell the word without assistance, though rather awkwardly. She did not give the double l, and so I spelled the word once more, laying stress upon the repeated letter. She then spelled 'doll' correctly. This process was repeated with other words, and Helen soon learned six words,—'doll,' 'hat,' 'mug,' 'pin,' 'cup,' 'ball.' When given one of these objects, she would spell its name, but it was more than a week before she understood that all things were thus identified."

Thus, as Mr. Anagnos says, the tiny pupil caught the idea at once, and in the course of six months she learned to read, write, and cipher with astonishing rapidity. Her progress in the grasp of new ideas and in the acquisition of language continues to be a sort of triumphant march. She can read as fast as any child of her age who possesses all his faculties and has been under regular instruction for no less than three years. She has already mastered fifteen hundred words which she can use correctly, and spell with perfect accuracy. When we reflect that the average number of words used by a tolerably well-educated person seldom exceeds 2,500, we can

easily understand the magnitude of her achievement.

The extraordinary facility of her intellectual perceptions is evident enough in the rapidity with which she learned to read and write, of course in the manner of the blind. Quoting Miss Sullivan: "Incredible as it may seem, she learned all the letters, both capital and small, in one day. Next, I turned to the first page of the 'Primer,' and made her touch the word 'cat,' spelling it on my fingers at the same time. Instantly she caught the idea, and asked me to find 'dog,' and many other words. Indeed she was much displeased because I could not find her name in the book."

She soon added writing to her accomplishments, and carefully formed the letters upon the grooved boards used by the blind. On the 12th of July she wrote her first letter, beginning thus: "Helen will write mother letter papa did give helen medicine mildred will sit in swing mildred will kiss helen teacher did give helen peach," etc. This well justifies the statement that she acquired more in four months than did Laura Bridgman in two years. Letter-writing is quite a passion with her, and, as she is also able to write by the Braille system, she has the pleasure of being able to read what she has written. Her progress in arithmetic is equally remarkable, going through such exercises as "fifteen threes make forty-five," etc. As examples of her powers of inference, the following will do service: she asked her teacher, "What is Helen made of?" and was answered, "Flesh, and blood, and bone." When asked what her dog was made of, she answered, after a moment's pause, "Flesh, and bone, and blood." When asked the same question about her doll, she was puzzled, but at last answered slowly, "Straw."

That some of her inferences are not equally happy, the following illustrates: "on being told that she was white, and that one of the servants was black, she concluded that all who occupied a similar

menial position were of the same hue; and whenever I asked her the color of a servant she would say 'Black.' When asked the color of some one whose occupation she didn't know, she seemed bewildered and finally said, 'Blue.'" Her memory is remarkably retentive, and her powers of imitation unusually developed. One of her favorite occupations is to dress herself up,—a performance which she accomplishes not always with success according to our ideas. Her progress continues and each letter is a marked improvement upon its predecessors. The following is a verbatim copy of one addressed to Mr. Anagnos:

TUSCUMBIA, ALA., Feb. 24th, 1888.

My Dear Mr. Anagnos—I am glad to write you a letter in Braille. This morning Lucien Thompson sent me a beautiful bouquet of violets and crocuses and jonquils. Sunday Adeline Moses brought me a lovely doll. It came from New York. Her name is Adeline Keller. She can shut her eyes, and bend her arms, and sit down and stand up straight. She has on a pretty red dress. She is Nancy's sister, and I am their mother. Allie is their cousin. Nancy was a bad child when I went to Memphis. She cried loud. Mildred does feed little chickens with crumbs. I love to play with little sister. Teacher and I went to Memphis to see Aunt Nannie and grandmother. Louise is Aunt Nannie's child. Teacher bought me a lovely new dress and gloves and stockings and collars, and grandmother made me warm flannels, and Aunt Nannie made me aprons. Lady made me a pretty cap. I went to see Robert and Mr. Graves and Mrs. Graves, and little Natalie, and Mr. Farris, and Mr. Mays, and Mary and every one. I do love Robert and teacher. She does not want me to write more today. I feel tired. I found a box of candy in Mr. Graves's pocket. Father took us to see steamboat. It is like house. Boat was on large river. Yates ploughed yard to plant grass. Mule pulled plough. Mother will make garden of vegetables.

Father will plant melons and peas and beans. Cousin Belle will come and see us Saturday. Mother will make ice cream for dinner. Lucien Thompson is sick. I am sorry for him. Teacher and I went to walk in the yard, and I learned how flowers and trees grow. Sun rises in the east, sets in the west. Shef-

Mr. Anagnos says, to one conversant with the average intelligence of a child, "these specimens of Helen's composition furnish a more convincing and tangible proof than any words of mine can give of the astonishing progress, which this remarkable child is making. They show that their gifted author is endowed with

and teacher will go
to Boston in June.
I will see little blind
girls. Nancy will
go with me. She is
a good doll. Father
will buy me lovely
new watch. Cousin
Anna gave me a pretty
doll Her name is Allie.
Good-bye
HELEN KELLER

SPECIMEN OF HELEN'S LETTER WRITING.

field is north and Tuscumbia is south. We will go to Boston in June. I will have fun with little blind girls. Good-bye.
HELEN KELLER.

We need to be reminded as we scan the record of this little girl's achievements that she is scarcely eight years old and unable to see, hear, and speak. As

extraordinary mental powers. The quickness of her perceptions is simply miraculous. As soon as an idea reaches her brain through the sense of touch, her mind seems to emit a sort of an electric light which illumines the regions of thought and renders things clear to the understanding. I am glad to be able to

say that, with all this unparalleled intellectual activity, Helen is as natural a child as ever was born. Her physical development is perfect. She eats well, sleeps soundly, and enjoys excellent health. She likes to play and is full of sunshine and fun.

Her head, as seen in the illustration where she is represented as taking a lesson from her blind teacher, is unusually well developed in the perceptive range of organs. Rarely does one find such a prominent forehead in a blind person, and more rarely in one deaf and blind. The strength of these organs is strikingly manifested in her readiness to acquire the principles of education.

To the student of psychology this is a rare study. In Helen Keller he is called to consider unusual mental growth without those sense aids deemed most important to the dawning intelligence. As a writer in *Science*, while commenting on the case, appreciatively says: "In many instances enough remains of hearing or sight, or both, to allow these

to enter as a factor in the mental development of the individual, and to that extent to vitiate the exclusive inference as to the *roles* that these senses play in psychic life. Often, too, though sight and hearing are practically totally lost, the loss occurred at a period of life when the mind has begun to profit by the experience which these senses collect, and can for many years feed upon the material thus brought together. This independence of the intellectual centers from their food supply of sensations after a certain age—the fifth to the seventh year for sight—has been proved by actual observation."

In Miss Bridgman's case it has been frequently insisted that she was aided in the exercise of her mental faculties by power or functions that are inherent and independent of extraneous influences; if this be true, certainly in little Helen Keller the inner light or psychical intelligence is more active. We shall await the further progress of the girl with close attention.

D.

OUTSIDE OF THE LAW.

RESPECT for other people's property is one of the principal ingredients in the lubricating oil of our complex social machinery. The highwayman who, with pistol at your head, demands your money or your life; the burglar, under whose skilful manipulation your silverware melts out of existence; the shoplifter, who successfully diminishes the pile of goods upon the counter,—of course for these social transgressors we must have laws and judges and prisons. But granted the capture and confinement of all these offenders, there will still be left a large number, even among church members and Sunday-school teachers, who need to hear constant iteration of the commandment, "Thou shalt not steal."

It is vitally true, as genial Tom Hood so melodiously expressed it, that "evil is wrought by lack of thought as well as

by lack of heart." An astute lawyer once remarked with emphasis, "It's easy enough to deal with wicked people. It's the weak ones who are too much for me." The good-natured carelessness, the "easy-going" disposition, the "happy-go-lucky" temperament of some of the best-intended people make them as difficult to handle as the smooth, innocent looking jelly-fish. They "never mean" to injure any one—nothing could be farther from their thoughts—yet the burglar who is walking through your basement to the state prison may cause you far less loss, trouble, and annoyance than some of these, good, well-meaning members of respectable society with pure hearts but careless heads and hands.

To punctual, cleanly, orderly people, the dilatory, slovenly, and disorderly ones are so constantly a trial, that the

methodical martyr may well be spared any further discipline to fit him for a higher state of existence.

A "happy medium" is as desirable in these matters as in all others. The woman who on her knees examines with a microscope the carpet she has just finished sweeping may be ten-fold more of a nuisance than the most shiftless house-keeper. We are to let our *moderation* be known unto all men.

We laugh at the story told of Colonel Bluford of Texas. He was more particular about his razor than anything else he owned in the world. He had about come to the conclusion not to use it even on his own chin on Sundays. While absent on one of his frequent fishing excursions, his law partner, who was also his room-mate, committed suicide. The colonel was telegraphed to return, and did so as fast as possible. Meeting a friend at the depot, he said in a voice husky with emotion, "Is it a fact that—has committed suicide?" "Yes, too true." The blanched face of Bluford became more blanched than ever and his voice sounded unnatural as he hoarsely whispered, "How did he do it?" "Morphine," was the answer. "Thank heaven!" cried Bluford, "my razor is safe! But I might have known it, for he was one of the most considerate of men. I shall always revere his memory." There are many of us not extremists, merely reasonably careful human beings, who can appreciate the colonel's relief of mind, even with the suspicion that the termination of the story was "made out of whole cloth," by one of the many who were continually "chaffing" him upon his precise ways.

"I never but once wanted to kill anybody," said a bright young typewriter the other day as she sat at her work. "That was when one of the girls took my eraser, which I had just paid ten cents to have sharpened, to whittle lead pencils. For just about two minutes I had murder in my heart."

One could not but recall Col. Bluford and his razor, with a smile at the extravagance of the emotion.

Yet what right had "one of the girls" to do this more than to steal ten cents from her neighbor's pocketbook? Probably the loss of the money would have been felt far less than that of the eraser's edge. Doubtless she was a representative of the class under consideration, who, having no conveniences of their own, invariably manage to utilize plenty of other people's. They usually leave the mucilage-brush stuck fast to the bottle, contrive to spill even more ink than they use over your fresh blotter and sheet of postage-stamps, seize upon the nearest handkerchief for a pen-wiper if compelled to use such an article, take your sharpest scissors to cut pasteboard, dig corks out of bottles with your pet penknife, borrow the last magazine to read in the horse-car and leave it "somewhere" down town, your only umbrella, and leave it somewhere else, your rubbers, and unconsciously change them for some stranger's, your books and never know what becomes of them, your money and never remember that there is any due.

There is also a class of chronic visitors, the social bores who never know how—seldom—to call, or how soon to leave after their arrival—who steal with calm and smiling faces the time depended upon for some important piece of work, not only robbing their victims of time, but of patience, charity, and nervous force,—more precious possessions than all others.

From the depredations of all these social sinners, may we not reverently pray, Good Lord, deliver us! C. B. LE ROW.

◆◆◆◆◆

For life is all too short, dear,
And sorrow is all too great
To suffer our slow compassion
That tarries until too late;
And it's not the thing you do, dear,
It's the thing you leave undone,
Which gives you the bitter heartache
At the setting of the sun.

NOTABLE PEOPLE OF THE DAY.—No. 9.

BENJAMIN HARRISON.

The approaching election for President of the United States is the leading topic of political discussion, and possible candidates are named here and there, East and West, according to the popularity certain men have won in National or State affairs. The number of names mentioned as available to the use of the Republican side is large, but availability and success at the ballot box are two different things in the close contest that now distinguishes every Presidential



BENJAMIN HARRISON.

election. This the party leaders know thoroughly well, and their aim will doubtless be the selection of a man who can unite the party and make a strong vote.

One of the men who appears to invite special attention, rather more in the West than in the East, of course, is Benjamin Harrison, of Ohio, whose portrait is here presented. Both by family connection and personal history, he is credited as deserving the consideration of the American people. William Henry Harrison, the ninth President of the

United States, was his grandfather, and during the late war he himself won respectable place in the army by good service. He was born at North Bend, Ohio, Aug. 20, 1833, and early manifested a desire to begin an active and independent career. At sixteen he entered Miami College at Oxford, Ohio, and two years later was graduated. He proved a bright scholar, with an aptitude for grasping knotty problems, and with a mind that adapted itself readily to discipline. On leaving college he began the study of law in Cincinnati, and in 1854 entered upon the practice of that profession in Indianapolis. He was square-shouldered, fair haired, a rather serious young man, reserved in manner, with no inheritance except an education and a good name.

The ability which he displayed in certain legislative employment won for him the highest praise of lawyers and laymen, and was the occasion for his drifting into politics. In 1860 he became a candidate for reporter of the Supreme Court, and was elected.

The outbreak of the Rebellion drew him from the life of the citizen to that of the soldier. He served through the war with honor, and attained the rank of Brigadier-general. After the war, and until 1876, he devoted himself diligently to the practice of his profession. In that year he was nominated for Governor and was defeated. He was, however, a few years later, elected United States Senator, and took his seat in that body in March, 1881. At the expiration of service in 1887, he resumed the practice of his profession in Indianapolis.

His face is that of a rather sturdy, positive man, who thinks for himself and is square in his dealings with others. There is little of the fanciful or speculative in his intellectual composition, but a close regard to the real situation of things. He is a shrewd examiner and judge of facts, knows their value and

applications. He is at once strong of will and independent, yet with enough of prudence to avoid assuming positions that are at all likely to prove embarrassing in a social or business respect. He is friendly and kind in disposition but not plastic, not disposed to take in mannerisms or adopt conventional views. In political life or in social he is not

In person Gen. Harrison's grandson is somewhat under the average height; but his strong, erect figure, soldierly bearing and dignity of manner, make him a somewhat noticeable figure among men.

CLEMENCE S. LOZIER, M. D.

The death of this lady on April 26th closed a life of much usefulness. Dr.



CLEMENCE S. LOZIER, M. D.

known as one who can be manipulated by a ring or a circle. He dislikes those relations that would fetter his conduct, or prescribe the form of his opinion with regard to public or private matters. He does not appear to be inclined to esteem himself better than other men on the score of morals and intellect, but claims the right to act in accordance with his impressions of the expedient and fitting.

Lozier had been so long a resident of New York City and so actively interested in affairs of education, medicine, and social progress that her name was prominently known. The cause of woman was nearest to her heart, and her experience early in life and her success professionally rendered her the more earnest to secure the fullest recognition for her sisters of all human rights and privileges.

Born in Plainfield, N. J., in 1812, she appears to have had for parents people who were in advance of their time as regards social progress and whose reformatory spirit was impressed so deeply in her nature that when a mere girl it frequently found expression in one form or another.

On her father's side she was descended from the French Huguenots, and on her mother's from Scotch and English ancestry, a combination rarely failing to ensure mental and physical vigor. She was the youngest of thirteen children, eight of whom lived to mature age.

When but three years old her father died, leaving a numerous household to the care of their mother. The youngest boy of the family, William Harned, was at this time a medical student, and in the care and management of two younger children he assumed the place made vacant by the death of the father.

Clemence attended the seminary at Plainfield, where she was graduated at the age of fourteen. A short time prior to her marriage, when not yet sixteen years old, she was apprenticed to a tailor, and became an adept with the needle and goose, an accomplishment which served her many a friendly turn in after years.

In 1828 Clemence was married to Mr. Abraham W. Lozier, and after eight years of congenial wedded life was left a widow, having lost her husband and two children within one year. Of her family only one son survives, Dr. Abraham W. Lozier, who was born six months after his father's death. Being dependent upon her own exertions Mrs. Lozier opened a select boarding-school for young ladies in Tenth street, in what was then the city suburb, and continued this school eleven years with marked success.

Her mother had possessed much skill in treating ailments botanically, and was in much demand for advice among her acquaintances in Plainfield. This and her brother's study of medicine early drew Mrs. Lozier's attention to the subject,

and finally she determined to become a regular physician. While a teacher she studied for that purpose, and later applied in vain for admission to several schools, but finally was received in the Eclectic college, Syracuse, N. Y., from which she was graduated in 1853, and soon established herself for practice in New York City. In this, it need not be said, she was eminently successful—her patronage being of the best class and highly lucrative. In 1860 she commenced giving a course of free lectures to women, continuing them for three years, the effort culminating in the establishment of the N. Y. Medical College for Women. This college was chartered by the State in 1863, being the first of its kind. Dr. Lozier was appointed Dean of the institution and occupied the professorship of Diseases of Women and Children. Of broad views, she associated with reputable physicians of all schools, and her ability, kindness, and dignity made her respected in the community at large.

Dr. Lozier was not a large woman but under the average, and of rather delicate appearance and very refined and winning in manner. Her face, as shown in our rather indifferent portrait, expresses intelligence, culture, ambition, and sympathy. The temperament was of great simplicity and activity, imparting capacity to do much and bear great strain without exhaustion. Until within a year or two she was more active and fresh mentally than the average male physician who has turned his threescore and ten

JOHN MORLEY.

One of the foremost of the Irish party in Parliament is John Morley. For many years he has been a prominent figure in English literature and journalism, and the earnestness of his support of the measures of Mr. Gladstone, and the equal fidelity of his opposition to the Tory ministry, have added to his reputation. Because his name ends with *ey* he is often referred

to as an Irishman; a mistake, as he was born in Lancaster, December 24, 1838, and is of good family. He is a thoroughly educated man, a graduate of Oxford in his twenty-first year, and since that time has been devoted to literature. He early became a contributor to the *Saturday Review* and to other well-known English newspapers and periodicals. In the field of criticism and biography he has gained perhaps his best fame.

Some of his works are "Critical Miscellanies," including essays on De Maistre, Condorcet, Carlyle, and Byron.



JOHN MORLEY.

In 1872 he delivered a lecture on Rousseau, which was afterward elaborated in two volumes. In 1873 he delivered a series of lectures on "The Limits of the Historic Method," and the same year he was active in resisting the educational system introduced by the Gladstone government, because of its denominational character, and published "The Struggle for National Education." His volumes on Edmund Burke, Voltaire, and Diderot are classical. For twenty years he has been the editor of the *Fortnightly Review* and has edited

several volumes on popular subjects. In 1886 he was associated with Mr. Gladstone in the administration of government, having a place in the Cabinet.

The engraving shows a temperament of excellent balance, the vital component being ample to sustain the nervous activity. The expression of the face is that of a man of prompt susceptibilities, both emotionally and intellectually. He possesses rare ability as an investigator, power to place and hold the attention until a subject has been exhausted. He is a man of method, averse to being interrupted or disturbed when pursuing a line of inquiry until he has attained his object. He has ambition, seeks preferment, and enjoys reputation highly. We think his conscience is strong enough to render him sensitive to any reflection upon his merit, so that he is not the one to appropriate an honor that does not rightly belong to him. He is fond of society and understands character well, and his intelligence in this respect is a controlling influence in his associations. Where he places confidence he expects fidelity and sympathy. The fulness of the face at the cheek-bones shows the good liver; a well-furnished table gives him pleasure, perhaps inspiration and, we were about to say, dyspepsia, but we will accord to Mr. Morley the discretion that avoids excesses of appetite, while he recognizes the strength of his constitutional bias to gustation.

ROBERT TODD LINCOLN.

The reader has no difficulty in detecting traces of his illustrious father's physiognomy in this kind face of Robert Lincoln, but those strong lines and long angles that marked the late President as a man of original character and experienced in the severest walks of early Western life are quite wanting. The son grew up amid pleasant scenes and enjoyed in early manhood all the ease and comfort that could well fall to the lot of an American boy. He has "a good bit" of his mother in the way

of disposition, that probably expresses itself in a dignified and sensitive regard for his personality, and so renders him rather scrupulous in matters of honor and integrity. He should be firm and steadfast in will, courageous in the defence of his rights, strong and clear in the utterance of opinion, yet good-natured and sympathetic in his response to whatever indicates the prevalence of kind and true feeling in others. The general outline of the head certainly reminds one of General Grant; there is much similarity in the development of the perceptive range of faculties. The



ROBERT TODD LINCOLN.

eyes show poise of mind, the nose strength of will and executive staunchness, the fulness of the temples taste, practical judgment, and prudence. The fulness of the cheeks shows abundant vital capacity, and if any thing a tendency to plethora, that should counsel Mr. Lincoln with regard to exercising care in his manner of life. His organization requires abundant exercise, both for the harmonious distribution of the nutritive elements in the circulation and for nerve stimulus. Habits of a sedentary nature should not, therefore, be

permitted to grow upon him to the extent of disuse of out-of-door activity.

Robert Todd Lincoln, the eldest and only living son of the late President Lincoln, is one of the men of whom we hear much in connection with the talk about the next Republican candidate for President. He was born in Springfield, Ill., August 1, 1843. He is a graduate of Harvard College. He served, to some extent, in the army during the late civil war, and at its close he entered the profession of the law, and practiced with success in Chicago until 1881, with an interval of a visit to Europe in 1872. He frequently declined offers that were made to him to enter public life, although taking part from time to time in political affairs and discussion. In 1881, at the request of President Garfield, he entered his cabinet as Secretary of War. On the accession of Vice-President Arthur, after the assassination of President Garfield, Mr. Lincoln was the only one of the former cabinet who was requested to keep his portfolio, and he did so until the end of the Arthur administration, after which he returned to Chicago in the spring of 1885 and resumed the practice of his profession.

The name of Lincoln in itself, one could not doubt, would exert a powerful influence in a Presidential campaign.

EDITOR

BACON AND SHAKESPEARE.—Skeptics like Mr. Donnelly have done their best to throw dust upon the fame of William Shakespeare, but there are many scholars who laugh at them. Dr. T. W. Parsons, the accomplished translator of Dante, published the following recently in the *Evening Transcript*:

Shakespeare! whoever thou mayest prove to be,
 God save the Bacon that men find in thee!
 If that philosopher, though bright and wise,
 Those lofty labors did in truth devise,
 Then it must follow, as the night the day,
 That "Hamlet," "Lear," "Macbeth," and
 each great play
 That certifies nobility of mind,
 Was written by the "meanest of mankind."

LITTLE TAD.

A TALE OF SOUTH MISSOURI.

THAT old Mace Webster was no poet's ideal for beauty, any one who had ever enjoyed the good fortune of looking at his tall, massive form, shaggy whiskers, and woolly eyebrows, would hasten to admit. He had a fist like a maul, and a foot like a large-sized glut. His head, with its stock of coarse, iron gray hair, was "cap-sheafed" by a very broad and very dirty wool hat. It was exceedingly broad between the ears where phrenologists locate the executive organs of destructiveness. His lips were thin, and so tightly compressed that they bore the appearance of having been sewn together. Above the lips, jutted out in hard outlines, an enlarged pattern of the nose Napoleon. The keen observer of character would instantly write him down as an aggressive, forcible man,—a conqueror in whatever sphere he might be found. He had terrible passions, a tongue as harsh as his features would give it credit for. He had no more than the baldest pretence of an education, but he had far more than the ordinary degree of "good hoss sense." Was he a just man? Well,—yes; but he did not pursue the ordinary track in following justice. He kept the course, however, leaving the beaten track for the feet of others.

Old Mace had long held courts of justice in contempt—not the law—no indeed, old Mace had the highest reverence for law. One reason for this, if for no other, as he would often remark, was "'Cause the law don't git no fa'r shake in the tarnation courts, an' I'm allers fer the under dog in the fight, as my ole daddy used to say. No, sir, the law don't low no chance at tall. Courts jist step right on it and walk about over it. They go through th' form of swarin' witnesses, an' if a feller swars a thing it's so, an' no disputin', although, right at th' same time, th' jestic, jury, lawyers, and standbyers all knows what th' feller says is half th' time a flat-footed lie. If I

wuz a jestic in this township, I'd never put no man on oath. I'd simply put him on the witness block an' sot my eyes on hisen an' never stop it. I'd catch every lie before he could git it fairly outen his mouth, an' then thunder would be to pay."

One morning, a few days after the above elegant comments on courts were delivered, old Mace mounted his old sorrel horse, "Buck," and started for Houston, the county seat, ten miles away. The morning, though the sun shone with unusual brilliancy, was cold and crisp. Myriads of frost crystals were sifted o'er the ground. The road was frozen, and the noise of the horse's hoofs resembled the automatic rise and fall of four heavy mallets on a solid block. Half a mile on his way, when the foot of "Bald Pint" had been reached, he cast his eyes toward the crest of the hill, and observed a little boy trailing along over the rough, frozen ground, with a weak and floundering step. "I'll declar'" spoke old Mace aloud; "if that aint little Tad, as they calls him. What can the poor little feller be doin' goin' along this cold mornin'? Most likely he is runnin' away from Jake Martin's. An' if he is, I don't wonder at it. That blasted Jake Martin is the lowliveredist, meanest dog in the county. That little feller when he come thar with his mother had lots of warm clothes; now he jist goes like a little nigger, since his maw died. Th' child looks all th' time like a rabbit tryin' ter hide from a dog. Never seed th' little feller in th' last two months; thought he looked like he wuz afeard I's agoin' ter throw sumthin' at him. Thar's sumthin' bad wrong, and I'm agoin' ter shove my big nose inter th' case, an' see what the stink is. I'm agoin' ter mendle in other folkses' bizness, you bet."

I had forgotten to say above, in giving a catalogue of old Mace's characteristics, that he possessed a heart as tender

as his fist was hard. He was passionately fond of children. The little ones at his home always ran to the old man to find a place of refuge when close pressed by the irate mother. Not like men, the little ones had no fear of the great, rugged form of old Mace. He was a rock of shelter and protection to them in times of great need.

Spurring his horse, he soon came up with little Tad. "Hello, Tad, my little son, whar are you walkin' for sich a cold mornin' as this?" The child screwed his neck around toward the speaker, his feet still moving forward over the lumpy road, cast a sly, questioning glance up to old Mace, began a reply in a feeble voice, when his foot struck a sharp stone and he fell to the ground.

"Poor little feller," exclaimed old Mace with emotion in his voice as he instantly whirled himself from his horse, seized the child and lifted him up. "Poor little feller! You have hurt yourself, haint you? Your nose is bleedin'." Partly from the hurt and the cold, but more from the tones and looks of kindness and sympathy, the child began to cry, in spite of his effort to choke back the sobs.

Old Mace endeavored to quiet the little boy. He took his handkerchief from his pocket and soon stanchd the blood. He patted the child on the shoulder and head and devised every tender means his great, kind heart could suggest to exhibit his sympathy. When the little boy had become quiet and his tears suppressed, Old Mace asked him again whither he was going. "I am going over to Mr. Samuel Atkins to borrow his iron wedges for Mr. Martin," was the reply.

"Great God," exclaimed old Mace, with a look in which astonishment, sympathy, and indignation were blended, "a child like you, such a mornin' as this, half naked, startin' out on a three mile trip to carry iron wedges! Jake Martin is not the man I give him credit for—he's about three times meaner, and that means he's about ten times meaner

than I ever thought a man could git."

The child's bare hands, from the effects of the cold, were of a dark red, his ears of the same shade, while his little toes peeped out from the wide open mouths of his shoes like ten red rose buds in two separate rows.

"You'll not get any further after them iron wedges. I'll take you back to Martin's. I'd started ter go to Houston, but I'm so mad an' broke up that I aint goin ter go. If I's ter go feelin' like I do now, I'd git full of whiskey and go ter cussin' around, an' like as not come back to-night an' beat ther stomach offen Abe Martin."

"Oh, Mr. Webster," pleaded the child, "you must let me go on. If I should go back without the wedges he would beat me," and the large, timid eyes looked up and met the pitying gaze of old Mace.

"Whip you, little boy! beat you! Confound his no account picter! I'll see about that. Don't be afraid, I'll show you that he'd rather miss beatin' you than to take a reg'lar ox beatin hisself."

The old man took off his overcoat, wrapped it carefully about the child's trembling form, mounted the horse, drew the little fellow on behind, wheeled about, and started for Martin's.

They had proceeded only a short distance when old Mace said:

"Little boy, I fear that if you have any friends in the world they have lost sight of you. You make me think of a young bird not able ter fly that's lost its parents and has ter shiver about in a cold rain. When you and your maw cum to Martin's you had plenty of clothes. It's not been so long ago, and now you are in rags. Whar is them clothes?"

"I mustn't tell you, sir," said the child in quivering tones.

"Why mustn't yer tell me? I'm goin' ter be yer friend. I want ter know all about it."

"Mr. Martin gave them to his children, sir, a few days after mamma died."

"The cold blooded scoundrel! Now, child, I want you to tell me all about your case. I've been a thinkin' fer a long time that there was something right wrong, and now I want yer to tell me, for somethin' has got to be done."

Reassured by the kind words of old Mace, the child went on to give a full history of the matter. His father had come from Kentucky a year before and settled at Houston. He had begun well and promised to get a good practice in the legal profession, when he had an attack of pneumonia and died. Abe Martin was a first cousin of the deceased. He was very kind to the mother and child in the last hours of the father's illness, and was constantly at the bedside of the dying man. After the father died the grief-stricken widow, almost distracted in mind as well as broken in health, was induced to accompany Martin to his home, where, he said, a change of scenery, air, and water would quickly restore her. She went, Martin continued his kind offices to both widow and child. Notwithstanding the change, however, the young woman had received a fatal wound which no changes of surroundings, no kindness on the part of friends, could ever heal. No physician, save the one above, could ever restore her, and to do so he must take her to his own home. On her death bed she placed in Martin's hands a sealed envelope containing one thousand dollars, and another, a letter directed to her husband's brother in Kentucky. "Keep this money and give it to Elmer when he comes for my child," said she, "and here is fifty dollars to recompense you for your trouble in taking care of the child until Elmer gets here." Martin protested that he did not want the money, but he took it nevertheless.

"As soon as my mother had been buried," continued the child, weeping, "Mr. Martin begun to treat me harshly. He said he had sent all the money to my uncle, and that I must earn my bread by

my work until he should come for me, which he hoped would not be long off. Days passed on and every evening when the stage would pass I would run out hoping to find my uncle, but he never came. The harsh treatment continued to get worse. His children would beat me, and when it was done right before his eyes, he would laugh and say that the boys took after him, and would show their pluck from the time they could lift a fist. Day before yesterday I asked him about the money mother had given him, stating that if Uncle Elmer had got it he surely would have sent some sort of a receipt. 'I've never heard a word from your uncle,' said Mr. Martin. 'I guess he's got the money and spent it, and here, if ever you name that money to me or any one else any more I'll just simply beat you to death. You are here on me and not earning the salt that goes in your bread.' With this he struck me with a bridle he held in his hand; and went away from me."

At the recital of this story old Mace could not force back the tears which overflowed his eyes and soon congealed in strings of ice beads on his whiskers.

"I'm goin' ter fix this thing. I'll do it or die. There's a Justice of the Peace to be elected next Tuesday, an' I'm a candidate, and that means I'm Justice of the Peace." They soon arrived at Martin's house. The latter was at the gate when old Mace rode up. "Good morning, Mr. Webster," said Martin with his best attempt at cordiality, and then suddenly perceiving the little boy he involuntarily shot an angry flash from his eyes and exclaimed, "and you little noac——"

"Don't finish your remark, you dirty scoundrel," roared old Mace, "or I'll finish *you*. Abe Martin, I wish I had a tongue right now as mean as your heart. I'd like for it to talk to you, and give you a faint idea of what we, and all honest men, think of you. I wish you had a little of that spunk you say your children got from you, but they took it

all, if you had any to take, and here I am helpless, mad, wantin' to fight and nothin' to fight me. Don't say a word, Abe, of any kind. I don't want ter jump on you, feelin' like I do now, fer I'd beat yer to death, an' it's jist as much crime in ther eyes of the law ter kill a dog shaped as you are, as ter kill a man. Abe, I'm a candidate fer Justice of the Peace. Of course, I'm same as elected, an' next Thursday mornin' you appear before me promptly at 10 o'clock an' show ter me, *the court*, what you done with that child's money. I'd advise you to come well informed. You'd *better come, too*, to save unnecessary troubles that would foller if I had ter come arter you myself."

The election passed off according to ole Mace's programme. Martin even voted for him, hoping thereby to conciliate his terrible enemy. Only six votes out of two hundred and forty were cast against old Mace. "The law won't be carried out quite so reg'lar as it is in the Circuit Courts," said old Abner Banks to Milt Stacy, as they rode home from the voting place in the evening, "but we'll git what justice thar is in a case if he has ter knock it out."

On the day appointed for the appearance of Martin, a large crowd had gathered, all eager to see how old Mace, now Justice Webster, would start off in his first case. All knew that many novelties and much originality would be introduced to modify the course of legal procedure.

Martin had employed the best attorney at Houston to defend the charge, whatever it might be. "May it please your honor," said the attorney, as he arose with suave tones of implied superiority, "we would like to examine the papers in this case. See whether they are regular or not before we proceed."

"They aint no papers," said old Mace, quietly, "don't need any; everything is reg'lar so far. The charge is stealin' money from an orphan child. Come forward, little Tad, be seated right here;

tell these men here your story—how you have been beat and robbed. We don't want no highferlootin' stuff here, Mr. Baxter (casting his eyes toward the attorney), only jist the truth, jist the little simple truth that a three-year-old child can understand. I aint got no larnin' in books, an' I can't depend on books in this case. Come, now, Tad, tell your story." The child related what has already been told above. The kind eyes, some of them tearful, directed toward the child, and indignant eyes toward the trembling wretch who sat near, told that the people did not need any of Mr. Baxter's legal legerdemain to convince them concerning the matter.

When the child had finished, Martin, in a broken tone, cowering looks, and nerveless manner, denied the child's story.

"You are a liar, Abe," was all the justice had to say when his evidence was completed.

One of Abe's sons was testifying when a childish scream of joy resounded through the room. Every eye was instantly turned toward the direction whence it came, when they beheld little Tad rushing forward to be pressed to the bosom of a tall, handsome man. "Oh, my good Uncle Elmer, have you come at last?" The uncle pressed the little, ragged child to his bosom and dampened his yellow curls with tears.

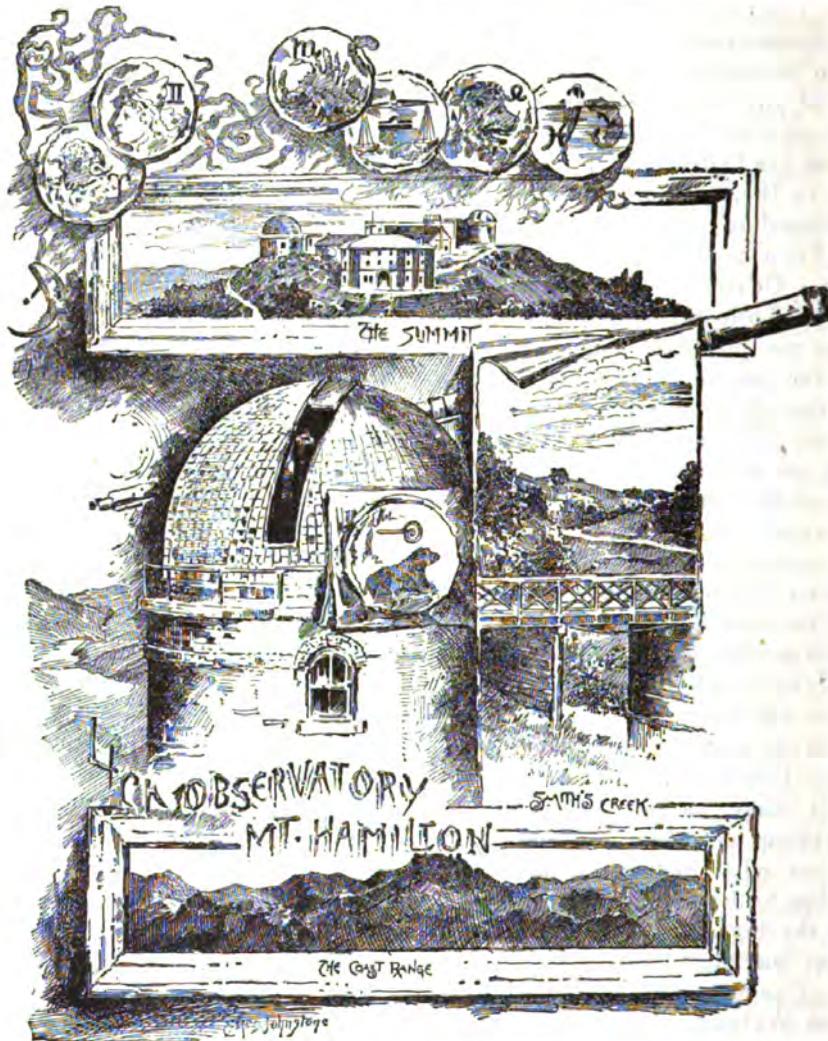
It is needless to say that Elmer testified that he had never received any communication alleged to have been sent. He said he had heard nothing from his brother and had come out to search for him, never having learned any of the startling facts related above until after his arrival in Houston.

Martin at once confessed his infamy, and produced the money, after which old Mace, *alias* Justice Webster, sent him to jail.

"None of your acts have been regular," indignantly suggested lawyer Webster.

"Noap," returned old Mace, "but mighty jest and effective."

J. I. NOEL JOHNSON.



THE LICK OBSERVATORY.

THIS product of the munificence of a wealthy Californian is likely to become one of the marked features of the Golden State. Its great telescope will, of course, be one of the "wonders" of astronomical science until a greater or better is made. Mr. Lick bequeathed \$700,000 to the University of California for the establishment and fitting up of an observatory, specially directing that the telescope should be of "greater power than any yet made." He also selected as the site of the observatory, the summit of Mount Hamilton, an elevated point not far from his residence

near San Jose in the Santa Clara Valley, and under the base of the telescope his body lies.

The observatory buildings are constructed of stone and cover a considerable extent of territory. The main building is 287 feet long, contains the directors' and secretary's offices, the library, clock rooms, etc., with the large dome at its southern end for the large telescope, and a smaller dome for the twelve-inch equatorial at the northwest corner, the meridian circle house, the transit house, the photographic laboratory, and several temporary wooden

workshops. The dwelling house of the astronomers stands below the summit and is connected with a plateau by a bridge. The surrounding peaks have been named from several famous astronomers.

In speaking of the outlook from Observatory Peak, which is 4,302 feet in height, Professor Holden, the chief astronomer and director, says: "It would be difficult to find in the whole world a more magnificent view than can be had from the summit just before sunrise, on one of our August mornings. The eastern sky is saffron and gold, with just a few thin horizontal bars of purple and rosy clouds. The sharp outlines of Copernicus and Kepler are seen in sharp profile against the brilliant background. Orion, Procyon, the Twins, Sirius, are in the morning sky, and Venus is brilliant and steady against the stars. The instant the sunbeams touch the horizon the whole panorama of the Sierra Nevada flashes out, 130 miles distant. Toward the south and west the beautiful valley of Santa Clara lies dotted with farms and vineyards, and bordered toward the sea by Loma Prieta and the Santa Cruz Range. The winding road to San Jose, which takes twenty miles of twisting to accomplish the thirteen miles of air line, lies like a dusty snake at your feet. The bay of San Francisco looks like a piece of a child's dissecting map, and is lost in the fogs near the city. The buildings of the city seem strangely placed in the midst of all the quiet beauty and the wild strength of the mountains. Then you catch a glimpse of the Pacific in the

southwest and of countless mir or ranges of mountains and hills that are scattered toward every point of the compass, while, if the atmosphere is especially clear, you can plainly see to the north Mount Shasta, 175 miles distant.

The great telescope has been mounted long enough for a thorough test of its capacity, and it has given great satisfaction—fully realizing, it appears, the high expectations founded upon its remarkable size. It was first directed to the sky on the evening of January 3, 1888, and a few observations were then made for the partial adjustment of the object glass, but the observation was abbreviated by the skies becoming cloudy. The next observations were made on the evening of the 7th. On this occasion Saturn was observed, and Mr. Keeler, who conducted the observation, says with rapture that it was "the most glorious telescopic spectacle ever beheld." He exclaims: "Not only was he shining with the brilliancy due to the great size of the objective, but the minutest details of his surface were visible with wonderful distinctness."

Prof. Holden resigned his chair in the University of California to take the superintendency of the observatory. He has three assistants, the first being Mr. S. W. Burnham, who at one time was a shorthand writer in the office of the PHRENOLOGICAL JOURNAL. Mr. Burnham made some very successful observations of multiple stars on Mt. Hamilton in 1879 at the request of the trustees of the Lick fund, and rendered not a little aid to the organization of the observatory.

OUR EYES.

'TIS often that the eyes reveal
What human language would conceal;
And often that the eyes tell first
The thoughts that into language burst;
For as the stars shine from the sky
The passions beam from human eye.

'Tis there we read of calm delight
Whene'er the eyes reflect soft light,
From deep recesses of the heart

And deeper joys the tears will start,
'Till eyes are bathed in glist'ning hue
Like sunbeams sparkling 'mid the dew.

'Tis there we read the tale of woe
That's hidden in the heart below,
Whene'er the griefs of many years,
That could not find relief in tears,
Have given a look into the eyes
That's sadder far than moans or sighs.

'Tis there we read the hope of life,
The guiding star in calm or strife,
That gives a look into the eyes
Like gentle starlight in the skies.

The lover reads his answer there
Ere words are said that bring despair
Or joy, and when her voice doth speak
Soft blushes fall on Love's fair cheek;
Or else her eyes grow cold as snow,
Just like the heart that beats below.
'Tis oft that soul communes with soul,

As air doth flow from bowl to bowl
Unconsciously and noiselessly;
For while our eyes another see,
They, too, see ours, and thus is wrought
Full exchange of the human thought.

Ah! then, 'tis best that we make sure
That all beneath is good and pure,
And never let the eyes reflect
A thought not worthy of respect;
For there the first impressions start—
"The eyes are windows of the heart."

HELEN S. STANTON.

A BUDGET OF PAPERS ON PHRENOLOGY.—8.

SKULLS OF THE DEAD AND OF THE LIVING. AN UNBELIEVER CONVINCED. THE INSTITUTE OF PHRENOLOGY.

"That skull had a tongue in it, and
could sing once.
"There's another: why may not
that be the skull of a lawyer?"
Hamlet. Act V., Scene I.

TWAS a feast of skulls—

Skulls were feeding;
Skulls they were fed.
Skulls of the living;
Skulls of the dead.—

to which we were invited at our first lecture in the Institute of Phrenology.

It was an impressive sight. A long table spread and loaded with skulls. Around it the professors and the class. All were intent and inspired with the one purpose—to *know men*. One was an unbeliever; not a "doubting Thomas" refusing to believe, walking not by faith but by sight only; but an honest doubter, for his knowledge of Phrenology at that time was the barest "general knowledge," well defined "as a general ignorance of the whole matter and a special ignorance of the details." This unbeliever was the writer. His knowledge, you will remember by referring to the April number of this journal, p. 207, corresponded to this definition of "general knowledge." I quote the reference as it may not be at your hand. "The word 'Phrenology'—'a head all filled with pictures'—'and bumps on the head' limited my knowledge of this, even then, attractive study. All during my Preparatory school days in New Haven, in the oldest school in Connecti-

cut—established in 1860—I gained no further knowledge of what Phrenology was." "But while there I somehow learned that 'some skulls had been found that had an equal enlargement or "bump" on the outside: and therefore Phrenology was not true.' Not knowing then that what had been asserted of 'some skulls' was true of every one in certain places, as the Sutures, the mastoid processes, and the occipital spine, I felt the blow of the statement, especially as it came from a physician, and accepted it."

College days and professional studies, even my early experiences with Phrenologists, brought no light to dispel the darkness which the physician's statement had caused to settle down upon the mind of one who loved to study his fellow men. That first lecture was to me a feast-of skulls. My brain seemed to revel in them all. I seemed to live in each one consecutively as Prof. Sizer discoursed upon them. Yorick's skull was not better known to the grave digger than is every jester's to the old professor: neither was Yorick better known to Hamlet than, I dare say, is every one whose skull perchance comes into the Professor's hands. I shall never forget the first statement that the professor desired to impress, first of all upon all minds—"that *Phrenology has nothing to do with 'bumps:*" and that the

Phrenologist never ought to use the word."

He then passed skull after skull around the class pointing out where the "bumps" are in every skull, visible to the eye and to the touch upon the inside through the *foramen magnum* or the round aperture where the spinal cord enters the skull. He also explained "osseous excrescences," the result of accident or injury.

That first lecture convinced me that my general knowledge of the science was a general ignorance of the whole, and a special ignorance of the details; and that what ex-President Noah Porter claims for Psychology is true also of Phrenology—that "Phrenology is a science. It professes to exhibit what is actually known or may be learned concerning man's brain as the organ of his mind in the forms of science—i.e., in the forms of exact observation, precise definition, fixed terminology, classified arrangement, and rational explanation. This it aims to accomplish." See Introduction to his larger work, "The Human Intellect." p. 5, Sect. 2. Where in the place of the word "Psychology" I have put "Phrenology" and have substituted "man's brain as the organ of his mind" in place of the words "the soul."

The good and great philosopher's criticism of Phrenology so kindly and fairly put in Section 42 of the Intro, p. 55-6, I shall consider in a later paper. Of this too I was convinced that "The American Institute of Phrenology," whatever earlier phrenologists may have taught, accepts the doctrine of an immaterial spiritual soul and has nothing more to add, but confines her study and her instruction to the material physical man, and more especially to the brain as the organ of the mind. In this series of papers I shall not attempt to teach Phrenology or a professional secret how we compel the empty, hollow skull of a dead jester to give up its secrets. This the Institute does in a very thorough manner. But of it, and of the living

skulls around that table, I shall now speak.

The class of 1883 was composed of seventeen men and one lady. Before us were our instructors. Least conspicuous, yet most attractive, of all was the refined, intelligent face of Mrs. C. Fowler Wells beaming with kindness and womanly grace. Dignified, even queenly, she won then, and has ever retained the respect of us all. "The History and Progress of Phrenology in America" is her special branch of instruction. No one has had a more personal acquaintance with the struggles and hardships of the brave teachers of this science which, in the writer's opinion next to the knowledge of God and His revealed word is most important, viz.: a knowledge on the part of every man of himself and of his fellowmen. Prof. Sizer is the prominent head—big and brainy. A short, thick, arched neck joins it on to broad shoulders. A strong masculine type with seventy or more years, and strength unabated, as light upon his feet as a girl, active imitative and rich in anecdote, the examiner in the examination room of Fowler & Wells Co., he fills his department well—"The Theory and Practice of Phrenology and Physiognomy." Prof. H. S. Drayton, M. A., M. D., is the philosopher. He looks like a philosopher, talks like one. Though comparatively a much younger man—even the few dark hairs which he spreads over that far-reaching, bald, back forehead, have a philosophic turn to them that convinces you he is a philosopher. But metaphysics is overshadowed by the physical in this School of Physical Science. Hence only those of college training, or those who repeat the course, fully appreciate the importance of his department—"Mental Science, its History and Relations." Last week the parsonage was honored by a visit from this genial professor. Leading us in worship around the family altar, catching trout in the mountain stream, or presiding at the church organ in the morning and even-

ing services on the Sabbath, he is ever the same, a deep, meditating brain. Dr. N. B. Sizer, B. Sc., M. D., is a good chip of the old block; "born," as the father says, "not with a silver spoon in his mouth," but "as the result of intentional prenatal influences—" with a book in his hand"—teaches "Anatomy and Physiology." Dr. Robert A. Gunn, treats of "Magnetism, Psychology and Clairvoyance." Prof. E. P. Thwing, Ph. D., M. D., Dr. John Ordronaux, son of the famous Naval officer, and Prof. Fred A. Chapman, the instructor in "Elocution and Vocal Culture," were then occasional lecturers. But of most interest to the writer of these accessory features was Prof. James B. Richards's course in "Idiocy, Imbecility and Abnormal Men-

tality." Made master of arts by Harvard, early associated with Dr. Howe, of Boston, at the expense of the Commonwealth sent to Paris to study the subject in the light of the great French University and Academy, and having won phenomenal success in his treatment of idiots and imbeciles since his return, his course alone was well worth the expense of the entire Institute session. A son of the Richards, who with two others kneeling around the haystack at Williamstown, Mass., formed the American Board of Foreign Missions, he fulfilled well his mission. The Institute of Phrenology is a modest, quiet working power in the heart of the great Metropolis, doing a good work.

ARTHUR CUSHING DILL.

THE OLD SPINNING WHEEL.

I WAS traveling on the Erie railroad on my way to the illimitable West, when at one of the stations I was attracted by some energetic demonstrations of the baggage master, implying the extreme of contempt; while an old, worn face was lifted to his, expressive of some pity and some mixture of terror as she laid her hand tenderly upon an old spinning wheel with which the profane foot of the baggage master had just been in contact. The fact had smote upon the heart of the ancient one, and she had gathered the desecrated article from the ground, and placed it in an upright position, with a look of tender affection.

"What is the matter?" I questioned, in turn laying my hand upon the wheel, which called to life many a childish reminiscence.

"Matter! Why, that woman wants me to 'check' that thing standing there; enough to half fill a baggage car. I don't see what the thing is for, anyhow."

Unhappy man! he had never seen a linen wheel, once prominent in every household. He had not even seen the great spinning wheel where pretty maid-

ens stepped back and forth; none of your pale, nervous girls, but bright and blooming, keeping time to the burr of the wheel, to the tune of some old ballad: of Queen Eleanor and Fair Rosamond, The Major, Only Son, or The Nut-Brown Maid.

He had never seen stately dames sitting like the weird sisters who open the thread of life, distaff in hand, and foot on pedal, their blue-veined fingers feeding the spindle, a picture in itself full of suggestion, and a feature of an age gone forever.

But to our story, which is brief. I replied at length:

"Why, my good man, that is a wheel upon which to spin flax. If you had a grandmother—I hope you had—she spun your first summer suit on just such a wheel."

The woman turned upon me a look of grateful admiration. I had risen at once in her estimation by this bit of knowledge, and she gave me an audible blessing, which is the best thing to give in this world.

"I am sure you will 'check' the wheel, and look after it, too," I con-

tinued to the man. "It has great value in this woman's eyes; it takes so little to make people happy." I added the last clause by way of parenthesis, for the pleasant conductor had already gathered up the wheel as tenderly as if it had been a disabled lamb, his tongue stuck in his cheek, for it all looked foolish to him, but the sunny side of the man's heart had been turned like a ripe peach to the glowing light.

Women oftener know how to reach a man's heart than one of their own sex under like circumstances, and men are more easily prompted to these virtuous escapades than we women are, for they more readily respond to a sweet tone of voice, or a pleasant smile, and they feel at once that charm of manner so often lost upon us.

Shenstone gives us a pretty picture involving the spinning wheel.

"Around my ivied porch shall spring
Each lovely flower that drinks the dew;
And Lucy at her wheel shall sing
In russet gown and apron blue."

This is a sweet portraiture, and the name Lucy appropriate, coming from Lux, light, and suggestive of hawthorn shimmering in the sunshine, and birds talking an unknown tongue along the hedge-rows. Wordsworth appropriately calls the lady of his early love Lucy, where

"She dwelt amid the unfrequented ways
Beside the spring of Dove—
A maid, whom there were none to please,
And very few to love."

Burns puts a pretty song of the spinning wheel upon the life of his Bessie:

"On ilk a hand the furnies trot,
And meet below my theekit cot;
The scented birk and hawthorn white,
Across the pool their arms unite—
Alike to screen the birdie's nest
And little fishes cooler rest;
The sun blinks kindly in the hiel
Where blythe I turn my spinning wheel."

I remember to have heard when a child the girls sing an old song while they turned the wheel, the purport of which was that a youth was in search of a wife, saw a handsome girl singing a medley while she turns the wheel with great spirit, breaking the thread and cut-

ting it away, while she warbled

"Break the thread—I do not care,
For I am young, and gay, and fair—
Out, and away, and *sprawl ye there.*"

The lover listened, disenchanted, and went away singing

"Were you prudent as you are fair
You would make a web out of sprawl ye there;"

a delicate allusion to the sweet web of love she had failed to spin.

Burns in the same relation has a stanza for the wheel was an appendage to every household not many years back.

"I bought my wife a stone of lint,
As good as ever did grow,
And all that she could make of it,
Was a weary pound of tow."

To understand the above allusion it must be known that she had tangled and wasted the lint or flax, which should have made a good thread of linen. Tow is the waste of the flax.

The upright arm of the linen spinning wheel is called the distaff, and is identical with these found in ancient doorways, where royal dames and beautiful maidens occupied themselves in the industries pertaining to the "fine linen of Egypt."

The Parcae are represented spinning with a distaff. With the introduction of the spinning Jenny and the loom of the factory, no less than the sewing machine, much that was once picturesque and elegant has disappeared in the industries of women; and, if they have lessened her toil, and opened to her broader fields of knowledge, have not the less disturbed her social and domestic relations.

ELIZABETH OAKES SMITH.

GOOD FORM IN VISITING CARDS.—The fashion of cards used for calls, etc., changes slightly at times, but there are certain general rules that always hold good. The card should not be noticeably large or small, white, of fine, unglazed texture, without decorations of any kind, and bear nothing but the name, with possibly the residence, or day of reception, in clear unflourished script. Mrs.

or Miss, should precede the name, if a lady. The title is optional in the case of a gentleman. A married lady's card should always bear her husband's name. The best usages prefer, in the case of a widow, that her given name appear instead of that of her late husband. During a young lady's first season, her name is engraved under that of her mother. When a lady leaves town for an extended

absence, it is customary for her to send by mail P. P. C. cards to those persons whose acquaintance she wishes to keep up. When she returns she may, if she chooses, send cards either with or without an "At home" day upon them. P. P. C. stands for *Pour Prendre Congre*—to take leave—and should appear in capitals, on the lower right hand corner.

PHRENOLOGY IN THE SCHOOLROOM.

EDUCATION consists in the exercise, development, and training of all the powers of body and mind. Those who are engaged in the work of training the young should take into consideration all the elements of man's nature, physical, intellectual, social, and moral. What is desirable is balance or harmony in all the parts of man's constitution. In a vast number of cases symmetrical development is unattainable, because many are naturally unbalanced. Yet with the aid of a thorough knowledge of human nature many deficiencies and excesses may be at least partially remedied. We can not create new faculties of mind or body nor obliterate those which exist. Each child is born with all the faculties it will ever have. But those which are naturally weak can be strengthened by being frequently called into activity and exercised upon their legitimate objects; and those which are too strong may be restrained so that they will act only in their proper sphere. A child that has excessive Destructiveness and Combativeness is liable to furious bursts of anger, and the frequent activity of these propensities increases their strength, and every day renders it more difficult to control. If, however, those who have the training of the child in their hands avoid exciting those faculties, and appeal often to its Benevolence, its Conscientiousness, and its other higher sentiments, much unpleasantness may be avoided, and its better nature may be gradually brought into the ascendancy.

In view of this fact how important it is that teachers and parents have a thorough and systematic knowledge of human nature in all its phases. No one will dispute the statement that the better a workman understands the machinery he uses or the material he works upon the more able will he be to adapt his means to the end which he seeks to accomplish. The farmer must know what crops can be raised from that particular soil which his farm contains. Otherwise he might spend a great deal of money and much valuable time on what would result only in waste. The surgeon must know exactly what instruments to use, and how to use them in each individual case; if he does not, the life of the patient is in constant peril. So, too, the teacher, if he wishes to be successful, must understand the nature of the mental faculties and their relation to those branches of knowledge which he attempts to teach. Not only must he understand the nature of mind in general, but he must be able to know the nature of each pupil. No two pupils are alike; and the teacher who attempts to teach all pupils by one method will fail, just as the physician would fail who would try to cure all diseases with one kind of medicine. Each pupil must have training according to the development of its faculties. One child may be trained in one way, while another must be trained by a method entirely different.

It is a common complaint among

teachers, school officers, and patrons that much of the money and labor which is appropriated to school work results only in loss; that teachers know too little of the children whom they are expected to instruct; that in training the young many mistakes are made which are almost impossible to overcome in after years. Such complaints will be heard as long as teachers neglect to study the human mind, or as long as they attempt to study it by shutting themselves up in their own shells and reflecting on consciousness.

If teachers would study their pupils through the light of Phrenology, they might avoid most of the difficulties which they now have to contend with, as well as greatly increase their usefulness. About a year ago I visited a school taught by a graduate of the American Institute of Phrenology. His work was a practical demonstration of the value of Phrenology in the school-room. Each pupil was being taught and managed exactly as his mental development indicated was best. Each one was receiving the full benefit to which he was entitled. In every respect

it was a model school. This teacher is not what would be called a brilliant man. I have seen many teachers who were as well fitted to succeed in teaching as he, yet who were utter failures. He has a thorough knowledge of Phrenology, upon which he implicitly relies, and he makes a practical application of that knowledge in all of his school work. Herein is the secret of his great success.

A course in Phrenology ought to be placed first on the curriculum of studies prescribed for those who aspire to a position in the teachers' profession. Why will teachers cling blindly to the old method of studying mind by introspection, instead of walking forth into the light of truth as taught by observation? Horace Mann, the greatest teacher of the present century, declared himself a hundred times more indebted to Phrenology than to all the works on metaphysics that he ever read. When teachers have the courage to follow in his footsteps a new era will dawn upon them. Then, and not till then, will they be able to attain the full measure of success in their noble work.

H. S. BARTHOLOMEW.

ARISTOCRACY IN EDUCATION.

— Ave., August, 19, 1887.

Madame Montague,

My friend, Mrs. Wisner, desires to place her daughter in your school; will you kindly appoint an interview, that we may arrange the matter in detail?

Sincerely your friend,

Elizabeth Victoria Oaks.

Sunmit Hill, New York.

August 20, 1887.

My Dear Mrs. Oaks.

Your note is at hand, asking a place in my school for Miss Wisner. What are her antecedents and who is she? Who is her father, and who her mother? I do not recall the name in the book of heraldry. She may be all right, and I hope she is for your sake, my dear

Mrs. Oaks, for in these days when a little money suddenly acquired arouses the ambition of common people to avail themselves of the prerogatives of their superiors, to indorse or vouch for a person is a very perilous if not dangerous thing to do. I beg you will be careful as much for society as for my personal prosperity; unless her pedigree can be established to the peerage, I shall be obliged to decline to accept her as a pupil in my school. I must hold myself exclusive in this matter.

Yours cautiously,

Olivia Montague.

— Ave., New York.

August 21, 1887.

Dear Madame.

It grieves me to learn that the Wis-

ners can not trace their ancestry farther than the grandfather on the mother's side, who was an honest and successful merchant in the southwest and an American. He amassed a goodly fortune, and dying, left it to his only daughter. This daughter married Mr. John Wisner, of England. He gave no account of his relations, and died at the end of two years.

Miss Mary Wisner is the result of this union, a beautiful young lady of fourteen, and a pronounced specimen of the American type, clear cut, bright, and genial, full of life and spirit and refined humor. She is just such a girl as one instantly admires and respects.

Her mother is amply able to meet any expense, and desires above all things to give her child every possible advantage. I can vouch for her moral, intellectual, and financial soundness. Can you not, my dear madam, make an exception in this case? Waive your objections for my sake.

Once more yours, etc.,

Elizabeth Victoria Oaks.

Summit Hill, New York.

August 21, '88.

My Dear Mrs. Oaks.

It is quite impossible. I can not receive your young friend into my fold. It would be used as a precedent for future lapses of the rule, and would end in no good. I regret exceedingly to refuse a request from one whom I esteem so highly as Lady Oaks.

Regretfully Yours,

Olivia Montague.

The readers of the JOURNAL may be surprised to learn that there is a young ladies' school in Republican America, where no student can enter unless her ancestry can be traced to the peerage. "Well, well," you exclaim, "what are we coming to?" I can tell you in which direction we are drifting—toward an aristocracy. The rich are growing richer, and the poor poorer every day. All business now is done by large companies, corporations, in some sense mo-

nopolies. Small trades or shops are being absorbed into the great concerns. The corporation and the workmen, the *grinders* and the *ground*. This brings *class*, as in all old countries. The upper, the middle, and the lower classes are evolving in distinct stratas. As the nation gets older and richer the lines will be drawn tighter and tighter.

It may be a long time before the people will allow their *dress* to be prescribed by *law*, a class dress as in Asiatic and some European countries, but it is in the hearts of more people in our country than one would at first suspect. May the time be far distant when we are to be ruled by an aristocracy.

Make the rounds of all the ancient peers and what have we there? A mass of poor human nature, fraught with the ills of all mortals, and of all people least capable of guiding souls aright. Souls are eternal and not hereditary, or sure to follow in the lines of family. Moreover a soul, in its fullest sense, is better called the spirit, the moving power in man. And he be good, a *generous spirit* moves him to all good gifts. A contented spirit makes rest and peace; a covetous spirit makes war and unrest, makes seemly and right the absorption of another's good. All is at least right which gratifies his selfish wants. So sometimes a beautiful soul is sent to the service of a devil and wears itself out in a weary, ungrateful struggle. Words are vain to one who has no ears, and sophistry lost on daily ignorance.

It is ignorance makes slaves of us. If we knew what is truly ours, we were verily like gods, knowing good and evil, having power to be, and to do marvelous things. Make laws as we will, many are ready to break them and laugh at the penalty in the face of Justice. Work as we may to keep all things adjusted in the machinery of state, yet the wheels are slow and grind many noble people to atoms each year. On the altar of one success are the bones of many victims.

HELEN POTTER.



SANITARY REFORM.

BY THE AUTHOR OF "HOUSEHOLD REMEDIES," "PHYSICAL EDUCATION," ETC., ETC.
CHAPTER I.—THE POISON TRAFFIC.

THE progress of civilization has recorded its triumphs in the history of legislative reforms. There was a time when laws were enacted wholly in the interest of autocrats. As long as the serfs of a savage chieftain paid their tribute and did not reduce the number of tax-paying subjects by mutual slaughter, they were permitted to sell or drown their infants, kick their wives, torture their slaves, let their children grow up in absolute ignorance, gamble or puddle at will and freely indulge their most brutal lusts.

Then came the Age of Class Legislation. The children of the poor were sent to school and trained in habits of industry; but they were trained and educated chiefly for the benefits of lords and priests. Industrial pursuits were carefully fostered; but only to swell the revenue of privileged vampires, who enforced the payment of their imposts to the last drop of available blood, and frequently collected an extra assessment by highway-robbing a traveler approaching the neighborhood of their hereditary stronghold. Education was almost monopolized by the agents of spiritual task-makers, who used their influence to curtail the pittance saved from the clutches of the feudal lords, and after exhausting all earthly means of extortion, often suc-

ceeded in levying tribute upon the dread of a lurid hereafter.

After centuries of peasant wars, revolutions and declarations of independence, we have at last reached the age of public welfare laws. Legislation has been revised for the ostensible purpose of securing the greatest possible happiness of the greatest possible number, but the prevailing theories regarding the conditions of that happiness still demonstrate the survival of preposterous delusions. Even the monarchical governments of military Europe spend millions for educational purposes, bravely recognizing the truth that "knowledge is power;" but the knowledge of their best schools chiefly develops the power of conjugating irregular Greek verbs. The best endowed colleges of free America, too, devote some eighty per cent. of the curriculum time to the pursuit of graveyard studies—the memorizing of dead languages and the inculcation of cadaverous dogmas; some fifteen per cent. to abstruse mathematics, and hardly two per cent. to political education and the science of health. Modern civilization has honored its prophets by the theoretical recognition of the past, that cleanliness is next to godliness. But while the guardians of law and order are fined for a rust speck on their resplendent buttons, our

slums are permitted to reek with filth; crowded tenements doom thousands to the misery of domestic squalor, and our wealthy philanthropists, who contribute millions for the administration of a rite supposed to wash away the sins of juvenile Hottentots, can spare but few pennies for the purpose of blessing the grimy youngster of their native towns by the endowment of a public bath. That finest characteristic of an advanced civilization, the solicitude for the welfare of posterity, nobly manifests itself in the culture of tree plantations, whose shade will benefit only the children of future generations; but while the visitors of our public parks are fined for culling a leaf from a sprouting bush, timber-pirates are permitted to devastate the woodlands of our public domain at the rate of 25,000 acres a day, and thus to create an ever-growing area of artificial deserts destined to doom our children to the calamities of widespread droughts and famines.

But the most glaring anomaly of modern civilization is, after all, the toleration of the poison traffic. A student of mediæval history may be pardoned for an emotion of honest pride in comparing the social blessings of the nineteenth century with the social misery of an age when truth-loving men risked to be burnt alive for questioning the ghost stories of Asiatic mythology, and when millions of helpless women were tortured to death on such charges as storm-brewing and broomstick rides through the midnight sky. Now, is it possible, we ask ourselves, that such outrages or common sense could for a moment be tolerated, and what shall explain the intellectual obfuscation of a race that could endure them for centuries?

But with a similar amazement, philosophers of the future will probably study the legislative absurdities of our own age. "What not if patience," he will ask himself, "could so long endure the insanities of a government which, in the name of morality, suppressed public

reaction on the day when ninety-nine out of a hundred workmen found their only chance of leisure, but which had no hesitation in granting wholesale and retail license to the venders of a life-blighting poison? Imagine the legislative sanction of a formal contract to the effect that in consideration of a pre-paid percentage of his net profits, the licentiates of poison-monger District No. 265 are herewith authorized to afflict their fellow men with disease, penury, brutal passion, domestic ruin, and temporary or permanent madness."

And yet, the rum-shop evil is only a branch—not always the main branch of the poison curse. In many districts of our own country where bar-rooms are found only in the slums of the larger cities, every village is flooded with the vile liquors of the patent-medicine quack. In millions of households the constant use of narcotic beverages has produced tea toppers and coffee tipplers who depend upon their unnatural stimulants with all the morbid hankering of an inveterate dram drinker, and have to pay the penalty of their habit in a complication of nervous disorders. Thousands of city dwellers who shun the vale of the Upas tree, and surround their homes with every safeguard of moral and physical health, can not walk the public streets without being forced to inhale cloud after cloud of sickening nicotine fumes—a nuisance which in places of public resort affects many unwilling victims with all the penalties of the voluntary sinner.

According to the statistics (and well known under estimates) of the Treasury Department, the alcohol drinkers of the United States spent during the last fiscal decade an annual average of \$360,000,000 for whiskey, more than \$50,000,000 for other distilled liquors, nearly \$60,000,000 for wine, and \$135,000,000 for ale and beer—an annual aggregate of \$622,000,000 for alcoholic beverages alone. Adding \$210,000,000 for tea and coffee and \$150,000,000 for tobacco in its most deleterious

form, we find that the aggregate poison bill of our enlightened republic amounts to a minimum of 982 millions a year. That estimate, however, does not include the cost of liquors evading the revenue tax, nor the indirect cost of intemperance, such as the loss of production capacity, the increase of hospital and prison expense, the loss sustained by the employers of inebriates, etc. The total direct and indirect cost of the poison vice would therefore, undoubtedly, exceed an annual average of a hundred million dollars.

The loss of life caused by the direct consequences of the poison habit, equals the results of a murderous war, waged year after year, without the compensation of glory or conquest. The death of 10,000 soldiers, who, on an average, would have survived for the next twenty years, represents a national loss of 200,000 years of human life. Intemperance shortens the life of its victims by at least fifteen years, and a community which could afford to send 10,000 soldiers to the field generally sends a hundred thousand men to the dram shop. Even supposing of the ten thousand fighters not one should survive a ten years' war, those ten years would witness the premature death of at least twenty thousand poison victims, and perhaps suffer more from the ravages of the stimulant vice, than from the horrors of a protracted war.

The loss of health entailed by the habitual use of fermented and distilled liquors, tea, coffee, and tobacco so far exceeds the physiological penalties of all other vices combined, and the after-effects of poison diseases are so incurable that Nature might be said to avenge the stimulant vice as the one unpardonable sin against the sanctity of her laws.

The moral loss can not be calculated by the estimate of our temperance orators. Narcotic drinks, not less than alcohol, have for centuries undermined the moral stamina of our species. Idleness, selfishness, and moral apathy,

have steadily increased with the increase of the tobacco vice. Tobacco and opium, rather than polygamy, have sealed the doom of the Moslem nations. Medical "tonics" have filled the countries of Christendom with querulous egotists and moral imbeciles. A penchant to deeds of violence characterizes the votaries, even of the milder alcoholics.

"In regard to temperance," says Mr. Hillard ("Six Months in Italy"), "I am inclined to think that the inhabitants of Southern Italy, and the wine countries generally, enjoy a reputation beyond their deserts. If I should name the proportions of cases of stabbing brought to the Rome hospitals, and which occur in or near wine shops, I have no doubt that it would furnish a strong fact wherewith to point the arguments of a temperance lecturer."

A mathematician who computes the cost of intemperance by its equivalent in loaves of bread, thinks that "the vision of that wasted mountain of food should be impressed in all its logical significance upon the minds of our children," and adds that only the force of habit could "enable us to pass a rum shop without a shudder of regret." But habit should not wholly prevent an equally logical moral inference, the reflection, namely: Is it not rank folly, or still ranker hypocrisy, to waste a single penny or a single moment of time on the redress of small social grievances, while the monster curse of the poison traffic remains unabolished? The charge of monomania, preferred so often against the extremists of the Prohibition Party, is certainly not deserved by their singleness of purpose, and hardly even by the exclusiveness of the proposed remedy. If that remedy can be proved to answer its purpose or any important part of its purpose, its legality can not for a moment be disputed on the basis of the "personal liberty" argument. The interests of public welfare must always outweigh the consideration of individual predilection, and the favorite sophism

of the rum seller will become untenable, as soon as a plurality of our fellow citizens recognize the poison vice as the greatest and the most unmitigated curse that has ever afflicted the human race. The lottery shark, the professional gambler, the vender of obscene literature, would in vain plead the free consent of their customers, yet the infallibly injurious consequences of that consent can be much more clearly demonstrated in the case of the poison vender. The lottery player may draw a prize or a blank, the occasional card player may win or lose, the reader of sensual literature may be actuated by motives of literary curiosity and may or may not contract the infection of the moral virus, while the customer of the rum seller exchanges his coin for a poison infallibly injurious in any quantity, and extremely apt to effect the development of a health and mind-destroying passion. That *progressive tendency* of the willenslaving poison vice is, indeed, the most cogent argument against all stimulant habits whatever, and its general recognition would deter many reckless toppers by the dread of *losing their freedom*, as well as their health and wealth, and thus turn the personal-liberty-argument into a temperance weapon.

There is no doubt that the main support of the poison vice would collapse with the ruin of the stimulant traffic. "It is plain to me as the sun in a clear summer sky," says Dr. Humphrey, of Amherst College, "that the license laws of our country constitute one of the main pillars on which the stupendous fabric of intemperance now rests."

"It is not necessary," says a correspondent of the *Boston Globe*, "to dwell on the evils of intemperance, and yet people seldom think how great a proportion of these might be prevented by driving the iniquity into dark hiding places, and preventing it from coming forth to lure its victims from among the unwary and comparatively guileless. Few young men who are worth saving

would care to seek it out, if it were once driven out of sight."

Still, we should not underrate the collateral preventives, and I am firmly convinced that, next to hygienic education, the most effective of those adjurant remedies would be the promotion of healthier pastimes. Nine-tenths of our young toppers drink to get drunk; they haunt the liquor shop as the only available refuge from the tolerable tedium of our sabbatarian Quaker life. "How did you ever come to contract that habit?" I have asked more than one victim of alcoholism; "did your friends permit you to visit the beer shops?"

"Where else should a fellow go?" is the usual reply. "Everything is closed up on Sundays, but the saloons are open or have back doors. Where else should I go?"

Where indeed?—especially in the Sabbatarian middle towns? No base ball, no free gymnasium, bathing prohibited, fishing out of the question, the very libraries closed. "Where should a fellow go?" To church? The doctrine of renunciation offers rest to the weary. But suppose they could come in quest of other less worldly diversions from the drudgery of six dreary working days? Antiquity had its *palaestras*, gymnasia, and hippodromes; the Middle Ages their tournaments, May days, and archery contests. France has her fetes champetre, Mexico her *matanzas*; but what shall the Anglo-Saxon laborer do with his sixteen hours of leisure? A free Sunday garden with swings, nine-pin alleys, free music, and zoological attractions would be a more potent ally of temperance than a thousand home missions. "I am a great friend to public amusements," says Dr. Johnson, "for they keep people from vice;" and the practical alternative still reduces us to the choice between rum or healthier recreations.

"Prevention," however, "is better than cure"—though not always more practicable; but in the interest of the

rising generation the friends of reform should promote the publication of popular temperance text-books, and insist on their introduction into public schools and liberal colleges—even at the risk of curtailing the monopoly of the irregular Greek verbs. Temperance pamphlets, in this age of sugar-coated pills, might be popularized by their combination with almanacs and humorous illustrations, or their introduction in the form of stirring dramas and novels—a plan which secured the memorable success of the corn-law agitators.

It could do no harm to realize the ideal of our temperance leagues who wish to extend their pledge of total abstinence to the renunciation of all social vices whatever; but even after the attainment of that ideal, the main efforts of hygienic education should be devoted to the problem of preventing the revival of the poison hydra at any time or in any form, for the lessons of alcoholism have been bought at a price which mankind can not afford to pay a second time.

FELIX L. OSWALD, M. D.

A BRIEF NOTE ON MEASLES.

THIS is one of the most common of contagious diseases. So common indeed, that few people realize its true nature as a malady that may entail serious consequences upon the organization. The number of children that die of measles is much larger than the community in general knows, and we feel warranted in saying that if people fully recognized the fact they would show a much more earnest regard to preventive measures than they do now when the disorder is known to be in the neighborhood.

Measles begin with the symptoms of a cold in the head; there is feverish pain in the limbs and back; hoarseness, a cough, sneezing, with, perhaps, a running from the nose, and weak eyes. On the third or fourth day a rash appears on the forehead, spreads over the face, and extends to the body. It is a darker red than the rash in scarlet fever, and feels slightly raised to the touch. When the rash first comes out it looks somewhat like flea-bites on the face, and then extends downward over the neck, chest, abdomen, and limbs. At first the spots are separated but soon join and form clusters of a half-moon or crescent shape, with a reddish color.

The eruption of measles is to be distinguished from that of scarlet fever and that of small pox by the following particulars: In scarlet fever it appears

usually on the second day, first on the neck and chest and spreads rapidly; the spots are uniform or in large patches, a scarlet area interspersed with raised spots and small vesicles, is fully developed by the seventh day, and then begins to scale off.

In small pox the eruption begins to show itself at the end of the third day or beginning of the fourth day, on the lips and forehead. At first it is papular, then pustules form, which break down and discharge on the eighth day.

The crescent-shaped patches of measles last five days, when the skin begins to scale off. It must be noticed that the fever is not so high as in the other contagious diseases, and the nasal catarrh is not peculiar to them. When the eruption is passing off there may be considerable itching. By the ninth day the skin has usually cleared up. This is the course of the disease in a mild form.

TREATMENT.—The patient should be kept in bed in a well ventilated room at a temperature of about sixty-eight degrees. The window must be lowered a few inches, at the top, if possible, the opening being covered with a strip of flannel to prevent a draught. As fresh air is indispensable, if this makes the room too cold, a fire must be lighted to counteract it. Much care must be taken to avoid chilling the patient as this will

be likely to involve grave complications.

A warm sponge-bath should be given each day, folded blankets being placed over and under the patient in bed, the night-dress removed and the hand holding the sponge being passed under the upper blanket while bathing, to avoid exposure. The window should be shut during the bath. If the rash causes much irritation it may be rubbed with cosmoline or sweet oil.

The eyes should be carefully shaded from the light, and no reading permitted until they are strong again. Serious inflammation and permanent weakness of the eyes may follow if these precautions are not taken. It is often very hard to keep a child amused and happy under these restrictions. This is one of the difficulties a good nurse will overcome, and she must remember that the child's comfort during life may depend upon the care it receives at this time.

Speaking again of exposure to cold, the patient in measles will not bear exposure of the surface of the body to cold as well as one attacked by scarlatina or small pox, on account of the great tendency to bronchial or pulmonary inflammation. Children therefore should be watched to prevent them from throwing off the bed clothes, and an even and moderately moist temperature should be kept up in the room. A kettle with boiling water should stand in the room.

Nutritious food in the form of milk, thin gruels of oatmeal, crushed wheat, custard, with fresh fruit, is the best for the patient. No animal food whatever must be allowed. Cooling and pleasant drinks as lemonade, carbonized cider, orange water, and good mineral water are serviceable in small quantity at a time. The state of the stomach and bowels should be watched and kept in the best possible condition.

If delirium comes on, and the rash suddenly disappears, which are grave symptoms, the sufferer should be put for a few minutes into a warm bath containing four tablespoonfuls of mustard to

each pail of water, taken out, quickly dried with warm towels, and wrapped in blankets. If the child has a quick pulse and seems very sleepy, the breathing should be carefully watched to detect any symptoms of trouble with the chest.

Pulmonary symptoms in these cases are likely to intervene. Niemeyer is doubtful of the good results following the above treatment by bath and mustard, "because these procedures do not generally act advantageously on the pneumonia and other complications, while they increase the fever." He does not, however, give a line of treatment as a substitute, but advises simple measures.

The inflammation of the throat in measles may extend through the Eustachian tube into the middle ear and cause deafness. To avoid this a simple gargle of salt and water or potash and water, one drachm of potassic chlorate to two ounces of water, may be used occasionally, and during convalescence this mixture may be snuffed up the nose a few times a day.

H. S. D.

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LIFE A STRUGGLE.—According to some modern physiologists, a large number of the most fatal diseases in man, oxen, and sheep, are due to poisonous matter produced in the blood which was known as bacteria. When this poison gets into the system the duty of the corpuscles is to go for it, and they proceed to eat as much as they can; but sometimes they can not attack it all. The bacteria is too much for them, with the result that the bacteria grows, and very soon proves fatal to the body in which it exists. The corpuscles could, however, be educated to deal with the bacteria, and the future of preventive medicines would be the education of the white blood corpuscles. The fact that one man, by constant use, could without injury take a dose of arsenic that would kill six ordinary men, was due to the fact that he had by weakened doses been educating and training the white corpuscles.

THE HUNTING NYMPH.

UNDER this title a writer in the *Boston Journal* criticizes, with a sharp yet graceful pen, the physical incongruities of the fashions in dress adopted by society women and their imitators.

"I have before me," he says, "a photograph of the statue of the Hunting Nymph, lately on exhibition at Horticultural Hall, and my fancy has been busy with it this morning—not as a work of art, but as a type of possibilities. Diana's band of attendant huntresses may be pure myths, or at best instructive allegories; about this particular maid the draperies may float too freely and fully to embody the strictest artistic perfection; but the beauty, the force, the artistic pose, full of power and action, are enough to challenge admiration and concentrate thought upon the physical condition of woman as she is and as she might be. Those free, full limbs, from which the buoyancy of motion seems to emanate; that bounding step which spurns the clods of lower earth as if one but touched it to rise again into the upper elements; that pliant grace, full of exquisite energy, to which effort seems but a pastime—I wonder how much of their witchery is hidden under the paniered, draped, and tailor-made costumes of to-day? I wonder whether the superabundant vitality even of one of Diana's nymphs could express itself through a corset, a bustle, a pair of high heels, and ten pounds weight of clinging cloth skirts hanging from her weary hips. Would she not become as languid, as nerveless, and as nervous as the rest of us; and would not the whole magnificent poise of physical equilibrium be overbalanced in the struggle between nature and unnaturalness? Woman's dress to-day seems to have no definite connection with the human body inside it. The girl may be as supple as a young fawn, lithe and graceful, with all the harmonies of health, youth, and beauty; she can not animate that

kick-back and stiff abomination of whalebones, strings, stiff paniers, and heavy draperies with any movement more easy and beautiful than a series of jerks and flops, which would drive any lover of graceful motion to the verge of insanity. The exquisite line of the old poet—*et vera incessu patuit dea*, can never be applied to the modern maid. Her gait never reveals the goddess. It would be ludicrous, if it were not so serious a matter, to note the different phases of ungainly awkwardness which a group of young girls can develop in walking; and it becomes absolutely pathetic when they begin to run. In evening dress, when the soft-clinging gowns refuse to be molded over the harsh foundations of horse hair and springs, and when the long flowing lines fall in swaying curves about the figure, there is still much elegance of outline left, and the springing or gliding step lends its own distinction to the outer envelope. Even in tea gowns, the innate refinement of the wearer can often modulate her carriage into something graceful and delightful to the observant sense. But a walking garb, pure and simple, is a blot to the eye; grace is a lost art in its construction, and Venus herself, or Juno, could lend neither beauty nor majesty to its hampering folds. It may be wonderful as a combination of color, perfect as to its "hanging" properties, immaculate in fit, sublime in conception, and more intricate than the labyrinth of Crete in its draperies; but graceful it is not, and never will be, until the humanity it encases is allowed some more share in it.

AN INQUIRY.

TELL me, ye winged winds,
That soar my pathway round,
Do ye not know some spot
Where tobacco is not found?
Some lone and pleasant dell
Some valley in the West,
Where, free from tobacco smell,
The sickened soul may rest?
The loud wind dwindled to a whisper low,
And sighed in pity as it answered, "No!"

A DENTIST ON MIND CURE.

IN a recent number of *The Archives of Dentistry*, the proceedings of a meeting in which several eminent American dentists participated are published at length. The topics of faith cure, Christian science were introduced incidentally, and some very plain talk was indulged in by such men as Drs. Kingsley, Meeker, and Pinney. Dr. Ottolengui in answer to a question spoke as follows :

I have read many of the advanced works on mental science, the faith cure, Christian science, and kindred methods; I have looked into the history of mesmerism, and even as far back as the age of magic; and I have found, as Dr. Kingsley has stated, that these same beneficial results have followed all the various and sometimes grotesque methods of treating human infirmities, and that all of them have been able to work the same miracles in the cure of disease. Of all the works that I have read on this subject, the one which presents the question in its most scientific features is a work by Dr. Hack Tuke, on the influence of mind on body. I would like to give a brief summary of principles there laid down as the basis of these cures, and which I have tried in my own practice with some success. The first thing to be done is to secure the confidence and expectant attention of the patient. If the mind of the person is made to look for and to expect a certain result, that result in many cases will come. This is the basis of the whole thing. Dr. Tuke first describes the influence of the emotions upon the functions of the body through the circulation in the nervous system, etc. Then takes up the influence of the will power and presents it in the same way, and in each of these he has illustrated by cases in actual practice, the wonderful and miraculous cures which have been produced without the use of medicine, and solely by the influence of the expectant mind, and the power of the will. They all operate and cure by the influence of the mind and its controlling power over the

body. In our days we have the faith cure, the Christian scientists, the spiritualists, etc., and they all work the same healing miracles, if you only believe.

There is nothing in the human system so easily controlled as pain. It may be alleviated or entirely banished by the influences of the mind. In my own practice I endeavor to gain the confidence of my patients, which is the first step in relieving their suffering. I have frequently, especially in the cases of children, been able to alleviate pain without the application of any remedy whatever. A case of this kind occurred in my office last Saturday. A little girl, eleven years of age, had a sixth-year molar with the pulp almost exposed. I treated, and capped it as well as I could with oxyphosphate. There was no pain whatever until the gutta-percha was put on, the pressure of which caused her intense agony. I did not like to remove the whole thing, because I had perfect confidence that the tooth would get well if not disturbed; so I said to the girl, "Now, Nellie, I will cure that for you just by keeping it warm." She said, "Can you do that?" I said, "Yes, I can do that; I have only to apply my hand to your face and your pain will go away in less than one minute." I took out my watch and took the little girl's face in my hands and held it there and told her the pain would go away; and in fifteen seconds by my watch, she declared she was entirely without pain. The secret of the whole matter lies in the expectant attention of the person, and the belief that relief will come.

A DOSIMETRIC PRESCRIPTION.—Dr. Semeler, of Mexico, writes: "A man, aged forty-five years, suffering from pneumonia, was treated by the dosimetric method, the following being one of his prescriptions, the figures representing granules to be taken at a dose. Bromo-camphor, 8; quinine hydrobromate, 4; arbutine, 1; strychnine hypophosphate,

1; aconitine, 1; veratrine, 1; digitaline, 1; sodium benzoate, 1; iodoform, 1; heli- enine, 1; musk, 1. These were to be taken once in every two hours, that is to say, a new medicine every ten minutes. In addition, two granules of quassine were given every time the patient took any nourishment. He took an average of three hundred granules a day, or three

thousand in the course of ten days, when he died. The cost of medication for this period was \$45.00."—*Medical Record*.

The editor *M. R.* makes no comment. He must have suppressed a strong objur- gation of the doctor, or the patient, or somebody, and following his example we forbear. Why should not the man have died under the circumstances?

A HINT ON PNEUMONIA.

IN the transitional weather between winter and summer we need to guard against those exposures to cold and dampness that produce catarrhal dis- orders, for so often and unexpectedly does what is called a simple cold develop into a serious affection of the lungs or bronchial passages. More people die from colds than from almost any other cause.

The ordinary symptoms of an attack of pneumonia in an adult are a distinct chill followed by fever, a sensation of tightness or soreness across the chest, and more or less sharp pain in one side or both on breathing. These symptoms may be slight or severe, some may be absent or others may be added. At this stage a hot footbath, with hot drinks and hot fomentations or a mustard plaster applied to the "sore" part, will often relieve the congestion, restore the normal balance to the circulation, and thus prevent seri- ous illness.

If the fever continues, and the stage of congestion passes into that of inflam- mation, the room in which the patient is situated becomes an important consid- eration. If possible, this should be a large one, or one that can be freely sup- plied with fresh air.

This is one of the utmost impor- tances in a disease like pneumonia, where a large portion of the lung is solidified or closed up, and all the breath- ing has to be done in the remain- ing portion. Less air then goes into the lungs than in health, hence the great importance that it should be well charged

with oxygen. Many a patient dies simply for want of good air. The bed should be placed near the middle of the room, so that the patient can be conven- iently reached from all sides, and also that the air may have more access than if it were in one corner.

There is little danger of taking cold during the stage of fever, pro- vided the patient is kept covered and no direct draft is allowed.

Carefully prepared food is most impor- tant because the patient's strength should be sustained as much as possible and this is far better done with food than with drugs or strong alcoholic stimu- lants.

Milk is the model food, and, except in those rare cases in which it disagrees, should be given in small quantities at frequent intervals. A quart of milk or its equivalent may be given in twenty- four hours.

Farinaceous broths, gruel, etc., are nourishing and may be used with this to secure variety, or may be substituted when gruel can not be taken. If a sufficient quantity of nourishment can be taken, and is well borne by the stomach, the patient will probably re- cover. A little sub-acid fruit is refresh- ing and usually aids the assimilation of food.

It should be remembered that good nursing is most important in this dis- ease. A physician however skilful can do little without an intelligent and ex- perience nurse to carry out his direc- tions and supplement his work.

HOW TO FEED A SICK PERSON.

IN serious illness, especially intestinal troubles, the sufferer must rely chiefly, if not entirely, upon milk, broths, gruels, or what our English colleagues term "slops," to sustain his strength. It is very important that the nurse should know how to give such nutriment as skilfully as possible to avoid unnecessary fatigue to the patient. The utmost care in the preparation of the food will be thrown away if the invalid can not be induced to take enough of it to nourish him properly, and the nurse fails in the first duty who does not devise means by which this shall be accomplished. When the head can not be raised from the pillow a bent glass tube can be used to draw the fluid into the mouth. If the end is raised a little as it is removed, not a drop need be spilled. Where there is delirium a piece of pure rubber tubing may be substituted for this glass, as the sufferer might break the tube and swallow a fragment of it. Feeding cups of different shapes are sold by druggists with and without spouts. In using them one should be careful to reg-

ulate the flow of liquid, that it does not come too fast. When it is necessary to feed with a spoon, see that there is not a drop on the bottom of it, put it well in the mouth, and empty the contents slowly. Always place a napkin under the patient's chin to catch chance drops, and dry the lips gently with it after the food is given. When the invalid is stronger and desires to drink from a cup, the nurse should pass her left hand under the pillow and raise the head and hold it at a comfortable angle, while with her right she grasps the cup, adjusting it so the liquid will flow easily but not too fast.

In feeding a helpless patient with solid food, it should be cut into mouthfuls of a convenient size and fed slowly, ample time being allowed for it to be masticated and swallowed with ease before offering the next. Nothing is more likely to take away the appetite of a weak person than to be hurried in eating, and this especially if the food is much relished. In this way, too, the patient is not likely to take more than the stomach can bear well.

HEALTH PAPERS. No. 7.

"WELL does the doctor know that all his physics will avail nothing if the environment be not healthful and full of hope! The soundest advice of lawyer or specialist may not compare with the God-speed of the kind friend, the lisping voices and childish smiles, and the sympathy of home music, which whispers 'come and be comforted.' But too many have hugged their 'fox' and agonized in secret."—*Sunday at Home*.

Methods of treatment and the theories upon which they are based vary greatly. Some are not unlike only, but clearly antagonistic to each other. Hence the sick room is a theater for the exhibition of modes, good, bad, and indifferent. Each professional adviser claims, and no doubt often believes, his way is right and all others radically wrong. What some

call symptoms others call diseases. Each clings to his own opinion, and pushes his practice to the bitter end. Some outsiders even presume to say that if thoroughly studied, and carrying conviction with them, both ways may be right! Disturbances are constantly occurring in the human body as the result of conditions that should have been guarded against, or failing in this, promptly removed. Some recognize these disturbances as indications of causes lying behind them. These causes are, in their view, to be sought for, and if still operative, removed.

When no causes exist, no results can follow. But results may often be more persistent than their causes. They may even become secondary causes of graver import than the primary ones. The

presence of things inimical and the absence of essentials may alike be disturbers of vital processes. The wisdom and skill of any physician may be measured by his prompt recognition of symptoms, his ability to trace them back to their causes and to remove or supply such conditions as the case may demand. At this point medical theorists and medical practitioners diverge widely. Better, perhaps, might it be said, they begin to travel in opposite directions. By far the greater number, following the beaten track, consider the removal of symptoms as the first consideration.

The seat of sensibility or insensibility, of action or inaction, must be reached by some potent drug. If the symptom disappears why should any one care if its cause still exists? Does your doctor trouble his weary brain, if his prescriptions cause the flag of distress to be lowered? Why should he delve into the depths of nature's hidden mysteries to trace out the origin of that which yields readily to the contents of his medicine chest?

If his patient has a pain, his mission is to remove that pain. If sleep refuses to come, he must make it come. If digestion fails he must order the organs to attend to their proper work and see that they obey.

Secretions may be diminished or even suspended. The excretions may cease to carry off dead and disease generating matter. But pills and powders are potent. Diuretics have the power to cause a little or great flow from the kidneys at the discretion of the man who attaches an M. D. to his order to the grocer or the butcher, for needed supplies. The torpid liver recognizes his power and pours out a flood of bile at his bidding. The dry and husky skin becomes soft and moist, then sends out drops and streams of perspiration in response to his sudorifics. The sluggish bowels no longer refuse to act when ordered to arouse themselves and do their proper work. Even the sensitive nerves recog-

nize his authority and refuse to warn the victim of impending evil, by twinging pains. Wherever and whenever the indications of abnormal action or condition become apparent, he is ready with skilful eye and hand, to detect and suppress them. It would not pay him to tell his patrons why they are sick, or how they should live in order to be uniformly healthful. Does not his income and his reputation rise or fall as sickness increases or diminishes? Conscience may prompt him to become a sanitarian and to work for the public health. But personal and family necessities impel him to do no such thing, or at best, appear to do so. The masses do not want a teacher to instruct them how to live in order to avoid sickness. This would involve a change of habits and modes of life. It is not to be thought of as an element of prosperity or of emolument on the part of any medical man. "Do not touch our cherished habits. Let us live as we choose to live. All we ask is that you devise some way to help us to evade the penalty of our doings. Do this and we will open our mouths and swallow whatever you choose to present to us. But do, oh do, give us something to swallow!"

Is this not a fair presentation of popular notions and feelings on this subject? The profession trains the people to rely on drugs, to demand them, and, as a result, they find it inexpedient, if not impossible, to resist the feeling of dependence upon them. J. S. GALLOWAY, M. D.

—♦♦♦—
WATER DRINKING. The ingestion of very hot or very cold drink, in health, has a damaging effect, which is increased just in proportion to the rapidity with which the hot or cold substance is taken. Hence the gulping down of ice water or hot coffee, etc., means eventually, according to the light we are quoting, a mere ventral damnation. If a person takes a drink to warm himself, he can accomplish this by having the drink at a temperature of 116 to 120 degrees F.

TWO MEN WITH ONE BOOK.

WE have been told to beware of the man of one book. There is a good deal wrapped up in that warning. It would answer as a text for a long sermon. The concentration, the discipline, the familiarity growing out of a very long protracted study of one great book might be unfolded, and how it fitted a man for ready debate.

But when I was in North Carolina, I saw a marked exemplification of the results attending upon the study of one book by *two* men. The men are brothers and neighbors, not twins, but with ages not far apart. They are also brothers indeed. Each is in good circumstances; each has a large farm or plantation; both have good balance of character and excellent common sense. Their families, larger than average, are a comfort and honor to the respective parents and the truest of cousins. Friendship, peace, and happiness dwell as native growths among them all.

One, the younger I think, came to own a book written by a certain Dr. Nichols, in which, among other things, was a description of the "Wet-sheet Pack." He read the work, lent it to his brother, and they became deeply interested, especially in the remedy named. They began to apply it to themselves and their families when any sickness befel them. They recommended it to other households. They treasured up and culled over their own observations and experiences. Their noble sons and handsome daughters grew into the skill of this treatment. The younger brother ventured, when solicited, to practice here and there this to him mighty appliance. He was sometimes assisted by the older brother. He was heroically thorough. The best preparation must be made, the application by rule, and the patient most wisely attended to after the pack.

Diet and other matters well considered. He had not conquered all opposition and prejudice at the time of my

visit, but there were well attested cases of recovery from serious illness that bordered on the marvelous. H.

A LEARNED MEMBER OF THE PROFESSION.—The following letter from a member of one of the learned professions—a "Fizishan" practicing in a western town—was sent to us by a wholesale firm with whom the "doctor" desired to establish trade relations. The writer is evidently a gentleman of manifold attainments, and some pleasing surprises in the way of novelties in medicine and perfumery may be expected when the new laboratory is in working order.

The letter is printed *verbatim*.

"Sir, as i am goin into Patant medison this spring quite extensive i hav ben advised to right to you and geat a cataloug of your drugs and i ame gointo keep other medison as well as make my own and all kinds of perfumery to-day i am making 7 kinds of medisons and i can make as menea as will sell and i determan run a wholesale business if you will send me a catalog of druges and if i can do bter with you than i can in Montral i will deal with you altogether becaws i think i can bild a gud trad up here wher i am. things is brisk and the outluk fur a larg drugist is grate ef he has the stock and can sell goods i remain yours Truly

PROFF. ———.

"I send you a refernce from a drugist at hom i hav delt with evry sence i commence to make medison."

The above from the *Canada Pharmaceutical Journal* could be matched by letters that have been received by us from "doctors" in practice at no great distance from New York. It is well that some of our medical schools are insisting upon a preliminary examination to entrance upon a course in medicine and surgery.—ED. P.J.

Child-Culture.

WHAT FOR?

DOES any one quite realize how largely the teacher holds the life of his pupils in his hand? That for six hours out of the twenty-four each day he is occupied in putting himself into the young humans entrusted to his care? His work is not simply that of conducting recitations, correcting errors, and imparting knowledge of the branches prescribed by the common school laws; it is the work of forming human souls: of molding lives. The true teacher can never rest satisfied with good recitations simply; he feels that unless he can implant in his pupils an interest in their work which shall outlive school life, he falls greatly short of the mark of his high calling. Nor does his duty end here; for, should he fail to instill into their young souls some knowledge of the subtle laws and obligations which should control them, unless he teach them to work with a firm, definite purpose for some settled object, of what avail is all the knowledge for which they delve? His influence *will* be felt. He can not escape it if he would. For good or ill his seal is on the lives before him for ever and ever. His province then is more extended than parents sometimes think it. Getting an education is getting made, consequently the master workman must be most deeply alive to the importance of putting into his wonderful structure those true principles, good resolves and lofty ideals, so necessary to the formation of a rounded, complete life.

So, when we talk about getting made, how natural and fitting the query "for what?" After you have got your pupil made (if the grammar may be pardoned), what is the good of him? "*Cui Bono*" is the creed of an intensely practical age, condensed and reduced to a catechism of one question. It is forceful and full of

pith. It restrains from undue and improbable flights of fancy. It irritates while it convinces the good sense of the interrogated.

A sewing machine is constructed to perform certain work; and faithfully does it multiply its stitches until appointed tasks are performed; a boat is to carry burdens, and it is done; a printing-press fulfils *its* mission, and conveys to nations and to individuals facts and information concerning other nations and individuals. One can justify the making of any of these. But who can ever think with toleration of the construction of an infernal machine? Who be moved with admiration at sight of a great hulk of a steamer with no engine within to impart life and motion to its ponderous wheels? How abhorrent the one, how worse than useless the other! Now, when a teacher is making his pupil, why not confront him with this massive question, "What for?" What is he to be good for? If we may believe all we read of Socrates, he was wont to buttonhole the young Athenians and ply them with all manner of odd questions, making their answers bases for others still more unexpected; until, having given them sufficient food for reflection, he would abruptly leave them feeling quite silly and confused. But he had in view a true philosophy. Better for them to know where they stood, or, if on unstable foundations, to have them pulled from under and their feet set perforce on ground which they could maintain.

Granted, teacher, that the boy under your care must live, from an inherent, felt, though indescribable necessity—it becomes your duty to lead him to live for some special object. You will—if you are a true teacher—study carefully his cast of character and the bent of his na-

tural inclinations, weighing also his peculiarities, tastes, and abilities. You should help to decide for what calling he is best fitted and proceed to educate him toward that point. Doctor, lawyer, editor perhaps, matters little what, if he only excel in his line. But—this decided and worked for—is that all? The farmer's wheat grows, for by the laws of its nature it must grow; but it feeds many mouths. The river flows to the sea—it can not help it—but in its course it moistens many a field and cools the heated air, affords a home for numerous finny families; and withal, pleases ear and eye by its musical murmur and graceful curves.

So he must live by the means he employs; but for the nourishing, helping, pleasing of what? Of whom? Is anything, anybody, to be the better for him?

To help in solving these practical questions, it will be well to remember that the weak are dependent on the strong; that each generation is made largely by that which precedes it; that the millions of human creatures on this globe are not like the smooth pebbles on the beach—each separate and self-sufficient; but like the ivy growing about the church doorway, inseparably intertwined by tendrils of feeling, each branch depending on the other for support, and all alike helpless if left quite to themselves. And, finally, that according to all theories worth advancing, there is a Great Power who placed us here, endowed us with certain powers for the development and use of which we are responsible. Then put the question to yourself in this way: When I have taught my boy to live for something, shall I teach him anything more? and what? Shall somebody be the better because of him? Will he further the advance of vice or virtue? Will he fill brains with potent ideas and hearts with generous impulses? or will he strive—as do so many—on the price of work which may be traced to drinking saloons and gambling hells for the tools which fashioned it?

George Washington lived, and his life meant to the world a great deal more than mere existence. So lived Abraham Lincoln—not, we reluctantly admit—quite perfect (so few are, save you and me and our particular friends!), but a wonderful benefactor to oppressed and burdened humanity; a man to thank God for. Guttenberg did good. So did inventors of steam engines and the various machines so universally used and prized. So does the maker of a fine thought, the singer of a good song, the painter of a beautiful picture. So do all who contribute in any way to the advancement of mankind, whether in the line of mechanics or art; of social enlargement or religious freedom. Shall any come to say of your people that happy men and women are walking in light, strong in faith, and full of works because he lives? That children are growing up to be companions of "good men and the just" because he lives? That in young men's hearts are springing pure feelings and noble impulses because of him? Then thank Heaven that you have been enabled to accomplish that which shall ever be to you a well spring of joy springing up in your inner consciousness, even the joy of knowing a good work done. Both you and he may say, "I live," and calmly rise to meet the searching words "what for?" Future generations will never read in these words your epitaph nor his—"He lived; but what was the use of him?"

"Oh! not by bread alone! for life and being:
Are finely complex all,
And increment, with element agreeing,
Must feed them, or they fall."

F. E. W.

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SHOULD SUCH TEACHERS BE TOLERATED.—The fathers and mothers of the country, who are trying to bring up their children in "nurture and admonition of the Lord," or even those who make no definite religious profession, might have been rather unpleasantly surprised if they could have had

the privilege of listening to a remark with which a teacher closed a lesson the other day before a class of fourteen-year-old pupils. He had been gleefully showing them how a little "crooked" book-keeping could be safely done with considerable advantage to their own pockets and with very little risk of discovery.

"You see, boys, how easy it is to be smart in business if you only keep your eyes peeled and know what you're about."

One of these boys reported lesson and the comment *verbatim* to his indignant mother, who at once went with the story to the chairman of the committee of the school. But he did not share in the indignation—quite to the contrary. The story pleased him highly, and he advised her "not to make mountains out of mole hills; it was too silly a thing to raise such a hue and cry about, and she couldn't expect, anyhow, could she, to run the school her own way?" No, unhappily, she could not expect that, therefore she availed herself of the only

liberty left her—she withdrew her son from the teacher's pernicious influence. There was no other school to which he could be sent, so he was put to work in a wholesale grocery store at three dollars a week.

"Of course it puts an end to his education," said she, sorrowfully, "but I would rather he would know nothing—I would rather see him dead—than under the tuition of such a man as that."

More than one mother—a good many fathers—would feel the same way. Are they to make no protest, to be debarred from any expression of opinion on such vital matters? It is interesting to speculate on the probable result if each mother, not alone this poor widow, had withdrawn her son from the class at the same time and for the same cause. It is hardly likely that the salary of the teacher would have been increased two hundred and fifty dollars, as actually happened later.

—Woman.

A CLOUD THAT CAME OVER THE SEA.

"MY father is dead!" sighed Swao, the Karen boy, who had come to America to be educated and was a student at the — high school.

"When did you receive the sad news?" asked the teacher with ready sympathy, but the poor lad shook his head mournfully and explained:

"I have had no news, what I know I saw in this way, and if I tell it where I have my home they all laugh, and then pretty soon perhaps they chide, and say, 'Swao a Christian! Christians not have fancies,' but this, not a fancy. I feel it here, cold in my heart. I tell you, I have a dream. I see a jungle with lofty bamboos, and beneath their soft, waving tops a river flows. It is a large river and rapid, the water is black and tumbles about. Soon in distant I see elephants, a train and men riding, one is my father, he comes near the stream and

then from beneath the bamboos a shadow stretches down. It covers my father like a cloud, my father and the river. I see them no more. O, my father! my father, he is dead! I have to tell you. Some one I must tell or my heart it break," and the poor lad wept uncontrollably.

"It was only a dream, my boy. I would not take it this way. You are homesick."

"No, it is not that, I have my home in my memory and I learn much and go back to tell my people. Now I only grieve for my father. He be not there to smile when I go back. Some day you will see it is so as I tell you, my father this morning is dead."

A few days later Swao paused again by the teacher's side.

"I saw the cloud again last night," he whispered. "It was in our village

and it started rolling toward the coast. It is the black, heavy, sad news, it is coming to me."

"It is upon the great sea now," he said later. "I saw it last night rolling this way as fast as a ship could sail. It makes me grief sick. I can not study. I sigh to go away from the sun light into the shadow of the mountains in the deep wood and lie there until the news gets here and then you will believe me and pity me."

"I pity you now, my poor lad," said the teacher. "You must pray that the Lord will let the sunshine of His love shine into your heart and dispel all the clouds of doubt and shadows of home-sickness."

"You pray too," said the poor lad, "I need many prayers."

Several times he spoke of the shadow as coming nearer and nearer, and one morning he said :

"It will be here to-day, I afraid my spell lesson be very bad."

The teacher was almost as anxious as the poor Karen. He started at every unusual sound, at every unfamiliar step, but a few minutes after the mid-day mail was distributed while the scholars were eating their lunch, the gentleman with whom Swao had his home entered

the room, saying in a low voice to the teacher :

"I have bad news for Swao. His father was drowned nearly three months ago during the great freshets."

The teacher glanced at the boy compassionately. He responded with a low moan like an animal in distress. Then he said as he came forward :

"I not cry now. I know it this long time. The sun shine through the cloud now. I get my spell lesson. My spell lesson be very bad all the time the cloud coming."

The thoughtless scholars, some of whom had made games of Swao ever since he had been in the school, crowded about him now and wept at his pathetic exclamations.

"They kind to me. Their tears run drop, drop, drop," he said in touching appreciation of their sympathy. "They help my heart so it not break. I not cry one little tear, my eyes so hot. They cry."

The teacher found by examining the letter that Swao's first dream was identical with the time of his father's death, and the news was, indeed, on the way all the time that the poor boy's dreams were disturbed by a sight of that terrible cloud rolling over the sea. ANNIE A. PRESTON.

HIS MOTHER'S BOY.

A MOTHER once owned just a common-place boy.

A shock-headed boy,

A freckle-faced boy,

But thought he was handsome, and said so with joy ;

For mothers are funny you know,

Quite so—

About their sons' beauty, you know.

His nose, one could see, was not Grecian, but pug,

And turned up quite snug,

Like the nose of a jug ;

But she said it was "piquant," and gave him a hug ;

For mothers are funny you know,

Quite so—

About their sons' beauty, you know.

His eyes were quite small, and he blinked in the sun ;

But she said it was done

As a mere piece of fun,

And gave an expression of wit to her son ;

For mother's are funny, you know,

Quite so—

About their sons' beauty, you know.

The carrotty love-locks that covered his head,

She never called red,

But auburn instead ;

"The color the old masters painted," she said,

For mothers are funny, you know,

Quite so—

About their sons' beauty, you know.

Now, boys, when your mother talks so, let it pass ;
 Don't look in the glass,
 Like a vain, silly lass,
 But go tend the baby, pick chips, weed, and grass,
 Be as good as you're pretty, you know,
 Quite so—
 As good as you're pretty, you know.

—*St. Nicholas.*

ON BREATHING.—The way in which physiology is taught in a Brooklyn school may not be fairly tested by the following extracts from written definitions given by the pupils of the topic "Breathing," yet it certainly appears that these pupils had caught, even in a confused way, some of the philosophy and meaning of their instruction. But we have seen elatements in printed articles from the pens of given up children that did not differ much in their logic from these.

If we could not breathe we should not be able to live, so therefore, we are taught to breathe, so that there might be somebody living.

Breathing is something we can not do without. It is something we have to do all our life.

If we were to live without breathing we could not do it. It is one of the most important things we have to depend on.

We have to breathe every day we live if we want to live.

Breathing is a substance which we can not see. We hear it in many cases. We breathe by the air going down our wind-pipe.

Those men who drink liquors always have bad breath. When your breath is gone you stop going.

I think breathing is one of the most chiefly things we have to depend on. No one, neither man nor beast, can live without breathing.

If you are careful and go out and get fresh air you will grow to be a healthy man like Henry Ward Beecher was.

Some people at night breathe very hard and low.

Breathing is the art of taking in pure air.

I don't know what we would do if we could not breathe.

Some people breathe through their nose very hard, and it makes an unpleasant sound. If they had no nose they would have to breathe with the mouth.

It is said that some people breathe through their ears, but that is not true.

A NOBLE GIFT.—A wise mother once said, "I have not much to give my little ones, so I give them myself." The children of such a mother are wonderfully blessed, for what greater gift could be bestowed upon a child than the companionship of a conscientious mother? and such may we be sure this was, for only one thoroughly alive to the responsibilities of motherhood would willingly give herself wholly to its interests.

Does this imply a slavish servitude? By no means. That of all things should be avoided, for what more pitiable sight than that of a weary mother who has spent her youth and strength in foolishly waiting on those who were much better able to wait upon her. In such a case, the mother's injury is very great, but is small in comparison with that sustained by the children, who are literally made good for nothing, unfit to fill any position in life, and the mother who imagines it to be her duty to do this for her children, is their greatest enemy.

The wise little woman of whom I speak was not of this kind, but gave herself to her children in the way which should fit them for a happy and useful life, and I fancy she did not overburden herself to do it, but one thing she did have to do was to deny self constantly, for even a conscientious, loving mother has no more time than there is, and if the greater part of this is devoted to her little ones, she has but little to devote to herself, and how few there are, if they consulted their own tastes, but would prefer to sit down with a book to joining in games with the children.

NOTES IN SCIENCE AND INDUSTRY.

A French explorer, M. Chaffanjon, has recently been tracing the river Orinoco to its source. In describing some of the Indians whom he found, he says that, at one point, he surprised a group of seven Gauharios, who, upon his approach, fled with cries of terror into the forest. They were of small and mean stature, with splendid limbs, stomach inordinately distended, long and coarse hair, and bestial physiognomy. They were very strange and carried nothing but a stick. Their repast consisted of palm-shoots, a quantity of half rotten fruit, and some little balls composed of crushed white ants. When he tried to show them pieces of cloth, knives, etc., they fled. Their huts were ranged in a circle, and seemed more suitable for dogs than human beings. They were roughly formed of five or six branches and trees bent over to form a cone. Around them were remains of Para nuts, which had evidently been bruised between two stones from the river bed.

The Size of Ocean Waves?—The following from the *Scotsman* is of account in answering this question :

It is a very common phrase to speak of the waves during a storm as "running mountain high ;" but this really means nothing. Accurate measurements made by Scoresby proved that during storms waves in the Atlantic rarely exceeded forty-three feet from hollow to crest, the distance between the crests being 500 feet, and their speed thirty-two and a half miles an hour. More recent observations in the Atlantic give from forty-four to forty-eight feet as the highest measured waves ; but such heights are rarely reached, and, indeed, waves exceeding thirty feet are very seldom encountered. The monsoon waves at Kurrachce break-water works were found to dash over the wall to the depth of eighteen feet, or about forty feet above mean sea level.

Implantation of Teeth.—From a paper on this subject read by Dr. Abbott, of New York, before the New York Academy of Medicine, and printed in the *Medical Record*, we gather the following facts. Teeth, which had long been out of the

mouth, have been inserted in artificial sockets made in the jaw, and have become, to all appearance, good, healthy, and serviceable teeth.

Into the socket from which a decayed tooth has been extracted a sound tooth, taken from another jaw, has been inserted, and being held in for a time with ligatures, has united fully with the tissues of the socket.

This has occasionally been done for two centuries, and possibly much longer. Ambroise Pare says in his work, published in 1561 :

"I have heard it represented by a creditable person that he saw a lady of the prime nobility who, instead of a rotten tooth she drew, made a sound tooth—drawn from one of her waiting maids at the same time—to be substituted and inserted, which tooth, in process of time, as it was taking root, grew so firm as that she could chew upon it as well as upon any of the rest."

The great Hunter recommends replanting a tooth when extracted by mistake, or knocked out by accident. A tooth inserted by him into a comb of a cock fully grew to the comb. In some modern times teeth have been extracted to favor difficult operations,—as in abscesses,—and subsequently replanted.

Three or four years ago Dr. Younger attempted, for the first time, to insert teeth in artificial sockets made for the purpose in the jaw bone. Since then he has done it forty or fifty times, in the majority of cases with marked success.

Whether a union takes place between the periosteum of the tooth and the tissues of the bone is not certain, those who have undergone the operation not being disposed to have the tooth again extracted to determine the question. A post mortem, of course, would settle it ; but the implanted tooth seems to be as firmly fixed as the others.

Dr. Tonner who had had two teeth implanted six months before, was present at the meeting of the medical society when these facts were recited. The inserted teeth had been extracted from the jaws of their

owners eight years before. The teeth were seen to be firmly set, and they gave no inconvenience.

In answer to an assertion by a French doctor that such teeth would dissolve in two years, Dr. Tonner said that he would prefer to have the operation repeated every two years to wearing a plate.

Butternut Wood for Indoor Work.—"Look here," said one of the best known lumber dealers to the editor of the *St. Louis Lumberman*, "why don't you say a good word for butternut, which, of all the woods suitable for finishing purposes, is the most neglected right here in St. Louis? It has a splendid grain, is easily worked, and ought to increase in popularity. When my own house was built, I used cherry in the parlors and quartered oak in the dining room. Wishing to have a variety, I had the upper story rooms finished in butternut, and now many of my friends want to know why I didn't use it all over the house. Understand I do not urge its use with the expectation of making a sale, for we haven't a foot of it in the yards. Our principal supply in this market comes from Wisconsin. It is growing scarce, and the only thing I have against butternut is that there is not enough of it."

Paper Bottles.—Bottles for holding spirits and acids are now made of paper. The glued paper is rolled by machinery into such a tube as is required, and the tube is cut up into suitable lengths. The tops and bottoms, of wood or paper, are cemented in, and necks are added when required. The interior of the bottles are then lined with a heated fluid composition that sets hard and will resist acids and spirits. The bottles are practically unbreakable, have a minimum of weight, and require no packing material in transit. The manufacture is said to be carried on extensively in Chicago and has been introduced in England.

We have long had paper boxes, barrels, and car wheels, and more recently paper nails, wash basins, and other vessels; but now comes a further evolution of paper in the shape of paper bottles, which are already extensively used for containing such substances as ink, bluing, shoe dressing, glue, etc., and they would seem to be equally well

adapted for containing a large variety of articles.

They are made by rolling glued sheets of paper into long cylinders, which are then cut into suitable lengths, tops and bottom are fitted in, the inside coated with a waterproof compound, and all this done by machinery almost as quickly as one can count. They are cheaper and lighter than glass, besides being unbreakable, and consequently very popular with consumers, while the fact that they require no packing material, and are clean, handy, and economical, commends them to manufacturers. Unlike glass, they can be manufactured and shipped at all seasons; and being made by machinery, the supply is independent of labor troubles, which are additional advantages to manufacturers who use bottles.

Montana Horses.—That the superior quality of Montana bred horses are being, in a measure, appreciated outside of the territory, says the *Montana Live Stock Journal*, is shown in the recent sales effected in the East by Mr. Raymond and other horse breeders of this territory. It appears, however, that no better market for really good animals is found in the larger cities the other side of the Mississippi than in this territory. In proof of this we cite the fact that not long since Gold Elsie, a trotting mare of some note in the territory, was taken to Chicago and sold for \$800.00. Hearing of the sale a Montana party hastened to the lake city, purchased her for \$1,500.00 and brought her back to the territory. Her present owner thinks she is too good an animal to go out of the country. Mr. Raymond's sales were of a most encouraging character, and the prices he received far exceeded those obtained for the same class of animals here. The gentleman is reported as saying that his last trip East would, in the long run, bring him over \$100,000.00. He disposed of some fine roadsters and carriage horses in Chicago that fully established his reputation as a breeder of superior animals, and will create a demand for Montana bred roadsters.

Meteoric Diamonds.—In a Russian paper appears a preliminary report of the examination by Latschinof and Jerofeif, professors of mineralogy and chemistry re-

spectively, of a meteoric stone weighing four pounds, which fell in the district of Krasnoslobodsk, Government of Penza, Russia, on September 4, 1886. In the insoluble residue small corpuscles showing traces of polarization were observed; they are harder than corundum, and have the density and other characters of the diamond. The corpuscles are said to amount to one per cent. of the meteoric stone. Carbon in its amorphous graphitic form has been long known as a constituent of meteoric iron and stones; lately small but well-defined crystals of graphitic carbon, having forms often presented by the diamond, were described as having been found in a meteoric iron from Western Australia. "If this supplementary discovery be confirmed," says *Nature*, "we may at last be placed on the track of the artificial production of precious stones."

Tests of Water Purity

EDITOR PHRENOLOGICAL JOURNAL.

Dear Sir.—Your readers appreciating, doubtless, the value of pure water, often so difficult to find, especially in towns and villages, may find the following test useful unless a better may be offered.

Test liquid. Liquor of potassa 70 parts, by weight, permanganate of potassa 1 part, distilled water 90 parts.

Dissolve the permanganate in the distilled water, then add the liquor of potassa.

This solution is to be added by drops to a convenient quantity of the water in an ordinary glass test tube, until the water appears of a fine pink color. If the water gives but a slight precipitate in three hours and keeps its pink color well for 48 hours it is not objectionable. But if it becomes decidedly paler in 24 hours the water is scarcely fit for use. A heavy precipitate in one hour, with color perceptibly paler in three hours, and quite gone in twelve hours, shows that the water is very bad. The freedom of water from organic matter is proportional to the length of time that the pink color is retained by the solution.

To purify water, dissolve one-half ounce of alum in one quart of warm water and use a small teaspoonful of this solution to each gallon of water, then filter through cotton batting.

Both of the above recipes I have found

quite satisfactory and certainly not difficult to put in practice.

D. H. CAMPBELL.

Water Filter.—M. W. S.—We should consider a properly galvanized iron barrel a good receptacle for filtered water. It is easily kept clean and durable. If the metallic coating be tin, that is better than zinc or composition. Some of the products of galvanism are so poorly made that the effect of water may be to evolve poisonous salts. If your barrel is easily kept clean and bright you need not fear injury.

Protection for Horses Against Fire.—It is to be hoped that before long some simple and practical way will be arrived at for preventing, or at least lessening, the terrible loss of life among the horses which has hitherto attended every stable fire of importance.

A device intended, in case of fire, not only to release simultaneously all the animals, but to turn them out of the building, has recently been put on trial in a New York stable, and seems simple enough. In the principal alleyway leading into the stable is placed a wheel about three feet in diameter, which is connected by shafts with the stalls. A heavy weight is suspended from the circumference of the wheel. Delicate thermostats placed about the ceiling of the stable are arranged so that a very slight increase of temperature will, by expansion, complete an electrical circuit which will loosen the weight suspended from the wheel, and thus set the machinery in motion. A bell will ring, the bolts of the stall will be drawn, the halters of the horses will be loosened, and lastly, a double stream of water will be thrown into the face of each horse from two jets placed over the head of the stall. The effect of this shower will be to cause the horse to back out of his stall. He will find himself free, the doors of the stall and the stable open, and, in his fright at the fire and the unusual commotion, will naturally secure his own safety—at least that is the inventor's programme, though whether it will be carried out in practice remains to be seen. Besides, this doesn't dispose of the question of how to save the poor beasts stabled on the second floor, and until that problem is solved we may look at any time for a repetition of the shocking scenes which attended the burning of the Belt Line

stables in New York and those in South Brooklyn a few weeks ago. — *Fire and Water.*



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MEASURING MIND.

THE extent to which investigation is carried in regard to the correspondence of mental expression with physical constitution is discernible in the following paragraph from the *Popular Science Monthly*.

Mr. Francis Galton has described his ideal of an anthropometric laboratory at a place where a person may have any of his various faculties measured, and where duplicates of his measurements may be preserved as private documents. Besides the ordinary simpler apparatus, such an institution should contain instruments for psycho-physical research, for determining the efficiency of each of the various senses and certain mental constants. Instruction might be afforded to those who wish to make measurements at home, together with information about instruments, and the registration of results. A library would contain works relating to the respective influences of heredity and nature. It might also fulfil a welcome purpose as a receptacle for biographies and family records.

As the most active spirit in the London Anthropological Society, Mr. Galton is

entitled to our esteem, especially as his labors for some years past have reference to the determination of special types of mental organization. He has devised a system of measurements, about thirty in number, which he claims will go toward furnishing a definite map or description of a person, on both the physical and mental sides. His claims in recent popular lectures for the usefulness of anthropometry in supplying trustworthy data as to the future development of a child and his probable character as a man go beyond the predications of experienced phrenologists. At the same time it must be noted that Mr. Galton supports his views of individual capacity on similar physical indications. But this could scarcely be otherwise.

In another part of this number is a note of an examination of a skull by a young observer in the field of phrenological science. The accuracy of his description was not to be denied, and it was predicated of indications that any student of craniology may soon learn to interpret. If one can thus determine special characteristics from an inspection of bare bone, certainly with all the advantages of living flesh and blood specimens before him, he should interpret the mental nature, and physical also, more successfully.

A SIGNIFICANT VOTE.

AN interesting incident occurred in Congress on the 23d of April, of which, however, little note appears to have been taken by the press at large. Its bearing on society is so important that we would have it published widely, and minutely commented upon. The dignified Senate was the scene of this incident, and

its *motif* a petition introduced by Mr. Chace. Two hundred and sixty-seven physicians had united in that petition to urge the passage of a bill making it unlawful for any one to supply cigarettes or tobacco in any form to boys under sixteen years of age.

That two hundred and sixty-seven physicians should unite in denouncing a favorite habit in society is an interesting fact; it is creditable to them as men and as physicians. Through them science declared its verdict against the use of a narcotic product. Through them an appeal was made to the highest representatives of our national population—in behalf of a better physical development in our youth, and a higher moral standard.

The appeal was ably presented, and ably advocated, but the advocates of the tobacco trade proved more numerous than the friends of American boys and rejected the counsel of the physicians. The advice of practical physiologists and sanitarians was not deemed worthy of the approval of a Senatorial majority.

But the interest does not end here. Perhaps the thing in the action of the Senate on the cigarette matter that should command most attention is yet to be stated. We are not partisans in our leanings politically—at least, we try not to be so. But when a question that involves the moral and physical life of the people comes before a governing body and we find that it is made the occasion for a party contest, we must take our stand with the side that advocates improvement and reform.

The record of the vote on the cigarette matter puts the Republican party and the Democratic party in a position of

sharp antagonism, the former voted solidly against the sale of paper cigars to boys; the latter as solidly voted in favor of such sale. It may be claimed that the cigarette question in itself was subordinate; that the vote was chiefly a test of the relative strength of the two parties in the Senate. Nevertheless, this action has the effect of a monition to the people who have the future welfare of their young sons at heart.

The cry of to-day is the cry of reform. It is growing stronger and stronger. The masses are awaking to a sense of the danger menacing them in the drinking and smoking habits of society. They are beginning to realize that public and private health, good government, and true public spirit are nourished by clean habits, individual industry, and a sincere desire to do one's duty as a citizen.

The party that is wise enough to heed this growing sentiment, and to take it up as a leading issue in civil affairs will be the successful party at the ballot-box. The party that clings to its dilapidated prejudices, and worships its old dead idols, deaf to the call of philanthropy, intelligence, and truth, must be beaten in the struggle, and justly so.

THE RIGHT SORT OF MISSION WORK.

It is said of Judson, the missionary, that on one occasion when passing the Madison University, with an acquaintance, he remarked, "If I had a thousand dollars do you know what I would do with it?" "Yes," said his companion, "you would give it to foreign missions." Said Judson, "I would give it to a Christian college like that." "Planting such colleges," said the missionary, "and fill-

ing them with religious students, is raising seed-corn for the world."

There are many excellent people who were doubtless astonished when it was reported to them that Adoniram Judson, the earnest and devoted man who gave so much of his life and strength to foreign missionary labors, had uttered such a statement. Yet a little reflection should have satisfied them of its pertinency.

An institution that instructs young men in matters of the most serious concern to human nature, can not fail to send veritable missionaries into the world. The teaching that develops manhood and womanhood also, the desire to have the world enlightened with respect to what is helpful to man in himself. True growth has a generous expression; it would have others grow also and enjoy the fruits of a high culture.

We do not wonder that the great colleges in this country receive so many endowments, but we do wonder that many institutions of great usefulness in making men and women, do not receive the support that they need. We could mention some that are doing the community priceless service that are compelled to struggle year after year to keep alive and perform the duty that their faculties deem themselves bound to discharge. We hope that the future will bring help and relief to sustain them in the midst of trials of patience and self-sacrifice.

We know one institution that has existed over twenty years, and during that time has contributed much to the mental improvement and moral happiness of hundreds of men and women. According to the personal testimony of

all of these, with no exceptions, in attending the sessions of that institution they drank from a fountain whose waters refreshed their souls, and fitted them to do the work and carry the burdens of life better and easier.

Yet that institution has suffered for want of resources to carry out its benign purpose in very simple fashion. With possibilities of the very greatest good to society ever in view, its management has been hampered year after year. The fact that poor men and poor women form the great majority of its students is one reason for its lack of pecuniary strength. But the fact of its chief work being of a character that is humane and scientifically philanthropical should give it honor in the eyes of true men, and invite their cordial and substantial interest. We refer to the Institute of Phrenology, and would ask the friends of truth and progress: Is it not full time that this noble enterprise was set upon an enduring foundation? and can the reader not suggest a way by which the modest endowment that would render it independent and open the doors of its lecture rooms more widely, can be secured?

A NEW SOCIETY NEEDED.

WE have anti-cruelty and anti-poverty societies, why not organize an anti-disease society? Let the hygienists, physicians, sanitarians, and all who wish improvement in matters of health, public and private, associate together, and formulate a definite plan of living. We have science enough in the shape of anatomy, physiology, and hygiene for the guidance of such a society. The principles that should govern us in our eating, drinking, working, recreation, sleep, dress,

etc., are sufficiently exact as a basis for a practical system of by-laws. We know that sickness is the necessary consequence of breaking laws, inherent in our human nature. We know that certain habits, despite their prevalence in society and their tolerance by the recognized guardians of social morality, are productive of diseases more or less painful and deadly. In short, we are furnished with more information on the subject of health than on almost any other human interest, and so generally is this information distributed that a large, a national association should be an easy accomplishment. A few strong leaders only are needed for its organization, men and women of independent spirit unselfish and broad in view, aiming at the benefit of the community, with the

earnestness and sincerity of a Howard.

Here is a new and grand field for activity, in which everybody, large and small, may take part—a work that concerns one's self as much as others, at once personal and "altruistic" as our social philosophers say. We all want to be well. Then why not join shoulder to shoulder in a grand effort to suppress the agencies and influences that produce disease? Initiation fees, monthly dues, need not be required, but personal activity—every one can do something in such an enterprise as this and fitly demonstrate the solid character of our modern progress; that it is not a brilliant development in lines mechanical and esthetic merely, but a growth of the man himself in knowledge of the truths that affect his physical and moral being.



To Our Correspondents.

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

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

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

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

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

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

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

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

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 to the Editor personally will receive his early attention if this is done.

DOGS AND MUSIC.—F. W.—There is a wide difference among dogs with respect to the effect of music. Some appear to be affected even to pain with it, while others pay no attention. It is usually the trim, active, thin-skinned dogs that howl at the sound of sharp, shrill music, especially that of brass pieces. We are inclined to think that it awakens peculiar nervous thrills in their brains—not necessarily painful but strange and unpleasant. The editor had a cat a few years ago that liked to jump upon the piano and walk upon the keys, apparently enjoying the tunes she produced. Frequently at night if the parlor door had been left open the weird performance of Miss Tabby would be heard.

DEVELOPMENT LIMITED.—W. J. M.—In speaking of mental development we must consider it comparatively. It is not to be doubted that during the active period of life the brain of an energetic, progressive man acquires a higher and wider range of organic operation, and correspondingly the mind is more efficient. With good health and favorable conditions the methodical student should make positive gains from day to day, and raise the degree and quality of his mental capabilities.

THE STRONGER FIRMNESS.—*Question.*—With the dark or light temperament, and Firmness equal or the same degree in a scale of 1 to 7, which would show the most power in Firmness? *Q. Answer.*—The light type of the motive has more direct expression of special mental traits, but as for real strength we must take into the account other conditions of organic development. The expression of Firmness may be said in theory to occur in an isolated way, but in practice this is a very rare phenomenon. Character is the resultant of the combined action of faculties, and to ascertain what elements are most potent in the production of a given manifestation we must analyze it.

FAILURES IN LIFE.—S. H. H.—The suggestions you make with regard to men who fail in business are for the most part manifest to thinking people. Good men fail, it must be said, from the very integrity of their conduct, but the aim of the paragraph in the April number was to show the common causes of failure. We should advise the honest and scrupulous merchant, if adapted to the business selected, to go where he would not be compelled to enter into competition with unscrupulous and crafty men. It must be remembered that energy, ambition, and sagacity are consistent with straight, honorable dealing, and that a man who knows that he is doing right should be all the more earnest in

prosecuting his vocation. It is folly for a man of small means and moderate capacity to attempt to cope with men of large resources and in combination. This is the mistake some make, thinking that the community will by a lucky chance find him out and reward his audacity. It is but natural that people should go to those who make the most attractive offers. One of our readers, a minister, says that he used the paragraph in a sermon with considerable effect.

IMMATURE CHILD.—MRS. J. N. D., IOWA.—It happens sometimes that children who are thought to have been born under the most favorable auspices disappoint their parents by manifesting a want of average mental sharpness and activity. It seems to me that in this case the nervous organism of the child was overregarded, received too much thought and care. The natural tendency of its development as directed by the combination of elements in father and mother, would be an excess of the mental or nervous temperament, and besides a reasonable consideration for its growth and nurture, nothing was necessary. Your special studies and anxiety for the organization of the child before and during gestation, may be viewed as the chief factor in the result. A flower develops best under natural conditions—i. e., soil, climate, surroundings adapted to its nature; the overstimulation of the rich loam and moist atmosphere of the hot-house produces a weak, delicate plant. Nutritious food, good air, out of door life, gentle, easy teaching will in time have a good effect, we think. You must not be in haste, but let nature do most of the work of maturing and bringing into harmonious activity the faculties of the little one. Little fellows who are dull and continue so for years, sometimes astonish their friends by their later capacity and vigor.



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 Few Thoughts on the "Problem."—A lady correspondent of the PHRENOLOGICAL believes that special schools should be established to prepare girls for domestic service. She is very far from guessing "the riddle of the nineteenth century," or she would not, I think, suggest that in the present condition of society. Very few young women

of American birth can tolerate the probability of making domestic service their life work. Those who do not look forward to marriage do such work only because they are compelled to, and are continually looking forward to "something better." They would not be likely, therefore, to spend time training for a work they were endeavoring to get free from as soon as possible.

Much is said about inefficient help. but would those who complain do so much better were they in the servant's place? Some ladies who write upon this subject seem totally blind to the facts that underlie the whole thing, and the only way for them to have their eyes opened is to "take her place."

Many women imagine that their own plane of existence is vastly different from that of the kitchen girl, that what would hurt their sensitive and refined natures, she, poor thing, with her blunt, uncultured nature, is incapable of perceiving or feeling. We do not mean by this that education, culture, compliments, etc., do not make a very different character from the one receiving little or no advantages and brought up under no wholesome restraint, but the differences existing are not such as are generally supposed by a large class; a class, too, whose culture is more superficial than real, whose fineness is only in appearance, and whose domestics are very often in reality superior by not having their defects masked by deception.

Very many well-to-do women have not the discernment to distinguish between an intelligent girl of superior order and a coarse one who can not even read. I have seen this illustrated several times. I have known women of refinement to be compelled to work in the kitchen for their support, and they were treated and spoken to as though they had no feeling and were very ignorant.

Continual housework from six o'clock in the morning until eight at night leaves little chance for mental culture, and no living person has any right to be subject to a law that deprives him or her of mental culture. Any system that requires it is faulty and oppressive. Would you, my reader, want your child trained for such servitude? Scarcely two women have their work done the same way. A maid often gives good satisfaction in one family, and is said to be good for nothing by another. The training would only make it harder for the one trained to modify her course to suit each woman's whims. One little dreams as he meets ladies in society what merciless tyrants they may be in their own households.

Speak not, fine women, of breaking up your

homes for the want of efficient help; fie! Have you not hands? Have you not eyes? Have you not capacity? Your homes are yours, you wish to enjoy them, why not make a little sacrifice of selfish ease and do your work?

If a woman wants a true home she should divest it of the thousand unnecessary complications that make work a slavish drudgery. She will feel better by living simpler not only in her eating, but in many other things, which although considered essential, are worse than useless. There are a thousand needless things done in almost every household that cost much labor, time, and anxiety, and do little good. We Americans have a passionate love of prettiness, but the canons of beauty are terribly perverted and good taste outraged in the pretentious displays of our modern households. The pride and vanity of women needs a wholesome and decisive check. It is very demoralizing and tyrannical, and an enemy to all true taste, grace, and culture. Fashion takes the place of taste and destroys it. Thousands of women are martyred every year by the vile passion for display; both mistress and servant are martyred body and soul.

MRS. A. M. PATON.

The Indian Question.—A WORD IN REPLY.—Chas. L. Hyde has made some statements in the PHRENOLOGICAL JOURNAL for May which I can not let pass without reply. It is not true that "the government gives the Indians immense tracts of lands, money, provisions, &c., &c." The Indians have ceded to the government for very small consideration immense tracts of land, and the small sums in money and goods they get from year to year, are simply payments on these lands. The references of Mr. H. to Indian Territory are unfair and misleading.

The five civilized tribes bought and paid for the whole of that country, and they hold patents from the government for it. In 1866 they agreed that the government might fill up the west half of this country with other Indians. Over thirty tribes, and remnants of tribes, have been located in the Territory since that time; these tribes and bands paying the civilized tribes from thirty to seventy cents an acre for the tracts of land they occupy.

There are about 8,000,000 acres of this west half of the Territory unsold. But the fault is not with the Indians. They are anxious that these lands should be settled by Indians. They object to whites being allowed to settle there.

The Sioux nation, six tribes, about 30,000

Indians, own 20,000,000 acres of land in southwest Dakota, own it under the laws of the United States. For lands sold to the United States in 1861 and 1876, the government owes these tribes about \$4,000,000, for school purposes—see Report of Secretary of Interior—and large sums besides, to be paid in annuities, goods, agricultural implements, cattle, &c., &c.

As to the character of the Indian, I have to say that after twelve years of careful study of the Indian, in his own home, as well as at Washington, my estimate of his character is the opposite of that given by C. L. Hyde, and I am sustained by such scientists as President Francis A. Walton, of Boston; Major Powell, Prof. J. Owen Dorsey, and Prof. Jeremiah Canton, of the Smithsonian Institute, and by all intelligent and honest men I have ever met, who have had opportunity to study the Indian, without prejudice or self-interest.

I note the point that C. L. H. is an earnest advocate of the land-in-severalty policy, as a solution of the Indian problem. It has been my observation that all who hold in contempt the character and rights of the Indians are strongly in favor of that policy. This fact is proof positive that the severalty policy is not put forward in the interest of the Indians, but of whites who covet Indian lands.

T. A. BLAND.

A "Character" Verified.—At the close of a course of lectures recently given by me at Ruthven, Iowa, a practicing physician of considerable note in that region, by name of Baldwin, came forward with a human skull in his hand, and asked me before the audience if I would delineate the character of the person it belonged to in life. I took the skull, and told him it afforded me the highest pleasure to do as he had desired. I then carefully examined it, pointed out the predominant temperament, and then gave a description in some detail of the characteristics of the person in life. The audience listened with very close attention, and as I closed my description I looked toward the doctor. He immediately arose and facing the audience told them that he knew the man I had described for years and that the delineation I had given was remarkably true in every respect, that he had made an autopsy of the person and had known him for years previously. This scientific fact can be easily verified by those who are sceptical, by writing to Ruthven, Iowa. I am still pushing the noble cause, and shall continue to do so to my dying day. Let us hear from others.

DR. F. W. OLIVER.

PERSONAL.

PRINCE OSCAR, of Sweden, showed his indifference to the empty dignities of royal title by his marriage with a commoner, Miss Ebba Munck, lately at Bournemouth, England. The Queen of Sweden, Princess Carl, and Eugene of Sweden, the Crown Princes of Denmark, and the Duchess of Albany were present. Pastor Bestrow, of Stockholm, performed the marriage ceremony. The wedding was solemnized with the Swedish Lutheran service in an English Episcopal chapel, and has called forth protests from some of the high church clergymen. Prince Oscar, who, now that he has resigned his royal privileges and station to marry the woman of his choice, is known as Prince Bernadotte, came to the wedding in the uniform of a Commander in the Swedish Navy. Other similar marriages are said to be in prospect.

THE death of CHIEF JUSTICE WAITE of the Supreme Court of the United States removes one who, if not brilliant, was certainly one of the most upright of jurists. Chief Justice Waite was a native of Connecticut, and was appointed to the high office he held at his death by President Grant, fifteen years ago, at the age of 54 years. By untiring industry he reached the highest pinnacle of honor attainable in his profession.

GENERAL JOSEPH E. JOHNSTON, the highest in rank of living officers of the Confederate Army, was on the 26th of April last unanimously elected an honorary member of E. D. Baker Post, No. 8, G. A. R., of this city. The election was brought about upon receipt of a letter reading:

"For the purpose of enabling me to participate in the noble work of charity performed by the comrades of the Grand Army of the Republic, I hereby make application for contributing membership in your post. Inclosed please find the sum of \$10 for one year's dues."

The petition when presented to the members of the post for their consideration was received amid the cheers of the 200 veterans present. This is a happy intimation of the feeling entertained by the veterans of the late war toward the Confederate soldier. The step taken by General Johnston speaks for itself.

AT THE MORGUE.—Dumbleton is looking for a missing friend. Morgue Keeper: "Did your friend have any distinguishing peculiarity that he might be recognized by, sir?" Dumbleton: "Certainly, he was very deaf."—*Paris News*.



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.

NEGRO MYTHS. From the Georgia Coast. Told in the Vernacular. By Charles C. Jones, Jr., LL. D. Price \$1. Boston. Houghton, Mifflin & Company.

The legends and stories current among our colored folks, whether South or North, have an interest that will endure, and their introduction into literature with an appropriate setting of orthoepy has met with a special welcome. We can understand the negro better when his own language recites his emotional experiences. The Uncle Remus and Brudder Gardner of premature fame but respond to the preference of reader and hearer, for a veritable rendering of Jack and Sambo. In different parts of the South there are differences of dialect and of tradition that are worth the serious attention of the philologist. In Georgia and the Carolinas may be the best fields, at any rate those states appear to claim more attention as yet, but we are sure that Louisiana and Ole Virginny have their peculiar features of negro dialect and legend that are as important. Mr. Jones shows not a little skill in his production of the native language. Every section breathes of the rice field and the cotton plantations in the old *pre bellum* times.

The student of ethnology perceives in the start that the legendary wisdom of the American negro has its own peculiarities, and is unlike the love of the Indian or other races of America.

BEFOREHAND.—A companion volume to "One More Chance," by S. M. I. Henry, author of "The Pledge and the Cross," etc. 16 mo, pp. 529. Cloth, price \$1.50. New York. National Temp. Society.

It is pleasant for an author to awaken a demand in the community for more about certain characters that she may have portrayed in a book exemplifying important moral truths. This appears to have been the case with Mrs. Henry's "One More Chance," and she has really shown in this sequel a more

powerful hand. We are introduced to new characters while the caress of the old ones are further worked out in a consistent manner. It falls to one of the girls to illustrate the action of that well known and powerful association, the W. C. T. U., and to show that the advocates of social reform must take up the line of education, which alone could give any hope for the future. It is a helpful book, for fathers and mothers as well as the young.

PUBLICATIONS RECEIVED.

A SOUVENIR OF SHILOH. To the memory of Gen. Albert Sidney Johnston and the Gallant Patriots of the Confederate Armies of the West. Contains portraits and illustrations, all the war monuments in New Orleans, and the proceedings at the dedication of the statue in memory of Gen. Johnston, and at the late meeting of the Benevolent Association of the Veterans of the Louisiana Division, Army of the Tennessee. G. Koeckert & Co., Lithographers, New Orleans.

ACCIDENTS AND EMERGENCIES; or, "What to do First."

A convenient little manual for use in a family, or for the information of any one who would be prepared to be of service to others in treating surgical or other injuries when a physician is not at hand. Brief and clear in its directions, and prudently moderate in its suggestions with regard to drug and alcoholic treatment. Dr. Charles W. Dulles, of the College of Physicians, Philadelphia, is the author. Published by P. Blakiston, Son & Co., Philadelphia.

DIEHL'S ANATOMY FOR ARTISTS AND STUDENTS.

Comprises four large plates containing representatives of the human skeleton and the muscular attachments, the latter from the deep to the superficial muscles. The drawings are clear and quite accurate in their workings, the muscular relations being colored. Price \$2. F. W. Devoe & Co. New York. Publishers.

THEOLOGY OF NATURE AND REVELATION, by an Amateur Theologian.

A pamphlet of 55 pages, the spirit of which may be inferred from the statement in the preface, that it is "intended for the perusal of those who dare to think for themselves," and that "human creeds generally reflect the imperfection of the ages which gave them birth." The thoughts voiced through the types show the author to be a careful reader of the Scripture and a believer in the principles taught therein. He says, "When the heart is filled with the spirit of love it is filled with the spirit of Christ, and as long as that spirit dwells in the heart, the object and end of the law is attained in the obedience inspired by the Christ spirit."

THE PREVENTABLE CAUSES OF DISEASES: Injury and Death in American Manufacturing and Workshops, and the Best Means

and Appliances for Preventing and Avoiding Them. By George H. Ireland.

These are the titles of the recently published "Lomb Prize Essays" that have been received through the Secretary of the American Public Health Association. The aim of Mr. Lomb in offering prizes for essays of this character was to secure definite results from sources of authority and experience, for the practical improvement of the people at large in affairs of the utmost importance. These essays, therefore, are not speculative disquisitions on theoretical questions concerning modes of life, but plain, intelligible lessons relating to the homes we live in, the food we eat, the care of our children in their school life, the means of protection from disease, and the avoidance of the special dangers of our workshops and factories.

They offer in a condensed form the latest teachings of sanitary science and hygiene, and in such a clear and simple form, that all who can read and understand and apply their principles systematically.

Prices of these essays: No. 1, 10 cents; Nos. 2, 3, and 4, 5 cents each. In book form, well bound in cloth, 50 cents. Dr. Irving A. Watson, Sec'y Am. Pub. Health Assn., Concord, N. H.

Mr. Lomb offers two new prizes of \$500 and \$200 for this year, for the best essays on the subject of Practical Sanitary and Economic Cooking Adapted to Persons of Moderate and Small Means.

HEALTHY HOMES AND FOODS FOR THE WORKING CLASSES. By Victor C. Vaughan, M. D., Ph. D.

THE SANITARY CONDITION AND NECESSITIES OF SCHOOL-HOUSES AND SCHOOL LIFE. By D. F. Lincoln, M. D.

DISINFECTION AND INDIVIDUAL PROPHYLAXIS AGAINST INFECTIOUS DISEASES. By Geo. M. Sternberg, M. D., U. S. Army.

CURRENT EXCHANGES.

Harper's Monthly Magazine for May has several broad glimpses of across-the-ocean country; for instance, London as a Literary Center, A Winter in Algiers, and Russian Convicts in the Salt Mines of Iktetsk, all three adorned with excellent engravings. We wonder how it is that the Siberian craze affects the *Century* and *Harper's* at the same time? The city of Denver is a good view of that remarkable far West evolution. The editors are well represented in their different departments:

Annals of Surgery. A monthly review of surgical matters, foreign and domestic. J. H. Chambers & Co., St. Louis, Mo.

Eclectic Magazine of Foreign Literature. Monthly. E. R. Pelton. New York.

The American Magazine. Illustrated. Monthly. The Oldest of American Cities, Belles of Old Philadelphia, The Art Student in New York, My Dream of Anarchy and Dynamite are striking, especially the last. New York.

Public Opinion. Weekly. Convenient and useful summary of current journalism. Washington and New York.

The *May Century* opens with Siberia and the Exile system which furnishes trustworthy information of a subject possessing much romantic interest. The other illustrated papers are Sheriff's Work on a Ranch, The Absence of Little Wesley, Abraham Lincoln, The Personality of Leo XIII., The Church of England in the Colonies, The Locomotive Chase in Georgia. Bird Music—Partridges and Owls.

Illustrated Pacific States or Western Sunshine. Weekly. San Francisco, Cal.

Prairie Farmer. Weekly. Orange Judd, Editor, Chicago, Ill.

The West Shore. A progressive exponent of Northwestern civilization. Monthly. Portland, Oregon.

Germantown Journal. Weekly. Philadelphia.

The Christian Inquirer. Baptist organ. Weekly. New York.

The Literary World. Fortnightly. Boston.

New York Tribune. Weekly edition.

Builder and Woodworker. F. T. Hodgson, Editor. Monthly. New York.

Cultivator and Country Gentleman. Weekly. Albany, N. Y.

The Medical Record. Weekly. Reports current matters of interest to the profession. William Wood & Co., New York.

Mother's Magazine. Has a definite and most useful purpose and keeps it in view. New York.

Boston Home Journal. A fresh, gossipy weekly touching on all sorts of topics, political, individual, social, domestic, etc. Boston, Mass.

Wallace's Monthly. Devoted to stock raising, especially horses. New York.

The Dietetic Gazette. Quarterly. Practical articles on physiological topics. John Carnrick, Pub. New York.

Scientific American. Weekly. Messrs. Munn & Co. New York.

Le Progres Medical. Weekly. M. Boronville, Editor. Paris, France.

Popular Science Monthly for June has certain practical suggestions about the Surplus Revenue, other economical papers are The Philosophy of Commercial Depression and the Earned Decrease vs The Unearned Increment. Besides there are the Effects of Moderate Drinking, Darwinism, the Christian Faith, Education and the Employment of Children, A Sketch of Prof. A. S. Packard and other interesting and practically suggestive topics. D. Appleton & Co., New York.

Lippincott, for June, has several popular names on its list. Beautiful Mrs. Thorndyke is the novel introductory, and then follows a little treatise on Plagiarisms in which some of our literary idols get an incidental rap. The Yellow Shadow, From Libby to Freedom, With Gauge and Swallow, Mr. Ruskin's Guild of St. George, etc. Price 25 cts. a number. J. B. Lippincott. Philadelphia.

"ECHOES" FROM THE CONSULTATION ROOM.

BY PROFESSOR NELSON SIZER.

I AM sometimes called to professional duties, the performance of which seems a marvel to those not familiar with the work. The relation of an incident will illustrate this and make the matter plain.

For many years the writer has been occasionally invited to deliver a lecture on the subject of the choice of pursuits before the Faculty and students of different business colleges. In 1882 he was invited to give such a lecture before the students of Professor Packard's business college, then located in the Methodist Book House at 805 Broadway, N. Y., now at the corner of 23d street and Fourth avenue.

At the close of the lecture several students were invited to come forward for public examination as to their natural and proper adaptations to pursuits.

A NATURAL CASHIER.

The first one examined was described as having very strong financial and arithmetical tendencies; as fond of accounts, very fond of money, and a good talker. He was told that he should become a bank cashier, and the shout which the announcement called out from the three hundred students made the matter interesting. He was told he would like to count money, pile it up, nurse it, think of it, and would like to keep the cashbook, balance the accounts, deposit the money, receive it and pay it out. I was told at the close that in the bank work of the class he took the part of cashier, and was so full of the subject, and so proud of it, that nothing else could be business with him, or worthy of much consideration from him. In fact, he was called half derisively, "Cashier," and he liked it, although a joke at his expense.

A MAN MILLINER.

Another student, for sufficient reasons, was assigned to hardware, another to a heavy contracting business that needs pushing and bossing, and lastly, a tall, broad-shouldered, blue-eyed, fair, young man was told bluntly, "You ought to be a milliner."

This statement seemed so good a joke at the expense of the tall, well-grown young man, that the merriment was excessive. The idea that an aspiring young gentleman should be a milliner, should trim hats and do a girl's work was altogether too amusing, and in order to rescue the young man from the derision and merriment of his associates I earnestly inquired, "Do you know what qualities are necessary for such a position? Not one-fifth of you have the talent that would qualify you for it, but he has. It requires artistic taste, and a sense of the beautiful and decorative; it requires a keen appreciation of color, and the power of matching colors and shades of colors, and suiting

them to the complexion; it requires talent for designing, and that ready tact and invention which would study style, elegance, and ornamentation, and that delicate nimbleness of manipulation necessary to do the work of the milliner with one's own hands if necessary." Then I turned to him and said, "If you were in the business of millinery as a merchant, you could design, and with your own hands trim your model hats for the show case, unless you could get some one who could satisfy you in the way of designing, skill, and execution."

But this only raised another jolly laugh from the whole school, and the President, who is fond of a good joke, and his teachers, heartily joined in the mirth. I was surprised that the young man did not seem to wilt under such an outburst of contemptuous mirth, but he appeared rather as if the statement pleased him. I added that he had inherited his talents and his tastes from his mother and could, therefore, look at decoration through her eyes, just as some girls who resemble the father are brave in the use of horses and of pets, and can succeed in some kinds of business which women generally are not called upon to do, and for which, commonly, they have little taste. As I left the lecture room every face smiled as it bowed me out, and I fancied they would have some fun after I was gone, which doubtless they did. What follows I learned later.

Professor Packard and the whole school afterward called him "Milliner," and just before the end of the term he came to the Professor and said: "Mr. Packard, you and the entire school have seemed to take great pleasure in rallying me on being a 'milliner,' but there is more truth in it than any of you think for. Having five sisters, I have for two years purchased all their materials for hats and dresses; I have designed the dresses and directed their construction and decoration, and with my own hands I have made and trimmed their hats to their satisfaction. There is nothing nicer, the girls think, in the market, and the public, of course, does not know that it is my work."

In 1885, three years after the previous lecture, Prof. Packard wanted another lecture before his school, and as a sequel to his invitation told me the story of the young man who was examined three years before, and that he was established in the millinery and dress-making business, and said that at that time he was in Europe studying to become in America what Worth is in Paris. Now, of course, his former teachers and associates laugh, but there is no derision in their laughter.

As he had already tested his talent in the millinery line before the examination was made, he may not have felt especially grateful for my discovery or advice.

AMERICAN INSTITUTE OF PHRENOLOGY.

Institute Extra.

Devoted to the Interests of the American Institute of Phrenology.

No. 17.]

FEBRUARY.

[1888.

THE AMERICAN INSTITUTE OF PHRENOLOGY was chartered in 1866, but before that time many classes in Phrenology had been taught, and as a result of such brief courses of instruction a few excellent and successful workers had entered the field. Others had managed to take a lesson or two, simply that they might be able to say that they had received instructions from us, and thus secure the confidence of the public. Some of these did poor work which was a damage to the subject and to those who were supposed to have been their teachers. Accordingly the leading friends of Phrenology, deprecating the lack of knowledge on the part of some who were lecturing, resolved to establish a Normal Institute, in order that the public could be supplied with lecturers and examiners who had enjoyed opportunities for instruction in the principles and practice of Phrenological science, and applied for an act incorporating the AMERICAN INSTITUTE OF PHRENOLOGY, which was passed by the Legislature of the State of New York, April 20, 1866, with the right to hold real estate to the amount of one hundred thousand dollars; to collect and keep for public exhibition a museum of busts, casts, skulls, and portraits illustrating Phrenology and Physiology; to instruct pupils, grant diplomas, etc.

NELSON SIZER, *President.*

C. FOWLER WELLS, *Vice-President.*

HENRY S. DRAYTON, A. M., M. D., *Secretary.*

By action of the Board of Trustees, the FOWLER & WELLS COMPANY has been appointed financial and business agent. All communications should be addressed, FOWLER & WELLS CO., 775 Broadway, New York.

CLOSING EXERCISES OF 1887 AND PROGRAMME OF 1888.

OPENING REMARKS BY MR. N. SIZER.

FRIENDS OF THE CLASS OF 1887: It is our custom at these closing exercises to call on the teachers for any remarks that they may be disposed to make, after which the students are invited to speak, and as I am informed, the students, in consideration of the great number of them, have thought proper to select a few of their associates to act as speakers for the class. In accordance with the custom of the past, we invite first, Mrs. Wells, the Vice-President of the American Institute of Phrenology, for such remarks as she may feel inclined to make; after which Dr. Drayton, the Secretary, will speak.

MRS. WELLS' ADDRESS.

MR. PRESIDENT, FRIENDS, AND MEMBERS OF THE CLASS OF 1887:—Ours is largely a mis-

sionary work, and the funds we have taken in Phrenology are those with which we have disseminated Phrenology. We have tried to keep ourselves in health, so that we could work vigorously, but we have been devoted to the science, having made every effort to spread the knowledge which we think is destined to redeem the world of mankind. In order to accomplish this as soon as may be, we have published and sent broadcast, by mail and express to all parts of the globe, our books and our journals.

I wanted to tell you something about how the Journal struggled into existence, but I could not. Our books and our Journal have been missionaries themselves as our own personal work has been missionary work. We have taken in the work of Phrenology, many thousands of dollars, but the money has been put back into it; we have not spent it for luxuries,

in making a grand show for ourselves or our families, but we have tried to make our business sufficiently attractive to claim and obtain the attention of people, because we deemed that one of the necessary means to that end.

We expect to die in harness. Mr. Wells was the first one to depart to the other life. After going through a severe winter, as far as the weather was concerned, and having as much to do as he was able to do and keep well, our landlord came in February, 1875, and said we must move as the heirs were going to tear down the old building and rebuild. He worked hard in moving, thus exhausting his strength, and thereby his power of resistance to a cold which developed into pneumonia before we had become settled in our new quarters, and after eleven nights and ten days he passed to the other shore, April 13, 1875, and left the heavy burden upon my shoulders, to care for the work in which we had, for nearly thirty-two years, worked together. With me he left good helpers, Messrs. Sizer, Drayton, Turner, and others that are still in the business, and the result is what you have seen. We do not profess to be perfect, any of us; and although we take different views regarding some subjects, we are agreed in our love for Phrenology and work harmoniously, appreciating each other's good qualities and understanding phrenologically our differences. My brother, O. S. Fowler, and Mr. Sizer held views different from each other, and I hold different views, Mr. Drayton does not coincide exactly, but we all love Phrenology and preach and practice it and work together. We think if anybody in the world should excuse and overlook, and forgive one another for maintaining opinions that we do not, it is the phrenologist who should do it, and it is he who should always be the one to forgive, because as phrenologists we can better understand the influences underlying action,—it may be of persons to whom we have taken a dislike,—their general appearance is not acceptable, or what they may say or the way they may say it. Perhaps something has occurred, a sunstroke, for instance, or other illness, that has made them different from what they were originally, and we must take all these things into account; one person may be of a nervous temperament and may have worked day and night, and with exhausted strength he becomes excitable; the phrenologist must take these things into consideration and forgive.

You all know of the blow that death has dealt recently, thinning the ranks of the long-time workers, in taking my brother. He loved the cause for which he so long labored, and from the beginning also professed to be controlled by a missionary desire to sink everything for Phrenology. If he failed to manifest this spirit always it was owing to external influences; his love for Phrenology never diminished, however, he worked for it and died in the harness.

If everybody understood the value of Phrenology its practice as a business would be remunerative. Those associated in the Fowler & Wells Company are capable of filling a position that would command a higher salary than they get now, and our business requires brain; hence you see they sacrifice something in helping Phrenology, and are thus

phrenological missionaries. We are doing considerable business, and it requires close attention and wearisome application. We are not lazy people. We wish on several accounts we were able to put this Institute on a permanent basis,—to give it a home for life,—and would that it could have a permanent location where it would not be subject to the dictation of the landlords to move, and sacrifice our specimens, or human life as in the case of Mr. Wells. His death was plainly the result of moving our office from one place to another, his zeal exceeded his physical strength and power of endurance. Previous to that he had advertised for a building with the view to the purchase of such a home as this Institute needs, and received several replies, but they were either unsuitable for the purpose or their location was objectionable. His purpose was to prosecute the matter to success, but his removal to another life closed his labor in that direction. Had his life continued we would, perhaps, have been by this time differently placed. My efforts have been in the same direction.

Thus far this Institute has not paid its way, and has had to be carried. After Mr. Wells' death I carried it as far as it was necessary, and since the Fowler & Wells Company was formed in 1884, this company has carried it, hoping all the time that it will be able to carry itself, and still we are hoping and trusting and have faith in it, for it is God's work, and in his own good time he will prosper it, and all will be done for the best.

That thought has helped to reconcile and console me under many disappointments, and yet I would not relax my efforts one iota, and am ready for any practical suggestions or help. Some of you may chance to know some one who is burdened with wealth that he can not carry with him when he goes hence, and he may be wishing for a suggestion as to where it can be best placed. Do not forget, under such circumstances, to give such persons a hint that a building at the best spot on Broadway, New York, for the American Institute of Phrenology and its cabinet, will be the best investment they can make, inasmuch as we teach mankind to make the most and best of capabilities, and since prevention is better than cure whatever will aid us in teaching to so care for ourselves as not to get sick will be a benefaction in preventing illness, and by so much will our Institute be of more true value than a hospital, and therefore a better investment for wealth which must be left behind.

MEMBERS OF THIS CLASS:—Please realize that there is much to be done, and I hope you will wish to help roll this ball along. Many things have been left unsaid, but you all know that the short time allotted has been crowded,—and this leaves a place for me to say that if we had the structure of which I have spoken, we would have noon lectures daily, or evening lectures, through which instruction could be given all the year around. I can not say all that I wish to, but your own thoughts may suggest what I have left unsaid regarding the grand possibilities of the future, and I will close my address hoping that we may work harmoniously in this great cause, and when we lay off the harness may we have the feeling that we have not worked in vain.

ADDRESS BY DR. DRAYTON.

LADIES AND GENTLEMEN, MEMBERS OF THE CLASS AND OF THE INSTITUTE:—Only a final word at this time. I trust that your attendance here as students has deepened your convictions of the truths and principles of phrenological science. I hope that your range of vision has widened with regard to it; that you find there is more in the subject than you had thought or suspected before, and like the astronomer who sweeps the stars night after night, you have found that as your vision has strengthened, the range has widened and deepened. The field is a wide one. Indeed, there is room enough for all and more; it may be said to you that in comparing the entire number of those who are working now in these United States, that they would scarcely do justice to a single State, let alone the broad area of our own country. There is room, then, depend upon it, for your very best services, and the demand but grows with their giving.

Be true to your convictions and respect honest doubts that arise in dealing with this or any subject. The Latin poet has said—*Fis est ab hoste doceri*, it is proper to learn from an enemy, and whenever you meet an honest enemy, depend upon it, you can learn something from him, and something that you can use. The suggestions of a skeptical enemy, in whatever light they may be given, furnish information, ideas, impressions that will be made useful. Cunning and craft are only successful, remember, in the seeming; it is valor and candor that will win; so do not be like the Roman retiarius who discomfited an enemy with a net and dispatched him in cold blood; have no net of cunning or trickery, but if you would use a trident let it be the modern one, with its three sharp prongs of conviction, deliberation, and action; that will be an improvement on the murderous trident of the retiarius. But some will say that you are not scientific; that this subject which you endeavor to disseminate lacks scientific grounds.

Gentlemen, I hope that from what you have gathered here you will have good reason to think that there are sound scientific grounds for our subject, and you may properly ask those who make such an objection, what is science? Who are its custodians? Who are its representatives? You may well remember that every true scientist is modest in his claims and very doubtful often with regard to what is truth and sound principle. Consider the controversies in every department, natural history, geology, astronomy, and even in mathematics. There is the Binomial theorem for instance, what a world of doubt and fallacy there is in it! yet by the laws of calculation how direct seem to be the conclusions that are reached, even though you prove by it that one equals two.

Another word; always aim to do good, and do not be a *bad shot* in your aiming. If a man would be a good sportsman, he must have a clear eye, a steady hand, and a good gun. He must point his gun straight at the mark, otherwise he won't bring down the game. When David went out to do battle with that ancient Philistine, you remember that he chose several smooth stones from a brook. He was a good marksman; he knew the necessity to have smooth stones, just as the modern

gunner knows that his projectile, in order to reach the distant target, must be smooth and well-shaped. Your smooth bullet will be a good understanding of the work that you have to do. A good mark is necessary, and that has much to do with your success as a shooter. Having a good mark, how it sharpens the faculties of observation; how it trims up the muscles and strengthens the poise! When I was a boy, I was exceedingly fond of roaming the forests with a rifle on my shoulder; if there was any *live* thing that presented itself, why then I was all aglow, and every nerve and muscle was toned up. Sometimes I shot at an inanimate object, but that did not trim me for sport.

Do not be diverted from your object, and leave side shows and petty tricks, and even experiments in magnetism, entirely alone, unless you are a vigorous operator. Do not endeavor to build up a reputation on nothing; that is the trade of the mountebank. Do not, by any means, try to ape the buffoon. Phrenology offers serious work, ladies and gentlemen; it means a great deal to yourselves, as well as to those with whom you will have to deal. It has a great part to perform in the social movements and all movements of the day. We are living at a critical juncture, and there are few of us who realize what is going on in society; although through the newspapers we get now and then inklings of the very serious fact that we are living, as it were, over a powder magazine or a volcano. It seems to me that the phrenologist can do as much toward solving the problems which so challenge solution, as any class of men and women living. With the knowledge of human nature that this subject gives, you ought to be powerful aids in helping man in the ways of progress and improvement.

I must express my pleasure that so large an attendance was here during this session, and I earnestly hope that you all will succeed in your different spheres in applying the truths which you have acquired in this study.

MR. SIZER'S ADDRESS.

And so, fellow students, we come at last to the end. When we look about a busy city like New York and see how many hundred ways there are for eking out existence or acquiring fortune or pleasure or dissipation, we may study a hundred of those pursuits, and ninety-nine of them are outside of human improvement, and fifty per cent. of them are outside of human weal. More than half of the world's work is worse than wasted, as it respects the good of the human race. It is not done to promote human good, it is not intended for that; a great deal of the common commerce of the world is mere chicanery and practical robbery. People sometimes hesitate to put their sons into this or that business because it will be expected that the boy is to lie and cheat. There are some kinds of business conducted in such a manner that every dollar's worth of profit would represent twice as many lies.

Now, what is your business as phrenologists, what do you aim at? You aim at doing good and getting paid for it. But in the first place

you must do good in order to deserve pay, and the world will not run after a phrenologist and pay him, unless he has in his work some show of good to his fellow men. Your subject is man, the best thing you ever saw on the earth, and it is for man that your work is projected, to build up and instruct the human race, to widen the sphere of happiness, and to open to the vista of men the pathway to glory and to God. That is worth working for.

Some people ask us, is there room enough for all the Phrenologists? Suppose that thirty of the forty composing this class will become settled down as lecturers and teachers of phrenology? Perhaps so; some of you, I know are connected with educational interests, and some with business, and do not expect to devote yourselves to the promulgation of Phrenology *per se*; but suppose that thirty out of these forty students become earnest practical workers in the field, what is the chance of your success? Think a moment; the United States has sixty millions of people, and that is two millions for each of you; if that parish is not large enough, you do not deserve to be a bishop. I have been forty-eight years examining only one-third of a million of the human race; at that rate it will take all of you 300 years to cover your parish, even if the parish did not increase and multiply; the two million people thus assigned to each of you will multiply faster than you can examine their heads; there is not much chance for your running out of work. There is room enough for us all. But what a responsibility! A woman brings her little boy; perhaps she is a widow and he is just big enough to earn a dollar or two a week; she comes with her spare money, tied up in the corner of a handkerchief, and wants us to tell her what that boy is good for, what shall be his career, what course shall he adopt with a view to his own support and also to the support of his mother; so she comes to you for advice. You have to put that boy on the track; shall it be a track that runs upward or downward; shall it be a track on solid foundations, or will you send him somewhere to do the devil's work for the sake of a little more money? Think of it, the future of their sons entrusted to an examination that you shall make. A young man came 1,000 miles, all the way from 100 miles beyond St. Louis; he worked for \$16 a month on a farm till he had money enough to come to New York and back again, and his sole purpose was to come to our establishment and be examined to ascertain if possible, what he could do best; he had tried three things and wasted six years about it, and failed in them all, and he thought the cheapest way was to work three or four months and take the cars and come here and see about it, and he told me where he had come from and what he had come for, and I thought, "Who is sufficient for these things?" And yet by the grace of God, and by the light which Phrenology throws upon human nature, I believed I did him more service than he paid me for, and yet he paid me all I asked him. Another man walked 400 miles and he came from Canada, and walked all the way back, and I gave him an examination, and I made him welcome to it because he walked so far to get it. But I have seen the man successful, and he attributes his success to what he got by that long journey.

And that is not all. People have heard from us around the belted earth; men send us photographs from South Africa, they send us from Australia, from South America, from Canada, and from every part of the Union they send their portraits to see what Phrenology will say about them, and if you could see the letters that come back saying to us, "You have hit the nail on the head; my friends say, if you had known me from my cradle to the present hour, you could not have been more just and accurate in your description."

Fifteen years ago, a gentleman rushed into our office and said he was in a great hurry; he handed me a picture of his daughter and that of a young man; he did not tell his name nor where he lived, nor the names of the parties, but said, "I wish you to say how these parties are adapted to each other in marriage, and tell me, as a father would tell a friend, what kind of a husband that man will make for my daughter." I wrote out the indications as they seemed to me, and insisted that they by no means permit that couple to marry; the man was not adapted to the lady, and was not adapted to be an honorable and acceptable fellow citizen anywhere. He came for the written statement in the afternoon; no name or residence was given, and he departed with the document unopened. Something like a year afterward I received a letter from Indiana; the writer called my attention to the circumstances, and he said that the man had proved himself a rascal; his daughter was very anxious to marry him, but consented, on my advice, to wait a year, and within that year the man eloped with a woman to Canada, and he had forged a note or a check to raise the funds to go with, and it was found out at last, that he was already a married man when he began to court this man's daughter. Since that time, the daughter came into our office and I knew the face, but told her I did not know when nor where I had seen it; she told me who she was and brought in the picture of another man on her own account, and I accepted him, and so did she. I know the street in this city where they now live happily.

Sometimes phrenologists get into a tight place, a very tight place, but my advice to phrenologists is, to lean on Phrenology, invoke all you know of the subject and trust to that; do not study anything but the organization. I had another pair of pictures brought in a similar way, without names or address. The question was: "Will you please write out your opinion of the adaptability in marriage of the persons represented by these two portraits?" The man called later for the description and pictures, and gave no name or location. A year afterward, I received a letter saying that the couple had been married, disagreed and separated before the pictures were sent to me, and my advice was this: "The gentleman is peaceful and calm, respectable and good, and she is too sharp in temper, and he had better not marry her." He was a merchant, a respectable man, progressive in business and trade, and so they had everything for comfort. She had left him, they could not live together. That is what I call being in a tight place; when called on to describe persons in that way.

The choice of pursuits is one of the great things that you will be called upon to decide.

Men are eager to know what they shall do, and when a man gets out of business, even the man of forty years of age, he is just as much at sea as to what he shall go into as a boy is; he doesn't know what he should undertake.

Some very droll facts come up; I remember one or two. A very handsome young man came into the office; he had a head of about 24 inches; it was as fine a head as you would see anywhere, and he weighed but 125 pounds; his head was big enough to eat up his body, and he wanted to know what he should do; he had just graduated from Columbia College Law School, as I learned afterward, and I said: "Sir, your head is too large for your body; you must get out of doors, you must have something to do with the external world; if you had body enough you might be a Daniel Webster, but with your large head and slender body you must get into the open air, out-of-door world; you had better study architecture and be a house-builder and get into the sun and the fresh air." Fifteen years afterward a gentleman walked in, a man that weighed 184 pounds, plump, rosy, genial, and had one of the nicest women that you would see anywhere, and she believed in him heartily; he said to me, "You don't know me, but I came here when just out of college and expected to go into law practice, and you told me to go and learn architecture and be a house-builder, and such a take down as I got, oh, it was terrible! and I went down town to a friend of mine who was an architect, and told him how you said I wouldn't live five years unless I changed. I had better take hold of something that would give me tangible, out-of-door life; my friend said to me, 'That's right, he told you the truth; I am an architect; I will put you through as an architect in a hurry; your college education gives you all the geometry and mathematics you want, and you are apt to learn, and I will put you right ahead.' I did so; I then went to California, and I have been successful;" as he turned around to his wife, she smiled as if she thought it was true. "I have made \$200,000; I am regarded as one of the best architects in all that Western Slope, I weigh 184 pounds and am as solid as a rock; and being now in New York I came all the way up here to tell you about it." If this did come late, it did me good; there are some things that pay one way and some pay another way, and once in a while, one pays both ways.

I wish to cultivate your Eventuality, and therefore I will tell you another story. Mrs. Wells and Mr. Turner say we have not got rich; that is true, we haven't, but we are middling rich in some things; we are rich in a few choice facts that we have saved up; among the subjects, there's a good many that will be paid for at the final settlement. I received one day an invitation in these words: "Professor Nelson Sizer is requested to be present at the unveiling of the statue or bust of Christ on ——— evening, at ——— street, New York." I did not know the name and forgot that I had ever heard of it; I supposed, it being a bust that was to be unveiled and as I lived in the realm of busts, doubtless the artist thought I might be interested in the subject, and it might help, perhaps, to give public expression to the excellence of the work if I went to see it. But I wanted to see what any man could

do with the bust of Christ; I had never seen anything that met my ideal on that subject, as they all appeared trifling weaklings; I believe that Godhood and manhood ought to show the handsomest and grandest man the world has ever seen in Christ. So I went there early, as I had another engagement; a colored man admitted me to the parlor; I was the first to arrive; I gave him my name and he said the doctor was at dinner; pretty soon I heard his earnest step running up stairs; he had left his dinner, and putting his hand in mine he said: "Mr. Sizer, you, of all the men in the world, are just the man I wanted to see here to-night, but you do not know me from Adam." I replied, "I am glad of such a reception, but I don't remember who you can be." "Of course you don't remember, but I do; twenty-seven years ago, a boy and stranger from the country, wandering around the streets of New York to see novelties, accidentally stood before your window; I went in, and you told me in an examination of my head to study dentistry, and I never thought of it, or to study sculpture; I went out and stood on the sidewalk, and resolved that I would be a dentist, and I found the man who would take me and teach me dentistry, and I was settled before sundown that day. I learned dentistry and succeeded (he lived in a magnificent house, nicely furnished; he had succeeded); and then I made up my mind I would turn my attention to sculpture, for since you told me I might succeed in it, I had been tinkering and thinking in regard to it, and now, let us see what I have done," and he went into the back parlor and unveiled the statue. It was both grand and beautiful, and he said, "I owe all I am to you and what you did for me."

A year ago a man brought his boy in and said: "I want you to write out that boy's character, he is about fifteen years old." I wrote it out, and decided that the boy ought to go through college and study law; "Oh," said the man, "I hoped you would put him into my own business." What is that? "Lumber business." This boy resembles his mother, you must make him a scholar; if he resembled you he might go into the lumber business. "That's true," said he; "Fifteen years ago, I had a hundred dollars in my pocket; I was going to Fulton Market to take a small stand; I did not come to you on purpose; I did not think of it, but I found myself in the office, and said, 'I wish you would examine my head,'—I didn't know whether the cost would be twenty-five cents or more,—and you told me to get into the lumber business and not go into anything else, and I never had thought of it; I had as capital only my hundred dollars; I went out and stood on the sidewalk till I had made up my mind not to buy the pie stand; I went to one of the largest lumber dealers, and said, 'I am told to go into the lumber business;' after an hour's talk, the man told me to hire a vacant lot and canvass for trade, and I have now the largest lumber house between the Harlem River and Chicago. I am worth \$——, and you kept me from the market stand and put me into this business." About two months ago, a boy came in for examination, and I told him he had better go into the lumber business, run the machinery get out the work that finishes the insides of

houses, and then I told him this story as an encouragement to go into it; "I am in the business and I am working for the very man you described."

One of the most touching things that has occurred in all my history was this: A young man met my wife in Brooklyn, and hearing her name and remembering mine, a name not very common, he said, "Is your husband a Phrenologist?" "Yes." "Well, when I was a tough rapsallion, running with a gang of roughs in New York, using tobacco and whiskey, and doing almost everything that I would be ashamed to tell my mother or have her know, being about half full of whiskey one Saturday afternoon, I wandered into his office, and he went on, not knowing me nor asking my name, and described me; it seemed as if he must be superhuman to talk to me as he did; it was gentle and kind, but I wouldn't have borne such talk from any body else outside; he finally said, 'young man, if you don't turn right square about, or turn over a new leaf, you will go to the dogs as straight as you can; but you have talent enough to be a man; you have that in you which will serve you in the line of goodness if you cultivate it.' He told me to throw away my tobacco, and when the boys came and whistled for me for the evening's mischief, to stay in, and to-morrow morning, wash myself up and go to some church near by and join their Sunday School and see what I could get by being a decent man; I threw my tobacco away on my way home. After a while they whistled for me, I didn't go out, and Sunday morning, without any whiskey in me, I cleaned up as well as I could and went into the nearest church. It seemed so cool and fresh, and sweet and innocent; I sat there and by and by music from the organ commenced gently, and people began to come in; I said, 'this is cleaner than the saloon.' After the sermon, and when Sunday School was announced, I went into the room and sat down pretty well toward the door, and the teacher seemed to know me as a tough, and thought I had come there to raise Ned, and said, 'This is a Sunday School, a Sunday School.' I said 'yes, sir,' by and by he said again, 'this is a Sunday School, it's no place for you;' and I said, 'I want to join it,' and the man put his arm right around me and took me down to his class and taught me, and to make a long story short, I am the Superintendent of that Sunday School now. I am a member of that church and I have got one of the best wives in the world and two lovely children and I am worth \$15,000, and I have not touched tobacco nor liquor since your husband examined my head." And he took my wife's hand and stood there for a minute with wet eyes and silent tongue, and went away. It pays to save the human race. And there is nothing in the wide world one can do that is half so valuable as saving the human race, and though you do it piece by piece, here a little and there a little, and the world seems to go on to ruin, your influence shall be like the leaven in the meal, it shall go on multiplying itself, when you shall have gone to your rest, and hundreds shall come to you on the other side and clasp your hand and rejoice that you have saved them from the evil that is in the world.

I feel encouraged to work, because the work is so good, and he that lays up treasure

"where moth and rust doth not corrupt and where thieves do not break through nor steal," has a treasure on interest forever, FOREVER!

The delivery of the diplomas is a part of my duty, but I propose to let them rest until our brethren have finished their speaking. I believe the class have selected a few of their number to speak. I call first on Rev. Dr. Hunter, of Canada.

ADDRESS OF REV. W. J. HUNTER, D. D.

MR. PRESIDENT, PROFESSORS, AND FELLOW-GRADUATES:—I appreciate alike the honor and responsibility of the task assigned me as the valedictorian of the class of 1887. We have gathered here from different States and nations, moved by a common impulse, that from the lips of men and women whose minds are rich with the spoils of time we might gather words of wisdom. To-day we receive the diploma of our Alma Mater, and, if true to duty, self, and God, go forth to disseminate the principles of Phrenology, for which the weary world is hungry. We shall never all meet again on these mortal shores, but if we act well our part we shall clasp hands in the bright to-morrow where we shall no longer "see through a glass darkly, but face to face—and know even as we are known."

Let us never forget that we are graduates of the American Institute of Phrenology; students and teachers of a science intended to bless the world, and let us see to it that no act or word of ours shall give occasion for ridicule and contempt, or bring a blush of shame to the beloved and faithful teachers whose wise counsels and varied knowledge have been poured in treasure stores at our feet. Self knowledge lies at the basis of all living development and no man knows another until he has first known himself. It is said that Vancauson, the celebrated machinist, had his taste for mechanics excited in this wise: When a boy he was frequently shut up in a room where there was nothing but a clock, and to amuse himself he studied its construction till he became acquainted with its parts—their relations and uses. So let us, not by the process of reflection on self-consciousness, but by that of self-observation and demonstration, prove to the skeptical and unbelieving that we practice what we preach. It is grander far to study and regulate a man than to study and regulate a clock.

Oh, wondrous is that work of art
Which knells the passing hour;
But art ne'er formed, nor mind conceived
The life clock's magic power.
Nor set in gold, nor decked with gems
By wealth and pride possessed;
But rich or poor, or high or low,
Each bears it in his breast.

When passion nerves the warrior's arm
For deeds of hate and wrong;
Though heeded not the fearful sound
The knell is deep and strong.
When eyes to eyes are gazing soft
And tender words are spoken;
Then fast and wild it rattles on
As if, with love, 't were broken.

Such is the clock that measures life
Of flesh and spirit blended;
And thus 't will run within the breast
Till that strange life is ended.

Fellow students, it is our high calling to study, guide, and regulate this marvelous compound of flesh and spirit. To demonstrate that the external life molds even the external form, and that when the internal life is rooted in virtue and purity every organ through which it operates is good, and was given for the creature's happiness and delight, and only when in violation of natural law we pervert these God-given organs do they reap for us a harvest of shame and sorrow.

What lectures we may deliver on home and family and friendship, types of the rest and felicity of heaven. From the depths of Causality we can draw up the ladder that raised Newton to the skies. From the heights of Ideality and Sublimity we can soar backward, forward, upward, and with the mien and majesty of an angel proudly perform our gyrations on the clouds.

Touch Individuality, Eventuality, and Locality and they unfold a canvas on which earth and skies are outspread. They send their electric wires back to the green of our earliest gambols; and, touched by the magic fingers of Hope, Spirituality, and Veneration, the magnetic lines are pushed through the tomb and bring us tidings of the thousand joys and delights of the loved and crowned before the throne.

This is our study and our lifework—to reveal the dignity, the grandeur of humanity and its glorious possibilities. The universe is grand. This world in which we live is grand; worthy to be studied even by angels. Its paths so full of melody and fragrance and beauty, and the starry vault which overhangs them are a suitable portico to God's eternal temple. But man is greater than the world, greater than the mountain in its loftiest altitude, for though it might crush him in its fall it can not comprehend him—he can comprehend it. Greater than the ocean, for though it might engulf him in its depth it can not triumph over him—he can triumph over it. Greater than the mightiest beasts of prey, for though they may rob him of his life, nor lion nor tiger can subject his will—he can subject theirs.

This peerless elevation is the possession of the race everywhere. In multitudes it has but partial development, in many it is associated with a degrading animalism which obscures its glories, but there it is, nevertheless, like some costly gem imbedded in the bowels of the earth awaiting but the lapidary's touch to make it emit the dazzling splendors enclosed in its bosom.

It is the mission of Phrenology to discover these human gems, and indicate the culture, training, occupation, and habits of life best calculated to polish them for the diadem of society. When Sir Humphrey Davy was complimented on his great scientific discoveries he replied, "But my greatest discovery was Michael Faraday."

Michael was a poor boy taken into the employment of Davy, but who developed such a genius for chemistry that at length he took the place of his master, and to-day his name stands high up in the honor-class of the world.

This is the mission of Phrenology—to find out the Michael Faradays of the world and indicate the positions for which Providence has endowed them. Based as it is on the physi-

ology of the brain, and including as it does a knowledge of those physical elements which compose the human body, and the relative energy of its general functions, together with those pathological conditions which modify human temperament, the science of Phrenology reveals with mathematical precision the qualities, powers, and capabilities of the living subjects who pass under the eye and the hand of the skilful examiner. No calling save that of the Christian minister is more sacred and responsible than that of the Phrenologist.

It is related of Columbus that when in search of this new world, on the evening before he saw the land he sat musing at the stern of the vessel, and, as he inquired, "What is the world upon which I am entering? What will be the consequence of my landing—to myself, to Spain, to the world?" his feelings became overwhelming. But you and I go out to-day to explore the human mind with its yet undiscovered continents of thought. How shall we approach it but with a hush upon the spirit and silent prayer to God? We were told by Dr. Ordranax that the dead author whose words awaken our thought and feeling, projects himself into the ages. And this is literally true. The great men and women of past generations, "being dead, yet speak." Still they teach in the school of philosophy; still they sway with burning periods the popular assembly, decree judicial decisions and guide statesmanship and diplomacy. Marathon was the mother of Thermopylæ; the tomb of Leonidas produced a yearly crop of heroes. The dead body of Lucretia planted by the hand of Brutus, brought forth the living liberators of Rome. We are living for the future. Men, women, and children will come to us for counsel and direction. Let us teach them wisely—teach them to suppress and subdue and stamp out everything that is mean, contemptible, selfish, spiteful, ungenerous; and to cultivate what is large, benevolent, forgiving, God-like, so shall we help to irradiate with celestial beauty the life and the orb of humanity.

For three years I have turned my attention to the study of Phrenology, and in spite of my own prejudices I have been compelled to accept its fundamental principles. I can not tell you with what pleasure and delight I have listened to the masterful lectures of this Institute. I shall go back to my lifework with a more profound conviction of the worth and grandeur of human nature, and with a broader, deeper sympathy for the weak and the erring. St. Paul had already told me of "the merciful high priest who can have compassion on the ignorant and them that are out of the way," and Phrenology has taught me *why* those streams of divine sympathy flow out to them. Let us, in the light of such knowledge, and in imitation of such an example betake ourselves to the work of life.

Raise the fallen, help the weakly,
Lift the hopeless from despair,
Speak like Jesus; loving, meekly,
Smooth the wrinkled brow of care;
Go where withered joys departed
Nothing leave but scars of woe;
Gently bind the broken hearted,
Healing wine and oil bestow.

I am sure that I voice the sentiments of this

class when I say that for each and every one of our teachers,—from the amiable and accomplished Miss Potter, up to the venerable and beloved Mrs. Wells and Professor Sizer, who still linger in our midst like the flowers of autumn, more fair and fragrant because of the disrobed fields which they beautify and bless—for each and every one we cherish the warmest affection and the truest respect, and wish them the blessings of this life, and the rewards of that which is to come.

And after battle, victory,
And after victory rest,
Like the belov'd disciple
Upon the Master's breast.

ADDRESS OF MISS HELEN POTTER.

FRIENDS AND FELLOW STUDENTS.—In the world of music we have many instruments: drums and flutes, banjos and fiddles, organs and bells, harps and jews-harps, which arouse to war, worship, or revelry, as the case may be. But among them there is one small unpretentious instrument, which fires the brain, and sends flashes of lightning along the nerves, quickening the pulse, illuminating the eyes, and urging onward to action. It is the bugle call. It says to the slumbering energy: "Arise! hasten! to arms! fortify! intrench! Build bridges, walls, and barricades! Up, for your country, your home, your loved ones, yourselves, for health, for humanity."

The bugle sounds and the dreamer ceases to slumber; decrepitude forgets its infirmities, and weakness becomes strength. The call is answered promptly, not always by the masses, but by those who comprehend the situation and feel the necessity. Sometimes a single soul, sitting aloft in the realm of reason, is suddenly illuminated by a great truth. His single voice sounds like a bugle call through the valleys, and reverberates along the hills and over the mountains—calling for reformation, revolution, change. Then the champions arise in remote corners of the earth and answer.

They are seen and felt, bold defenders and preachers of the new truth. The cause, the call, and the champions follow in quick succession. Thus we have Melancthons, and Luthers, and Gallileos, and Hahnemanns, and Spurzheims, and Galls, and the whole catalogue of educators, reformers, and savants. In the name of science, and noble manhood, there went forth a call from 775 Broadway, which was heard in Canada, California, Massachusetts, Virginia, Nevada, and Texas, and here we are to take up the good work. Here we are, the class of 1887—to learn from the living lips of the most experienced and self-sacrificing of all the masters of Phrenology in the world to-day—lessons of wisdom and philosophy. We came thirsting for knowledge, and have imbibed enough truth to hunger and thirst for more. We realize (in the future development of the race) what we owe to the science of Phrenology.

We must be, all that we can be, the *best* we can be. We are taught that it is our privilege and our duty to overcome our defects. To build up and cut down until we are as symmetrical as possible. Let us begin our work by taking account of stock. What have

we in store of the propensities, the sentiments, the morals, and reason?

Let us decide what we need to cultivate and what to restrain, and then follow our line of labor for ourselves and humanity, unabated to the end.

As for myself individually, I see what I must do. *Reason* must make the laws by which I hope to attain symmetry. My *Perceptive Faculties* must act as sentinels to keep off enemies, and bring me daily before the bar of *Conscience*. *Causality* and *Combativeness* must argue my case against *Benevolence* and *Approbativeness*. If I found guilty *Firmness* and *Destructiveness* must inflict the penalty. *Secretiveness* must hide the wounds and *Hope* lead me into pastures new until the victory is won. This warfare with my faults and deficiencies shall be supplemented by several rules, viz.:

1. I will respect my body in all things. Nor hasten dissolution of power by the use of any opiates, nervines, drugs, alcoholic stimulants, or unknown mixtures whatsoever.

2. I will not enervate my mind by trifling or degenerating conversation or literature.

3. I will protect the weak and innocent, especially women, from violence, abuse, insult and slander, also use all my influence against cruelty and abuse of dumb animals.

Thus may I hope to attain a higher condition physically, mentally, and morally.

ADDRESS BY MRS. ALBERT TURNER.

THE SOCIAL REALM OF PHRENOLOGY.

The territory over which this theme extends is vast, and I shall consider only a portion. Let us suppose that matrimony has been studied in the light of Phrenology and physiology until the matrimonial alliance has been consummated and is all that it should be. We now enter upon the home life, and need to select a servant. How to select a servant, and how to know what we have got after selecting, are two very important points in home life. For instance, deficient *Veneration*, *Benevolence*, and *Social* organs, with very large *Alimentiveness*, will cause a servant the first day to say, "I eat a very little at meal time, and must have something nice to eat about ten o'clock and then again at four;" at the expiration of forty-eight hours she leaves with the simple complaint, "I must have something different to eat every day," the employers meantime thinking that they had been having a variety. What is the cause of the trouble is a mystery to all, except a phrenologist. Take a lady who has made some study of this science; she will say, "Husband, I will go to the office and try to select a servant as you are to be very busy to-day." She gets one that is intelligent and executive, with large *Firmness* and *Self-esteem*. Taking her home she simply shows her the accommodations that she is to have, and tells her the time for meals, etc., mentioning that if in doubt about anything she can come to the sitting room. Her husband finds at night a good dinner and harmony in his home. Her orders are all given in a careful way, something like this: "Jane, don't you think to-day would be a good time to clean windows?"

"Yes, ma'am," would be the response, and they would be done and well done too.

Eight months of bliss pass over the home when one unfortunate day the lady is taken ill, and her husband goes to the kitchen, neither knowing nor believing in Phrenology, and Jane, who is just putting a savory dinner on the waiter, is greeted with these words in a peremptory tone, "Jane, you must make some milk toast for Mrs. W. at once, and don't let the bread or milk burn, either, for it is dreadful when burned." Jane's reply is, "You can make it yourself if you know how so well; I will not stay another hour," and off she goes, simply because he did not address her properly, forgetting alike her intelligence and dignity.

There are times when all the help that one has access to seems to be poor. This lady having been ill, and needing immediate help, was compelled to take a girl with a low, broad head; this thought passed through her mind, "If she should like the place I fear a policeman will have to be called in order to get rid of her when necessary." At the end of a hard month she tried to disengage her, but she said flatly she would not leave, and true again to Phrenology the lady had to call in a policeman to rid herself of this help. One more instance I think will suffice on the help question.

This time she succeeded in getting a girl with a good mental and social development, active Benevolence and Veneration. The lady said, "A feeling of rest came over me as I thought 'she will stay a long time with me, and anything that I may want done will be done with a gentle asking, whereas if less Veneration and Benevolence, and the same Firmness and Self-esteem, it would tire me, because you have to be so circumspect in your manner and speech.'" Years passed instead of months, and still she stayed.

"Train up a child in the way he should go and when he is old he will not depart from it." I have not been able to find any key to the problem here given in Proverbs that seems to have so much weight in its bearing in the home circle, in Phrenology. This science lets such a flood of light on this passage that it should be in every parent's mind constantly, for the actual service of a true parent is never ceasing. The infant not only wants right living but proper control. Do not give soothing syrups; if you do you will have the form of brain without quality; gentle passes down the body from the brain will almost invariably induce sleep. Then the little prattler should be restrained in the organs which are *too active*, and even at the age of three you do well to begin to stimulate the action of deficient faculties. I know a boy who was sadly deficient in Self-esteem and Continuity; his mother noticed his great dislike to picking up a number of blocks one day, and the irritability attending it; also his dread, from infancy, to go among strangers. He had a good voice and even when his familiar aunts and uncles came he could not be persuaded to sing. The mother was perplexed as to her duty until a friend advised her to take him to a phrenologist. She did so and he soon told her that the organs of Self-esteem and Continuity were both very small, and if she would watch him carefully and stimulate Continuity in him by encouragement

and rewards for tasks, that would overcome the feeling by making the organ grow; he also said, "Be sure and not give him too much of a task at once because it will make him suffer too intensely. For deficient Self-esteem I would advise you, if he has a good voice, to encourage him to sing, and especially before company; it will help his lungs and he will lose self-consciousness sooner than in speaking." The phrenologist asked the mother to lay her hand upon the child's head, and she fully realized the deficiencies and made up her mind then and there, with God's help, she would do as told, and at the age of twelve had the pleasure of seeing him go on the stage and both speak and sing with a clear, steady voice, and no task appeared so great as to irritate him. She then had his head examined again, and both Continuity and Self-esteem were marked full. Even the mother could see a decided change in the shape of his head. Is not this a grand missionary field for mothers to work in among their children if they but know how? Educating the children in this science will not only help them to control themselves, but to avoid those who are not suitable for companions.

Fellow class-mates, shall we not pledge ourselves to act as missionaries, dating our era from the class of 1887, and though we may never clasp hands again this side of the great eternal city, may we each strive so to live as to hear the "Well done, good and faithful servant," from Him who has already welcomed many faithful stewards in this good cause?

ADDRESS OF C. S. EMERY, M. D.

MR. CHAIRMAN, WORTHY INSTRUCTORS, AND BROTHERS AND SISTERS:—We, the class of '87, have reached another milestone in life's pilgrimage, a turning point, if you please, a branching out into a new field of effort. In attending this course of lectures our observations have broadened, deepened, quickened, and no matter what our calling in life may be,—even if we return to the same vocation, we do so with new tongues in our mouths. This new endowment of knowledge will crop out and its influence be felt by all around us. Each one of us, I trust, will be an ambassador for Phrenology in his own appointed way.

To many of the outside world we will appear as cranks, yet I trust not one of us will be so unreasonable as to be such. This science when presented to the paltry feebleness of a certain biased and bigoted class of would-be liberal scientific men, is hooted and jeered at as the height of nonsense and humbuggerly with the *risus sardonicus* of an idiot over a beautiful chemical experiment, and I am sorry to say, with an equal understanding and knowledge of the subject. Yet I am glad to know there has been, is, and will be, a few lights in that profession who are willing to give full countenance to any and all tangible facts let them appear what and where they may.

To illustrate the profoundness of this class of men, our professional skeptics—their daintiness and nicety, they denounce and steer clear of the Science of Phrenology without the slightest investigation of it. How wonderful their inspiration.

when by the same they are so miraculously shut out from the light of the world, from the Bartholdi of mankind, to grope in absurd and total darkness. We beg of you, with skeptics outside of your most useful and learned profession, to halt, give honor to whom honor is due. You can not do less than to meet us upon proper and legitimate grounds. Investigate; meet us half way and you will be ready to go with us.

Allow us, as human beings, the most varied and wretchedly self-abused of all living creation, I beg of you, allow us as much character, and as much variation of the same, and as many signs by which to read it as is accorded to the lower animals. A horse jockey is imbued to the uttermost with signs of the character of the horse, measuring his capacity, condition, and disposition with great accuracy. The dairyman knows his kind and the fowler his kind, and so on through the whole zoological family. Even the tribe, the family, and the individual fish, size, weight, color, and habit may be known by a single scale when in the hand of a master scientist. Even inanimate nature, the vegetable and mineral worlds, all have character of the minutest and widest range. This is not Phrenology, but it bears a similar relation to the inanimate that Phrenology does to the animate, and requires the breadth and depth of science to discover and to understand the natural laws that govern and control their existence.

All this latter is patent to the cultivated mind and admitted by many unlearned and biased phrenological skeptics, who have not half the reason to believe it as they have to believe and indorse Phrenology. The trouble in many cases, we surmise, is, it comes too near home, and the only way to avoid its scathing knife of justice is to denounce it in toto. But we protest, "The proper study of mankind is man," and we leave this course of instruction with a more sublime conviction that "man is fearfully and wonderfully made."

ADDRESS OF M. J. KELLER.

DEAR TEACHERS, SISTERS, AND BROTHERS IN THE CAUSE OF PHRENOLOGY:—Some of us have been trying for several years to reach our present standpoint, studying at home as we had time and opportunity, still hoping the way would be open to us to receive the practical training which we have enjoyed so much these last few weeks. And now that we are able to go forth with the sanction and seal of this Institute let us strive to be an honor to the cause. I fear we have not always listened with a hearing ear, or an understanding mind, to the instruction that has been so liberally bestowed upon us, but as we go on studying, practicing, and investigating, we will realize what our opportunities have been, and how well or ill we have used them.

Let us try to meet people on the plane where we find them, and adapt our instruction even to children if need be; then we may be able to help our fellow beings one step at a time upward and onward.

We are sent into this life without wish or will of ours, yet we may make our lives here what we will, and the future what we wish or hope to be. Our highest enjoyments come

through the exercise of our moral and intellectual faculties; let us then live to work and use our minds on the highest plane of which we are capable.

As all thought has a tendency to act, and we are only what we think we are, we should keep our minds under control and not allow unguarded expressions to escape our lips to the detriment of our calling. I would urge earnestly upon all here to lecture, speak, and teach in all the schools and colleges in which they can obtain a hearing, however small. To thrust the subject upon the notice of educators wherever you can, for not until Phrenology becomes as common a study in the schools as the "three R's," will this nation be regenerated, and it is in training up the children in the way they should go that we may hope for this.

Like our Mother in Phrenology, be *plucky*; persevere in your undertakings if the way does look dark. The lion may prove to be only a mouse if you walk straight up to it. Be not prejudiced, prove all things and hold fast to that which is good. In conclusion, be heartily in earnest, feel what you say and it will strike home; remember the blending, soul-stirring effect of our first lesson in elocution which we can never forget,

Strangers once! we wond'ring say,
Friends forever from this day.

I bid you all Godspeed.

ADDRESS BY R. I. BROWN.

FELLOW STUDENTS:—Men who regard their trade, profession, or business simply for the money they receive from it seldom rise to any very great height. While those whose whole being and happiness seem to be wrapped up in their occupation, even after obtaining all the financial returns which they desire, are the ones who rise to distinction and almost invariably receive the highest honors combined with a yet more substantial proof of the world's gratitude for the service which they render to it.

In order that a person may find such great pleasure in his life occupation, it is necessary that it should harmonize as perfectly as possible with his mental and physical development. It should not overtax any of the faculties; and it should so occupy them all that their owner shall have no inclination to leave his work for a time in order to give action to faculties which are only becoming restless while he is pursuing the toil which would be his greatest pleasure were it not for the demands of these few opposing faculties, may be only one. Many in starting life tumble into a calling in pursuance of which they often *have* to halt while action is given to one or more (usually several) faculties which have become restless; this they call play or recreation. Or, while the body is nurtured back to the strength required; this they call hard luck when it is not luck at all.

Ruskin says: "If you want knowledge you must toil for it; if pleasure, you must toil for it; and if bread, you must toil for it. Toil is the law and not the exception. Pleasure comes through toil, and not by self-indulgence and indolence. When one learns to love work his life is a happy one." A man can rise highest by making his play supply him with the necessities of life and the wherewithal to

carry his play, which has then become a business, to the highest point; thus, as it were, killing two birds with one stone; getting his bread and pleasure by the same toil. And those who have achieved greatness in the world were, with but very few exceptions, those who required no stopping in their business to rebuild the constitution, and whose every faculty was given full scope without being overtaxed. And they have found their greatest pleasure in the occupation which to them was not work but play. Witness John Ericsson at the age of eighty-four habitually toiling until eleven o'clock in the evening. Then Edison, who recently spent about \$180,000 in a new laboratory and contents, to be used exclusively for his own purposes; and this was the dream of his youth.

One day one of Napoleon Bonaparte's marshals observed him on the floor of his private closet with a map spread before him and some light and dark headed pins which he was sticking into the map, very much as if having a game of chess by himself. The light headed pins representing the enemy and the dark his own army. Napoleon remarked with a smile that he was only playing; but in the campaign which followed both the friendly and adverse forces held the positions shown by the pins on the map.

In view of the light which we now have on the choice of pursuits it becomes our privilege to give all the advice in our power to those who will hereafter have to choose a life occupation. A person choosing an occupation in which he can make, say \$2,000 per annum and who must spend \$1,000 in the same time for maintaining his physical health by the doctors, and his mental health by recreation is no better off than the man earning \$1,000 per year in an occupation which does not overtax his constitution and which gives him all the pleasure which he desires. Thinking a moment it becomes plain to any one that the second man has greatly the advantage of the first, for the first must divide his time between work and play, while the second, playing and working at the same time, kills two birds with one stone. And it is better to turn late than never to a congenial occupation. The late Alvan Clark, well known in connection with the Lick Observatory, is a good witness to this. At forty years of age he became interested in the scientific studies of his son and it was at this advanced age that he began the work of his life. His own words are: "My son, Alvan G. Clark, was at Andover, studying to be an engineer. His young mind seemed to be absorbed in telescopes. I was a portrait painter then, and I began to study mechanics and astronomy so as to instruct my boy. We experimented together and succeeded in making a reflecting telescope. One of the Cambridge professors was much pleased with the instruments we made, and when we suggested to him that we would like to manufacture improved instruments, he gave us great encouragement, and we went ahead." In the last forty-three years of his life he started at the very bottom (having never seen a lense ground before) of the business which he commenced as a play, and progressed in it until a short time before his death he completed the famous thirty-six inch lense for the Lick Observatory, his renown having long previously

become world wide. How much more might have been accomplished had he commenced twenty years earlier we shall never know.

Phrenology, in which we have been so carefully instructed by our kind Professors, to whom we owe many thanks, is designed to prevent such waste of time and happiness as those twenty years measure.

ADDRESS OF S. FRANK DEVORE.

HONORED AND BELOVED INSTRUCTORS AND ESTEEMED CLASSMATES:—About five years ago I attended a course of lectures on the Science of Phrenology, became interested in them and the outcome of it was that I took a phrenological examination and purchased several books treating upon the subject. Since that time I have become a deeply interested student of Human Science and an earnest advocate of its humanizing principles, having tested its practical application both in the school-room and in the lecture field.

Fellow students, you have chosen the noblest profession on earth, for Phrenology is the most important and useful science we have; you are teaching people to do right and to live in accordance with physiological laws, and in doing this you are elevating and enlightening humanity toward a higher degree of perfection. Pope has said, "The proper study of mankind is man," while Horace Mann says, "I look upon Phrenology as a guide to philosophy, and the handmaid of Christianity; whoever disseminates true Phrenology is a public benefactor." In what higher calling can you engage?

One can not help being surprised at its immensity; each head is a study in itself, for there are no two just alike, and thus the more we look into this beautiful science of sciences, the grander it will appear, especially when we find it to be indeed a philosophical work, presenting food to us daily for earnest reflection, and to the true phrenologist, the Bible seems to open up its noblest beauties.

In speaking of this all important topic, I can find no more appropriate words to express my thought than those of Dr. Oliver of the class of '85, in the July number of the PHRENOLOGICAL JOURNAL, for 1887, which are as follows: "I know men who are called great because they understand ant and bee life and have produced volumes upon their habits. I know men who are called great because they worship horses or write about the stars, who roam about the woods seeking bird nests, collecting flowers, birds, insects, or shells; I know men who are called great who lecture upon icebergs and rocks, but *greater far* is he who is a profound student of human nature, who studies *man the image of God.*"

Phrenology as a science, comparatively speaking, is in its infancy, but notwithstanding this fact, it is making rapid progress, and we can safely say, that the masses of the people accept it as being true and many of them would as soon think of disputing the multiplication table as to say that its principles are not founded in nature.

The future of Phrenology looks bright to me, and I trust that the day is not distant when its teachings will find their way into our public schools. Prof. Sizer tells us that each

succeeding year brings more students to the Institute than the preceding year, so that this year we have the largest class yet taught.

Let us not work out the duties of our glorious calling with "fear and trembling," but let us go forth boldly presenting the doctrines of its founder, Dr. Gall, and may we, like Dr. Spurzheim, *demonstrate* those doctrines in a manner that will be an honor to these, the greatest philosophers of modern times.

To-day we are graduates of the American Institute of Phrenology. And we can all say that the instruction imparted to us has been highly beneficial in equipping us for our new field of labor. I for one feel more than repaid for attending. And long may this school of Phrenology continue to send out bright and shining lights to the civilized world. This is a subject in which I am thoroughly interested, and may we continue to be zealous in this grand field, and thereby be the means of bringing many converts to its fold.

That you will give hospitality to new ideas; that you are a good example of your own teachings; that success may crown all your efforts and that God will help you to disseminate the true principles of the physiology of the brain, is my earnest and sincere desire.

D. H. CAMPBELL'S ADDRESS.

WORTHY AND RESPECTED TEACHERS, FRIENDS AND FELLOW STUDENTS:—After a pleasant and profitable season together, our associations and our exercises for self and mutual improvement in this place, are about to come to an end.

We especially, who are the students and learners have great cause for congratulation. We have completed a curriculum in the only chartered Institution in America, or the world, which teaches the science of mind on its true principles as related to the physical organization and as based on facts in Anatomy and physiology.

Here we have learned much that is valuable in regard to the laws of health, the prevention of disease, the restoration of health by obedience to natural law, and we should now understand the full significance of that memorable old adage, "*Mens sana in corpore sano*," "a sound mind in a healthy body." We have been taught an important truth, rarely and reluctantly admitted, that it is sinful to be sick. We have been favored with able instructions in every department of the course. We have had no teachers here but those of well-known ability, high reputation, and large experience.

In respect to those of us who go into the field to teach and to practice Phrenology, permit me to say that we should do so in a missionary spirit, and if faithful and diligent, though we might not accumulate great fortunes, we shall at least have the consolation of knowing that we have done good to our fellow mortals and that we have not lived in vain. Our work and our teachings being consistent with the highest Christianity, we shall be enabled to "lay up treasures where neither moth nor rust doth corrupt, and where thieves do not break through nor steal."

It would not be difficult to prove, and that by citing instances, that the faithful phrenologist, though modest enough in his estimate of his own work, by his lectures and by personal

advice has greatly elevated and improved the mental and moral status of whole communities. To do this he must be consistent, he must practice what he preaches. I have seen the phrenologist accorded a reception that was something like an ovation joined in by ministers of the gospel, for the reason that he had during previous visits done good work that had not died out; for no good work ever does die, especially if it be in the fruitful field of the human mind.

Let us not look to the accumulation of wealth merely, let us rather go forth in the spirit of the words of the poet so apropos just here:

'Some high and humble enterprise of good,
Contemplate till it shall possess thy mind,
Become thy study, pleasure, pastime, food,
And kindle in thy soul a flame refined.
'Tis infamy to die and not be missed,
Or let all soon forget thou ever didst exist."

Let us remember that Phrenology is the true mental "liberty enlightening the world," that one of America's greatest educators has spoken of Phrenology as the "guide to philosophy and the handmaid of Christianity," and characterized the disseminator of true Phrenology as a "public benefactor."

ADDRESS OF CLINTON E. BRUSH.

After attending the course of lectures of the American Institute of Phrenology for the season of 1887, I take pleasure in saying I have derived a great deal of practical benefit from them, and am very much surprised that a subject which has been so ably and elaborately explained and taught should receive so little attention from practical business men. Although I have been compelled to neglect pressing business engagements to attend this course of lectures, at the same time I feel satisfied that they have well repaid me for the time I have devoted to them, and as far as the expense is concerned, I consider it one of the best investments I ever made.

A very important thing to every business man is an education which will enable him to put the right man in the right place, and I know of no course of instruction that will compare with Phrenology in this important matter.

Several other students made addresses, but want of space compels their omission.

RESOLUTIONS BY THE CLASS.

Having completed the course of instruction in the American Institute of Phrenology, the class of 1887 adopt the following resolutions:

1. That we recognize in the science of Phrenology, which demonstrates that mental manifestations are inseparable from physical organs through which the faculties of mind operate, the only true system of Mental philosophy; and that which alone supplies a rational and satisfactory explanation of the diversity of disposition and capability observed among men.

2. That we heartily commend to students of Anthropology the American Institute of Phrenology with its scholarly and efficient Pro-

fessors, and its rich and varied cabinet of illustrations affording facilities to teacher and student found in no other institution of learning.

3. That we can not adequately express our sense of obligation to the staff of teachers, who, during the entire course of lectures, have spared neither time nor expense in communicating, in minuteness of detail the theory and practice of Phrenology, as a science and an art.

W. J. HUNTER, Canada, } Committee
H. F. ORVIS, Wisconsin, } on
F. A. FARISS, Virginia, } Resolutions.

- Geo. W. Anderson, Canada.
- Albert Bausch, New York.
- J. W. Beard, Virginia.
- G. W. Boettger, New York.
- Walter L. Bowers, Ohio.
- J. Bradshaw Brady, New York.
- Robert I. Brown, New York.
- Clinton E. Brush, New York.
- D. H. Campbell, Canada.
- James H. Chapman, Tennessee.
- Maggie Curley, New York.
- S. F. De Vore, Iowa.
- Geo. W. Dutton, Nebraska.
- Charles Sumner Emery, M. D., Ohio.

- Henry R. Emery, Ohio.
- Andrew C. Fager, Ohio.
- F. A. Fariss, Virginia.
- D. W. Fitzgerald, Miss, New York.
- Blanche Fitzgerald, Miss, New York.
- William Griffith, Texas.
- Mary T. Hayward, New Jersey.
- Rev. Wm. J. Hunter, D. D., Canada.
- Martha J. Keller, Ohio.
- Wm. H. King, Texas.
- F. W. S. Langmaid, Massachusetts.
- Henry Leise, Pennsylvania.
- Fredk. Wm. Luxford, New York.
- Robert G. Maxwell, North Carolina.
- John J. McKim, Massachusetts.
- Henry Miller, Michigan.
- Perry L. Nichols, Iowa.
- Hiel F. Orvis, Wisconsin.
- Henry T. Phipps, Massachusetts.
- Mrs. F. M. Pooler, Massachusetts.
- Miss Helen Potter, New York.
- Manuel Ribero, Spain.
- Newton N. Riddell, Nebraska.
- Edwin Treasure, Pennsylvania.
- Mrs. A. Turner, New York.
- N. W. Wood, Missouri.

LIST OF GRADUATES TO 1887.

WE are often written to by persons in distant States to ascertain if "Prof. —" is a graduate of the American Institute of Phrenology. Some persons whom we never before heard of have professed to be graduates of the Institute, and even publish it on their circulars, endeavoring thus to secure consideration. The following list embraces the names of all the graduates up to and including the year 1887. All our students have a diploma, and it would be safe to ask to see the diploma of those who claim to be graduates, or else write us for a class circular.

	STATE.	CLASS OF		STATE.	CLASS OF
Abel, Miss Loretta.....	New York	1877	Beecher, Eugene.....	Connecticut	1870
Adams, Elijah M.....	Missouri	1876	Beverly, C. A., M.D.....	Illinois	1872
Adams, Miss F. R.....	Iowa	1883	Beall, Edgar C.....	Ohio	1877
Alderson, Matt. W.....	Montana	1875, 1879, 1880	Beer, John.....	New York	1878
Alexander, Arthur J.....	Indiana	1871	Bently, Harriet W*.....	Connecticut	1881
Alexander, W. G.....	Canada	1884	Bell, James.....	New Hampshire	1881
Alger, Frank George.....	New Hampshire	1880	Boettger, G. W.....	New York	1887
Anderson, Alex. H.....	Canada	1884	Bonine, Elias A.....	Pennsylvania	1868
Anderson, Geo. W.....	Canada	1887	Bowers, Walter L.....	Ohio	1887
Anderson, Samuel H.....	Pennsylvania	1887	Brady, J. Bradshaw.....	New York	1887
Arnold, Chas. H.....	Massachusetts	1870	Brown, D. L.....	Iowa	1872
Arthur, Willie P.....	New York	1874	Brown, Robert I.....	New York	1867
Aspinwall, F. E.....	New York	1872, 1873	Bonham, Elisha C.....	Illinois	1875
Austin, Eugene W.....	New York	1878	Bousson, Miss O. M.....	New York	1877, 1882
Austin, Fred H.....	Pennsylvania	1882	Brettel, Montague.....	Ohio	1875
Ayer, Sewell P.....	Maine	1868	Brethour, E. J.....	Canada	1884
Barrett, Richard J.....	California	1886	Brimble-Combe, Wm.....	Australia	1886
Bateman, Luther C.....	Maine	1871	Brownson, Rev. A. J.....	Indiana	1884
Ballou, Perry E.....	New York	1871, 1872	Brush, Clinton E.....	New York	1887
Bacon, David F.....	New Hampshire	1875	Bullard, J. H.....	New York	1866
Baker, Wm. W.....	Tennessee	1878	Buck, Marlon F.....	New York	1868
Baillie, James L.....	Ohio	1881	Burnham, A. B.....	Wisconsin	1881
Bartholomew, Henry S.....	Indiana	1885	Burr, Rev. W. K., M. A. Ph. D.....	Canada	1884
Battay, O. F.....	Massachusetts	1863	Candee, E. E.....	N. Y., 1873, 1875, 1878, 1880	
Bausch, Albert.....	New York	1887	Cady, Charles Everett.....	New York	1885
Beard, J. W.....	Virginia	1887	Campbell, H. D*.....	New York	1874

*Deceased.

THE AMERICAN INSTITUTE OF PHRENOLOGY.

	STATE.	CLASS OF		STATE.	CLASS OF
Campbell, D. H.	Canada	1887	Grumman, William E.	Connecticut	1865
Carman, Lewis	New York	1883	Guilford, Ira L.	Michigan	1876
Cassel, Harry K.	Pennsylvania	1886	Haley, William T.	California	1871
Catlin, David C.	Connecticut	1877	Haller, John S.	Pennsylvania	1868
Centerbar, J. S.	New York	1881	Hambleton, Harland E.	Ohio	1875
Chapman, James H.	Tennessee	1887	Hamilton, Elliott A.	Michigan	1887
Chester, Arthur	New York	1870	Hanan, Henry V.	Kansas	1888
Chesley, Egbert M.	Nova Scotia	1871	Hardy, John N.	Wisconsin	1870
Chandler, G. E., M.D.	Ohio	1873	Harriman, O. B., M.D.	Iowa	1878
Charles, G.	Canada	1876	Hasie, George E., Lawyer	Mississippi	1879
Chapman, May	Massachusetts	1879	Haskell, Charles L.	Massachusetts	1885
Clark, Perry	California	1886	Hathaway, D. E.	Massachusetts	1874
Clark, Thomas*	New Jersey	1874	Hawkins, William S.	Connecticut	1868
Clarke, Rev. Jas. Eugene	Maine	1877	Hayward, Mary T.	New Jersey	1887
Collins, John	Wisconsin	1878	Hawley, Edwin N.	Ohio	1876
Condit, Hilyer	New Jersey	1867	Henderson, Francis M.	Illinois	1867
Constantine, Rev. A. A.	New Jersey	1875	Henderson, James	New York	1871
Constantine, Miss Eliza	New Jersey	1875, 1884	Herrick, Miss M. E.	Massachusetts	1884
Cook, J. R.	Ohio	1872	Hilleary, Louis N., M.D.	Iowa	1877
Corfman, A. J., M.D.	Ohio	1886	Hiser, E. W.	Indiana	1878
Cowan, John, M.D.	New York	1870	Hobson, A. Norman	Iowa	1889
Cray, Edward A.	Rhode Island	1885	Hoffman, Uriah J.	Indiana	1874
Creamer, Edward S.	New York	1886	Holm, J. S.	Iowa	1874
Crum, Rev. Amos	Illinois	1870	Holt, Chas.	New York	1875
Curley, Miss Maggie	New York	1887	Holt, Miss Mirian J.	Texas	1876
Curren, Orville	Michigan	1873	Horne, William	Michigan	1874
Curren, Thomas	Michigan	1878	Howard, Paul	England	1865
Curren, H. W.	Michigan	1874	Hummel, Levi	Pennsylvania	1876
Daly, Oliver Perry	Iowa	1868	Humphrey, John C.	Alabama	1868
Danter, James F., M.D.	Canada	1870	Humble, Frank	Pennsylvania	1868
Darling, Edgar A.	New York	1885	Hughes, Henry F.	New York	1870
Davidson, E. A.	New York	1885, 1886	Huggins, L. E.	Ohio	1871
Davis, Edgar E.	Iowa	1885	Hull, Herbert H.	Pennsylvania	1871
Davis, Wallace	Pennsylvania	1875	Hunter, Rev. W. J., D.D.	Canada	1867
Detwiler, D. W.	Pennsylvania	1880	Irving, Mrs. P. W.	Connecticut	1864
De Vore, S. V.	Iowa	1887	Irvin, Rev. Robt. J.	Canada	1885
Dill, Rev. A. Cushing	New Jersey	1883	Jackson, John P.	England	1867
Diehm, Joseph	Kansas	1885	Jameson, John A., Jr.	New York	1884
Dodge, Lovell	Pennsylvania	1867	January, Charles P.	Iowa	1879
Dodds, Rev. David, M.D.	Iowa	1877	Jennings, Alfred	Massachusetts	1871
Doolittle, Orrin	New York	1885	Johnson, J. C.	Massachusetts	1884
Dornbach, H. F. A.	Valparaiso, S. A.	1885	Jones, Isaac S.	New Jersey	1868
Downey, Rev. T. Jefferson*	Ohio	1867	Jones, John W.	Indiana	1868
Duncan J. Ransom	Texas	1875	Keith, A. B.	Iowa	1877
Du Bois, D. C.	Iowa	1877	Keller, Martha J.	Ohio	1887
Dutton, Geo. W.	Nebraska	1887	Kimmons, James M.	Kansas	1884, 1885
Drury, Andrew A.	Massachusetts	1882	Kindig, David S.	Ohio	1877
Eadie, Andrew B.	Canada	1877	King, David M.	Ohio	1867
Earley, John	Ireland	1885	King, George L.	Ohio	1884
Ebersole, John P.	Ohio	1885	King, Wm. H.	Texas	1867
Eckhardt, P.	Illinois	1884	Kirkpatrick, Robert	Montana	1879
Emerick, Lycurgus	Illinois	1876	Kirven, P. E.	Louisiana	1861, 1862
Emery, C. Sumner, M.D.	Ohio	1887	Knowles, Frank B.*	New York	1863
Emery, Henry R.	Ohio	1887	Kramer, John E.	New York	1886
English, V. P., Lawyer	Kansas	1886	Kunderd, Amos E.	Indiana	1886
Espy, John Boyd	Pennsylvania	1875	Lane, Rev. John C.*	Missouri	1869
Evans, Henry W.	Pennsylvania	1867	Langley, M. L.	Arkansas	1872
Fager, Andrew C.	Ohio	1887	Langmaid, F. W. S.	Massachusetts	1867
Fairbanks, C. B.	New York	1872	La Rue, Franklin	Montana	1882
Fairfield, John C.	Pennsylvania	1878	Lauer, Rev. J. D.	Ohio	1874
Fairiss, F. A.	Virginia	1885, 1887	Lawrence, Alva, jr*	New York	1876
Ferry, A. L.	Illinois	1881, 1884	Leavitt, Levi R.	New Hampshire	1870
Field, J. H.	Colorado	1885	Lehinger, John Wesley	Canada	1869
Fitzgerald, Miss D. W.	New York	1887	Leise, Henry	Pennsylvania	1887
Fitzgerald, Miss Blanche	New York	1887	Lemon, J.	New York	1884
Fitzgerald, Nat. Ward	Washington, D. C.	1885	Leonard, B. A.	Massachusetts	1880
Fleisch, Jacob	Ohio	1870	Lee, Rev. Geo. A.	Pennsylvania	1873
Foster, Felix J.	Mississippi	1870	Lester, D. C.	Pennsylvania	1872
Foster, Henry Ellis	Tennessee	1879	Linvil, C. H.	Pennsylvania	1879
Fowler, Miss Nellie	New Jersey	1884	Lischer, M. E.	New York	1865
Fraser, J. A. G.	Canada	1877, 1882	Lockard, E. M.	Pennsylvania	1863, 1884
Freedman, Chas. E.	Iowa	1880	Loomis, Benj. F.	California	1866
Friedrich, Martin	Pennsylvania	1882	Lomison, Wm. A.	Pennsylvania	1866
Gaumer, Levi	Iowa	1876	Luxford, Frederick Wm	New York	1887
Gause, Mrs. Elva P.	North Carolina	1875	Macduff, Rev. R. E.	Kentucky	1872
Gibbs, H. Clarence	Wisconsin	1874	Mack, H. Q.	New York	1867
Giles, J. C.	Texas	1885	Mackenzie, J. H.	Minnesota	1873
Gillis, Benjamin	Missouri	1875	Macrea, Miss Flora	Australia	1884
Gluckler, Ralph J.	New York	1882	Maxwell, Robert G.	North Carolina	1887
Goodrich, Geo. D.	Minnesota	1876	McCoy, Jason B.	Ohio	1885
Granberry, Prentiss S.	Mississippi	1873	McDonald, Duncan	Michigan	1867, 1882
Green, Wm. R.	Pennsylvania	1874	McIntosh, James	Ohio	1867
Greear, Rev. Samuel J.	Illinois	1875	McDavid, J. Q.	South Carolina	1874
Griffith, Wm. H.	Texas	1887	McNeil, James	New York	1873
Grob, Samuel	Pennsylvania	1881, 1882	McCrea, James	Illinois	1873

* Deceased.

	STATE.	CLASS OF		STATE.	CLASS OF
McLaughlin	Canada	1882	Roeseler, John S.	Wisconsin	1884
McKee, William C.	Ohio	1879	Rogers, Ralph	Tennessee	1875
McKim, John J.	Massachusetts	1887	Romie, Paul T.	California	1877
McNaughton, Samuel S.	New York	1871	Rosenbaum, Fred Wm.	Ohio	1878
Mann, H., jr.	Vermont	1883	Sadler, David M.	Maryland	1879
Martin, Edward E.	New York	1885	Sage, Enos A.	New Jersey	1888
Matley, John	California	1870	Sahlin, Mrs. M. A.	New York	1884
Matlack, A. S.	Ohio	1872	Sanches, Mrs. Marie	Sweden	1880
Mason, James	Massachusetts	1880	Sargent, C. E.	New Hampshire	1874
Mason, Lott, M. D.	Illinois	1869	Scheaffer, J. S.	Iowa	1884
Mason, A. Wallace	Canada	1874	Scott, Martha A.	Colorado	1861
Manners, J. H.*	New Zealand	1877	Scott, Rev. William R.	Illinois	1883
Mannion, Frank	Iowa	1879	Senior, F. D.	New York	1872
Merrifield, John C.	Canada	1868	Seybold, Frederick J.	Illinois	1870
Meller, Frank J.	Illinois	1881	Shamberger, Daniel	Virginia	1885
Memminger, Thos. F.	West Virginia	1881	Shultz, R. C., M. D.	Iowa	1876
Miller, E. P., M. D.	New York	1867	Sievert, Miss Sophie	New York	1880
Milla, Joseph	Ohio	1868	Smith, Bartholomew	Rhode Island	1869
Mills, Rev. J. S.	Ohio	1872	Smith, Lundy B.	Missouri	1874
Miller, B. Frank	California	1882	Smith, Thomas William	Canada	1876
Miller, Henry	Michigan	1887	Snell, C. L.	Pennsylvania	1873
Moatz, Lewis	Ohio	1869	Sommers, Jervis	Connecticut	1869
Moran, Maggie L.	New Jersey	1885	Spring, Geo. A.	New York	1882
Morrison, Edward J.	Illinois	1868	Staples, Ernest L.	Connecticut	1877
Moore, Joseph H.	North Carolina	1877	Sterling, Jas. R.*	Canada	1884, 1886
Morris, George	Canada	1878, 1884	Stewart, Rollin	Vermont	1867
Mully, A. E. F.	New York	1882	Stockton, Miss Alice	Illinois	1874
Musgrove, William	England	1875	Stone, W. T.	Indiana	1867
Newman, A. A.	Illinois	1867	Strong, J. Wilmer	Pennsylvania	1886
Nichols, Perry L.	Iowa	1887	Suares, Adolph B.	New York	1875
Oestergard, J. C.	Denmark	1883	Sullivan, John B.	New York	1885
Oliver, Dr. F. W.	Iowa	1885	Swain, Henry E.	New York	1870
Olney, Henry J.	Michigan	1875	Swift, Miss Edna A.	Connecticut	1873
Orvis, Hiel F.	Wisconsin	1886, 1887	Taggart, Chas. Alvan	Massachusetts	1880
Osgood, Rev. Joel	Ohio	1882	Taylor, Jas. I.	Pennsylvania	1885
Pallister, Wm.	Canada	1882	Thackston, P. B.	South Carolina	1885
Parker, R. G.	Missouri	1874	Thomas, J. W.	Missouri	1879
Parker, Howell B.	Georgia	1875, 1880, 1885	Thompson, Benj.	Iowa	1867
Patton, Edward M.	Illinois	1874	Thompson, D. D.	Canada	1873
Patten, William Perry	Nebraska	1876	Thompson, J. A.	Pennsylvania	1886
Patterson, John A.	Missouri	1870	Thompson, Miss M. B.	Ohio	1876
Paulsen, John H.	Louisiana	1877	Thurston, Calvin H.	Indiana	1869
Pentney, John	Canada	1877	Tower, Henry M.	Massachusetts	1881
Peirsoil, Sampson H.	West Virginia	1870	Tracy, John F.	New York	1886
Perrin, Edward M.*	Kansas	1869	Treasure, Edwin	Pennsylvania	1887
Perry, A. D.	Massachusetts	1883	Turner, P.	Illinois	1871
Petry, Daniel F.	New York	1866	Turner Thomas	New York	1878
Philbrick, S. F.	Ohio	1873, 1874	Turner, Mrs. A.	New Jersey	1887
Phipps, Henry T.	Massachusetts	1887	Wahl, Albert	Illinois	1879
Pooler, Mrs. F. W.	Massachusetts	1887	Walde, Robert	Indiana	1861
Potter, Miss Helen	New York	1887	Wait, A. H.	Kansas	1883
Pierce, David F.	Connecticut	1868	Wallace, A. D.	Tennessee	1877
Powell, Lefferts M., M. D.	New York	1886	Walters, Eli	Ohio	1874
Pratt, Benj. F., M. D.	Ohio	1875	Waterman, L. E.	New York	1870
Prather, Miss M. O.	Kansas	1876	Watson, Chas. S.	New Hampshire	1869
Price, David R.	Iowa	1868	Welles, R. W.	Connecticut	1872
Purcell, E. M.	Iowa	1874	West, Mrs. Mary	New York	1876
Ream, Elmer	Indiana	1885	Whitaker, John	New York	1869
Reed, Anson A.	Connecticut	1868	Whyte, Fred M.	New York	1884
Riddell, Newton N.	Nebraska	1887	Wightman, Chas. S.	Rhode Island	1871
Rhone, Geo. W.	Pennsylvania	1886	Wiest, Ezra	Pennsylvania	1875
Richardson, M. T.	New York	1870	Wild, John P.	Massachusetts	1865, 1886
Richards, William	Pennsylvania	1873	Wildman, Wellington E.	Ohio	1876
Righter, M. Helen	Illinois	1876	Wildman, Mrs. W. E.	Ohio	1876
Richie, Porter D.	Illinois	1871	Winkler, Henry	Indiana	1877
Ribero, Manuel	Spain	1867	Wood, Oscar D.	New Jersey	1873
Robbins, T. L.	Massachusetts	1872	Wood, Elbert B.	Kentucky	1879
Roberts, I. L.	Florida	1872	Wood, N. W.	Missouri	1887
Roberts, Jas. Thos.	California	1882	Worrall, M. B.	Ohio	1877
Roberts, Margaret E.	Pennsylvania	1882	Wyscarver, T. J.	Ohio	1874
Robinson, Frank O.	Tennessee	1885	Young, C. P. E.	Sweden	1883
Robinson, G. M.	Illinois	1881	Young, Henry	Ohio	1875

*Deceased.

The above list of names, and the year of their Graduation, is believed to be correct; therefore, no person whose name is not found in this list can truthfully claim to have been a student in the American Institute of Phrenology, as some persist in so advertising themselves. Many of our graduates are succeeding in the lecture field. Some are lawyers, ministers, physicians, teachers, and others are in business, having, as they claim, doubted their power in their vocation.

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The session of 1888 will open on the **FIRST TUESDAY OF SEPTEMBER.**
There is but **ONE SESSION** during the year. No private instruction.

This is the only institution of the kind in the world where a course of thorough and practical instruction in Phrenology is given, and nowhere else can be found such facilities as are possessed by the American Institute of Phrenology, consisting of a large cabinet of skulls—human and animal—with busts, casts, portraits, anatomical preparations, skeletons, plates, models, etc.

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This consists of more than one hundred lectures and lessons covering a term of **Six Weeks**—one lesson being given each morning and two during the afternoon.

TOPICS EMBODIED IN THE COURSE.

GENERAL PRINCIPLES. The philosophy of the organic constitution, its relation to mind, character, and motive; mental philosophy, or the efforts of the best thinkers in all ages to find out the laws and operations of the mind and give their speculations the form of science.

TEMPERAMENT, as indicating quality and giving tone and peculiarity to mental manifestation, also as affecting the choice of occupation; the law of harmony and heredity as connected with the marriage relation; what constitutes a proper combination of temperaments with reference to health, long life, tendency to talent, virtue, and vice. This subject will be largely illustrated by subjects of real life before the class. Extended drilling of the students on this important topic.

PHRENOLOGY. Mental development explained; the true mode of estimating character according to Phrenological principles; Comparative Phrenology, the development and peculiarities of the animal kingdom; the facial angle, embodying curious and interesting facts relative to the qualities and habits of the animals, instinct and reason; the Phrenology of crime; imbecility and idiocy; the elements of force, energy, industry, perseverance; the governing and aspiring groups; the division between the intellectual, spiritual, and animal regions of the brain, and how to ascertain this in the living head; the memory, how to develop and improve it; location of the organs of the brain, how to estimate their size, absolute and relative.

PHYSIOGNOMY. The relations between the brain and the face, and between one part of the system and another as indicating character, talent, and peculiarities, voice, walk, expression, etc.

HISTORY OF PHRENOLOGY IN AMERICA AND EUROPE, and the struggles and sacrifices of its pioneers in disseminating its principles, especially in this country; and its enriching influence on education, literature, domestic life, government, morality, and religion.

ETHNOLOGY. The races and tribes of men, their peculiarities, and how to judge of nativity of race; especially how to detect infallibly the skulls of the several colored races.

DISSECTION and demonstration of the human brain; microscopic illustrations of different parts of the system in health and disease.

ANATOMY AND PHYSIOLOGY. The brain and nervous system; the bones and muscles; how to maintain bodily vigor and the proper support of the brain; reciprocal influence of brain and body; respiration; circulation; digestion; growth and decay of the body; exercise; sunlight; sleep.

OBJECTIONS TO PHRENOLOGY, whether anatomical, physiological, practical, or religious, will be considered; how the skull enlarges to give room for the growing brain; the frontal sinus; loss or injury of the brain; thickness of the skull; fatalism, materialism, moral responsibility, etc.

PHRENOLOGY AND RELIGION. The moral bearings of Phrenology, and a correct physiology; its relation to religion; home training of the young as applied to education and virtue.

CHOICE OF OCCUPATIONS. Special attention will be given to this

branch of the subject; what organizations are adapted to the different professions and pursuits, and how to put "the right man in the right place," in actual life.

PHRENOLOGY AND MARRIAGE. The right relation of the sexes; what mental and temperamental qualities are adapted to a happy union and a healthy offspring, and why.

NATURAL LANGUAGE OF THE FACULTIES. The attitudes, motions, carriage of the head, style of speech growing out of the activity of the different organs, and how to read character thereby.

EXAMINATIONS of heads explained; practical experiments; heads examined by each of the students, who will be thoroughly trained and instructed how to make examinations privately and publicly; especially training in the examination of skulls.

HYGIENE. How to take care of the body as to dress, rest, recreation, food diet, right and wrong habits; what food is best for persons of different temperaments and pursuits; what food tends to make one fat or lean; what feeds brain or muscle; stimulants, their nature and abuse, what to avoid and why.

PSYCHOLOGY. Under this head, mesmerism and clairvoyance will be explained, and the laws discussed on which they are supposed to depend.

HEREDITY. The law of inheritance in general and in particular; resemblance to parents, how to determine which parent a person resembles; what features of face, what classes of faculties or portions of the general build are inherited from the father or from the mother.

INSANITY, its laws and peculiarities; the faculties in which different persons are most likely to be insane, and how to detect it in a person.

IDIOCY, its causes and how to avoid them; its peculiarities and how to understand them; how to detect it where the head is well-formed.

ELOCUTION. How to cultivate the voice; eloquence, how to attain the art; careful instruction in reading and speaking with a view to success in the lecture field.

HOW TO LECTURE. The best methods of presenting Phrenology and Physiology to the public; how to obtain audiences and how to hold and instruct them; general business management in connection with the lecture field.

REVIEW AND EXAMINATION. Questions on all points relating to the subject, which may be proposed by the students answered; in turn, students will be examined on the topics taught who will give in their own words their knowledge of the subject. No recitations or memorizing will be required.

HOW TO APPLY PHRENOLOGY practically in reading character by the combinations of faculties, and how to assign to each person the true field of effort in education, business, social adaptation, and, in short, how to make life a success and its opportunities the means of happiness.

FINALLY, it is the aim of the instructors to transfer to students, so far as it is possible, all the knowledge of Anthropology which a long experience in the practice of their profession has enabled them to acquire—in a word, to qualify students to take influential places in this man-improving field of usefulness.

TEXTBOOKS.—Among the works most useful to be studied by those who wish to master Phrenology, we recommend the following "STUDENT'S SET," which will be sent by express for \$10, when all are ordered at one time:

Brain and Mind; a Textbook. By Drayton & McNiell	-	-	-	\$1 50
Forty Years in Phrenology. By Nelson Sizer. Illustrated	-	-	-	1 50
How to Read Character. By S. R. Wells. Illustrated	-	-	-	1 25
Constitution of Man. By George Combe	-	-	-	1 25
New Physlognomy. By S. R. Wells. 1,000 Illustrations	-	-	-	5 00
Choice of Pursuits. By Nelson Sizer. Illustrated	-	-	-	1 50
Popular Physiology. By R. T. Trall, M. D.	-	-	-	1 00
Phrenological Bust. By Fowler & Wells	-	-	-	1 00
Heads and Faces. How to Study Them. Sizer & Drayton	-	-	-	40

N. B.—If a person already has one or more of the above books, he may order, in place of it, any other work of our publication of equal price.

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WHO SHOULD STUDY PHRENOLOGY.

Parents should study Phrenology to know how to train and manage the different types of children that are developed in the same family ; one line of conduct will not answer for all, and they should not " wait till the horse is stolen before they lock the stable door." At two years old the head will show the outline of character as time will develop it, and the father and the mother ought to know how to read it.

Young People should study Phrenology because they are full of energy and ambition, they hope for success but in most cases have to feel their way among strangers and risk everything in choosing business and companions. Phrenology will teach them, as nothing else can, the proper choice of a pursuit, how to read strangers correctly and adapt themselves to others both in business and in social life.

Teachers should study Phrenology, so that when confronted with fifty pupils, from half as many families, they may appreciate the treatment which each one will receive most profitably and kindly, and how to develop the dull, how to guide the wayward and make all of them as good as they can be, instead of the reverse.

Business Men who have to deal with strangers of every sort, by understanding Phrenology can read their customers at a glance and know whom to trust and distrust, whom to soothe and with whom to stand firm. A student in the class of 1867 learned enough before the class was half finished to save his firm from trusting a villain to the extent of three hundred dollars which would have been totally lost.

Lawyers have to study jurymen, witnesses, and human-nature in general, and Phrenology would teach them how to get the truth out of a recalcitrant witness, how to encourage and assist a modest, diffident witness who wants to tell the truth but may be scared out of it by one who is not interested to have the truth told.

Ministers of religion, by understanding Phrenology double their power to do good among men and lead them in the way of righteousness. A clergyman went back to his small congregation after taking our course of instruction in the American Institute of Phrenology, and became an astonishment to the whole neighborhood. His parishioners said they thought it had done brother M. a world of good to visit New York and hear "the great preachers." He told us that when he returned to his congregation and looked them in their faces, he was astonished that he had misunderstood them as he had done ; that he began to preach with new unction as if he knew each man root and branch ; his church began to be crowded, they heard of him at the capital of his State, and in six months they gave him a call to a church much larger than his former one, and with more than twice the amount of salary. Therefore preachers may wisely and profitably study Phrenology.

Every Man should study Phrenology so as the better to understand himself, thus learning how to regulate and restrain excesses, how to encourage and build up deficiencies, and how to ripen himself in virtue and honor.

It is not merely those who wish to learn Phrenology and teach it as a profession who should study it, but young men who have their own way to make in the world, or women who need to learn a trade, or business, or profession in which to secure success and an honorable independence, or to qualify themselves to make all the better wives and mothers, can appropriately and wisely study Phrenology.

NELSON SIZER, President American Institute of Phrenology.

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

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Our Premiums.—On another page of this number will be found our revised table of premium offers to those who make up clubs for the PHRENOLOGICAL JOURNAL for the coming year, to which we wish to call especial attention. The articles we have selected are practical, useful and the best of their kind, and the offers we make are such as will enable any one who will make a little well directed effort, to make it pay. In addition to these premiums to our AGENT FRIENDS we make liberal offers for subscribers. In the first place we offer the last three numbers of this year free to all new subscribers whose names are received before the first of January, and we also offer a choice of either the BUST or the CHART PREMIUM to all new subscribers, or to those who have not already received these premiums, which are found quite essential, almost necessary, to a proper understanding of the location and the function of the Phrenological faculties. THE BUST is nearly life-size, so numbered and lettered to show the location of the organs, made in plaster of Paris, carefully boxed, and sent by express at the expense of the subscriber, when 15 cents extra is sent for packing. We also have a smaller size that we can send by mail, postpaid, where the distance is so great as to render it too expensive to send the large one.

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Seeing New York.—All visitors to our city are anxious to see the curiosities, art treasures, mammoth buildings, monuments, wonderful machinery, and grand institutions of learning and charity, as well as to hear our great preachers, singers, and actors. They endeavor to crowd into their visit a glimpse of everything that is worth seeing and worth-remembering. This sight-seeing is not complete until the visitor has inspected the Phrenological Cabinet, at 775 Broadway, New York, the old house of Fowler & Wells Co., where casts of renowned people of all ages, nations and lands; artists, authors, inventors, teachers, reformers, orators, and poets, stand side by side, shelf-full on shelf-full, until they number up into the hundreds.

Abnormal mentality is represented by casts of idiots, maniacs, murderers, pirates, and all grades of the guilds of crime. Portraits in oil, crayon, and outline pencil sketches; skulls of animals and men; in fact every facility for the accurate study of Human Nature is there offered. Many items of interest may be gathered during the brief stay of a casual visitor, as an accomplished and courteous guide is in constant attendance, to answer questions and explain the exhibits. Fowler & Wells Co. "keep open house." Visitors are welcome at all hours, of the week days, from 8 A. M. to 6 P. M., welcome to remain as long as they please, studying and comparing the heads in this wonderful collection.

Hazelton Bros., Pianos.—We take great pleasure in calling the attention of our readers to this celebrated Instrument. The house was established in 1850, and they have earned a very enviable reputation by exercising the greatest care in every department of their work. Everything is of the best, and no expense is spared in producing elegance of finish, purity of tone, and all that can be desired in both appearance and quality are found here. These instruments have received the strongest endorsements from some of the most eminent of the musical profession in the country, and we do not hesitate to recommend them to our readers who are in search of a Piano, either Grand, Square or Upright. Send to the Manufacturers for a descriptive catalogue; address 34 and 36 University Place, New York.

National Stockman and Farmer is a special Magazine published at Pittsburg, Pa., by Axtell, Rush & Co. It is full of information and interest for the class for whom it is intended. A sample copy will be sent to our readers free who will write as above.

A Business Education for children at home. In many families will be found children in their teens, who know nothing about counting money or making change, while in other families the children are familiar with the current coins. This is a matter of education and training. To facilitate this, educational toy money has been patented. This consists of imitation coin in heavy cardboard, made expressly for this purpose, on which are printed accurate representations of the various coins used in the United States. This money will constitute a most fascinating toy with which children can play store, and unconsciously learn the art of rapidly counting money and making change. About \$15.00 of this money is put up in a beautiful box, containing eight small trays, and sent to any address by mail, postpaid, for 25 cents. Parents who would furnish their children with an interesting and useful occupation during the coming winter days and evenings, should send for this. Mailed from this office on receipt of price. We will send a box free to any boy or girl belonging to a family that are now subscribers to the PHRENOLOGICAL JOURNAL, who will send the name of one new subscriber for six months at \$1.00, or we will send two boxes if a new yearly subscriber is sent with \$2.00, and to the subscribers we will send the book or chart premium.

Books for Women.—We have just issued a new, illustrated catalogue of "Books for Women," embracing works on Household affairs; on the Bearing and Raising of Children, including their diseases and treatment; Health and Diseases of Women, Heredity, etc., which will be sent to any address on application. If any of our readers have lady friends who would be benefited by receiving a catalogue of this kind, we should be pleased to receive their names and addresses, and the list will be sent by mail, postpaid.

Books for Teachers.—Our new catalogue of "Books for Teachers" is now ready, containing a full description, with table of contents, notices of the Press, price, etc., of the books we publish that are of interest to those engaged in teaching. The list includes Science of the Mind; Man Wonderful; How to Teach Vocal Music, etc.; also a complete descriptive list of Clark's School Stencils which we are now supplying to Teachers and to Schools. We should like to send a copy of this to every teacher who is a reader of our publications.

A Phenomenon.—We refer to an Agricultural Newspaper devoted to the interests of farmers, with a special department headed "Fine Cut and Plug Anti-Tobacco Literature," in which is published the strongest possible statements against the use of this poisonous agricultural product. The editor is in dead earnest, and so far as we have seen the magazine, it contains no instructions as to the best means of raising, curing or marketing the stuff. We refer to the *Western Plowman*, Moline, Ills.

Our Complete Catalogue will be sent to any address on application.

The Family Physician.—A ready prescriber and hygienic adviser, with reference to the nature, causes, prevention, and hygienic treatment of diseases, accidents, and casualties of every kind. By Joel Shew, M. D. Extra cloth, \$3.00; leather, \$4.00. It contains over eight hundred pages, and nearly three hundred pertinent and appropriate illustrations, showing plainly the various subjects treated of, enabling the unprofessional reader to understand the construction of his physical organization; it covers the whole ground of human existence, from birth to old age, with all the conditions, diseases, and accidents to which the system is subject. The remedies recommended are hygienic, and directions are given for Home Treatment of the sick without medicines, which will enable the reader to avoid the necessity of calling a physician. Besides, the laws of life and health are made so plain as to enable one to avoid sickness and the infirmities which come from a violation of the conditions of Health. The work should be found in every family in the land. We print below two testimonials, showing something of the practical value of the work:

“WITCHERVILLE, ARK., June 18, 1884.

“My wife was attended by two of the best physicians in our county, and by them given up to die. I had never given any attention to the treatment of diseases; I knew very little of diseases or remedies, but I had in my house a borrowed copy of Dr. Joel Shew's ‘Family Physician,’ and by reading it rapidly, I was enabled to gain enough of its teachings to raise my wife to better health than she had enjoyed for many years.

“E. L. COMPERE, Editor Arkansas and Indiana Dept. *American Baptist Flag*.”

“WITCHERVILLE, ARK., May 17.

“Hoping to benefit others, I certify that I was attended by four drug-physicians, and was given up to die, and in this condition Rev. E. L. Compere, who does not allow himself to be called a physician, took my case and restored me to perfect health without a dose of medicine. I earnestly recommend those books that teach ‘how to treat the sick without medicine.’

“J. T. DAVIS, salesman with W. L. Walker & Co.”

Sent by mail, postpaid, on receipt of price, cloth, \$3.00; sheep, \$4.00. Address this office.

Mantle Beds.—This is the name given to a new kind of a Bed arrangement of recent introduction. It is so arranged as to stand under a mantle-piece, during the day, and with the drapery or curtain hanging in front of it, it is ornamental rather than otherwise and is certainly a very great improvement to have in a room that is to be used for any other than a sleeping apartment.

The Herman W. Ladd Co., 184 Richmond street, Boston, Mass., have introduced a large variety of styles, costing from \$10.00 upward; a number of descriptive circulars will be sent to any of our readers who will address as above. M. S. Fickett, the Treasurer of this company, has invented a very useful article in the form of an adjustable Invalid Head-Rest, in cases of chronic illness. This will be found especially useful.

Clubbing for 1888.—For the accommodation of our readers and friends we have made arrangements for the combining of other publications with our popular and useful magazine as follows: The Subscription price of the **PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH** is \$2.00; and any of the following may be included at the prices given.

Names sent for the **JOURNAL** with either of these will count on Premium List, and to Agents the same as though sent singly.

Eclectic Magazine.....	\$4 25	The Pansy.....	85
Atlantic Monthly..	3 40	Baby Land.....	45
Lippincott's Mag... 2	50	Peterson's Mag.....	1 60
Harper's Monthly..	3 10	North Am. Review.	4 10
Weekly.....	3 65	Tribune, Weekly...	1 10
Bazar.....	3 35	" Semi.....	2 25
" Young People	1 70	Times, Weekly.....	90
The Century Mag..	3 60	Sun, ".....	90
St. Nicholas.....	2 60	World " & Pram.	90
Popular Sci. Mon... 4	20	Country Gentleman	1 85
Godey's Lady's Book	1 70	Herald, Weekly...	90
Arthur's Home Mag.	1 60	" Woman.....	2 10
Rural New Yorker.	1 85	Illus. Chris'n W'kly	2 20
Scribner's Mag.....	2 50	Weekly Witness....	90
Cosmopolitan.....	2 50	Pcultry World.....	90
Demorest's Mag....	1 60	Gardeners' Mont'ly	1 50
Home Journal.....	1 60	Herald of Health..	80
Am. Agriculturist..	1 10	N. E. Journal of Ed-	
Wide Awake.....	2 10	ucation.....	2 15
Our Little Men and		The School Journal	2 60
Women.....	85	Pop. Educator.....	1 75
Our Little Ones...	1 25	Christian Union....	2 60
Critic.....	2 50	Christian at Work.	2 60
American Mag.....	60	Laws of Life.....	1 35
The Independent..	60	American Mag.....	2 50
Cassell's Fam. Mag.	1 25	GoodHousekeeping	2 10
Baby Hood.....	1 10	Chic. Inter-Ocean,	
Scientific Am.....	2 60	Weekly.....	85
Phonographic Mag.	1 10	Chic. Inter-Ocean,	
The Forum.....	4 10	Semi Weekly....	2 10
Observer, new sub.	2 25	Mag. Am. History.	4 20

The only condition for obtaining the above reduction is that the person ordering shall subscribe for, or be a subscriber to the **PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH**, then any number of the above publications may be ordered. Chart and Bust Premiums are offered to new subscribers to the **JOURNAL** as above. Make up your list and send on the amount, saving time, money, risk and trouble. Agents can often offer the above combination to advantage. Address all orders to **FOWLER & WELLS Co., Publishers, 775 Broadway, N. Y.**

The Man Wonderful.—This book is growing in favor among the educational people continually. Miss Jennie Merrill, one of the principal instructors in the Training Class in the New York Normal College, commends it on every opportunity to the teachers in her class and to Institutes and Conventions where she has occasion to speak especially, as a basis for oral instruction.

It has just been adopted in one of the Southern States as a supplementary reading book for the higher schools and academies. Every teacher who would be prepared for the best work in teaching Physiology should have a copy of this. It is different from any and all others ever published. A complete description, with table of contents, notices of the press will be found in our catalogue of “Books for Teachers,” which will be sent free on application.

The Bow in the Cloud, or Words of Comfort. For those in Bereavement, Sickness, Sorrow and the Varied Trials of Life, edited by J. Sanderson, D. D., with an introduction by William M. Taylor, D. D., L. L. D.

This is the title of a work published by E. B. Treat, 771 Broadway, price \$1.75. It is a book which will certainly be of interest at certain times to nearly every one, for all are at some time called upon to mourn the loss of friends. The selections, including many prominent preachers, essayists, and poets, are from a very wide range of authors; in the introductory part is found a large number of consolations from the Bible, selected both from the Old and New Testament. The classification of subjects includes "Consolation to parents bereft of children," and consolation for the bereaved in various conditions in life, for various afflictions, and for the aged and infirm. The book is handsomely printed, and will be found an acceptable present in all appropriate places.

Books on Phonography.—We announced last month a descriptive catalogue of books on Phonography, but owing to the delay in connection with our printing office this has not been sent out, but we hope to be able to send it to all who have applied for it within a few days.

Now is the time to introduce the PHRENOLOGICAL JOURNAL and to make up clubs for it. Do not wait till your friends have made up their lists for the coming year, but present the claims of the PHRENOLOGICAL JOURNAL to them at once. Let them have a chance to include this in their list before their money which has been set aside for reading purposes has been exhausted. It will be found that a large proportion of the reading people would like to have the JOURNAL; it is only a question of cost, and if our agent friends will take advantage of the opportunity, they will certainly receive good orders.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Susanna W. Dodds, M.D., and Mary Dodds, M.D., Hygienic Physicians, 2826 Washington Ave., St. Louis, Mo. All diseases, acute and chronic treated without medicine. Send for circular.

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children, 213 West 54th Street, New York.

Annie Smith, M. D., 135 E. 104th St., City.

Our Healthful Home is pleasantly located on Reading Heights. For circulars address A. Smith, M. D., Reading, Pa.

ADVERTISEMENTS.

SPECIAL NOTICE.—Readers will oblige the Publishers if they will state, when writing to any of our advertisers, that the advertisement was seen in the PHRENOLOGICAL JOURNAL.

James Pyle's Pearline Washing Compound

is better than any soap; handier, finer, more effective, more of it more for the money, and in the form of a powder for your convenience. Takes, as it were, the fabric in one hand, the dirt in the other, and lays them apart—comparatively speaking, washing with little work.

As it saves the worst of the work, so it saves the worst of the wear. It isn't the use of clothes that makes them old before their time; it is rubbing and straining, getting the dirt out by main strength.

For scrubbing, house-cleaning, washing dishes, windows and glassware, Pearline has no equal.



Perfectly nourishes the child from birth, without the addition of cow's milk, and digests as easily as human milk. Send for "Our Baby's First and Second Years," by Marion Harland. REED & CARNRICK, N. Y.

WARREN'S CORSETS
Boned with Featherbone.
The best ever made. — Ask your Dealer for them.

MADE WITH BOILING WATER.
EPPS'S
GRATEFUL—COMFORTING.
COCOA
MADE WITH BOILING MILK.

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 \$2.00 a year, payable in advance, or \$2.15 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 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.

Our Premiums.—On another page of this number will be found our revised table of premium offers to those who make up clubs for the PHRENOLOGICAL JOURNAL for the coming year, to which we wish to call especial attention. The articles we have selected are practical, useful and the best of their kind, and the offers we make are such as will enable any one who will make a little well directed effort, to make it pay. In addition to these premiums to our AGENT FRIENDS we make liberal offers for subscribers. In the first place we offer the last three numbers of this year free to all new subscribers whose names are received before the first of January, and we also offer a choice of either the **BUST** or the **CHART PREMIUM** to all new subscribers, or to those who have not already received these premiums, which are found quite essential, almost necessary, to a proper understanding of the location and the function of the Phrenological faculties. The **BUST** is nearly life-size, so numbered and lettered to show the location of the organs, made in plaster of Paris, carefully boxed, and sent by express at the expense of the subscriber, when 15 cents extra is sent for packing. We also have a smaller size that we can send by mail, postpaid, where the distance is so great as to render it too expensive to send the large one.

The **PHRENOLOGICAL CHART** is a beautiful lithographic Symbolical Head about 19 by 24 inches, properly mounted with rings for hanging, or it may be framed, and is very attractive wherever seen.

Remember the **JOURNAL** is published at \$2.00 a year or \$2.15 with premium, and we ask the hearty co-operation of our friends in extending its circulation. Sample copies and posters to agents furnished free. Address all orders to this office.

A Good Opinion.—The Rev. J. W. D. Anderson in a review of **HEADS AND FACES** in *The Fireside, Factory, and Farm*, says:

"Probably no two men in the United States are better qualified to speak upon the subject of Phrenology and physiognomy than the joint authors of this work. Mr. Sizer is president of the American Institute of Phrenology, and has written half a dozen strong works covering different parts of his chosen field, and to say that Dr. Drayton is editor of the **PHRENOLOGICAL JOURNAL** is to acknowledge the eminence in his profession to which he has attained. To any one who is interested in the subjects discussed, "**HEADS AND FACES**" will come as a welcome supporter of his views, and we do not see how any unprejudiced person could carefully study these pages and not become convinced of the practicality of scientific character reading, and the great benefit to be attained thereby. We give a few of the points discussed: The Face, The Head, Outlines of Phrenology, Bumpology Explained and Exploded (showing that Phrenology is not based as is commonly supposed, upon the size of the "bumps," but upon the length of the brain fibers from the medulla oblongata to the surface where the organ is located), Brain and Mind, Plurality of the Mental Faculties, Partial Idiocy, Insanity Cured by Phrenology, Brain Substance, Brain Growth and Weight, How the Faculties Combine, Adaptation in Marriage. The work is embellished by 245 cuts, extremely valuable because of their illustration of physiognomy. Several years' practical experience in the school-room and a personal knowledge of the benefits attained from Phrenology, convince the editor that all who attempt to be teachers should make themselves familiar with its principles. If a copy of "**HEADS AND FACES**" were placed in the hands of every school teacher in the country, and if, at the end of six months he were required to pass an examination upon it, the benefit to our school system would be incalculable."

This work well sustains the above good opinion, that this opinion is shared by many others is shown by the many copies that are being sold. We are now selling out the 40th thousand, and it is likely will have to print a new edition soon. By mail, on receipt of price, 40 cents, in paper; \$1.00 for the extra edition in cloth. Address this office.

The Chairman's Guide.—We have just published a new and handsome edition of "How to Conduct a Public Meeting; or, The Chairman's Guide for Conducting Meetings, Public and Private, in Accordance with the Best Parliamentary Rules, Including Rules of Order and List of Appropriate Questions for Debate in Lyceums, Literary Associations, etc." Containing 30 pages, and all that is essential in manuals on this subject, compactly and systematically arranged for ready reference, and sent by mail, postpaid, at 15 cents. Any person who has any occasion to be present at a public meeting, whether expected to take part or not, should be familiar with the contents of this little book. It will aid in a proper understanding of the proceedings and give a greatly increased interest.

Photographs.—We would like to call the attention of our readers to the photographic work of Mr. Geo. G. Rockwood, 17 Union Square, of this city. Mr. Rockwood has been established nearly 30 years, and is one of the most enterprising, go-ahead and inventive men in the business. He has introduced many of the important improvements now recognized by the leading photographers. One of his recent novelties is what he calls "Rockwood's Instantaneous Triplex Portraits," which are especially desirable for children. Three photographs are printed on one card, each representing a different view or position of the same person. The effects produced are very pleasing and interesting. This is destined to be a popular feature with Mr. Rockwood. Those who are in want of this kind of work will make no mistake in calling on him. Persons desiring to have either small or large pictures enlarged should write to him as above.

The Choice of Occupation; or, My Right Place in Life, is the title of the 4th number of the Library of Human Nature and is written by Prof. Sizer, who is so thoroughly competent to consider this subject. He has devoted more than forty years to the Reading of Character, and the Placing of Men in the Right Position in Life, and this number is packed full of suggestions and illustrations showing what to do and why. Price 10 cents a copy, and it is worth this to every person who can read, whether old or young, rich or poor.

Masterpieces.—Owing to delays in connection with our printing department, we were unable to issue "Masterpieces" in time for the season's trade, and therefore have decided to defer its publication until next autumn.

Names Wanted.—We desire the names and addresses of intelligent reading women, especially women with families, to whom we wish to send our new illustrated and descriptive catalogue of "Books for Women," containing titles, prices, and descriptions of works on the Health and Diseases of Women and Children, Heredity, Cookery and Household Affairs, etc., and to the first lady at each post-office who will send us the names of 50 women of the right kind we will send a copy of the new edition of our "Hygienic Home Cook-Book." The names need not be sent from the same post-office, we would prefer that they should be carefully selected names of those who would be likely to be interested.

The St. Louis Photographer, published by Mrs. Fitzgibbon Clarke, of St. Louis, Mo., is a journal devoted to the interest of the class indicated in its title, and we can readily understand that to Photographers this might prove very useful. The feature that is attractive, is the publication of a very excellent photograph, portrait, or otherwise in each number. Some of them containing the finest specimens of art we have ever seen. The publisher will send sample copies free to all who are interested in the subject.

Carpets, Mattings, etc.—We wish to call the attention of our readers and subscribers in need of floor covering of any kind to our friends and neighbors, Andrew Lester's Sons, who have a large warehouse near us, located at 789-741 Broadway, New York. These gentlemen have grown up in their father's business which they understand perfectly, and are careful buyers, and therefore good salesmen. They carry a stock of excellent goods which are offered at reasonable prices. People who do not visit the city, can write as above, stating what is wanted and have their orders attended to by correspondence, getting samples, and so enabling themselves to be thoroughly suited.

"One of the Oldest."—*The American Stationer* says: "The PHRENOLOGICAL JOURNAL is one of the oldest and most original of American periodicals. Devoted to the improvement of the human race, mentally and physically, it has for nearly fifty years been a source of pure ethical instruction, coupled with wholesome entertainment."

Music and Morals.—This is the title of a neat little monthly just begun by our old musical friend, Prof. Jay J. Watson, 15 East 14th st. It contains a good many sensible notions. It is issued at 50 cents a year, single copies 5 cents. Our musical friends will be interested in it.

How to Travel.—The experience of ten years has proven conclusively that for long journeys in home or foreign lands economy of time, comfort, health, and expense is most fully secured by traveling in Excursion parties under intelligent managers, and conductors thoroughly acquainted with all matters of interest to the travelers, and especially with the languages and dialects of all the countries visited.

"Age Can not Wither."—*The Free Press of Texas*, says: "The old PHRENOLOGICAL JOURNAL rounds up volume 85, old series, in the vigorous style of earlier days. Of the JOURNAL we may well say, in the language of the poet:

'Age can not wither nor custom stale
Its infinite variety.'"

We appreciate this evidence of appreciation, and hope our readers will show that they, too, appreciate the JOURNAL by trying to send us some new subscribers.

Tobacco—Its Effects on the Human System.—By Dr. Wm. Alcot, with notes additions by Nelson Sizer. In speaking of this work, the *Plowman*, of Moline, Ill., says: "We have made diligent search for a treatise, showing scientifically, authentically, and reliably the effects of tobacco on the human system, and this little work fills the bill. Every person who uses tobacco in any form should read this work, and if he then decides to continue his gradual but sure system of suiciding, he will do it with all the facts before him. Price by mail 25 cents.

Clubbing for 1888.—For the accommodation of our readers and friends we have made arrangements for the combining of other publications with our popular and useful magazine as follows: The Subscription price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00; and any of the following may be included at the prices given.

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The Century Mag.. 3 60	Sun, "..... 90
St. Nicholas..... 2 60	World " & Prem. 90
Popular Sci. Non... 4 20	Country Gentleman 1 55
Godey's Lady's Book 1 70	Herald, Weekly.... 90
Arthur's Home Mag. 1 60	" Woman"..... 2 10
Rural New Yorker. 1 85	Illus. Chris'n W'kly 2 20
Scribner's Mag..... 2 53	Weekly Witness.... 90
Cosmopolitan..... 2 50	Poultry World..... 90
Demorest's Mag.... 1 60	Gardeners' Month'y 1 50
Home Journal..... 1 60	Herald of Health.. 80
Am. Agriculturist.. 1 10	N. E. Journal of Ed-
Wide Awake..... 2 10	ucation..... 2 15
Our Little Men and	The School Journal 2 60
Women..... 85	Pop. Educator..... 1 75
Our Little Ones... 1 25	Christian Union... 2 60
Critic..... 2 50	Christian at Work. 2 60
American Mag..... 60	Laws of Life..... 1 35
The Independent.. 60	American Mag..... 2 50
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Phonographic Mag. 1 10	Chic. Inter-Ocean,
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Observer, new sub. 2 25	Mag. Am. History. 4 20

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Carpet Sweepers.—Among the most popular of many articles we have offered as premiums for the last few years, is the "Grand Rapids Carpet Sweeper." It is giving the best of satisfaction, and our friends are writing how much they are pleased with it. We would simply say it must be used to be appreciated, and no housekeeper who has attempted to do her sweeping in the old-fashioned way with a broom, can possibly appreciate the luxury which one of these perfect sweepers affords; no dust whatever, less wear on the carpet, and so easily managed, that a child can use it. Price \$3.00, but we give it as a premium for only three subscribers to the JOURNAL, and for \$3.50 will send the "Grand Rapids" and the JOURNAL a year. See full description published in previous numbers.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Susanna W. Dodds, M.D., and Mary Dodds, M.D., Hygienic Physicians, 2826 Washington Ave., St. Louis, Mo. All diseases, acute and chronic treated without medicine. Send for circular.

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children. 213 West 54th Street, New York.

Annie Smith, M. D., 135 E. 104th St., City.

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THE TOY
the Child
Likes Best!

This is the title of a descriptive Price-list, richly illustrated in color-print, of the

Anchor Stone Building Blocks,

which should be found in every family and may be obtained from all Toy dealers, Stationers, and Educational Depots. The Price-list will be forwarded gratis on application to

F. AD. RICHTER & CO.,

310 Broadway, - New York.

WANTED.—An intelligent girl to give or learn to give treatment (including massage and electricity) in a sanitarium. For particulars address

DRS. WENRICH & DEPPEN,

Wernersville P. O.,

Pa.

200,000th COPY JUST ISSUED.

The Manual of Phonography, by Benn Pitman and Jerome B. Howard. A perfect Self-Instructor in Phonetic Short-hand. Sold by booksellers, or **The Phonographic Institute, Cincinnati, O.**

SEND for New "PLAN OF INSTRUCTION." **SHORT** lessons for Teachers' use. **AVES** detail work and insures **SUCCESS!** Sample lessons 5 cents.

FOWLER & WELLS Co., Pubs., 775 Broadway, N. Y.

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Our Premiums.—On another page of this number will be found our revised table of premium offers to those who make up clubs for the PHRENOLOGICAL JOURNAL for the coming year, to which we wish to call especial attention. The articles we have selected are practical, useful and the best of their kind, and the offers we make are such as will enable any one who will make a little well directed effort, to make it pay. In addition to these premiums to our AGENT FRIENDS we make liberal offers for subscribers. In the first place we offer the last three numbers of this year free to all new subscribers whose names are received before the first of January, and we also offer a choice of either the BUST or the CHART PREMIUM to all new subscribers, or to those who have not already received these premiums, which are found quite essential, almost necessary, to a proper understanding of the location and the function of the Phrenological faculties. THE BUST is nearly life-size, so numbered and lettered to show the location of the organs, made in plaster of Paris, carefully boxed, and sent by express at the expense of the subscriber, when 15 cents extra is sent for packing. We also have a smaller size that we can send by mail, postpaid, where the distance is so great as to render it too expensive to send the large one.

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Remember the JOURNAL is published at \$2.00 a year or \$2.15 with premium, and we ask the hearty co-operation of our friends in extending its circulation. Sample copies and posters to agents furnished free. Address all orders to this office.

Who Will Respond?—The Rev. George A. Lee, a graduate of the American Institute of Phrenology, has the following practical suggestion to offer; he says:

"I will be one of one hundred graduates of the Institute (or of the many subscribers to the **PHRENOLOGICAL JOURNAL**) to give \$1.00 each to raise a fund to enable you to give copies of 'Brain and Mind' to clergymen by their paying postage, that they may have an opportunity of examining the subject of Phrenology, and so become interested in it."

Now this is a very practical plan, and one which should attract attention and certainly be acted on. We presume it may have been suggested to Mr. Lee from the fact that through the generosity of one who was interested a few years since, we had placed in our hands a fund for this purpose, and sent out to clergymen in all parts of the world, copies of "Brain and Mind" as long as the money placed at our disposal lasted, charging the books to the fund at simply the cost, and the pastors inquiring for the book required to pay postage only. We have abundant evidence daily that there are many intelligent men and especially among clergymen, who are not interested in the subject, simply because they know nothing about it, never having had their attention called to it. We do all we can ourselves in the way of missionary work, but can not respond to nearly all the calls that are made in different ways. We are quite willing to furnish books at cost for this purpose, and in this way a moderate sum of money is made to do a great deal.

Now let our friends respond promptly and generally to this call, and send us funds, and we will make such announcements as will call attention to it on the part of those for whom the benefit is intended. A careful and exact account will be kept, and the books will be offered as long as the funds raised for the purpose last. Here is a chance for those who have been benefited by Phrenology to, in a measure, pay the debt they owe. There are many who claim to owe all their success in life to the benefits derived from a phrenological examination, and we think that such should feel under some obligation to bring the subject to the attention of others. In this way a class of influential men who are brought in contact with people will feel an interest, and this interest will spread to others. We say again, who will respond?

Choice of Occupations.—The Editor of the *Utica Globe* says in answer to a correspondent as follows:

How to choose pursuits (Henry I).—It would be sheer nonsense for us to attempt to advise you as to the vocation you are best fitted to follow, because we do not know you personally, and consequently have not the least idea of your mental abilities and physical structure. Nor do we know your inclinations, other than you say "you love to use the pen." There are thousands who handle the pen, and there are many professions requiring its facile use. Therefore, how can we decide for you? We have an idea, however, and it is this: There is a book called "Choice of Pursuits; or, What to

Do, and Why," written by Nelson Sizer, the noted phrenologist. We have it in our library and find it describes some 75 trades and professions and the talents and temperaments required for each, also how to educate each man for his proper work. Let us advise you to buy one and read it carefully. It will help you out, and as it is not a costly work, it will pay you over and over again.

A Correspondent in the far West says, I have sold all the **HEADS AND FACES** I got from you without any trouble. Am sorry I had no more of them.

I followed the advice given and I must say it beats any way I ever heard of for selling books, especially for a man that is not much of a talker, to leave a book at each house one day and call the next day for the price, or have them return the book. Out of all the books I had only one was returned to me, and the cause of that was there was no one in the family who could read it. So I took it back without argument.

I am very much interested in the subject myself, have read all of your books, and if things go right I will be one of your students next term in the Institute of Phrenology.

The most interesting hours I spent in the East were those that I spent in your museum, which was the first place I called when I came from the West, and the last on leaving the East; and must say that it is worth any one's while to go there.

Hoping soon to receive the **JOURNAL**, I remain as ever, respectfully yours,
A. G. G.

"Heads and Faces."—This book which has proved so popular is again out of print, but for only a few days, as the new edition will be ready before this number reaches our subscribers, making the 55th thousand that we have published. The new edition is on finer and better paper than the previous issues, and a number of cuts which had become worn, or not up to the standard, as when first printed, have been replaced by new and fresh portraits, in this way very greatly improving this edition. We will send it by mail, postpaid, to any of our readers on receipt of price, 40 cents, in paper, or \$1, in cloth. Agents wanted, to whom we will make liberal terms.

The St. Louis College.—A letter from the Dean of the St. Louis Hygienic College of Physicians and Surgeons, reports that the prospects are flattering for the coming year. It will be remembered that it is scarcely a twelve-month since this school, as a *pronounced fact*, was even talked of. In exactly three months from the time of the meeting of the convention in May, the charter was obtained. And in exactly five months from that date, the college began its work; not with a large class (there had been no time for that), but with half a dozen men and women; two from Canada, one from Pennsylvania, one from Iowa, and two from St. Louis. Letters of inquiry, we are informed, have been coming in ever since; from all parts of the States, Canada, and even Great Britain. The new announcement, now ready, will, of course, bring further inquiries from all quarters.

The good that the college will do, if it is properly

sustained—as no doubt it will be—is simply incalculable. The people, we believe, are ready for it; hygiene is becoming more and more discussed in all quarters as the great principle in sanitation, public and private, and a school of hygienic practice is a response to growing popular want.

A True Benefactor.—We copy from the latest announcement of Mr. Joel McComber, the inventor of McComber's patent Boots and Shoes, and patent Lasts, the following which we commend to our readers.

"I come once more to my many friends, in my regular garb—that of a benefactor. I come to tell them of some of the improvements that I have made since I last addressed them in printed words. To thousands of those who will receive this pamphlet, what I say here will not be new or strange, because their knowledge has regularly kept pace with my advancement. They are very constant patrons, have called on me periodically for shoes, and have constantly enjoyed the benefit of my research and experience. To those who have never availed themselves of the benefits which I am able to confer, the truths here spoken will possess the charm of novelty, and, as I believe, the weight of the highest authority. When I say the highest authority, I fall far short of the truth. I declare, in no boasting vein, but words of truth and soberness, that I am not only the highest authority, but, in fact, the only authority on the face of the earth to-day on the subject of my specialty, the salvation of the human foot by perfect clothing. This is because I work upon a system which is as true, as unerring, as perfect, as admirable, as the system of nature herself. My system is of my own devising, the property of no man except myself. From year to year I am advancing along the line of my wonderful plan, perfecting it in various ways, adapting it to the growing and expanding demands of my great army of patrons, increasing its availability to all classes, the rich and the poor alike, enlarging my facilities for the production of my superior boots and shoes, until I now find myself in a position to provide perfect foot clothing for a regiment of men, women, and children, each and every day in the year! I have invented machines for making my patent lasts, and for graduating, reducing, enlarging, expanding and contracting them to meet and cure all cases of distortion and deformity, which machines are so rapid in operation and so perfect in results, that weeks of what used to be hand labor—the labor chiefly by my own hands—is now accomplished in a few hours. I have carried the preparation and manufacture of the materials employed in the production of my perfect boots and shoes to such a degree of excellence that every article employed is nothing less than wonderful for its superiority over goods in the same line made by others. I have watched over and instructed my workmen, until the abuses of the mechanical branch have been eradicated, and every shoe, when finished, is not only perfect as a protector of the foot, which

it is designed to clothe, perfect as a restorer of the symmetry of the deformed organ, perfect in its materials, perfect in its mechanical construction, but also an elegant and graceful work of art, appealing to the highest aesthetic sense, not less than to the loftiest physiological culture.

And this is not all. To do good, to benefit all who engage my talent and secure to themselves the benefits of my study and research, I am daily doing what to the short-sighted and selfish world seems to be against my own "interest." I am making boots and shoes which endure beyond all previous conception of the wearer. Friends tell me that I could make a market for several pairs of shoes where I only provide one, if I would not implant in them the element of long endurance. But that would not please me an hundredth part as much as it does to be told daily and hourly that my shoes "never wear out." For I not only seek to have them perfect when they leave my hands, but also to so instruct the wearer that he can keep them perfect in spite of all exposure and hard wear. I make him understand the nature of leather and how it is to be kept soft, sweet, and strong. I provide him with suitable dressing by the application of which it may be permanently preserved. And I tell him when and how to apply it, for the best good and the highest beauty of the fabric. If he does as I tell him, he does not need to repeat his order for shoes very often. To be perfectly clothed as to his feet, will make no serious inroad into his purse. Comfort and beauty and health, cost my regular customers comparatively little.

Does anybody suppose that I am sorry when a pair of my shoes lasts a customer five years? Does it enter into the heart of any person to believe that I should be better pleased if every one of my friends—every man, woman, and child who has the knowledge and good sense to employ me, is my friend, and our mutual friendship is of the kind which endureth forever—was compelled to order a pair of shoes every three months? I think not. Those who know me well, also know that I would be the happiest man in the world if I could make a shoe which would withstand the vicissitudes, the wear and tear to which foot-gear is exposed, for a whole lifetime, so that a man or woman once by me shod, should forever be shod, while life should last. Instead of lessening my business, this fact, when known, would increase it an hundred fold. Even now, with only the power to produce clothing for the feet which greatly outlasts all others, my business more than doubles each year, and has from the beginning of my labors in New York City. To impart great durability to leather of all kinds, I long ago devised a preservative, which I call "Seal Polish," because the leather polished with it sheds water like the skin of a seal. It is adapted to all shoes made of leather of any kind, whether intended for the use of men, women, or children, and wonderfully prolongs the useful lifetime of every shoe to which it is applied."

Following this introduction is about 150 pages of more important and interesting

matter relating to foot-clothing, and the improvement of our understanding, written in Mr. McComber's clear and matter of fact way, which will be sent free to any of our readers who will address Joel McComber, No. 52 East 10th street, New York, Inventor and manufacturer of McComber's patent Boots and Shoes, and patent Lasts.

A Summer Offer.—We have decided to give our readers a special purchasing advantage, and on another page will be found the great **SUMMER OFFER** to the JOURNAL subscribers, in which we are offering a selection from our own publications at positively wholesale prices, and at these rates will fill orders for the next three months. This is a special plan, and one it is believed our subscribers will quite largely take advantage of. We hope it will be understood that these books are offered to every person whose name appears on our books as a subscriber at the present time, and to no others at these prices; all orders will be forwarded promptly, and books will be sent prepaid, and we would add that these books are not second hand, but fresh and perfect copies.

Ornamental Masks. We have decided to offer to our readers something that will prove interesting, consisting of Masks of some of the most attractive of our Busts and Phrenological Specimens. These show with great accuracy the face and the upper and forward part of the head; may be placed in frames, or hung on mats, or easels, or against the wall, making them much more available than Busts, which require a pedestal, or bracket especially for them. Our list at present comprises very many attractive subjects. Those who have read the works of Prof. Huxley, will certainly be pleased with the representation of his genial face, and the many admirers of Washington Irving will find his face a very pleasant study.

A partial list will be found in this number of the JOURNAL, where the prices and other particulars are given.

The Servant Question.—This is the title of number 5 of the Human Nature Library which is just coming off the press. In it, Dr. Drayton, the editor of the JOURNAL, discusses very fully the whole subject carefully in a way that would prove practical to all who are interested in this vital phase of the social question, and who is not. It will be sent by mail, postpaid, on receipt of price, 10 cents.

Fat and Disease.—All who are interested in this question should read Dr. Page's works "Natural Cure," \$1; "How to feed the Baby," 50c.; "Horses, their Feed, and their Feet," 50c. The author has sound ideas on the subject, and knows how to state them so as to be of interest and easily understood, these books will be sent by mail, on receipt of price; address this office.

Grinding Mills.—In this number of the JOURNAL will be found an advertisement of the Wilson Bros., manufacturers of Hand and Power

Mills for grinding bones and oyster shells and feed for poultry, which has given universal satisfaction. Their catalogue will be sent to any of our readers who will apply to Wilson Bros., Easton, Pa.

A Great Saving.—Subscribers can save the price of the JOURNAL in discounts on books offered to them in this number of the JOURNAL. We make this offer as an increased inducement to become a continuous subscriber. See "A Great Summer Offer" in this number.

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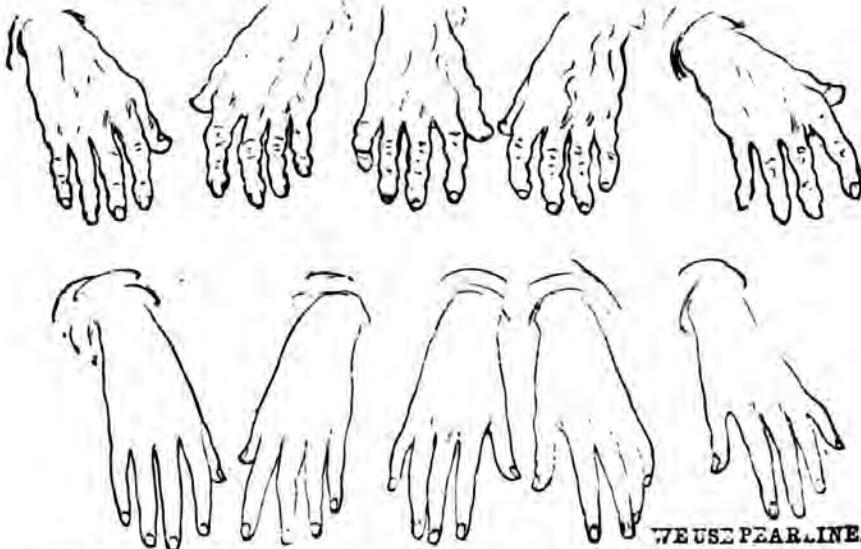
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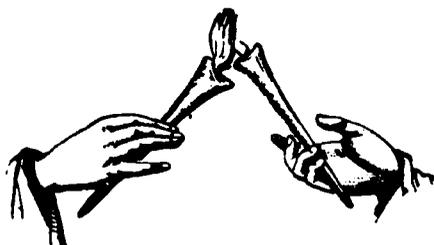
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“Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre a une expérience mille et mille fois répétée ne perfectionnera jamais la physiologie du cerveau.”—GALL.

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

“To Phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science.”—*Encyclopædia Britannica*, 8th Edition.

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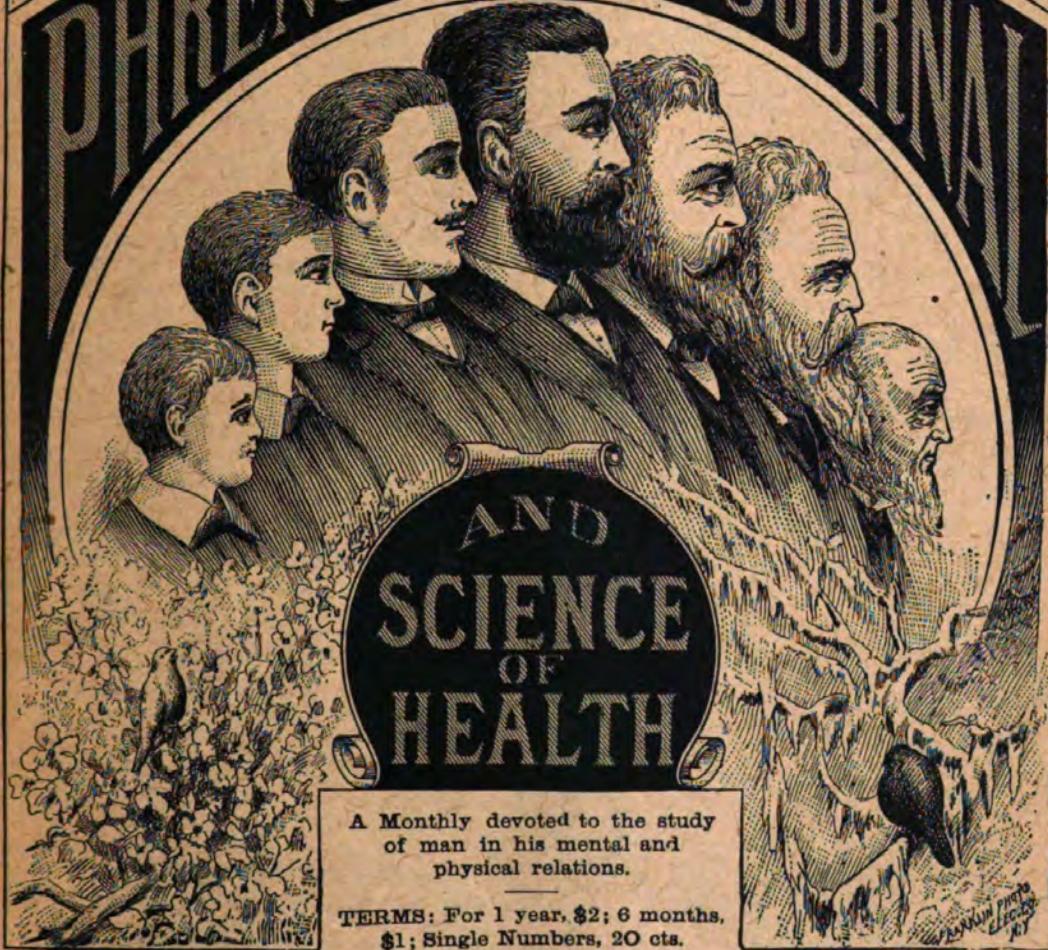
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NUMBER 7.]

July 1888

[WHOLE No. 595



NOTABLE PEOPLE OF THE DAY.—NO. 10.

NATHAN SMITH DAVIS.

THERE are older physicians than Dr. Davis in the United States, but few who are worthy of as much honor as men of sterling character and professional success. As a representative man in and

out of medicine he was selected to act as President of the "International Medical Congress" that assembled in Washington last year.

Prof. Sizer in a sketch predicated of our

excellent portrait uses the following strong language :

This face and head is an interesting study. In his earlier days he must have been a handsome man. His eye is bright and of excellent form and expression; his nose is rather large and prominent, but delicate in its lines; the upper lip is also defined with such lines as indicate sentiment and delicacy, and the prominent and strong chin indicates stability and dignity. If he were more fleshy and plump the facial expression would be improved, and the brain itself—the head—would be better sustained. Let a line be drawn from the opening of the ear forward through the eye, and see the massiveness of the brain above. Consider the length from the opening of the ear to the eyebrows and to the top of the forehead, and the forehead looks as if it had been pulled, dragged, drawn upward and forward from the opening of the ear.

Intellectuality is marked on that forehead and indorsed by the features as plainly as a print could make it. The scholar in the realm of things and facts and conditions is shown by that prominent and massive brow.

The middle section of his forehead indicates excellence of memory, the upper part shows philosophic breadth and outreach of thought, and then over the top the front part of the head shows benevolence in a degree that is rarely equaled.

We judge that the drift and scope of his mentality, his purposes, his work, and endeavors are toward beneficent results, and what he does in his professional career does not begin and end with himself; his thoughts have a generous and sympathetic interest in the welfare of men.

His head is that of a scholar, a philosopher, and a philanthropist combined. The side head seems to be flattened as if it had little care for pecuniary results; his chief object or thought is to accomplish the good he seeks to do, and if it has in it compensation, and most men

need compensation for their time and effort, he would take it as necessary to his comfort; but the idea of making merchandise of knowledge is not strongly marked in his nature.

He is cautious, upright, and just; he is energetic and thorough and social and affectionate, but scholarship, originality, and the practice of beneficent sympathy are his strong points.

It is not so often that so clear a study is offered by portrait—not often that the writing of the sunlight and the tool of the engraver so faithfully reproduce the lineaments of the face and expression.

Nathan Smith Davis was born at Greene, Chenango County, N. Y., in 1817. A farmer's boy he lived on the homestead, after the manner of the farmer's boy of that early time, until he had attained the age of sixteen, when the wish to do something for himself led him away from the parental roof. He concluded to try his fortune in the field of medicine, and commenced his study in 1834. Later he went to New York and attended lectures in the College of Physicians and Surgeons, and in 1837 commenced practice in Binghamton. There, besides private work, he lectured before the local academy on physiology and chemistry. He also became a contributor to medical journals, and some of his early papers found their way across the ocean and were copied by European journals. His numerous contributions, in fact, made his name widely known.

After going to Binghamton he joined the County Medical Society, and became also a member of the State Society, in which he served on important committees. His most signal service in the State Society was in the preliminary steps for the organization and promotion of the National Medical Convention of 1846, which brought him into correspondence with medical men in almost every State in the Union. Out of this movement grew the American Medical Association, which Dr. Davis was very

active in promoting, and of which he has been generally recognized by the profession as the father. He has been its president, and almost every other office within its gift has been bestowed upon him. Dr. Davis practiced for two years in New York. He went there in 1847, but two years later he went to Chicago to become a professor in the Rush Medical College, and there he remained as a teacher for ten years. Illinois and Chicago at that time had no medical Societies, but Dr. Davis aided largely in the formation of one for the State and another for the city. He founded two medical newspapers, and continued his relation to them in after years. A number of literary, historical, and scientific societies have elected him a member. The Northwestern University counts him among those who aided in its foundation. Since the year in which he left his father's farm he has been a member of the Methodist Church, and he is a strong advocate of temperance. Not long since he was quoted as having said that he had not prescribed alcohol in his practice for thirty years or more. His life and appearance certainly exemplify the virtues of temperance and earnestness. A prodigious worker for fifty years, he is still vigorous and efficient.

THOMAS WENTWORTH HIGGINSON.

An earnest, meditative face, with lines that intimate a bias toward sadness, or a habit of looking at the side of things that is lacking in the qualities of completeness, symmetry, and fitness. There is sense of will, the spirit of controversy, and criticism, also the tenderness of sympathy and pity well indicated. New England, especially the eastern part of it, has a type of culture that is easily recognized. Emerson, Thoreau, Everett, Hawthorne, Sumner, Phillips, all show it in their portraits, and so do Lowell, Higginson, and others, in their faces. The mark of a refined organization derived from a noble parental stock, is associated with the expression that a pecu-

liar drift of thought and motive imparts. Such men are at once deliberate, sympathetic, ambitious, and impatient of restrictions upon rational inquiry, averse to conventional or class dogma, individual, concerned about the evolution of society into a higher and better stage of action, fretted at the indifference of the masses to opportunity for improvement, and inclined to censoriousness because of the want of progress in the system of civil control.

These men dignify society, illustrate American literature, are lights in their



THOMAS WENTWORTH HIGGINSON.

way, but not leaders of public thought; there is nothing of demagogism in their character, hence their influence upon the masses is but slight. Their range of action is lofty; understood by comparatively few its principles must be translated into common terms to be understood by the many.

Thomas Wentworth Higginson is the second son of Stephen Wentworth, an old Salem merchant, and was born in Cambridge, Mass., Dec. 22, 1823. He studied at Harvard, and entered the ministry of the Congregational church in 1847, being ordained pastor of the

First church in Newburyport, Mass. He was compelled to leave his church in 1850 on account of his anti-slavery sentiment. From 1852 to 1858 he was pastor of a free church in Worcester, Mass., and then left the ministry to devote himself to literature.

For taking part in the attempted rescue of a fugitive slave he was indicted for murder with Theodore Parker, Wendell Phillips, and others, but was discharged through a flaw in the indictment. He also aided in the organization of parties of Free-State emigrants to Kansas, in 1856, and served as brigadier general on James H. Lane's staff in the Free-State forces. He was appointed captain in the 51st Massachusetts Regiment, September 25, 1862, and on November 10 was made colonel of the First South Carolina Volunteers (afterward called the 33d U. S. Colored Troops), the first regiment of freed slaves mustered into national service. He took and held Jacksonville, Fla., but was wounded at Wilton Bluff, S. C., in August, 1863, and in October, 1864, resigned on account of inability. He then returned to literary work, residing at Newport, R. I., for several years, and in 1878 removed to Cambridge, where he still resides.

In 1880 and 1881 he served in the State legislature, and also as a member of the State Board of Education.

He has contributed largely to current literature, especially in the *Atlantic Monthly*. Many of his books are collected essays and sketches that have thus appeared. His first publication was a compilation with Samuel Longfellow, of poetry for the seaside entitled, *Thalatta* (Boston, 1853). He is the author of *Outdoor Papers* (Boston, 1863); *Malbone, an Oldport Romance* (1869); *Army Life in a Black Regiment* (1870); *Atlantic Essays* (1871); *The Sympathy of Religions* (1871); *Oldport Days* (1873); *Young Folks' History of the United States* (1875); *History of Education in Rhode Island* (1876); *Young Folks' Book of*

American Explorers (1877); *Short Studies of American Authors* (1879); *Common-Sense about Women* (1881); *Life of Margaret Fuller Ossoli* (American Men of Letter series, 1884); *Larger History of the United States to the close of Jackson's Administration* (New York, 1885); *The Monarch of Dreams* (1886); and *Hints on Writing and Speech-Making* (1887). He has also translated the complete works of Epictetus (Boston, 1865), and edited *Harvard Memorial Biographies* (2 vols., 1866); *Brief Biographies of European Statesmen* (4 vols., New York, 1875-7). Several of his works have been re-printed in England, and some have been translated into French or German.

A writer in the *Boston Herald*, in a sketch of Col. Higginson's literary work, says. "The most delightful of Colonel Higginson's writings are those in which his keen observation and abounding love of nature have full play. There is a charm in these essays, born of a deep and tender sympathy, which is not surpassed by anything of the kind in our literature; indeed, it might truthfully be said that they are unequalled in their way. Such blending of knowledge and feeling as is shown in those *Outdoor Papers*, entitled *April Days*, *My Outdoor Study*, *Water Lilies*, *The Life of Birds*, *The Procession of Flowers and Snow*, give to them an exquisite attractiveness.

"In days when the lecture platform was a field for the best thought of American life, Col. Higginson made a mark, his *Aristocracy of the Dollar* being especially successful. He is an interesting and forcible speaker, the silvery tones of his voice setting off his earnest thought and graceful diction. His home in Cambridge, on Observatory Hill, is a comfortable old-fashioned structure, with articles that reflect his refined and studious tastes. His wife, who has also literary taste and talent, is a niece of Mr. Longfellow's first wife.

Col. Higginson is of tall and com-

manding figure; his face has the ruddy hue of health, and his robust appearance indicates that he keeps up the outdoor exercises which he has always favored. Of late years he has added a tricycle to his means of enjoying the open air. His sympathies make him a genial companion; the spirit of chivalry gleams alike in his writings and his life, and the

heed to the movements in European politics. Sir Morell Mackenzie at first reminds us of the late Viceroy of India, Lord Dufferin, now serving his country, we think, in Turkey. He has the same spirited bearing and air of independence. The features have an American sharpness, the keen, observant look that is common to the New Englander. Such



SIR MORELL MACKENZIE, M. D.

manliness and refinement which mark his countenance are reflected in his character and conversation.

SIR MORELL MACKENZIE, M. D.

Another physician may not be out of place in this group, an Englishman whose name has been familiar to every one who reads the newspapers, or gives

an organization hungers for the true and real; demands facts, and can estimate them at their real value. It is an investigating, penetrating, critical order of mind that distinguishes this gentleman professionally and otherwise, or the portrait is a misrepresentation. Such a man's judgment is not of the "snap"

or *ad captandam* order, but prudent, cautious, and sound. His temperament is strongly mental with enough of the motive to render him both prompt, energetic, and persistent. He ought to be a ready student and a hard worker; ambitious, eager for success, yet above conduct that savors of anything subservient or adulatory to secure it. He is fond of approval, even glories in success achieved, but at the same time manifests the spirit of independence.

Morell Mackenzie was born in Leytonston in 1837: Studied medicine in London and also in several continental cities. Taking up diseases of the throat as a specialty, he studied under Cyermak, with whom he became familiar in the application of the laryngoscope. He practiced in London, where in 1864 he was elected a member of the Royal College of Physicians. Previous to that he had organized a hospital, the first in England of its kind, for the treatment of diseases of the throat and chest; and also was appointed Lecturer on Diseases of the Throat in the London Medical College. In 1870 he presented to the profession a work on "Growths in the Throat;" and still later, a work "On the Hygiene of the Vocal Organs." Another with the fruit of twelve years' study is "Diseases of the Throat and Nose." While his reputation has been much enhanced by his contributions to medical and surgical literature, his connection with the remarkable illness of the German Emperor has given him special eminence.

It is not our purpose to venture an opinion with regard to that case; it would not be expedient in this connection, but it may be said that the success that attended Sir Morell's treatment of the Emperor Frederick's throat almost conquered the strong prejudices that were shown in an unseemly manner in certain professional and social circles of Germany. As a contemporary says:

"Sir Morell Mackenzie's great merits

are beginning to be appreciated even by those who had hitherto been loth to acknowledge them. An interesting statement connected with the history of the quarrel is made by the *Schlesische Zeitung* in the following words: When twelve months ago the preparations had been made for the performance of an operation which, to judge by ample experience, might and probably would have been attended with a fatal termination, Prince Bismarck, at the instance of German members of the faculty, proposed that foreign specialists should be sent for, it being understood that even in the event of the operation proving successful, the illustrious patient could not have possibly survived it any great length of time. The same article goes on to say that Sir Morell Mackenzie has succeeded in preserving the Emperor's life as long as it was possible, and also in greatly relieving his sufferings. The illness is set down as incurable, and Dr. Fruvel, the leading French specialist, wrote last January that in cases like that of Frederick III., three years would be the very outside of a man's life after once tracheotomy had been performed."

The effect of *Unser Fritz's* sad case has been, we think, that of moderating national zealousness and vindictiveness, and deferring long predicted war on the continent, and if Dr. Mackenzie has been the human instrument by which the Emperor's life was prolonged for months, then the preservation of peace in Europe may be said to be in a great measure due to his skill.

Honors have been conferred upon him in abundance. Not long ago Queen Victoria knighted him, and quite recently an important order of the German Royal house was presented to him by the late Emperor.

CHARLES H. J. TAYLOR.

In this representative of the colored man in American society we have a good illustration of the intellectual advancement that has characterized his race in the past twenty years. The type of the

colored man's civilization may possess its own peculiarities, but that its possibilities are by no means to be depreciated by the ethnographer has been shown repeatedly of late. The American negro is now found in every professional walk of life, and his work has demonstrated his fitness for the place.

Mr. Taylor was born in slavery in Marion, Alabama, about thirty-five years ago. The late war changed his relations to the State and quickened his natural disposition to make a way for himself in the world. He found opportunity for personal improvement in Indiana and Ohio, and later, studied at Michigan University.

He afterward read law, and entered upon the practice of that profession, being subsequently admitted to the bar of the United States Supreme Court.

While in Indiana, he supplemented his professional practice, at intervals, by teaching school, thus employing every moment in remunerative industry. Removing to Kansas, he was in 1885 a candidate in the Eleventh Judicial District for district Judge, but failed of election. Immediately afterward he was appointed Assistant City Attorney of Kansas City, which office he held until lately, when his appointment as Minister Resident, and Consul-General of the United States to Liberia, has received the consideration of our Washington authorities.

In 1876 he stumped the State of South Carolina for Gen. Wade Hampton for Governor, and carried over to him a considerable part of the colored vote. In 1885 he was an independent in politics, and voted for Cleveland and Hendricks. He is now a "straightout" Democrat. He is intelligent, a ready speaker, with a good flow of language, and in every way a credit to his race.

Mr. Taylor has the type of head found in the American negro with the variation of unusual central height and very marked perceptive. He is an ambitious man, and very strong in Firmness and in-

dependence. An active brain, sustained by a fine physical constitution, gives him the advantage of using his mental powers freely and for a long period without exhaustion. He is a man of special capabilities, not broad or comprehensive, but quick to gather the particular significance of a fact and inclined to push effort in a single direction. With so much physical energy he should show



CHARLES H. J. TAYLOR.

enthusiasm and alacrity in everything that engages his interest. His hope is such that he is not easily discouraged and the rich fulness of his vital resources tend to make him sanguine of the good results of the enterprise in which he embarks.

EDITOR.

A LUNAR SUPERSTITION.—The Greek and Latin authors (Plato, Pliny, Livy) tell us that a great noise was made during eclipses. The early Christians rang bells, not only during storms, but during eclipses also, in order to war against the action of malevolent spirits, and to repulse the darkness caused by phantoms (*umbra phantasmata*), a relic of the dark genii that devour the moon.

INTELLECTUAL AND MORAL CULTURE.

JAMES Freeman Clarke truly says : "God, who placed the trees and flowers in the world to grow, also placed man here for the same purpose." The trees grow unconsciously, but man is educated by circumstances, and he is able very largely to control the circumstances. He can educate himself by cultivating his powers and developing his character. As God has given him this power, it is, of course, his duty to do it. Jesus in the parable of the talents has taught, that it is not only our duty to render back to our Savior what we have received, but we must also add to it by our efforts. God will certainly hold us responsible for a failure to cultivate the talents He has given us. We are so constituted that a failure to improve our gifts will cause us to lose them.

Order is one of Nature's greatest laws, and it should not be neglected in the cultivation of the faculties of the human mind. Those who fail to follow divine order make a sad mistake. How great indeed is the mistake that teachers make when they put students to studying those branches requiring great reflection before the perceptive faculties are properly developed. While perception and reflection should be educated together, perception should have greatly the start. While some persons naturally have more perception than others, the perceptive faculties can be greatly improved by all. The Indian naturally has no advantage over the white man in this respect ; yet he has so trained his power of observation that no sign of the forest escapes his attention. It is said of Daniel Boone and the early pioneers of Kentucky, that they were fully equal to the Indians in observing all the signs of the wilderness. The Bible places a duty upon the hearer as well as upon the preacher ; and the reason why so many people are ignorant of the Bible as well as of Nature is the fact that they keep both their eyes and ears closed.

There is in this country a greater demand for eloquent hearers than for eloquent preachers.

Reflection has for its function work entirely different from that of perception. It does not collect material, but arranges and classifies that presented to it by perception. It is by reflection that we think, and the more we reflect the better we can think. Thinking is largely a matter of cultivation, and the men that think are the men that make the greatest progress in civilization. It is claimed that the reason why the god Ormuzd triumphed over Ahriman is the fact that he thought before he acted, while Ahriman acted before he thought. No true system of education will fail to develop reflection, and, in fact, all the powers of the human mind. Even the imagination should not be neglected, for it is a very essential element in education. As an intellectual faculty it gives us a knowledge of the beautiful, and as a practical faculty it creates art. A prosaic young preacher became somewhat offended at me for recommending to him works of fiction. I did so because he had but little imagination and it needed cultivation. I recommended Mill's logic to a young lady who had an imagination that was about to run away with her. The intuitional element of man's nature is worthy of attention by all educators, for it gives us inward facts through the higher intellect. From it comes our ideas of personal identity, cause and effect, space and time, and a perception of a distinction between right and wrong, good and evil. If more attention were given to the development of this faculty, it would stay the tide of materialism which is now deluging the country.

The uneven development of the human mind causes man to be inclined to infidelity.

One of the greatest defects in our present system of education is the neglect of

moral and religion development. There never was a greater mistake than the supposition that intellectual development alone constitutes education. The moral and religious elements are a part of the mind, and their neglect must, necessarily, produce sad consequences. It is claimed that there is no unity of sentiment as to what constitutes a moral and religious education. The same thing can be said of intellectual development. There is certainly unanimity enough among the wise to adopt a system that will develop all the moral powers of the mind. Our schools tend too much to stimulate ambition and cause envy. Rivalry and envy are among the greatest sins of the day. We are very much in need of more benevolence and generosity in all departments of life. Particular attention should be given to the education of the conscience. The young should be taught to do right, because it is right, and not from policy.

When students do right, it should be recognized by the teacher; and when they do wrong they should be made to feel remorse. There are too many students who comply with the rules of a school simply in form, but not in heart. They are like the little girl when her brother struck her. Her mother told her to kiss her little brother, and heap coals of fire upon his head. The little girl ran up and kissed her brother, and then said: "Where is the shovel now? Where is the shovel?" If the human will was educated in youth, there would be much less yielding to temptation. Some persons have very weak wills and can be influenced to do what they know to be wrong. Such wills, if education commenced at a proper age, could be strengthened, and many be saved from hopeless ruin.

"Tis education that forms the common mind,
Just as the twig is bent, the tree's inclined."

J. W. LOWBER, PH. D.

THE WHEEL OF THE WORLD.

THE wheel of the world turns round and round.

Those who are uppermost soon may be
Down in the dust or under the ground;

The king in chains, the serf set free.
Over the track in sunshine and rain,
It rolls on, over and over and over
again.

The wheel of the world moves day and night,
And its swift revolutions bring
Nations from darkness into the light,
Where bells of the good times coming
ring.

Over the plot where the palace shone,
It rolls in the dust of the crown and
throne.

Around and round the wheel turns and goes.
And we go with it, now up, then down.

Few win the prize that many must lose,
Tired at the goal, how late comes the
crown.

The brave, the true, the noble, the just,
Will never be lost in the whirling
dust,

What is the top of the wheel to me,
Though it lifts me a moment above
The proudest folks in society,
If I fall below in honor and love?

The hero who offers the cup and the
crust
Will leave his memory sweet in the
dust.

The wheel of the world unceasingly rolls
Over and over and over again,
Over the turnpike of space where the tolls
Never hinder the wheel of the train.
As a star sweeps the realms of the
night,
The wheel moves on in a cycle of light.

The wheel is vast and the path is broad,
And its highway is unchartered space;
The hand that guides is the hand of God,
The burden it bears is the human race.
True as the needle that points to the
pole
The wheel of the world will roll to its
goal.

GEORGE W. BUNGAY.

A NOTE ON THE PATHOLOGY OF WRITTEN LANGUAGE.

THE study of the phenomena of *aphasia* has been fertile in its results with regard to the great differentiation of brain function, and from the demonstration of one isolated center of localized innervation, we have advanced to the definition of several. It would appear that each well-marked example of aphasia had peculiar manifestations that involved special lesions in the brain substance itself, or disturbances in the complex chain of co-ordination whose integrity is essential to the normal expression of language.

One of the most interesting in the groups of aphasic disease is *agraphia*, which, as its name implies, is the loss entirely or in part of the power of expression in writing, or as it is often termed "aphasia of the hand." At a clinic, in December, last year, Dr. Charcot, of La Salpetriere Hospital, Paris, exhibited a woman who had suffered with this disability for about twenty years, as the result of paralysis. She was a well-informed and passably educated woman, and accustomed to the use of the pen up to the time of the paralytic attack, in 1868. She was then forty-four years of age. At first she could not speak, but gradually recovered the use of her faculties, with the one exception that she found herself unable to write. She could speak, had a perfectly clear or visual idea of the spelling of words, knew what she wished to write, but lacked the manual ability to outline the letters and words on paper. She could copy in a rude fashion printed words and figures from a book or newspaper, but when she attempted to compose independently, or to write at the dictation of another, it was absolutely impossible.

The word *agraphia* was introduced into physiology by the physiologist Ogle in 1867. Eleven years before Marce had demonstrated the existence of such a neurosis before the French Society of Biology. It remained for Dr. Charcot to furnish illustrations from the

splendid resources of his great hospital, to show the independence of a "graphic faculty," in two opposite ways; one being that of its persistence when all other forms of language are wanting; the other being that of inability to write when all other modes of word expression are complete.

Hartley, in his "Observations on Man," published in 1749, says, "Words may be considered under four aspects: 1, with reference to the impression made upon the ear; 2, as effects of the organ of speech; 3, as impressions made upon the eye by the characters (written or printed); 4, as acts of the hand in writing." The recent observations of the phenomena of the speech function confirm the accuracy of that old writer; and but little reflection is necessary to find that the idea which a word awakens may be traced to one or more of the four sources which Hartley has mentioned, but principally to the first (the auditory element) and the third (the visual element).

Dr. Charcot accepts Hartley's divisions as above given, and recognizes them as defining four modes of word memory, any one of which may be impaired or lost, with the result of producing one or more kinds of aphasia. In his opinion the idea of *amnesia*, or loss of memory, should be the key to every question with respect to language troubles that come within the aphasic class.

That theory of memory, and of partial amnesia, which assumes for its basis the independence of centers for the one as opposed to those of the other, is evidently in direct antagonism to the view that would establish an absolute supremacy of the sensory centers over the motor, to the extent of claiming that the latter are not put in function except through a sort of reflex state induced by the first. Dr. Charcot rejects this as by far too absolute, and refers to his own patients for evidence.

The cases are frequent that show word blindness well marked and unaccompanied with any degree of agraphia. In fact it occurs that those affected with verbal blindness will, in attempting to read, often trace the words with a finger in order to understand their meaning, since the impression made upon the brain through the eye does not convey a distinct intelligent perception of the printed characters.

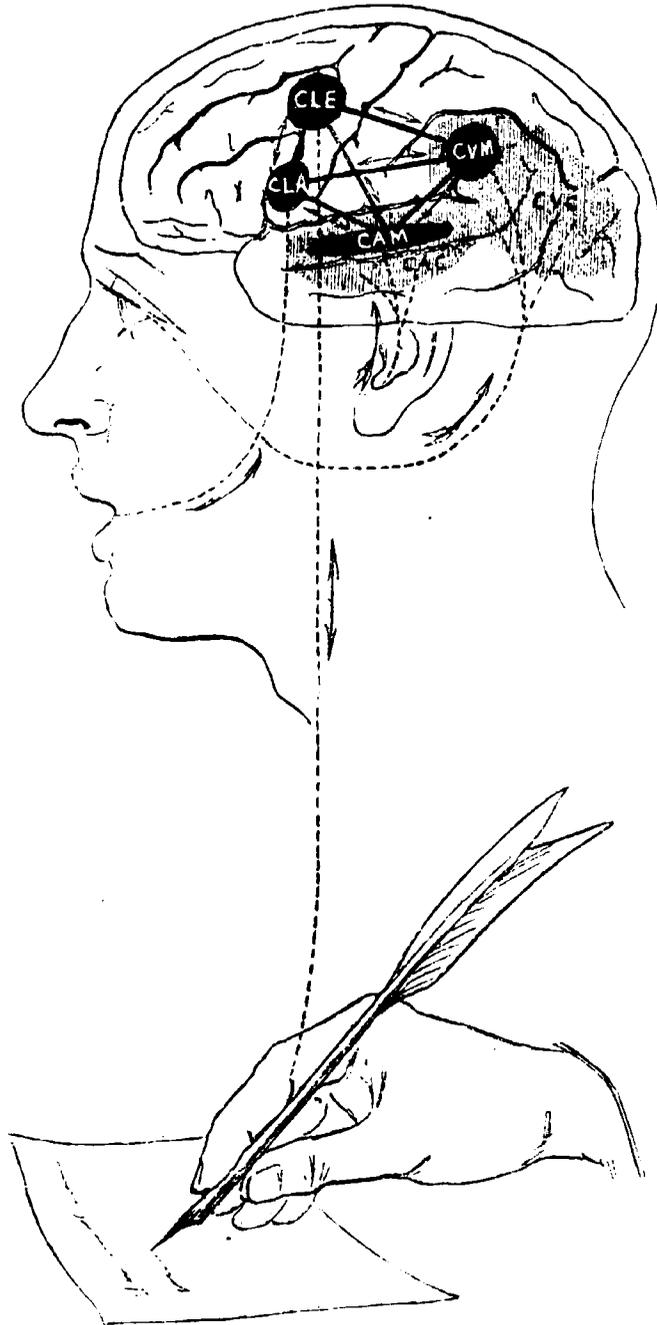
In an analogous way verbal deafness may exist alone; several instances have been published. M. Hitzig, the distinguished experimenter, furnishes a fine example in his *Von der Materiellen der Seele* (Leipzig, 1886).

Certainly by these the proof is clear enough that the motor center of articulation is distinct and can operate without producing a reflex effect upon other centers related to speech, and they in turn may operate in a like independent manner. In passing it may be remarked that the doctrine of "diffused centers,"

advocated by Brown Sequard as against distinctly localized centers, receives no support from such phenomena.

Based upon the results of observation

is the scheme of Prof. Charcot, which we introduce to show in an intelligent form the relations of the centers of verbal memory, as already classified. Tak-



C V C, common visual center; C V M, visual center for words; C A C, common auditory center; C A M, auditory word center; C L A, motor center of articulate language; C L E, motor center of written language.

ing for example the assumed center for the visual recognition of words C V M, we may say that here is the brain region where the special ideas of written words

are stored, while at the same time the simple form, or exterior aspect of words, things in general, as obtained through the pencilings of light upon the retina and their transmission by the optic nerve, is impressed at the *common visual center*, C V C. At the first repository the significance of a word is recognized as a distinct idea, while the common visual center receives and stores impressions of all external forms, without regard to their meanings. Now if the visual center, C V M., is diseased, the person so affected can still see words printed or written, but he can not understand them; the degree of this defect of course depending upon the extent of the lesion. He may grasp the meaning of simple, familiar words, but not those at all uncommon, or he may not understand any at all. Disease of either of the centers, C A C, C A M, indicated on the diagram, will produce analogous results.

Taking now the centers for articulate language, or for writing, C L A, C L E, these are motor in their nature, and related intimately to the common center for Language, and to those which we have been considering. Just as the *visual center* of words stands in close relation to the *common visual center*, so the *motor center of written language* is in connection with the *common motor center of the arm*, and the *motor center of articulation* is in direct connection with the *common motor center of the tongue and lips*.

The sources from which we draw the elements of words are many, and therefore their expression in language is the comprehensive assemblage of such elements, while the sources are special. Upon this theory is founded the doctrine of functional *compensations*, or the vicarious action of centers, that for several years has been entertained by physiologists and which furnishes the dual structure of the brain ample support. Out of the knowledge of this provision of nature against accident and disease of a

part, has grown the method of re-education that often yields surprising results.

A person struck with *verbal deafness*, i. e., losing the power to perceive the special significance of words addressed to him by their sounds, at length succeeds in learning to distinguish them by one of the following means: He strives to repeat or articulate the words, and finally comes to understand them; the motor center that presides over their articulation comes to the help of the auditory center; or the patient writes the word that he hears and then seizes its meaning, in which case we have the graphic motor center coming to the assistance of the auditory center. Often, as Prof. Charcot has shown, persons attacked with verbal blindness succeed in grasping the meaning of written words by tracing for themselves the characters which compose them either with a pen or merely with a finger in the air; then it is the graphic motor center that goes to the relief of the visual center. So the strong, unimpaired impressions of a healthy center may reinforce and render clear the weak impressions of a center that has become defective.

That the organic functions differ much in different persons need not be mentioned here, and that one or another center may exercise a predominating influence in a person's language, and impart a special characteristic is equally clear. The attempt, therefore, to analyze one's mannerisms or peculiarities of expression, oratory, etc., without a knowledge of the organic factors that contribute to speech and expression, must prove little more than guess-work, aside from its merits as a mere literary criticism. Indeed, without taking account of the different parts they play in the mechanism, so to speak, of language, it is impossible to have a clear idea of the action of that faculty, aside from a consideration of its disorders. The distinctions of visual, auditory, etc., are not merely eclectic; they are living, active realities, that are illustrated in the personal experience of

every one, and the very conclusions that observers and students in this department of research have reached are colored and varied by their constitutional differences. It is easy, as M. Ballet has said, to see why their results are so different—each author necessarily giving expression to language the elements of which were special in their operation or combination.

These different centers of memory are for the most part developed irregularly by persons, otherwise their co-ordination would produce well balanced and complete results. In those whose centers all act with facility and are nearly equal in influence, the impairment of one is not followed by much confusion or embarrassment.

These Prof. Charcot denominates such a class by themselves—the *indifferent*—because in case they sustain the loss of one memory center the process of com-

ensation is most easily set a going for their relief. Those, however, who cultivate but a single memory center for the images of words find themselves greatly embarrassed should that center become impaired. For instance a lesion of the auditory center would induce, besides the consequent verbal deafness, a true motor aphasia, although the convolution of Broca may not be the seat of any alteration. Or lesion of the visual center might produce agraphia without the existence of any lesion in the "center of Exner" at the foot of the second frontal convolution.

As a general deduction from such facts as these the expression of language in writing is an independent mental power, and its loss is easily and naturally explained, as a form of aphasia that is consequent upon the alteration or destruction of a special area in the brain.

H. S. D.

HOW LAVATER VIEWED CHARACTER.

IN a lately published number of the *English National Review* a writer gives a summary of the life of Lavater, the distinguished physiognomist of the last century, and closes with the following estimate of that author's manner of describing character.

Lavater considered each man as a separate unit, with the power of guiding his own destinies and shaping his own ends. We, on the contrary, the more we know of heredity and transmission, become aware that even the possible limits of free will are lessening day by day. Lavater makes each face the interpreter of the life and soul history of him that bears it; whereas the soul history of the individual is, perhaps, merged in a hundred other strains; that his grandfather was crossed in love may give him a melancholy that all his own contentment may never be able to eradicate; whereas a man of impassive mien, whose muscles do not easily translate emotion into facial play, may have been the con-

scious center of a tragedy, and yet never betray it in his face at all. That is why the faces of children are so unutterably strange things. To see a passion, or a yearning, perhaps a century old, written legibly in the face of a boy who has never passed an anxious moment in his life, and "old, far off unhappy things" in the eyes of a child who is perhaps both intelligent and unemotional, is one of the most obvious symbols of the intricacies that lie all about us.

Or, again, perhaps the greatest pleasure that we derive from portraits is that our preformed impressions are often so delightfully contradicted; the involuntary surprise called out so often by an inspired portrait is the most keen of all pleasurable sensations, and yet, were Lavater reliable, a portrait, had we read the life of a man intelligently, would hardly ever be a surprise. To take a few well known instances; what kind of portraits, working from their writings, would Lavater have constructed of Aris-

totle or St. Paul? Would he have read the Ethics and then depicted a bald and natty *petit maitre*, with rings on his fingers, and scent on his handkerchief? Would he have laid the Epistle to the Romans down, and then deliberately sketched a mean, small face, with dim, inflamed eyes? We think not.

But to take instances at that distance is perhaps hardly just. In modern times they multiply themselves; but if I may take two of the great names of the Stuart period, of whom authentic and admirable portraits do exist, the inference will be the same.

Who has ever seen the Laud of Vandyck, and not been struck with the amazing difference that the portrait bears to the accepted characteristics of the name. Hard, ascetic, ungenial, despotic, are the epithets that rise to the lips the closer you look into Laud's motives and actions; and Vandyck shows you a plump and ruddy face, a little weary perhaps, but smiling and content enough. Again, Little Lord Falkland, with his poor commonplace face and harsh voice, as Clarendon describes him, and as his portrait confirms it—where could we have a better refutation of Lavater's theory?

Now Lavater always insists very much on first impressions. He says he was rarely deceived; that his good impressions were never contradicted, and though a bad impression was sometimes conciliated or flattered away by the attentions of the bearer of it, yet his judgment had rarely to be reversed in the end; and we may remember that Cowper and Southey said the same thing.

Now, this, again, may be a happy faculty possessed by the professors of the Physiognomical Art, but it is certainly not a common experience. A large class of sensitive and imaginative people are the prey of a strong, though perhaps unconscious, affectation when among strangers, and thus a student of first impressions must be able to pierce through this unnatural veil, to allow

for this troublesome factor; for affectation will spoil almost any face. And perfectly simple minded and ingenuous people are the prey of that unfortunate malady of self-consciousness and its result—affectation, of which Locke says that it is of all qualities the most infelicitous, for its only aim is the desire to please, and it never succeeds but in disgusting.

Lavater was always requesting his friends to give him imaginary portraits of the Savior, but he never succeeded in getting a satisfactory one. It is strange that that face, of which we have no authentic record—are never even told that it was noble—should have been for so long the object of the most hopeless idealizing that has ever occupied itself upon one single object. From the cold and melancholy abstractions of Perugino, from the smooth sentimentality of Correggio, down to chilly weakness of Ary Scheffer, there is never one that has captivated the feeling with an intense or devoted recognition. It curiously exemplifies the power of the human mind to realize the saintly ideal and its inability to love it. That art, of all things the most rapturous and sensuous, should thus strain after the representation of the aloofness from things worldly and pleasurable, is in itself a strange contradiction; it accounts for the curious repugnance that all previous attempts create; a sensation of revolt rises in the emotions. To make of this chilly ideal the Master, to whom we are called to give a reasonable and emotional submission; the inadequacy of the character that such a face represents to gather into itself, or sympathize with, the innumerable strains and gradations of human life and passion; all these are fatal obstacles.

The head of Socrates again was one of the awkward facts that Lavater had to adapt to his theory; he did so by alleging that Socrates had always himself confessed that his passions and tendencies were of the most brutal and coarse

type. This, says Lavater, will sufficiently account for the debased and brutish character of the face; in fact, it is almost the exact counterpart of the face of which he writes:—"A countenance by vice rendered abhorrent to nature, sunken almost below brutality; every spark of sensibility, humanity, nature is extinguished; distortion, deformity; thus does man pervert the divine image!" And yet, if Lavater were right, the self-control which dominated his inclinations, and kept them so effectually down that they never emerged, should at least be visible—should at least give some unmistakable sign of its presence; and it does not.

Finally, then, we must conclude that though there is much that is reasonable and suggestive in Lavater's theory, yet that it is only applicable to the broader

and coarser types of humanity, and that instead of physiognomy being a science that is increasing its possibilities, it is in fact one that is losing its possibilities every day. The wider and more complicated the influences are that are brought to bear upon the character of humanity the longer this process is at work, the more unsatisfactory and impracticable does the systemization of such an idea become; and its only interest is when it is capable of application to the more complex and elaborate products of life and character. No one wishes to classify or disentangle the elements that form the uninteresting, the commonplace physiognomies that surround us; and the more varied and diverse the field of life becomes, the greater becomes the inherent impossibility of such unraveling.

FUNERALS, MOURNING ROBES, AND SIMILAR SERIOUS SUBJECTS.

FASHION, the tyrant, rules in the house of grief as well as of joy, and issues her autocratic mandates to rich and poor alike if they admit her sway. Loving, tender, respectful, care should be taken of the mortal remains of the beloved one whose spirit has passed away from human ken, but is there not often an undue and excessive outlay of money and ceremony ill befitting the circumstances of the afflicted family?

In the case of a great national benefactor, a hero whose patriotic deeds should be suitably recognized, a nation arises to bestow its tribute of gratitude and to heap its honors unsparingly, and as this is done voluntarily by those able to express themselves individually as citizens and collectively as a nation, none can object. But in private life so great is the demand of fashion and false sentiment that funeral expenses bear very heavily upon those possessing moderate means, especially as they usually follow a bill for medical attendance and medicines. This last should not be criticized as it is incurred in hopes of saving

the life, or if that may not be, of at least alleviating the pain of the sufferer.

How many a struggling farmer's or mechanic's family that scarcely keeps even with the world, goes into debt at the death of one of its members from a mistaken sense of what is necessary in order to pay proper respect to the departed. The hearts of the afflicted are easily worked upon by enterprising undertakers. They are in no mood to count the cost and fear to seem mean.

"Nothing is too good"—for my dear wife or mother,—perhaps, even the little differences of feeling, such as will occasionally occur between the best of friends, will be remembered with a desire to atone. The little nest egg, if there be one, is withdrawn from the savings bank, and re-invested in cabinet work far superior to any household furniture the family possesses or ever will possess. It stands in state with its precious contents, in the darkened best room for a day or two, then is buried in the ground to decay. Suits of black are provided, carriages for the funeral,

a floral "piece," then the undertaker's bill and memorial tablet follow. Then will come many months of pinching and scrimping to recover from the outlay.

Too often a funeral is the merest mockery, a dreary line of empty carriages following the remains of an unloved rich man, whose money, hoarded in life, has failed to buy friends and respect at last.

The great funeral cortege of one of our Irish citizens does not necessarily indicate his wealth or popularity, as any person, stranger or acquaintance, may join the company of mourners by paying his fare. This is understood, and it is regarded as a compliment to the deceased to thus increase the length of the procession.

The offering of floral tributes is another form of extravagance which is carried beyond proper bounds. A family whose purse is none too bountifully supplied feels obliged to contribute toward the obsequies of a friend an elaborately built structure of flowers, beautiful of themselves, but arranged in some unnatural and incongruous figure so that all floral grace is gone. At the funeral of some prominent person the flowers are very abundant, crowded here and there, one hardly noticed above another in the profusion. These costly gifts, ranging in price from fifteen or twenty dollars up, in some cases among the hundreds, can not from the frailty of their nature be a "joy forever." They perform the duty assigned them, then quickly perish. It is not uncommon now, to see, after the announcement of a funeral, the request that friends should not send flowers. It is time for more moderation in this fashion.

The wearing of deep mourning has its firm advocates and adherents. The formal donning of heavy crape and bombazine, and gradually lightening the severity of the garb at the proper intervals prescribed by rule, by consulting the fashion books or the *modiste*, carries with it the impression of mockery.

Sincere mourners usually shrink from leaving off the emblems of grief even after the lapse of considerable time, feeling that the world would regard it as evidence that their sorrow was assuaged and their lost ones forgotten.

No cast-iron rules can avail here, but it surely is the part of a Christian to bring sanctified common sense to the front as soon as may be. For the sake of the family and friends who would feel depressed by the weight of the constant cloud and reminder of sorrow, she should lay aside the distinctive badge of mourning.

Who could have the heart to dress young children in deep mourning? and yet that is the custom among the higher classes in England and on the continent. Childhood is naturally sunny, and its grief, though sincere, is providentially not so deep and lasting as that of more mature minds. It seems an outrage on the child's nature, to array the little body in somber apparel, a constant reminder of affliction that youth should be encouraged to recover from as soon as possible.

There are serious objections to the use of so-called "mourning stationery,"—paper heavily bordered with black. The recipient of one of these sad epistles always receives a shock, forgetting for the moment that the significant emblem is connected with the writer rather than with the reader. It is so unnecessary, and so entirely a whim of fashion that it might as well be dispensed with. Clear white paper of good quality is in better taste and much to be preferred.

What a sad world it would be if all the afflicted grieved all their lives,—if every woman who had lost a relative or dear friend should dress in black until she in turn succumbed to the last foe!

M. W.

It is a matter of doubt whether, until our small services are sweet with divine affection, our great ones, if such we are capable of, will ever have the true Christian flavor about them.

AN EARLY BIRD; OR, AN EARLY WORM.

A GENTLEMAN stayed over night at a hotel in Finleyville, Pa., not long ago, who was very different from the average mortal, and will be remembered in that little mining town--by the hotel keeper in particular--for years to come. We happened to be in the same inn on that memorable night, and are therefore able to tell the reader something interesting about this man.

His sonorous baritone heralded his approach. His enunciation of the words "Good evening, gentlemen!" as he came to the office door, bore with it the impress of power, and his actual presence was enough to impress the thickest-skinned. He was about six feet high, very slim, and simply clad. He had a Roman nose, determined-looking jaws, and gray hair that hung down a few inches below his coat collar.

"Ah! I think I shall stop here to-night, Mr.—Ah—."

"Yes, sir. Do you wish supper?" asked mine host.

"Certainly, sir, certainly!"

The landlord flew off asthmatically to order a meal.

His highness sat down, took out a book of forms, and began turning over the leaves.

"Ah! not so bad!" he exclaimed, after a pause, during which we had been occupied in "sizing him up."

We had duly registered in our capacious brains the facts that his eyes watered; his trousers, although of good material, were much too wide for him; he had not been shaved recently, had no watch chain, and his stand-up collar was not clean; and his head was long and narrow, full in the front, but low in the crown.

"Ah, not so bad!" he repeated mellifluously. "Let me see: Three sets—ten dollars—fifteen—twenty dollars—sales to-day. Yes, gentlemen, I have to-day sold twenty dollars' worth of books!"

A book agent! Just as we thought!

But he might have been a violin soloist or an Indian doctor.

"Very good, indeed," we said, "very good!"

"Supper's ready, sir," asthmaticized the innkeeper.

"Ah, well, I'll just wash my hands and go in with you. And out he strode, his cimeter-like nose ambitiously pointing the way.

We got into a train of thought on the mysteries of bread earning. This subject proved more than sufficient to last till our distinguished visitor returned from the dining room. He came in wiping his drooping moustache with a dilapidated red handkerchief. He sat down at the table, took a paper I had dropped, looked at it a minute, cast his eyes upward, and said oratorically:

"It is wonderful the progress that is being made in every department of human industry. There is a newspaper, for instance. How surprised would one of the ancients be who should be brought suddenly amongst us! He would see us reading every day the occurrences of the antipodes. Thought flies nowadays almost from pole to pole in a few seconds. We can hear the voices of people a hundred miles away. We can manufacture food from mineral, ride on the air, fly at the rate of sixty miles an hour along the ground, whisper to one another across great oceans, fight our battles and slay our tens of thousands—aye, hundreds of thousands—while many miles from the enemy, walk on water, fast for forty days, make not merely wine, but whiskey, out of water, and do a thousand other things that in the year 1 would be called miracles."

While he was given expression to these great thoughts he gazed continuously at the ceiling, resting his grand forehead on his forefinger. We began to think that he must have been a lecturer on free thought. He went on:

"But we don't believe in miracles now. 'Eve and the serpent' have become a

legend to us. How crude, how ignorant were our half naked ancestors! Just think of the devil appearing before the Most High and requesting permission from the latter to persecute poor Job! How small were men's minds in those days. When they wrote such things they were not civilized. What we want is only civilization! Teach men to do right simply because it is right, not to do wrong because the law will punish them. That is enough. Heaven and hell are on earth. Doubtless most of us have had a taste of hell to-day in the pursuit of our employment, but now we have had supper, we are resting, we are exercising our minds, our higher natures, we are happy, we are in Heaven."

Then he went on to talk of evolution, mental and material, historical and social. He orated eloquently on the survival of the fittest, and the destruction of the unfittest, and otherwise showed us that the early bird got the early worm. Every now and then he wiped his eyes, stroked his moustache, and squirted tobacco juice at the spittoon, but he never looked at any of us—he gazed perpetually at the ceiling. It was a lecture. We did not get a chance to slip in a word. At its conclusion about near 11 o'clock, we were convinced—as he doubtless thought we ought to be—that only the fittest survive on earth, but if there were a Heaven hereafter we should all get

there. There certainly was no such thing as a personal devil, and as for Providence, there might be, as Ingersoll says, "a God whose every thought is a star," but He hadn't time to pay any attention to us; we were governed by natural, immutable laws.

This was awfully grand, but the thought suggested itself to us that we ourselves might not be fit and might not survive. We felt it a little hard that we could no longer whisper our troubles into the ever listening ear of our Father above, that if we did fall before His throne He would no longer see us, and if He did would answer us with the words, "The fittest survive." We began to pity the poor early worm that was eaten up by that wicked, sweet-singing early bird, and went to bed feeling very miserable.

We observed the gentleman closely while he was lecturing, and saw that while he had large Language, Individuality, Eventuality, Comparison, and Benevolence, he was small or moderate in Veneration, Spirituality, Hope, Conscientiousness, and Self Esteem. Before falling asleep we commenced to think he might be something of a worm himself, although a lively, smart, and early one. In fact, he went away next morning early on foot—stole away—without paying his hotel bill. This seemed to *prove* that he was the early *bird*. What do you think? JAMES McBLAIN.

FREDERICK OF GERMANY.

UNSER FRITZ is dead, after a long and heroic battle with a fell disease. In the midst of his suffering and conscious doubtless that his days were numbered he succeeded to the throne of Germany to reign but a few months. Yet in that brief space of time Frederick was able to give to the German people an outline of liberal, progressive, and kindly government that will impress his name in bright letters on the scroll of history. Harrassed with pain, breathing

by an artificial opening, and prevented by weakness from having but little personal contact with the world, outside his palace, he, nevertheless devoted the best of his strength to the affairs of government; often, indeed, forgetting self in his earnestness to introduce measures consisting with his views of a proper administration.

The nation at large had long known what to expect of Frederick, because in his relations with the people as Crown

Prince he had manifested a character strikingly different from that of his Hohenzollern ancestors. He was as good a soldier as any of them, but the stern, and arbitrary spirit, the intolerance of opposition in matters of public policy that marked their character were replaced in him by regard for popular

Born in 1831, Frederick was well on in life at the death of his father, and it may be said that he had lived through a period crowded with important events to his family and people, and, therefore, rich in experience. That the fruits of this experience were to be indicated in reforms of a far-reaching nature, appear



FREDERICK WILLIAM III.

right, and a consideration for those pacific influences that contribute to the best growth of a people. He wanted a strong and happy Germany, not a great military power that stood a constant menace to its neighbors. He believed that the age demanded a higher call than that of war and conquest.

to have been the expectation of the people. Hence their sorrow at his inopportune taking-off.

Frederick William was the only son of the Emperor William, and was born October 18, 1831, at Potsdam, in what is called the New Palace, erected at an enormous expense by Frederick the

Great, in 1763, after the Seven Years' War, to show his enemies the extent of his finances. His mother, the Dowager Empress Augusta, is the daughter of the late Grand Duke Charles Frederick, of Saxe-Weimar. There were two children born to Emperor William and the Empress, namely, Unser Fritz and Louise, wife of the Grand duke of Baden.

The training of the young Prince and that of his sister, seven years his junior, was exceptionally careful. Their mother, the now doubly bereaved and aged Dowager Empress, was a woman of rare character and mind, and devoted herself to the culture of her only boy. The young Prince had the good fortune to enjoy the instruction of the great German Hellenist, Ernst Curtius, to whom he was indebted for much that was strong, clear, and broad in his attainments.

In the spring of 1851 he visited Great Britain to attend the opening of the great exhibition in London. While there he met and became much attached to the Princess Royal, Victoria, the eldest child of Queen Victoria and Prince Albert. They were married January 25, 1858.

The Prince's active career as a soldier began during the war between Denmark and Germany, but the war with Austria afforded the theater for the display of military skill by the son and heir of King William. The success of the German arms in that struggle between the royal lines of Hohenzollern and Hapsburg is history. The Crown Prince won his way to the popular heart in his every movement, and Konniggratz was the place where the gallant young leader arrived just in time to snatch victory from defeat.

It was at the close of that great day for Prussia, that King William met his son. They embraced. "Thou hast shown capacity as a leader," said the proud father. On the battle field he was decorated by his kingly parent with the highest Prussian order, l'our le Merite. Then came the Franco-Prussian war.

The world knows it by heart. Von Moltke organized three armies, with the Crown Prince at the head of one. His march from Berlin to Paris, from the palace of a Prince of Prussia to the proclamation of the Emperor of Germany, was a march of triumph. The French General Douay fell before him at Gaisberg. Marshal McMahon was routed from the heights of Worth, and he never stopped until he entered Versailles at the head of the column. Germany rang with the name and fame of Unser Fritz.

From the close of the Franco-Prussian war, and the consolidation of the States into the German Empire, until the death of his venerable father, the Crown Prince has led the life of an active, yet retiring member of the royal family.

The disease which finally killed him was not a recent outbreak, but of long and slow development. He had been a sufferer long before it was known by the world that he was troubled with a cancerous affection of the larynx, but he bore the pain and inconvenience with so much fortitude and calmness that the few who knew or suspected that all was not right with him did not think of a serious result.

The United States has had in the loss of two of its presidents, Lincoln and Garfield, at times when public expectation was most earnestly alive to great national needs, analogous experience to that of the German people in the loss of Unser Fritz. Those men were thought to represent certain lines of policy that would be conspicuous in their administration of the executive office. But in America the personality of a great official has not the influence of a sovereign born with such a prestige as the German ruler.

The eloquent words of Mr. Gladstone in Parliament, June 18, voice with singular appropriateness the common sentiment of the German and English speaking nation :

"There was no expectation entertained before he became Emperor that was not fully realized by all we heard here of his daily share in the labors of State or by the wise and comprehensive manifestation of his views on the condition of Europe, as made known at the very earliest date to the German nation, and to the nations around him. The recollection of his great qualities—his singular union of wisdom with valor, his known attachment to the liberties of his country, his respect for its Constitution, which would have made him a secure guardian of the privileges of the people not less than of the honor of the throne, the winning personal qualities which in him showed forth that most beautiful and appropriate of all associations, that of gentleness with the highest manhood—these recollections, and his continued fortitude on his bed of suffering, greater than that displayed by many a soldier and many a martyr, constitute a great and noble inheritance for the German people. We trust that that great nation through a long period of strength, pros-

perity, and virtue, will cherish the memory of Emperor Frederick as among the most precious possessions that can accrue to any people on the earth."

William II. comes to the throne hailed with much acclamation, but he is not the subject of warm regard that his father was. A young man, in character widely different from Frederick, haughty, impatient of control, even defiant of those who by age and wisdom seek to counsel action other than he inclines to, the people scarcely look for a policy of mildness and liberality from him.

Yet it is too soon to judge him as a monarch. Henry V. disappointed the expectations of the people, a wayward youth, as it is alleged, becoming an able, discreet king. William II. may emulate the example of his father, and endeavor to win the sincere regard of the German masses by giving his powerful aid to measures in which kindness and the development of the best resources of his empire are chief motives.

D.

SUMMER DAYS AT WILDERMAR.

NO. 2.—NEST BUILDING FISH.—A STRANGE PROVISION AGAINST FAMINE.—OCCUPATION OF ANIMALS.—SPIDERS' WEBS.—LOVE FOR TREES.

"**F**RED seemed to be surprised when I spoke about apes that build nests," Percy said. "It is more curious to know that fish build nests."

"Fish!" cried Fred, flinging up his head. "Come, Doctor Johnson, that's a little too transparent."

He sometimes called Percy Doctor Johnson, or Professor Cuvier, because of his accumulated wisdom.

"The stickleback builds a nest," resumed Percy. "It selects minute sticks and straws, such as resemble the ground at the bottom of the water, to render the nest more secure from observation. It is not much larger than a twenty-five cent piece, and on top of it is a cover—"

"Which shuts with a spring," interjected Fred, half mockingly.

"Which has a hole in it, and into which she lays her eggs," completed Percy. "She frequently conceals the opening by drawing fragments of straw over it. When the young are hatched it is the business of the male stickleback to look after them. He keeps them about him until they are able to shift for themselves."

"Like the hen does her little chickens," suggested Bessie. "It is very funny."

"It is a common thing for fish to look after their young," Fanny said. "We think it strange, and yet I do not just see why we should think so. Now there is the star fish—"

"Which belongs to the *echinodermus*," observed Percy.

"Yes," assented Fanny. "It is star-shaped, and though among the lowly organized creatures, is full of instinctive devotion to its young. The mother star fish forms a sort of protecting arch over her eggs, and is deeply concerned when they float away from her. I saw one in Mr. Darrell's aquarium. It several times traversed the entire length of the tank in its efforts to find and recover its eggs."

"The star fish has another 'faculty,'" remarked Percy. "It can detach any of its rays at pleasure, and each ray becomes a perfect creature of its kind."

"And new rays come out of the old fish," added Fred, fancying that he was making fun of Percy, who demurely answered:

"In some twelve to fifteen weeks. The same result is seen in the sea-anemones. They may be cut limb from limb, divided and sub-divided—each fragment becomes a distinct anemone, and the original body is renewed."

A thoughtful look crept into Fred's face. He knew that Percy was in earnest, and truthful besides. His respect for him began to increase.

"There is one animal which makes a singular provision against famine," resumed Percy. "It is called the *synapta*, and is closely allied to the sea-cucumber. If confined in a tank, and deprived of food, it will begin to amputate various parts of its body, so as to need less food for its support, just as useless mouths are sent out of a besieged city. In order to preserve life in the head, all the other parts of the body are sacrificed."

"Many of the animals have occupations," remarked Fred. "The beaver is an architect and builder. The marmot is a civil engineer, for he can not only build houses, but constructs aqueducts and drains to keep them dry. The wasps are paper makers."

"Wasps don't make paper," contradicted Bessie.

"Oh, yes they do," insisted Fred.

Little matter-of-fact Bessie shot an inquiring glance at Percy, who said:

"Fred has not exaggerated. The nautilus is a navigator; he raises and lowers his sails, and casts and weighs his anchor. The electric eel is an electrician."

"Oh—that's shocking!" cried Fred.

"Caterpillars are silk spinners," Fanny said. "The heron is a fisherman; some birds are tailors; others are letter-carriers."

"The squirrel is a ferryman," contributed Bessie.

"Oh, my!" exclaimed Fred. "How can you make that appear?"

"He crosses the river on a chip, and uses his tail for a sail," replied Bessie, a twinkle of triumph in her eyes.

"That's so," assented Fred.

"Percy," asked Bessie, with her round, blue eyes upon her brother, isn't there a bird that builds its nest on the water?"

"A sort of floating raft, eh?"

"Y-e-s," Bessie hesitatingly answered.

"Probably you mean the little grebe," Percy said. "It makes a raft of strong stems and water plants, upon which it hatches its young. It is found in lonely spots where the tall reeds grow. If anything threatens her safety she plunges one of her feet into the water and uses it as a paddle. Thus she transports her house and household beyond the reach of harm."

"Is there not also a spider that builds a raft and floats about on it?" asked Fanny.

Percy considered a moment, his hand at his forehead.

"Yes, Fanny, there is," he said. "It is found in fen ditches. It forms a raft of weeds about three inches in width held together by cobwebs, on which it floats about and seizes drowning insects."

"I heard papa say," rejoined Fanny, "that in the Torrid Zone the spider webs are strong enough to arrest humming birds as a net would, and that it requires considerable effort for a man to push through them."

"Such webs are found in the forests of Ceylon," supplemented Percy. "The webs are stretched by an enormous spider across the bridle paths. They are strong enough to hurt the traveler's face, and even to lift off his hat, if he happens not to see the line. The nest in the center is sometimes as large as a man's head, and is formed of successive layers of old webs rolled over each other, sheet after sheet, into a ball. It does that as the simplest way of getting rid of the limbs and wings of the insects which from time to time, have been the prey of the spider and his family."

The conversation was getting a little beyond Bessie's comprehension, while Fred was beginning to lose interest in it, so the two strolled off to a spring which was near by.

"In contrast with such a strong spider web, there recurs to my mind a web that was utilized on account of its excessive delicacy," resumed Percy. "It was employed in the astronomical clock at the Cincinnati Observatory to record its beats automatically. A small cross of delicate wire was so arranged that it would rise and fall as the pendulum swung backward and forward. The amount of power required to give motion to the delicate wire was almost imperceptible. The trouble was to find a fiber sufficiently minute and elastic to unite the cross and the pendulum. Silk was tried, then human hair, but the very finest was too stiff. Spider web was next thought of and applied, and it worked to a charm. For years a single spider web lifted the little wire cross every second of time."

The two cousins sat and talked in the still woods, the sunlight faintly sifting down upon them through the branches overhead. A jay fluttered by and dropped a blue feather almost at their feet; a squirrel complacently watched them from a gnarled limb; a butterfly with gaudy wings balanced itself in a scant ray of the sunlight; now and then the voices of Fred and Bessie

reached them from behind the spring.

"Percy, are you fond of trees?" Fanny asked, as she looked up from her knitting, a soft glow spreading over her face.

He looked at her for a moment, then at the trees around him, his eyes following the dim, shadowy aisles.

"I don't know," he deliberately answered. "Probably I am. Are you?"

"Oh, very much so," Fanny said, enthusiasm in her tone and look. "I regard it a sacrilege to cut them down. I invest them, if not with the superstition of the ancients, at least with their sacredness. It would not require much of a stretch of the imagination for me to fancy the woods peopled with fairy creatures. I often come here alone. I hear the rush of viewless wings, and the sweetest of mysterious harmonies."

Percy watched her as she spoke, noticing the purity of her complexion, the play of expression, the bronze shadows in her hair.

"Perhaps I am not emotional enough," he said, with a sad inflection of the voice. "Do not think, however, that I find no charm in solitude. My own thoughts are often most excellent company. Trees play an important part in the history of civilization, furnishing fuel, shelter, building material, and food. In Japan whenever a man cuts down a tree he is required to plant another. In Java a fruit tree is planted whenever a child is born. Centuries ago it was considered fatal to cut down oak trees. There is a story extant that the Earl of Winchelsea felled a curious grove of oaks, though he had been warned against doing so. Soon after his wife died suddenly, and his eldest son, Lord Maidstone, was killed at sea by a cannon ball."

"It was merely a coincidence," suggested Fanny.

"Oh, to be sure," replied Percy.

F. H. STAUFFER.

(To be Continued.)

MY SOLUTION OF THE "RIDDLE OF THE NINETEENTH CENTURY."

I HAVE long since learned to take the world as I find it—not as I would have it. Since I can not make the world conform to my ideas the next best thing is to adapt myself to it—as it is. This philosophy is as applicable to the servant question as to any other. We may preach till we are black in the face to our employees and they in turn do an immense amount of pointing out our duties to us ; neither of which does much practical good that I can see, the most noticeable result being the bitter feeling resulting in the fight between capital and labor, strikes, riots, and evils generally. They have just as much right to expect us to conform to their standard as we have to expect them to conform to ours. And it seems to me the whole trouble lies in each being determined to have her own way, denying the same privilege to others. But no matter what it is, a bad condition of things exists and no one person can find out all the causes or solve the problem for all the rest of mankind. But each may and should solve the problem for himself. It is simply a matter of working out our own salvation, no one else's. The first step is *not* trying to reform the world, but just yourself, a much easier task and one more likely to be accomplished ; always bearing in mind that there is an over ruling Providence, and it is not probable He has entrusted to your care the management of the world at large, nor is He likely to hold you responsible for the condition of affairs in general. God never created a world he is incapable of managing. The human race is not yet perfected, only developing, and if God has endowed some of us with superior intelligence we can claim no credit for ourselves or discredit for those less highly endowed.

What we need is faith, hope, charity, remembering that the "greatest of these is charity." I do not mean the charity that consists solely in giving your cast-off clothing to the poor, and regularly

adding a "nickel" to the contribution plate—not but what it is right to give what is no longer of use to us to those who can utilize it ; not but what we should help support the churches and charitable institutions, but the charity I refer to is the same that Paul meant when he said : "Though I bestow all my goods to feed the poor, and though I give my body to be burned, and have not charity, it profiteth me nothing, etc."

In my early married life I, of course, followed the beaten track and tried to rear my domestic structure with a servant girl for a foundation. Think of it! home, domestic comfort, peace, happiness, and contentment, love of a husband and children (for there is no love where all is discord), the household health, morals of the little ones, and to an extent our financial success, all resting on the shoulders of a "hired girl," who received in compensation \$2 or \$3 a week.

Well, it wasn't a success. Then we tried boarding. In some respects that was an improvement, but was just as unsatisfactory, and then besides children must, or should, have a home. It was clear that housekeeping was the thing if we could get a good "foundation." And in the absence of anything better we used—myself, and I am not worked to death either. On the contrary I have time for whatever I wish, and thoroughly enjoy life.

To begin with we took a smaller house, one just large enough for our own family, for to get along nicely with housekeeping the house must be neither too small nor too large, but just right, and one must think more of family comfort and less of what people will think. My bread and pastry—what little we use of the latter—mostly comes from a good bakery, although I occasionally make both—it depends on how much time I have. My washing and ironing is done out of the house, and very satisfactorily. This is made possible by wearing plain,

easily laundered clothes. My sewing I do myself, getting everything possible ready made, and in these days it leaves little to be done at home, as I find one can get well-made garments by paying enough for them. I dispense with all superfluous cooking and find that the most healthful foods are those which take the least time to prepare. Variety is obtained by varying the food at different meals, not by having a great number of dishes at each meal. In short, everything is simplified just as far as is consistent with comfort, each member of the family having his share of duties, so that it is light for all. I have my friends visit me as formerly, though not so many at a time, nor are they entertained in the same way. They share our mode of living, and the domestic machinery is not deranged by their presence, so that I devote as much time as possible to real enjoyment with them.

It takes courage at first to break away from the formalities of life and map out a way of your own, but the result is gratifying beyond expectation, and the happiness people experience when they

find themselves free to think, and act and choose for themselves, more than repays the struggle which inaugurating a new state of things necessarily occasions.

This is my solution of the problem and it is a perfect one for me. I do not think it possible to arrive at a solution that will answer for *all*. That the prevailing mode of life of the better classes is wrong is quite evident from the trouble it engenders. When the Lord is ready for us to lead the fashionable lives affected by so many I think He will "raise up" a race whose highest ambition will be to be *perfect servants*. Until that time, when we can find a satisfactory servant, well and good; when we can *not*, we will find that we have undertaken a big contract if we try to force other people to acceptably fill a place that we will not fill ourselves.

Each individual must take matters as they stand in relation to himself and do the very best possible under the circumstances, by adapting himself to things as they exist. In this way and in no other can we reach the best results.

CORONADO.

FRA GIOTTO.

A FABLE.

I.

'TIS said a monk in olden days,
Blest with a wealth of kindness,
Well knowing Heaven is filled
with praise

Yet yearned in human blindness,

For one brief hour of exile from
The transcendental city,
That he once more on earth might roam
In tender love and pity—

To heal the broken hearted one,
To cheer the sad and erring,
The gifts his charity had won
In charity conferring.

I know not if the kindly man
Returned to cheer his neighbors,
Though Heaven, no doubt, has many a plan
To do celestial labors.

But should his angel have his will
To seek his heavenly calling,
Compassion would detain him till
The dews of night were falling;

The darkness in the evening's close
Would move his pity soundly;
So many miseries and woes
Would stir his heart profoundly.

He could not, I am sure, be loth
To pass the night with sorrow,
Assured by hope and promise both
That joy would come to-morrow.

So day by day engaged his heart
Would find no space for yearning,
But wandering over field and mart
Toward Heaven hourly turning;

Refreshed by meditation strong
Himself on Heaven's resources,
Would cast the light of Heaven among
All dark, degraded courses.

II.

Full many be the messengers
Declared from Heaven to cheer us,
Themselves their own interpreter
Unseen, but ever near us.

Along the busy, hurried street,
In most unlovely places,
We might ourselves have chanced to meet
With Heaven's illumined faces.

Some Fra Giotto strayed meanwhile
By Heaven's kind permission,
And wandering many a willing mile
About his earthly mission.

H. C.



NERVES.

THE "Problem" plucked from Margaret McKensie's waste basket some months ago has been so well reviewed, if not adequately solved, that we are moved to offer another characteristic paper from the same source, trusting that the event may justify a proceeding which has not met with the full assent of Margaret herself. The following observations, considered as a treatise either philosophical or physiological, may be set down under the head of *Literature From a Waste Basket*.

Nerves! There is a look about the word as wildly erratic, contradictory, incalculable, and inconsequent as the extraordinary phenomena in nature which it names. There is a rasping, irritating, shivering quality in its sound too, especially when enunciated by a conscious possessor of these marvelous organs of sensibility that excites a sympathetic or repulsive action in people ignorant before of being in subjection to any such mysteries and occult forces.

Under the operation of these unaccountable influences I have resolutely made a study of the matter with results which, according to my practice of arriving at a solution of my difficulties, I must write out and foot up in a sum total which may or may not amount to absolute conclusion.

Really, Margaret McKensie, you are launching forth with a masterly assump-

tion of superiority which hides the fact that you were driven to this analytical study by a light, stinging taunt perpetually recurring to mind. "You are as nervous as a woman, Margaret."

"Indeed! And why should a woman be nervous?" I inquired.

"Why? Because she has a fine, delicate organization, sensitive to the simplest influences, and any physical disturbance destroys her mental harmony, and leaves her like a musical instrument with rudely shattered strings answering discordantly to every passing touch."

All this is very sweet, and possibly very true, but is it the whole truth? Honest dealing with myself allows no hiding behind subterfuges in an investigation so purely private and personal. Coolly and cordially viewed from my low standpoint of experience and observation, I have to say that the astonishing manifestations, popularly attributed to the action of disordered nerves, seem to me in the majority of cases the effect of a compound of mental vices—selfishness, unreasonableness, impatience, ill temper, and total lack of self control.

Let me not be so harsh and narrow in judgment as to deny the baleful influences of an unbalanced condition of health, but even this, I am sure, is aggravated by indulgence in the caustic alkalies and acids of unlovely moods and tempers. I may be suffering the tor-

ment of an outraged and rebellious nerve, but, if I exercise a moment's rational thought in the matter, I perceive that the agony is not abated by fretful complaint or reckless trial of abuse of the love which strives to minister to my relief. On the other hand I find a calm determination to rule myself, in consideration of the peace and comfort of others, always results in mitigation of the ills which I had only to believe intolerable to make so.

Now then, Margaret, Margaret, is not this too severe a process of self analysis to be quite genuine? I should fear so if it had not been instituted after an exasperated study of certain nervous subjects with whom I put myself in comparison when a spasm threatens me. How can I prove the integrity of a law laid down for others without a practical application of its power in my own case—such application alone admitting of clear and generous judgment? Of course I find it hard enough to submit to exactions so easy to put upon another, but I so thoroughly despise the snarling critical spirit forever pouncing like a cawing crow on the carrion of the people's faults, that I am resolved never to mark offences without a rigid self-examination in the broken lines and a prompt subjection to my own prescribed rules of conduct.

And I have to confess that I find myself very frequently failing in the condemned weakness of nerves even to the point of shrieking sometimes on occasions of mental or physical disturbance.

Why?

There is a wonderful composing power in that simple interrogation. In whatever way it may be answered, I find the cause either too great or too small for such absurd demonstration, and the habit of self control is slowly gained and strengthened. Judging the capacities and possibilities of human nerves by personal study and experience, I conclude that their tyranny arises in a large measure from over indulgence, and is

limited by a resolute exercise of will. It appears a mournfully accepted fact that the ordinary woman must be given over to panics, fidgets, paroxysms, helplessness, and exhaustion on any occasion of excitement, and men gallantly and tenderly soothe, protect, and shelter her in the fervor of devotion of early love, though I observe the wearing struggle of domestic life reduces them to a state of stolid indifference, culminating in a sneer of contempt sometimes, or breaking in the sharp reproof, "Don't be a fool, my dear."

I'm not at all certain that men don't have the same faltering of nerve which is tolerated and excused in the women; but as weakness and cowardice are not reckoned manly attributes, every influence of education and habit is brought to bear against such exhibition, and the boy, striving valiantly after the virtues of the man, grows accustomed to face danger and death without flinching.

I could not help marking, the other night, the difference of expression between the masculine and feminine elements of our family having a constitutional dread of all threatening disturbances in nature.

A violent thunder storm was coming on, and amid the blinding flashes of lightning Tom had deliberately closed the windows, and with the self-protective instinct of his sex, quietly seated himself at a safe distance from any chance electrical conductor, while the girls, in a frenzy of fear, were dodging here and there and spasmodically plunging their faces in their hands at every flare of lightning, and shrieking as though dashed by every bolt of thunder. Grace was nearly rigid with spasms of fright which poor mother, herself a good deal shocked and shaken, was doing her best to soothe.

Uncertain of myself in such an atmosphere, I slipped into the hall, put on my waterproof, and stepping out on the piazza, made my way to a sheltered nook where I sat down to watch the wild

scene—not without a cowering impulse to hide my eyes with the rest from the whole dazzling terrible glory. But after all, I thought, why should I shut from sight, with imagined hope of safety, this magnificent spectacle which challenges my highest reverence and awe of the supreme and sublime powers of the universe? If death awaits me in this flaming air, let me await it with a calm, courageous front, and not with the sneaking, back-turned dread of a criminal who regards it as a punishment rather than the stepping stone to a grander, freer life.

Thinking thus, all tremor fled, and I felt an uplifted sense of relation with the wonderful forces from which I no longer shrank. Conscious of a gracious nearness and protection of Divine Good, while the lightnings darted about me on mysterious errands, the thunders boomed in the battle of the clouds, and the wind sweeping like spirits from a realm unknown, bowed the trees to the earth in humble acknowledgment of an unseen power.

Suddenly a blinding light that seemed to set the world in flame, was followed instantaneously by a shock like the crash of colliding spheres, and I saw my beloved oak on the hill above shivered through branch and trunk as though by the stroke of a giant's axe.

At once the winds were breathless, the roll of thunder sounded afar, and the rain which had been dashing in fitful gusts came down in a roaring torrent.

For a moment I sat motionless under the creeping, tingling sensation of the electric current, but the thought of certain dismay to the group of watchers inside brought me to my feet and I hurried within to find the whole household in consternation and hovering in stunned helplessness about Grace, who was lying on the floor in a torpor like death.

The coolness of mind and hand which I had brought from my determined subjection of nervous dread to sympathy with and admiration of the grand forces

of Nature, served me in homely, practical thought of the proper thing to do, and I was not long in proving the trouble with Grace to be a dead faint from fright which had partially paralyzed and confused the others. Tom, however, with instant collection of his superbly trained faculties, rose at once to the command of the situation, and with the appearance of having shuffled off the responsibility of conducting the campaign of the storm, assumed with dignity the masculine prerogative of direction in the crisis of affairs, and allowed me opportunity to aid him in the use of restorative measures which I had already brought to bear upon the disordered condition of the family nerves.

This lesson was only another added to the many I have learned since I began to think of the matter, that forgetfulness of self, by absorption in broader subjects of contemplation, is the truest and surest safeguard against all morbid and diseased action of those delicate agents of communication between mind and body familiarly known as "nerves," and which, deriving their strength from the physical are subject, I believe, in a greater or less degree, to the control and direction of the will.

I write, therefore, upon the tables of the law for thee, Margaret McKensie.

Forget thyself, forget thyself, and remember no more forever that thou hast
—NERVES.

We submit without comment the girl's confident study of a subject perplexing sometimes to physician and savant.

A. L. M.

LEMONADE.—For hot weather, good lemonade used moderately, is very refreshing. Here is a good recipe:

To five gallons of water add one quart of lemon juice, one pint of grated pineapple, four oranges and four lemons sliced. Sweeten to taste. This was pronounced the most delicious beverage at the City Mission fair held in Hartford.

IS AN EXACT SCIENCE OF HUMAN HEALTH POSSIBLE?

A MORE interesting question than this can hardly engage the attention of a thoughtful reader. Whether viewed in the light of an attempt to consider or disclose the underlying principles of such a science, to indicate the direction in which we are to seek so desirable a consummation, or as giving the criteria of truth as applicable to this question, it is more than justified. For what can appeal to individual self-interest more keenly than how to maintain with certainty the health we have, or, what is often a more pertinent inquiry, how may we regain the vigor, health, physical well-being, we once possessed? Health is wealth. Properly viewed, it is everything to every man. It is power, success, enjoyment. It is opportunity, hope, courage, ambition. "All that a man hath will he give for his life;" very much that he hath might he give for the best part of his life—his health.

It is proverbial, however, that while men are well, they seldom think of the possibilities that flow from their conduct—their habits. Life's cares and anxieties are generally far away from the man who has health. He eats with pleasure, sleeps with comfort, works with real enjoyment. It is only with failing health that he becomes anxious, careworn, fretful; his duties are performed with difficulty; life's enjoyments have fled. The class thus described are, however, sufficiently large to justify the belief that a review of the subject in hand will be read with more than ordinary interest.

We hasten to assure the reader, however, that this is not a patent medicine advertisement. The quacks and pretenders have so occupied the field, in vociferously proclaiming the merits of their "cure-alls," "safe-remedies," "log-cabin panaceas," and have varied the tune so generously, that it is almost impossible to express an intelligent thought on the subject of health without incurring suspicions which, to say the

least, are unpleasant. The reader will find that we have undertaken a very different task from that of considering the merits of some *elixir vitæ* of Indian origin, or legacy of some returned missionary. We seek to discuss principles. Science is not a myth, and if the universe is a unit, a science of human health must bear its proper relation to the other sciences.

The present non-existence in the professional mind even, of a science of health whether exact or otherwise, is scarcely susceptible of dispute. The multiplicity of theories, the ever-changing forms of practice, the prevalence of disease and death, are unanswerable arguments against the existence of any science, let alone exact science, in this connection. But is it not possible that such science may be established in the future, as the late learned Prof. Bennett, of Edinburgh University, suggests?

"During the many ages that existed before Newton," he says, "physical science was as inexact as that of physiology is now.

Before the time of Lavoisier chemistry, like physiology, consisted of nothing but groups of phenomena. These sciences went on gradually advancing, however, and accumulating facts, until at length philosophers appeared who united these together under one law." From which he draws the conclusion that "another Newton will rise whose genius will furnish our science with its primitive fact, and stamp upon it the character of precision and exactitude."

Of course, the hopes thus excited are not to be gratified in our day. Most of all must it be a matter of disbelief that any such achievement has been effected. The visions of prophets are always held to refer to ages yet to come, and the unexpected was never known to happen. Who cares that history shows that man's conceptions of the thing foretold have always proved different from that which really appeared, and the prophets and

teachers of all the ages have been the rejected and despised men. What *was*, is no criterion of what shall be. Human nature in the Nineteenth century is not the human nature which crucified, ridiculed, or impoverished the benefactors of the race in the ages past.

Prof. Bennett argues for a Science of Medicine, feeling confident, no doubt, that his chosen art must continue to lead the van until the summit of medical achievement is reached, and its last great teacher be an evolution by direct line of descent from *Æsculapius* through Hippocrates and Galen, or possibly, as many seem to think, along that other branch represented by Paracelsus and Hahnemann. It is a Science of Medicine which he predicts, and not a Science of Health; it is a science of curing diseases by the use of means which destroy health, and not a science of promoting health *in both sick and well at the same time and by the same means*. It follows, therefore, that the genius who is to stamp such science with exactness, must of necessity possess a mind capable of compassing the infinite variety and number of facts, theories, and principles of medical systems. He must have thoroughly studied the old masters. No thought as it fell from the lips of his revered ancestry must escape his memory, or fail to occupy its proper place in an exact Science of Medicine; and after his name the whole alphabet must be strung in varied combinations, to indicate the extent of his learning—the glory of his position. Science, let it be known, is to be established very much as a mechanic builds a house, or a mason erects a stone wall; when the facts won't fit, we chisel them down to the proper proportions, and cement them together by the opinions launched from the fertile brains of University professors, and when the dome shall finally crown this temple of science, each one who has been true to his Hippocratic oath, will be found to be a pillar firmly built upon the *Æsculapian* foundation.

But let us soberly examine this subject. Inquiring as to the possibility of an exact science of Human Health, let us first consider what we mean by exactness. Is it suggested that *exactness of application* to the preservation and recovery of health is possible? We agree with the reader that such position would be untenable if not absurd. But this is not the exactness of even mathematics. Indeed, while the human mind maintains its frailty, unvarying exactness of application will never be secured in any science, no matter how certain may be its principles or processes. But it is well to remember that the character of a science is not determined by the ability or trustworthiness of its cultivators, but only by its intrinsic merits. Mathematics is denominated an exact science, only because it secures the possibility of exactness. If errors are proven to exist, they may be corrected by a review of the process. This is the exactness that is claimed for a Science of Human Health.

It is logical exactness which is to be sought for in every science, viz.: the ability to predict results with precision, and to demonstrate the prediction by application, provided no error in its processes has occurred; and in case of error we are enabled to review our work and correct and demonstrate our conclusions. A science which confers such power is by common consent demonstrated *exact*, even though the application is only approximately so.

Is it suggested that by thus reducing the standard of exactness, we admit Medicine to the exact class? Oh, no! Medicine answers to none of the requirements of the science thus described. It never corrects its errors; it has no basis for reasoning; it explains nothing; it considers itself above and beyond questioning. Let the reader call to mind, if he can, the intelligent and candid practitioner who undertakes to explain a single one of the numerous problems which present themselves, or in any

manner undertakes to argue out the correctness of his practice. Medicine is entirely destitute of premises from which reasoning may be conducted, or conclusions drawn, and, therefore, is surprisingly inexact and untrustworthy in all its processes. Science is exact only because it is logical, and logic requires, first, last, and all the time, correct premises from which to deduce conclusions. It is the possession of a first principle, unchangeable and universally applicable, which secures scientific exactness. It was the discovery of this first principle which caused astrology to become astronomy, and alchemy chemistry, and it will require a corresponding discovery to make Medicine become a science of human health.

We return to a review of the suggestions of Prof. Bennett, as to the requirements of science, and the possibility of obtaining it upon the subject before us. After classifying the sciences into exact and inexact, he says :

"All the sciences belonging to the first class are characterized by the possession of a primitive fact or law, which being applicable to the whole range of phenomena, of which the science consists, renders its different parts harmonious, and *the deductions of its cultivators conclusive*. Thus the physical sciences possess a primitive fact in what is called the law of gravity. . . . Chemistry possesses a primitive fact in what is called the law of affinity," which fact communicates "the greatest accuracy and precision to the sciences which possess it, and on this account they are called, the exact sciences." The professor proceeds to show that other sciences are destitute of such primitive fact, and are consequently inexact, empirical, and declares, "Medicine, then, in its present state possesses no primitive fact. But is it not very possible that it may do so at some future time. During the many ages that existed before Newton, physical science was as inexact as that of physiology is now. So medicine, we

trust, is destined to advance, and one day another Newton may arise whose genius will furnish our science with its primitive fact, and stamp upon it the character of precision and exactitude." And he further adds: "A truly scientific medicine is yet to be created." *Practice of Medicine*, pages 2-3.

These quotations from the learned university professor explain not only the facts which the people ought to know, but indicate as well, the direction in which we are to seek for a Science of Human Health,—a consummation which is evidently not to be sought for by piling up facts after the Baconian method, but through the discovery of principles after Newton's plan. It is not breadth of learning, but rather capacity for simplifying things, which opens up the avenues of knowledge. The most extensive knowledge of details, even with unapproachable ability for handling them, which is certainly a measure of greatness, is not calculated to promote the discovery of principles. It is the genius of a Grant which, with a comprehensive view, simplifies everything that leads to success, rather than the capacity for detail illustrated by a McClellan. It is, in a word, the conception of unity in diversity, instead of a knowledge of diversity without the unity, which unites the varied parts into a grand whole.

The discoveries which have shed their luster over the ages have not been accomplished in a mechanical fashion. No process of sapping and mining has ever enabled man to capture the citadel of truth. When taken it has been by storm,—the mind being taught by that Leader of Hosts, who age after age, has unveiled his mysteries to the gaze of honest students. Accident, chance, inspiration, have been the forerunners of success in all the ages, especially when supplemented by "patient continuance in well doing."

— The possibility of an exact Science of Health is suggested. Life in all its phases, it is proved, proceeds from a

central point, which, being discovered, will explain everything that happens. There is no fact of health or disease, of life or death, that does not become a subject of logical deduction, when the

primal truth of physiological existence has been discovered, to the demonstration of which discovery we shall, with the editor's permission, return.

ROBERT WALTER, M. D.

A VEGETARIAN SPEAKS.

PHILADELPHIA has long had a Vegetarian Society, some of whose members are well advanced in years, and as staunchly advocating vegetarian diet as Graham or Trall did, while living to exemplify its benign effects. At a recent meeting of the Philosophical Society of Philadelphia, the Rev. Henry S. Clubb, president of the Vegetarian society, delivered a lecture by invitation, to a large audience, in which he reviewed many of the old arguments for vegetarianism. From this lecture we draw the following :

Historians, sacred and profane, philosophers, ancient and modern, theologians, orthodox and independent, poets, essayists, scientists, all who have written on the subject, agree that in the earliest period of human existence, when man was in a state of purity and innocence, his food was derived from the fruit tree yielding fruit, and the "herb yielding seed." The killing and eating other animals constituted, therefore, an acquired, and not a natural habit. The absence of long or carnivorous teeth, talons or claws, and any of the organs peculiar to the preying races; the possession of the lateral motion of the lower jaw, a motion not known to the carnivora and a digestive apparatus analagous to that of fruit and grain eating creatures, and hands adapted only for kind and beneficent uses, show that man was created for subsisting on such food as can be obtained without slaughter or bloodshed. How then did man acquire this unnatural, and to all sensitive natures repulsive habit? For few indeed of those who daily consume flesh of animals but would shrink and shudder at the thought, even much more at the act

of slaughter! There may have been circumstances, in the early settlement of newly discovered countries, when this necessity appeared to exist for a short time, until the earth was subdued by culture and made productive of grain, fruit, and vegetables. We attach importance to the fact that this is an acquired and not a natural habit, because it accounts for the strong hold the appetite for flesh has on its victims. Many, otherwise strong in their moral convictions, and in control of their appetites, find it exceedingly difficult, even after conviction of its impropriety, to overcome the habit of eating flesh. Many declare that if they were compelled to slaughter the animals themselves they would not eat it. This shows that their appetite is stronger than their self-control or moral sensitiveness. This strength of the appetite for flesh is itself an evidence that the appetite is abnormal, as the appetite for natural food and drink never becomes so powerful. What was first engaged in as a necessity, reluctantly, we believe, and with feelings of abhorrence, gradually became a sport and a pastime! Invention kept pace with the demand. The bow and arrow gave place to the shotgun, the rifle, and the leaden messenger of death. Now millions of men are taken from the ranks of industry and kept mainly if not solely, for this purpose in the despotic nations. Ovid says :

"When man his bloody feasts on brutes began,
He after forged a sword to murder man."

The extent of the evil and suffering thus brought into the world is beyond all calculation. The exhilarating influence of fresh air and vigorous exercise

gave a zest to the appetite that made the flesh of creatures killed in the chase seem to be the most delightful food. In this way an appetite was formed and a taste established in the race that has been augmented generation after generation, until its gratification has come to be regarded as one of the necessities of existence! This is a delusion the Vegetarian Society has been established to combat and expose. It is a delusion of the sense which science has long ago exploded. The evil consequences of this delusion are constantly increasing. When flesh-eating was confined to the results of the chase, although then sickening, and productive of a callous indifference to the shedding of blood, its evil effects on the health were, in a measure, counteracted by the open-air exercise enjoyed in the pursuit. But the appetite thus engendered led even to the slaughter of domestic animals—the companions of our farm life; the useful and beautiful pets of our homes and dairies. Thus the children of our rural homes became gradually inured to scenes of slaughter and bloodshed, in sad contrast with the teachings of church and Sabbath school, where the practice of unselfish kindness to all God's creatures is inculcated. The great demand for flesh-meat, which is increased by the abundance of the supply, has created a vast pecuniary investment in the business. Few if any of the animals consumed in cities are free from diseases, and with all the care of inspectors and the proverbial honesty of butchers, dealers, and sausage-makers, it is impossible to prevent the flesh of diseased animals from forming a very large portion of the "meat" consumed in our cities. But were the animals never diseased, the great delusion of flesh eating would still remain to be exposed; and that is that flesh contains anything important to the human economy which can not be obtained, in unobjectionable form from the direct productions of the earth.

Animals driven to the slaughter

are always excited. The effect of the activity of the heart is to send a flow of new blood along the arteries. During the excitement of the chase or the worry of being driven through the streets of a city to the slaughter house, the veins become distended with this dead and worn-out, slowly-moving material, and all at once its progress is arrested by the leaden ball of the rifle or the deadly thrust of the butcher's weapon! Some of the red arterial blood flows out in the process of slaughter, but the more sluggish, venous blood mostly remains in the flesh. It forms part of that rich, dark gravy which is taken with so much gustatory enjoyment by the habitual consumer of flesh. This black, venous blood is so poisonous that if it comes in contact with arterial blood of the human body, as is the case sometimes with the unfortunate butchers who accidentally scratch a finger while engaged in the details of their profession, it will cause blood poisoning, and death is very apt to follow soon after. Such cases are by no means rare. Flesh eating gives the stimulating quality which deludes its victim and makes him think it is imparting strength, whereas it is only the excitement caused by the effort of nature to expel the enemy. This is a source of as great delusion as to food as alcohol is to drink. A feast of flesh creates a thirst for wine and even stronger stimulants. Already the medical profession have discovered that the beef tea, on which physicians have so long depended as a nourishing diet for convalescents, is a great delusion. They admit that many such patients have actually been starved to death by depending on such a deceptive diet.

There are many more points that could be presented. One is that of economy. It only costs me five cents per meal for each member of my family, and I by no means stint them. To make you realize how good and palatable the vegetarian diet is, I should have spread a feast before you.

COMMON SUPERSTITIONS AS PREVENTIVES OR CURES.

WHO does not know people who carry a horse chestnut in their pocket to keep off rheumatism? Some believe that a potato if carried about with one will cure hemorrhoids. A medical contemporary says in a review of such notions:

The negroes of Maryland, Virginia, and the District of Columbia assert that a mole's foot cut off and hung around a child's neck will help it in teething. In parts of Pennsylvania the superstition prevails that bleeding from the nose may be arrested by the recitation of certain words from the Bible by an occult person—*i. e.*, the descendant of a seventh son of a seventh son. To relieve the pangs of toothache a branch is cut from a sweet apple tree during a certain phase of the moon; both ends of it are sharpened and the "occult person" with it pricks the gum until it bleeds. Stump water—the water that gathers in an old stump—is regarded as a sovereign remedy for freckles, but to be efficient it must be taken before daylight on the 1st of May and the two following mornings. The chances for health and long life of a puny child are thought to be improved by boring a hole in a tree, putting a lock of the child's hair in the hole and plugging it up. In the vicinity of Stamfordham, in Northumberland, whooping cough is cured by putting the head of a live trout into the patient's mouth and letting the trout breathe into the latter. Or else a hairy caterpillar is put into a small bag and tied around the child's neck. The cough ceases as the insect dies. Another cure for whooping cough is offerings of hair. In Sunderland the crown of the head is shaved and the hair hung upon a bush or tree, with the full faith that as the birds carry away the hair so will the cough vanish.

In Lincolnshire, a girl suffering from the ague cuts a lock of her hair and binds it around an aspen tree, praying the latter to shake in her stead. In Rosshire, where living cocks are still occa-

sionally buried as a sacrificial remedy for epilepsy, some of the hair of the patient is generally added to the offering. At least one holy well in Ireland (that of Tubber Quan) requires an offering of hair from all Christian pilgrims who come here on the last three Sundays in June to worship St. Quan. As a charm against toothache it is necessary to go thrice around a neighboring tree on the bare knees and then cut off a lock of hair and tie it to a branch. The tree thus fringed with human hair of all colors is a curious sight and an object of deep veneration. The remedy for toothache at Tavistock, in Devonshire, is to bite a tooth from a skull in a churchyard and keep it always in the pocket.

Spiders are largely concerned in the cure of ague. In Ireland the sufferer is advised to swallow a living spider. In Somerset and the neighboring counties he is to shut a large black spider in a box and leave it to perish. Even in New England, a lingering faith in the superstitions of the mother country leads to manufacture of spider-web pills for the cure of ague.

In Devonshire, the approved treatment for scrofula is to dry the hind leg of a toad and wear it around the neck in a silk bag; or else to cut off that part of the living reptile that answers to the part affected, and having wrapped the fragment in parchment, to tie it around the sufferer's neck. In the same county the "wise man's" remedy for rheumatism is to burn a toad to ashes and tie the dust in a bit of silk to be worn around the throat. Toads are made to do service in divers manners in Cornwall and Northampton for the cure of nose bleeding and quinsy; while "toad powder," or even a live toad or a spider, shut up in a box, is still in some places accounted as useful a charm against contagion as it was in the days of Sir Kenelm Digby. The old small-pox and dropsy remedy, known as *pulvis aethiopicus*, was nothing more or less than powdered toad.

(Does this not suggest the wonderful *apis mel* of our Homœopathic brethren?)

In some of the Hebridean Isles, notably that of Lewis, the greatest faith prevails in the efficiency of perforated water-worn stones, called "snake stones." These are dipped into water, which is then given to cattle as a cure for swelling or for snake bite. If the stone is unobtainable the head of an adder dipped in the water gives an equally good result.

In Devonshire any person bitten by a viper is advised to kill the creature at once and rub the wound with its fat. It is said that this practice has survived in some portions of the United States, where the flesh of the rattlesnake is accounted the best cure for its own bite. Black, in his "Folk Medicine," states that the belief in the power of snake skin as a cure for rheumatism exists in New England. Such a belief is probably a direct heritage from Britain.

In Durham an eel's skin worn as a garter round the naked leg, is considered a preventive of cramp, while in Northumberland it is esteemed the best bandage for a sprained limb.

The common wart, that curious little tumor the microscopical anatomy of which approaches so closely the malignant type, that while its clinical behavior is so entirely benign, may be said to be fairly encrustèd with superstitions. We have heard rubbing with a pea, a piece of meat, stolen or otherwise procured, an apple, a potato, a copper cent, all of which are buried or thrown away, highly extolled by persons in all classes of society. My Pennsylvanian authority states, that in his part of the world

the favorite cures are rubbing with a potato, which is afterward thrown to the hogs, or tying a knot over each wart in a bit of string, which is then buried at the northeast corner of the house under the eaves. They may be cured by the "occult person," who utters certain words and blows them away. "The Northumbrian cure for warts is to take a large snail, rub the wart with it, and then impale the snail on a thorn hedge. As the creature wastes away, the warts will surely disappear. In the west of England, eel's blood serves the same purpose." The behavior of warts is so unaccountable—"they come like water and like wind they go"—witness the sudden outbreak of crops of warts upon the hands of cleanly persons, the disappearance of many warts when one or two in the neighborhood have been removed by the action of caustic, that we can readily explain many of these beliefs as originating in cases of coincidence mistaken for cause. The same explanation probably applies to the cure by very small doses of magnesium sulphate taken every morning, and to the origin of many of the other superstitions I have mentioned. In still other cases an essential and very useful part of the practice has been omitted through ignorance or stupidity, and the remainder has survived to excite our wonder at human credulity and love of the mysterious. For instance, a bit of carrot or onion is sometimes pushed into the ear to relieve ear or toothache. Originally, doubtless, the succulent vegetable fragment was boiled and introduced while very hot, and the caloric did to a certain degree relieve the pain.

PIAZZA TWADDLE.

"ENGLISH as she is taught" has lately amused the reading public. I wonder if piazza twaddle faithfully reported would not also have convulsing elements. At this moment a garrulous old lady beneath my window is

confiding her ailments to a sympathetic (?) circle. She can't sleep o' nights, and she has no appetite, and there was a spot on the tablecloth at breakfast; she doesn't have towels enough, and the steak is tough. A stout matron takes up

the tune. The rolls were heavy the night before and gave her the nightmare, in consequence she doesn't feel able to lift a finger. In point of fact she is able to do a hard day's work, and were she the cook or laundress, or chambermaid, would be physically a happier woman. Even her crocheting is dropped in her ample lap as beyond her powers, only her tongue has any energy left. An elderly maiden with elaborate frizzes and a wasp waist joins these two. Have they heard that Miss So-and-so was seen out walking with Mr. This-and-that last evening—actually promenading up and down the street. Everybody knows that Mr. This-and-that is a divorced man. Miss So-and-so preterds to be his cousin, but who knows? The old lady looks grave, the stout maiden sighs. A fourth "guest" appears, a strip of gay embroidery trailing down the skirt of her satine morning costume. She seats herself with an exclamation of weariness. She doesn't know how people manage to exist in such a dull place. Mountains! But one tires of looking at mountains, and one gets red and freckled if one goes climbing the hills, and the roads are dusty, and there are mosquitoes in the woods, and it rains every other day. She draws a thread of rosy floss through the gray linen in her hand, sighs, remarks that the bill of fare is awfully monotonous, and that her coffee was cold at breakfast, and it was a pity they couldn't have more fruit. The old lady says she should wish herself at home if it were not for the worries of housekeeping. "Don't mention housekeeping," says the stout matron. "The trouble I've had with servants—trouble! trouble!" "I know all about that," says the maiden in satine. "We think of going abroad where servants know their places. Do you ever notice the table girls and chambermaids when they go out?" "Yes! yes! yes!" in chorus. "Was ever anything so ridiculous? Why they actually look as well as the guests. They dress exactly like us." "The hussies," says

the stout matron. "Forward creatures," says the old lady.

In the meantime there are lovely mountain paths waiting for the feet of these very women; dim, sweet, mossy nooks fragrant with wild grape, gay with scarlet berries, musical with bobolinks and thrushes; brooks are tinkling, leaves are fluttering, soft breezes whisper, bits of heavenly blue shine above the tree tops, sun and shade play together on the pale grasses, and here and there on a gray boulder appear lovely etchings—perfect shadows of birch, or elm, or maple leaves, or the exquisite outline of a fern.

It is noticeable nowadays that the piazza twaddlers are left very much to themselves. Great numbers of families live in pretty country homes of their own, where they can dress comfortably, bring up their children, as far as summer education goes, away from the bad example of idlers, read in their easy chairs the books that have waited through the busy winter, take up the studies they have longed to pursue, sketch, write, dream, or what not in peace and freedom from "style" and criticism. All our good wishes follow these homegoers, as with trunk and bag and basket they make their annual pilgrimage to shore, or mountain, lakeside, or farm. May the days be full of refreshment, of growth and work, for there is no refreshment in laziness. A change of occupation is the true rest. The big sisters and brothers who go botanizing with the little folks, the amateur artists who carry back to the city souvenirs of the beauty they have dwelt amidst, the hard worked housekeeper who reads a few well chosen books and by them is led out of the rut of ordinary living; the young people, and old ones too, who get redder blood and firmer muscles by tramps, and climbs, and rides, by rowing and bathing, and it may be by helping in households where help is needed. These are the gainers in the great summer exodus.

If the overworked woman in the farm

house could give her place for an hour or two a day to the woman worn out with doing nothing, what a blessed turn-about that would be. How each would rest and get fuller life in the exchange.

The possibilities of summer are many in the remarkable intermingling of citizen and countryman, in the meeting of strangers, the blending of classes. If

the dwellers of cities could secure the real rest and serenity to be found in the country, and the country workers could get full breaths of a new and more electric atmosphere by their intercourse with the traveling host, the result would be eminently good. In this case even the twaddlers, drawn out of themselves, their preferences, and sufferings, might do welcome service.

M. F. B.

FINANCIAL AND OTHER MYSTERIES OF A SODA FOUNTAIN.

NUMEROUS are the "Soda fountains" in every American city, and wonderful is the aggregate of glasses sold daily in this summer weather. That the reader may know how much and what he gets for his money, the following estimates are quoted from a New York *Sun* article.

Under a caption of "A Business that Pays," a large dealer in soda water apparatus thus enlightens the trade on "the profits which dealers in the carbonated beverage may reasonably hope to make," which he says, "can be readily inferred from the following accurate estimate of the cost of manufacturing each beverage." In the "dispensing department"—that is selling from the fountain—the following are the costs:

One glass plain soda water costs one-tenth of a cent.

One glass of soda water with syrup costs one cent and a half.

One glass of mineral water costs one cent.

One glass of root beer costs one cent.

One glass of ginger ale costs one cent and a quarter.

One glass of fine draught champagne costs four cents.

In the "bottling department" the following scale of costs prevail:

Plain soda water, best quality, put in bottles closed by cork and fasteners, cost eight cents per dozen.

Ditto, with gravitating stoppers, cost three cents per dozen.

Soda water with syrup, in bottles,

closed by cork and stoppers, costs fifteen cents per dozen.

Ditto, with gravitating stoppers, cost ten cents per dozen.

Ginger ale in bottles, with corks and wires, costs seventeen cents per dozen.

Ditto, with gravitating stoppers, costs twelve cents per dozen.

Mineral water in siphons costs three cents per siphon.

Sparkling champagne (domestic), best quality, costs twenty-five cents per bottle.

From the simple comparison of the foregoing scale of costs, and the well-known retail charges for the same articles, the inference drawn by the manufacturer, that it is "a business that pays," appears to be a correct one.

Then a list is given of the materials included in the outfit for this business. We find in this catalogue the following:

Sulphuric acid and marble dust to make carbonic acid gas, which gives the sparkling quality.

Chemical extracts for flavors.

Coloring to imitate raspberry, strawberry, and other fruits.

Gum foam to give an artificial foam, which enables the retailer to sell half a glass of soda for a brimming glassful.

Tartaric and citric acid to do duty for lemon soda.

Coloring for making something sold for sarsaparilla.

There is one item called an "acid dispenser," which appears to be essential in handling "acids and other corrosive" ingredients. We are not informed if such acids and corrosive substances are eliminated during the manufacture or during their passage into the human system.

Child-Culture.

SPRING'S OBJECT LESSON.

SARAH L. ARNOLD contributes the following to the *Boston Journal of Education*:

It happened this wise.

Miss Oddways entered the schoolroom one April morning, her heart glad with spring, and full of loving sympathy with the children, and all other growing things. The children smiled as she came in. They always did. Miss Oddways smiled back.

"I came to get you to help me, children," she began. Help is a word children love in right homes and schools. Hands flew up, faces wore looks of entreaty. Every child wanted to be the chosen one.

"Oh, I want you all. It is something that I can't do without you. You see I am very much interested in the spring happenings this year, I want to know all about them; I would like to learn when the robins and blue birds come; where they are seen; whether they come singly in pairs, or in flocks; where and how they build their nests; what they find to eat, and how they sing. I should be glad to know about other birds, too. Then there are my friends, the elm, and oak, and maple, the willow, birch, and beech. Who knows when to look for maple blossoms? Which comes first, maple-leaf or maple flower? Which sends out its blossom first, elm or maple? Does the oak blossom? How can you tell? Does the pine blossom? Who knows? What shall we find growing under the maple trees, if we look? Where does the green grass show first? Why? When will the bees come? Why? What will their food be? How do you know?"

"I want to know all these things, and I have but two eyes, and a little time. Who will watch with me, and help?"

You little lads who know the woods and can climb trees, you girls who walk a mile to school, don't you see how your bright eyes can help me in this?"

They saw, and were glad. Already they had something to tell.

"I saw a robin last week over in the woods near my house, Miss Oddways." "Oh, I seen a fly, an' it was walkin' on the snow, slow as slow could be, just a crawlin'?" "Oh, Miss Oddways, the sap's running, and I saw a squirrel drinking some! The birds like it too."

"There are buds on the maples now: they look all ready to burst out. They're kind of red." "Do you want us to bring you some pussy willows?" "I can fetch some maple buds!" "Are pine cones blossoms?" "Would you like us to bring you a bottle of sap?"

"Thank you!" said Miss Oddways. "I knew you could help. Yes, I should be glad to have a bottle of sap, Frank. We will taste it and see how it looks, and you can tell us how sugar is made. Bring a pine cone George, and we will see whether it is a blossom or not. And Ernest may bring us a maple twig. We will put it in water, and watch what comes. But I see you will have so much to tell me that I may find it hard to remember it all. Suppose we have little books in which we may write our 'April Notes.'"

So it came about that each child was provided with a "pad for a penny," and therein were chronicled the spring happenings which the bright young eyes observed. The school windows came to display rows of wide mouthed bottles holding twigs from the various trees, and there in the sunshine the growing children watched the outcoming of the leaves and flowers, and wondered at the power that shaped the new life. Horse-

chestnuts with their brave, sturdy shoots, maple seeds with their slender rootlets, drooping catkins, and aspiring grass blades found their way to the teacher's desk, each with its message of growth. Children gathered in groups, earnestly discussing the signs of the times, or flocked about the teacher to tell her some wonderful new thing they had learned, —growing more and more glad as their eyes were opened to see the beautiful life

about them. Miss Oddways' heart was full. "We can all do it," she said. "Why shouldn't the good news be spread?"

It must be that she found no reason, for before night the small army of children in the building, from the wee, little ones in the chart class to the dignified candidates for the high school, shared her enthusiasm. Note books abounded, budding twigs everywhere, and eager voices carried spring's message.

CHILDREN AND MUSIC.

THERE appears to be no art or language so universally used as a means of expression as that of music, and there are comparatively few children who do not love to dance to its motion, to sing happily while at play and to loiter around the piano when there is music to be heard.

The sound of the hand-organ draws little children to the windows and their seniors stop to listen to the street band.

Many a heavy task is lightened by the strains of melody which float on the air, when one scarcely realizes that he hears them.

The study of music, as to its disciplinary effects upon the young mind, is, I think, undervalued.

The system of teaching it in our schools, while frequently good, is not made sufficiently concise or useful to an object.

Songs are taught to be sung on special occasions, but, as a rule, the music teacher visits the school but once a week. Often when he comes the children are weary, the air of the school room is impure, there has been little opportunity for physical activity, and the voices are hoarse from the inhalation of dust, and lifeless on account of poor circulation of the blood. The pupils are many times told to "sing louder," and too often the result is that young voices, naturally so pure, sound harsh and unmusical.

So sharp a line is drawn between the possibilities in the continued use of boys'

voices that they need to be handled with peculiar care, while, although there is a period of change in the young girl's voice it is almost imperceptible. It, too, requires discreet treatment.

But it is not vocal music in particular to which I wish to refer; rather to the study of music as an art to be begun in childhood.

One frequently hears parents express dread of their boys becoming musicians. If the parent or guardian possess good intuitive power and will conscientiously watch and be willing to accept what he finds, he will usually be able to discern what the Maker of all intended his child to do. At least he should be most careful not to misdirect the ability with which his child is endowed.

What do we seek most to control in a child or help him in controlling but his emotions?

Might not, indeed, the whole Christian life be summoned up as one in which the human being learns the power of real self control?

Now there is, it appears to me, no one study that helps the student with more nicety to discipline his emotional nature than that of music.

A mere loiterer in the realms of music has no idea of appreciation of this fact, for the life of such is mere dabbling with the art.

Never too strongly urge a child to study music if you see that he does not in any sense enjoy it, for he will neither

succeed in nor derive much benefit from it: but if you are his parent, do not naturally seek to express yourself in the pure art of tone, be very careful that you do not, like Dr. Handel, who himself abhorred music, try to crush the spirit given to your little one by Him who knows his needs.

Be sure, if you do, he will (although he may have no genius like the great master, who within a fortnight of inspiration gave to us the oratorio which has most moved the world), like little George Frederick Handel, be discovered running as fast as his little feet can carry him, in search of those who will help him.

The parent surely needs to be discreet that he neither over-rate nor undervalue his child's gift.

The child who has a horror of mathematics may with well-chosen object lessons in music be taught fractions much more easily (and to his taste quite likely) than by beginning with that section in arithmetic.

Then, a certain amount of history and literature, the exquisitely delicate training of his educational powers, the means of expressing himself; all these may be, indeed, *should* be given by the music

teacher. Have no foolish fears if your boy tends toward a musical career.

Give him, in so far as you are able, opportunity to study it. It may in after life form a part or possibly the whole of his business or profession, but it will, in any case (if he loves it), carry him over many an hour in which he might waste his emotions over foolish novels; it will serve to give him an outlet for the tempestuous restlessness which besets almost every child. It will soothe him when fretted, and aid him to purity and strength.

All this is equally applicable to girls. Then, as Mr. Harweis says, "for music the health giver, what an untrodden field is there!" There is much to be said in this direction. Music lessons should be viewed by the parent as he thinks of other studies for his child, as a means to an end—and that a useful one, not as a mere accomplishment, and the teacher who fails to realize this and the responsibility with which he is intrusted, that of helping to guide the young mind and heart into ways of purity and of thought and expression taught him by great masters, fails in his vocation.

GEORGIANA E. RUSSELL.

HASTY CENSURE.

HOW often when tired and perplexed we hastily censure those dear little ones whom God has given into our keeping, but when our darlings are quietly sleeping, and we stop for a moment's reflection before seeking the much needed rest, the still small voice of conscience whispers unpleasantly in our ears, and we are forced to the conclusion that we were not only very unwise, but very wicked. We who should have been examples of patience and good temper, have fallen from the sublime height where motherhood had placed us and lie groveling in the dust of impatience and fretfulness. And the child whose right it is to look to us for perfection stares in open-eyed wonder at our debasement.

In the joyousness of happy childhood he can not understand the cloud upon our brow, he can not see why his happy, noisy play disturbs us and brings the impatient tone and fretful censure, he does not know what he has done wrong, and wonders why he is scolded. And the mother wonders too, as she reviews the events of the day, marvels at her own weakness and lack of wisdom in thus allowing her child to see the worst side of her nature.

When we thus deport ourselves before our children, we must not wonder at exhibitions of temper displayed by them. We have thrown away the rudder by which we might have hoped to teach them to steer their little barks safely

through the seas of perplexity and trial ; but how can we expect to teach them self control when we are wholly unable to control ourselves ? Example is everything, precept is nothing. We must be what we wish them to become. There is no power on earth equal to a mother's influence in her everyday life before her children. There is a propensity born in every child to think that whatever mother does is right ; and so long as the child is too young to reason this will be its guide. But the time will come when wrong will be wrong, even though the mother be the one who commits it, but ere this the baleful influence will have done its work, and habits be formed which may last a lifetime.

When the ruthless hand of death snatches away our loved ones, we remember, with pangs of remorse, every hasty word and unnecessary rebuke. This is but natural, and yet how much more poignant should be our grief for

hasty censure of those still alive, who, perhaps, are destined to carry about with them for many years the scars which our words have made. The wound may partially heal over, it is true, but a surface once deep marred will never be so smooth and beautiful as before. Even the atonement of an after life of perfect patience can never wholly undo the wrong.

Oh, that these words may meet the eye of some happy young mother, clasping in her loving arms a sweet morsel of a baby, who has never seen the shadows of a scowl upon the face bending over him ; and may she see and understand what a wonderful influence for good or evil lies in her conduct. The life of those who have come to realize their mistake too late to remedy its evils, is before her, and if she will but be profited by the experience of others, she may save herself much humiliation and remorse.

SUSIE E. KENNEDY.

HOW HE PRACTICED FOR IT.

AT one of the mills in the city of Boston, a boy was wanted, and a piece of paper was tacked on one of the posts, so that all the boys could see it as they passed by. The paper read :

"Boy wanted. Call at the office to-morrow morning."

At the time named there was a host of boys at the gate. All were admitted; but the overseer was a little perplexed as to the best way of choosing one from so many, and said he : "Now boys, when I only want one of you, how can I choose from so many ?"

After thinking a moment, he invited them all into the yard, and driving a nail into one of the large trees, and taking a short stick, told them that the boy who should hit the nail with the stick a little distance from the tree should have the place.

The boys all tried hard, and, after three hard trials, each failed to hit the nail. The boys were told to come again

the next morning, and this time, when the gate was opened, there was but one boy, who, after being admitted, picked up the stick, and throwing it at the nail, hit it every time.

"How is this ?" said the overseer. "What have you been doing ?"

And the boy, looking up with tears in his eyes, said : "You see, sir, I have a mother, and we are poor. I have no father, sir, and I thought I would like to get a place, and so help all I can ; and after going home yesterday, I drove a nail into the barn, and have been trying ever since and have come down this morning to try again."

The boy was admitted to the place, and remains.

The organ-grinder, accompanied by a lively monkey, was performing, and a father asked his son of five years if he liked the music. "Very much," he said, "but I pity the man's little brother."

NOTES IN SCIENCE AND INDUSTRY.

The Merced Canal.—A few weeks ago in the town of Merced, Cal., there was a great popular celebration of the completion of the Merced Canal, the largest irrigation work in this country. It took five years to build it; the cost was about \$1,500,000, and the length twenty-seven miles. It is seventy feet wide at the base, one hundred at the top, and ten feet deep. These figures will give some idea of the amount of excavation required. The fall is about one foot per mile, amply sufficient to keep the water in motion and give head for irrigating purposes. So far as the mere removal of the top surface of the soil, the work of making the canal was easy and simple, but for nearly the whole length of the canal blasting was necessary for the lower six or eight feet. Besides this item of work there are two tunnels, one 4,400 feet long, 22 feet wide, and 14 feet high; the second 3,000 feet long and the same width and height of the other. It is expected that this canal will irrigate about 300,000 acres.

Better Kerosene Lamps Wanted.—In the *Scientific American*, W. H. points out the urgent need of a safer form of lamp for kerosene.

Notwithstanding all that has been said and written about the danger of oil lamps, it is stated, on reliable authority, that we have in the United States a daily average of three hundred accidents, entailing serious loss of life and property.

The rapid spread of flames by the explosion or breaking of a lamp is well known, but it is not generally known that the gas which occasions such disasters is formed in the brass receptacle which holds the wick, and not in the tank (as is commonly supposed) which contains the oil. The multitude of devices for preventing lamp explosions go a great way to show that the subject has been very imperfectly investigated.

The crowning defect of the ordinary kerosene lamp could not be more forcibly illustrated than by comparing the wick holder to a miniature gas machine, generating gas and depositing it in the oil tank. This comparison may be more readily seen when it is

considered that the wick holder referred to has a flame of intense heat burning at the end of it.

If inventors could diminish the danger attending the present use of kerosene oil, by some improved method, they would doubtless be deserving of public gratitude and compensation.

Prof. H. Carvill Lewis exhibited at the last meeting of the Academy of Natural sciences, London, a fragment of a meteorite containing diamonds, which fell in Siberia last October. He had extracted from the specimen two minute oval bodies, transparent, with slight traces of polarization, and having a high index of refraction. Having been able to scratch a sapphire with portions of the meteorite, he was disposed to agree with Profs. Latschin of and Jeroffief, who first examined this meteorite, that it contained microscopic diamonds. The important bearing of this discovery upon the question of the origin of the diamond was dwelt upon. From facts gathered in Africa, Borneo, New South Wales, California, and elsewhere, he had been led to believe that the commonly received notion that itacolumite is the original matrix of the diamond is a mistake, and that diamonds really occur in basic eruptive rocks. The similarity, both in structure and composition, of the diamond bearing rock of South Africa to meteorites was dwelt upon, and he had, in view of this fact, some time ago suggested the search for diamonds in meteorites. Dr. Foote alluded to the diamond in supposed itacolumite in the British Museum, which was considered genuine, although the greater number of such specimens were undoubtedly fraudulent.

Solid Petroleum for Fuel.—According to the *Revue Scientifique*, Dr. Kauffman has succeeded in solidifying petroleum by heating it for the space of half an hour with from one to three per cent of common soap, until the latter has quite dissolved in the petroleum, forming with it a homogeneous mass of the consistency of tallow. Cut up in cubes, this compound can be used as fuel for heating purposes. It does not ignite

easily, but when once set on fire it burns steadily, slowly, and smokelessly, leaving a carbonaceous residue of about two per cent. of its weight. Solid petroleum burns three times slower than coal, but yields a greater heat than the latter. American petroleum, according to Dr. Kauffman's experiments, is more easily solidifiable than Russian. Previous experiments to solidify petroleum by boiling it up with common soap appear to have been no practical success.

The Weather Map.—The weather map was a late acquisition to the scientific knowledge of the world—and well demonstrates the fact of the inductive methods of science. We could no more understand our weather phenomena until the facts in regard to them had been accumulated and formulated than we could have our complete ship until all the necessary material had been gathered and fashioned by the hands of the master builder. The map was started in 1870, but like all new things, it was of little value until it had acquired a certain state of perfection.

In one sense this map may be termed one of the grand results of the late war, and to the Signal Office, a bureau of the War Department, are we indebted chiefly for it. At the close of the war, the Signal service had little or nothing to do, but after a few years the idea was conceived of making it useful in the arts of peace. The field was new. They had something of the kind in Europe, but there was no such favorable field for their labors as we had here. Our territory, in the rough comprising a parallelogram of 1,500 miles from north to south and 3,000 miles from east to west, all under one general government, with a network of telegraph wires, whereby messages could be sent from all parts of this wide domain to some one center like Washington was indeed most favorable. The world never before had such an opportunity for obtaining information in regard to that stratum of nature which lies between the heavens and the earth, and which is the medium whereby the earth is blessed and its productive qualities made available.

Years ago the wise men thought they knew something about meteorology. They published huge volumes on the subject—vol-

umes which their descendants naturally treasured. But as we now see, from the very nature of things, these huge volumes threw little practical light upon the subject, and really proved a hindrance rather than a help, for by them "wise" sons had learned what they had supposed was wisdom from their fathers. They had supposed themselves to be on a sure and enviable road, and through this supposed wisdom they were blind and neglectful of the new revelations. From 1870 the weather map quietly advanced. At first it did not reveal much, and it was not expected it would or could. The territory was new and it necessarily took a number of years to accumulate a sufficient number of facts and to present them in such a shape as to be of value.

About 1876 the map had reached an appreciable degree of perfection. But those in charge of it, like true men of science, were not satisfied. With more and more light upon the subject came more and more degrees of perfection, until the present satisfactory condition was reached. All who have studied the text books on the subject will remember the explanation of the cause of rain, and how it was illustrated by a fine engraving of a mountain, across the top of which clouds were being blown by the wind, which on the other side were by colder currents converted into rain.

This is a fine illustration of the ingenuity of man; if he does not know of any good and true reason he will often invent one.

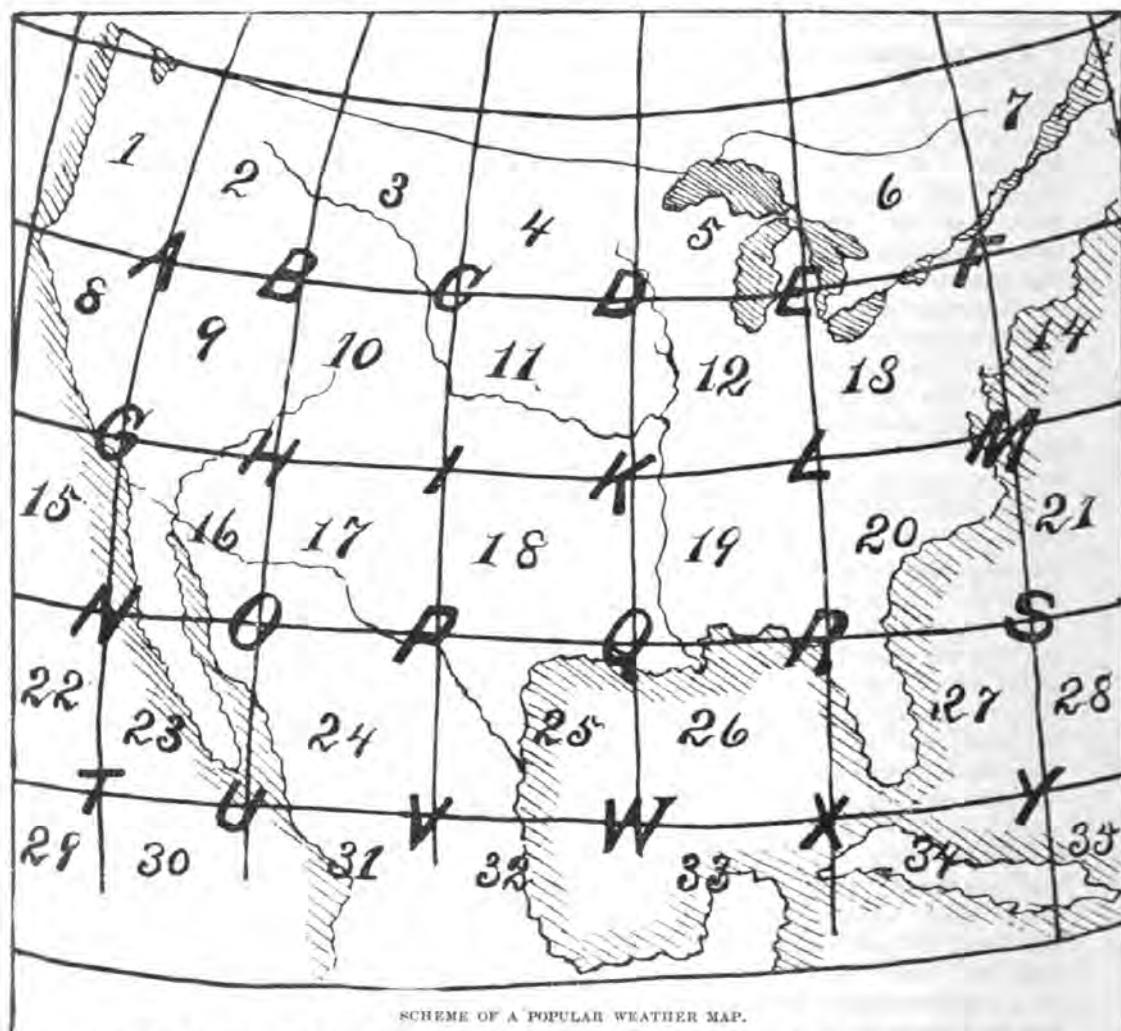
If there was anything in this mountain chain theory we would need mountains interspersed with plains at every hundred miles or less. When we come to learn something definite in regard to the weather we learn that in this respect the mountain chains have little or no effect; that the storm center "low" (low barometer) interspersed with "high" (high barometer) is the while moving over the country, and that neither mountain nor valley produces any such result. The topography of the country undoubtedly has its effect on the factors we term "high" and "low," but no such effect as the old school illustration would imply.

Through the weather map we learn of the movements of high and low barometer, and that these move on general lines from the west toward the east, sometimes moving in

a northerly, or even a southerly direction, but always advancing toward the rising sun. The mountain chains, relatively to us, may be very high and formidable, but relatively to these factors they are of no more account than the unevenness of the world to the globe as a mass.

The value of the weather map consists in

telligent people of this country realized the value of these stations, not another session of Congress would pass without an ample appropriation for such additional stations in the extreme West, from southwest to northwest, as would make our system more complete, at least so far as our own territory is considered.



following it up day by day, month by month, and year by year. It takes us up, as it were, to an exceedingly high pinnacle and shows us the weather conditions of the earth, and the limit is only bounded by the range of the signal stations. The more numerous are they, and the greater the extent of territory they cover, the greater the practical benefit to be derived therefrom. If the in-

The system could be made further beneficial to us by stations in Mexico, and by ocean stations in the Gulf of Mexico, and off the Pacific coast 500 to 1,000 miles, the further to the westward the better. Indeed, we should like to have them around the world, and to this the future will undoubtedly see. Our present system, so far as it goes, is quite as perfect as it can be.

Now, as herein stated, the weather map is the only medium whereby we can understand and appropriate this useful knowledge, but the weather map is only published at Washington, and can not, like a newspaper (except at enormous expense), be reproduced in the cities of the country. Besides, a map published here can not be of full value very far away, and the farther away, and the more the time required to receive it the less the practical value. If, however, we can not have the map itself we can have, and that at slight cost, a valuable substitute.

Let maps of the United States be printed in blank form which shall be divided into convenient sized squares, formed by lines of latitude and longitude. As to the size of these squares let that be determined by the convenience of those who have the matter in charge; the all important thing is to have the system uniform, and all maps, whether large or small, should be divided into the same relative number of squares. These squares to be lettered or numbered, as most convenient; it may be the better plan to combine figures and letters. The Signal Office at Washington receives the reports from the various points throughout the country, and after preparing its regular map and noting how the lines of barometric pressure are distributed, reports the same by telegraph all over the country. The lines of "high" and low in such and such squares, or on such and such lines. The old "low", i. e., the "low" that has passed the farthest to the eastward, is in such a square, or on such a line. "High" is marked in such and such other squares. The new "low" in the west, north, or southwest is indicated.

The most convenient plan might be to have the squares numbered, and the angles of the squares lettered. This would permit us to locate the lines of "low" and "high", and to describe fine points with very little trouble. (See scheme.)

Let the public once become accustomed to this system and it will operate mutually to the benefit of themselves and the Signal Office. From it they will imperceptibly learn something positive about the weather. All such humbugs as "weather prophets" will be driven from the field, for then the public will perceive how vain and presumptuous

are their attempts to forecast the weather for weeks and months in advance.

Something after this nature, I am sure, will undoubtedly be the meteorological system of the future. Not only may we have the Skeleton map in our offices, but it may be on a large scale at prominent central places throughout the country. At these places we may have a large skeleton map of the United States on a blackboard or slate—some material on which lines may readily be drawn. When a report is received a handy person with a piece of chalk can, by making a few lines on this map, reveal to the observer the meteorological conditions of the hour. It would be well to have these reports at least three times a day, morning, noon, and evening.

Again the map may be on a very small scale, sufficiently small so to be set in a column of the daily newspaper. In place of the present indications underneath the map let the report of location of "high" and "low" appear. When the public become familiar with the new system I do not think they would willingly go back to the old. They will not only be warned as to the next twelve or twenty-four hours, but will see what new storms are developing in the West, and the better note the effect of a storm as it advances toward the east.

There is nothing impracticable or visionary about this idea; it is simple and instructive. It is to be hoped that the public will become interested in the matter and sanction and support the steps necessary to make it a reality.

ISAAC P. NOYES.

To Remove Rust.—1. Cover the metal with sweet oil, well rubbed in, and allow it to stand for forty-eight hours; smear with oil applied freely with a feather or a piece of cotton wool after rubbing the steel. Then rub with unslaked lime reduced to as fine a powder as possible. 2. Immerse the article to be cleaned for a few minutes, until all the dirt and rust is taken off, in a strong solution of potassium cyanide—say about half an ounce in a wine-glassful of water; take it out and clean it with a tooth brush with some paste composed of potassium cyanide, castile soap, whiting and water, mixed into a paste of about the consistency of thick cream.

—*Building.*



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK

July, 1888.

A STANDARD.

THE attempts of anthropometrists to draw or devise a scheme of physical development that shall represent the standard of human symmetry and health have failed, and are likely to fail. We may mold statues that delight the eye by their graceful curves and nice proportions, but it does not follow in experience that because a man has a figure that approximates that of the Apollo Belvidere that he is therefore a paragon of physical health and mental capacity. There is a disposition always marked to associate refinement and culture with beauty of form in man, and not without warrant. The ancient Greeks taught the correspondence of physical symmetry with integrity and balance of mind, but practical wisdom and enduring influence were as marked in the deformed Æsop, and ugly Socrates, as in the elegant Pericles. Of all the Christian apostles the one most powerful in word and work, Paul, was probably the worst favored physically. And in pursuing our quest in the historical record from that time to this we are far from having our artistic or conventional ideas of

beauty and proportion realized in the persons generally of the illustrious men who imparted dignity and greatness to their times. Martel, Charles XII., Francis I., Louis XIV., Wolsey, Cromwell, Luther, William Pitt, Loyola, Gall, Cuvier, Darwin, Morse, and a hundred others who might be named, fell short by many degrees of the model that theory postulates as expressing high physical and mental capabilities.

The student of craniology feels drawn to the formulation of a series of measurements by calipers and tape that will represent a standard head, developed in all its parts, lacking nowhere, complete, perfect, but in the start of his undertaking he finds himself handicapped by the differences existing not between races, but among men of the same race and in the same community. He may think himself warranted in devising his model on the basis of character, and would have all the graces, virtues, and forces that ennoble manhood represented in its outlines. Then, if he takes as the copies for his clay here a man eminent for dignity and pride, there one celebrated for executive energy, there one known for social amiability, there one remarkable for courage and fortitude, there one whose generous spirit has given him distinction, there one whose intellectual powers have won fame, and so to carry out his plan chooses others because of their notable distinction in certain special characteristics, he would be more likely to produce an exaggerated mass than a harmonious, natural head. If the tendency of civilization be toward the globular as in the German head, or to the square as in the French, or to the oval as in the American, by what canon

of art shall we decide which shall take the first place?

Here, it is obvious, we are met at the outset by the fact of the typical character of each race differing in marked peculiarities from the others, and the natural association of such typical character with the type of physiognomy. A certain combination of mental qualities is specially strong, therefore, in one of these nations that is not so conspicuous in the others, and hence what would be preferred as a standard of organization for one would not serve for either of the others. The artist who would attempt to design a head and face that should represent the perfection of development would exhibit the bias of his school or class of art, just as the old Italian artists gave the pyramidal, sallow, Italian face to their saints and the old Flemish painters gave round, rosy faces of a decided Dutch cast to their saints.

One of the finest drawings of the head we ever saw was a Christ by Delaroche, a truly inspiring representation of the human form, yet in it the critic easily perceives the Italian type of physiognomy, a study of which the artist must have made before designing the subject.

We employed an artist once to design a head that should serve as a model for reference. He had had exceptional experience as a student of classical forms, and possessed more than common taste as regards the expression of feeling. In the preliminary discussion of what elements of physiognomy should enter into the design there was little difference of opinion, but when he submitted his drawing for inspection we found that his idea of a model head and ours dif-

fered strikingly. He had the upper part of the head in outline as a semi-circle, with the ear for the center, and while the general effect was pleasing at first, the departure from the truth of nature soon became obvious to the observer of living heads. Here was an example of a man's idea dominating in his work. The circle was his standard of symmetry for human development, and the nearer the approach to it the higher he considered the degree of beauty. His aim was, he claimed, to show what should be, while in our model we wished to show the possible allied to the real as met with in everyday life. The suggestion that the head of such a man as Newton, or Washington, or Sumner, would serve with a few modifications as a standard head, is a practical one, for the head of a man that is universally recognized as much superior to the average of men in organization, the balance of temperament and excellent combination of mental faculties being accompanied with and chiefly manifested by a well proportioned head and face, has far more authoritative value than an artist's design. The observer of living human nature is best satisfied with the product of nature for his standard of reference, and this is the only scientific course. This standard is properly a mean or average of organic development, a synthetic, harmonious, blending of all the elements entering into mind and character. The attempt to enlarge, to represent the ideal, is likely to prove a failure because of the loss of the natural.

We would, then, say to the observer of human nature, figure to yourself a model drawn from the best types in life, but beware of exaggeration. Do not forget

that the man of complete, well rounded, balanced powers would exhibit his exceptional endowment not by any striking peculiarity of intellect or morals, not by any brilliant achievements that would overawe his fellows, but by the calm, even poise of his character, the smooth interaction and balanced influence of the brain parts. He would be a prodigy in no special field, perhaps not a prodigy at all in the esteem of the world, yet a wonder because of no excesses and no deficiencies—simply a man whose thinking and acting were perfectly harmonious and reciprocal.

ACHIEVEMENTS OF INFIRMITY.

IN modern civilization a man is not necessarily thrown out of the list of the active, industrious, and self-supporting because deprived by birth or accident of a sense, a faculty, or a hand or foot. In fact some of the most successful men and women we know started in the career of life "handicapped" with blindness or deafness, one handed, or helplessly lame. They did not pose for sympathy but perseveringly set to work to earn a living and to make their way forward by meritorious industry. There are blind musicians whose talent and skill command the respect of every audience. There are blind teachers and preachers whose ability gives them distinction. So there are deaf mutes, many who are skilful mechanics or artists. To be lame by reason of paralysis or the loss of a leg or to have but one arm, occasions not a little inconvenience, it must be confessed, but does not hinder some persons from being energetic in their chosen vocations. We knew a

gentleman whose lower limbs were terribly distorted and merely swung, as it seemed, between his crutches as he made his way slowly along, yet for years he traveled by stea.m twenty-four miles daily to and from his New York office.

Who has not seen the man "born without arms" who exhibits his pedal dexterity at the fair or the dime museum, in whittling or writing? It is not often, however, that we find one who is armless and yet is able to do a great variety of work. Such a man was Richard Donovan, who died at Potsdam, N. Y., not long ago. While a boy he met with an accident in a flour-mill which resulted in the loss of both arms. Yet as soon as he was able to be about he determined to do what he could to support himself, and in time became wonderfully expert in using his feet and mouth in the performance of all sorts of house and farm work. He could dress himself, prepare his meals, write, harness a horse and drive. He became expert in the use of tools.

Being in need of a wagon he bought wheels and axles, and built a box buggy and painted it. He went to the barn one winter day and built a cow stable, sawing the timber with his feet, and with the hammer in one foot and holding the nail with the other, he nailed the boards on as well as most men could with their hands. He dug a well twelve feet deep and stoned it himself. He could mow away hay by holding the fork under his chin and letting it rest against his shoulder. Many other things are told of him equally astonishing, and when we reflect upon the disadvantage of using for such purposes the parts of the body that commonly serve to support it in the upright

position and give it motion, they appear incredible.

With such an example in view the old proverb that "Providence helps those who try to help themselves," obtains special force, and they who by reason of slight infirmities are given to despondency should cheer up, and courageously determine to do their best.

We believe that if it were known how indebted society is to the weak, infirm, and crippled for honest, useful work in every known department, thousands of the strong and healthy sons and daughters of men would have reason to blush for shame, because of their comparative incompetency.

THE CONFLICT OPENS.

THE political and prohibition parties have now joined issue in a sort of triangular contest. Each has its candidates for the Presidency in the field fortified by the panoply of "platform." The two great armies that chiefly divide public opinion, have done what they consider their best, the one at the St. Louis convention, the other at the Chicago convention. Cleveland and Thurman are arrayed against Harrison and Morton—while the standard bearers of the prohibition interests, Fisk and Brooks, as the representatives of a side issue, yet a most important one, offer to the disaffected Republican and Democrat an opportunity to exercise his citizen privilege without doing despite to his feelings.

We regret that there should be any necessity for the organization of a third party with the distinctive battle cry of Prohibition. At the same time we feel that the leaven it introduces into Amer-

ican politics is salutary. Moral and social reforms are as important as tariff reform. No positive improvement can be made in the civil service without them, and the party, old or new, that is earliest in making them prominent objects in the administration of national and state affairs, is destined to success. The blatant and selfish demagogue may endeavor to shut his eyes to this fact and raise a din about other "urgent questions," but the evils and abuses that stare us in the face at every turn, and cost the taxpayers the ransoms of a hundred mediæval kings yearly, will compel practical attention. As things are the struggle for the Presidency promises to be a close one. The tickets are strong and will marshal the full array of the contestants. Let every American do his full duty, making his influence and his vote a matter of intelligence and conscientiousness.

THE METHODIST CHURCH AND TEMPERANCE.—There is one act of the late Methodist General Conference that, in our opinion, overshadows all its other transactions. That is the noble declaration of the Committee on Temperance and Prohibition, which was adopted by a large majority. It is a clear, ringing, courageous, and logical condemnation of the liquor traffic on social, religious, political, and scientific grounds. It is worthy of a great, rapidly growing, and progressive Christian Church. It is a bright example for the other great Christian Churches to respect and follow, and we hope that they will respect and follow it so that ere long all who profess to be Christians shall stand shoulder to shoulder in pressing the work of reform most needed in Amer-

can society. When the millions of men and women who support the Churches unitedly and consistently take this matter of the liquor traffic in hand it must "go." But so long as there is a lack of agreement and sympathy among them the evils that torment society by reason of the sale of intoxicating drinks will be continued.

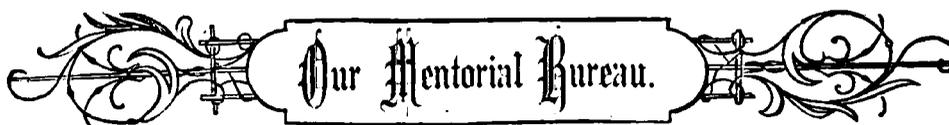
THE ANTHROPOLOGICAL CONGRESS.

A NEW feature in American science was the late meeting in the early days of June, of those interested in the study of Anthropology. The N. Y. Academy of Anthropology originated the plan of a Congress of an International character and communicated with distinguished savants in all parts of the world with regard to it. Receiving kind encouragement and promises of co-operation from a large number, among them Prof. Huxley, Dr. Maudsley, Norman Kerr, Francis Galton, Prof. de Quatrefages, Prince Roland Bonaparte, Marquis de Naidailac, Prof. Gerland, Moritz Benedikt, Dr. F. S. Kraus, Prof. Virchow, Paolo Mantagazza, A. E. Nordenskiöld, Dr. Ten Kate, Dr. Ernest, Dr. Emil Schmidt, Pres. Barnard of Columbia College, Hon. Chas. T. Daly, Prof. Brown Goode, F. H. Cushing,

Secretary Bayard, Prof. D. G. Brinton, Dr. Hoffman, Prof. L. M. Norton, Gen. di Cesnola, Pres. Welling, Columbian University, J. P. Baxter, Pres. Maine Hist. Society, Prof. Thomas, Smithsonian Institute, Pres. G. S. Hall, of Clarke University, the President of the Academy and those associated with him in its management organized and carried to a successful termination such a meeting of Anthropologists.

Columbia College, New York City, was the place of the gathering where on June 4, 5, 6, and 7, sessions were held that attracted unusual interest. Upward of forty papers and addresses were presented at these sessions, the topics being in nearly every instance of practical bearing on human relations.

The editor of the PHRENOLOGICAL hopes to publish several of the papers whose relation to the topics that belong to the sphere and object of this magazine is of a direct nature. American students of human science, and students of science in general, have reason, we think, to congratulate the New York Academy of Anthropology for its brave undertaking in so new a field and for what may prove a real awakening of public interest to the pre-eminent importance of such studies and objects as Anthropology comprises.



To Our Correspondents.

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

TO OUR CONTRIBUTORS. It will greatly aid the editor, and facilitate the work of the printer, if our

contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance

of over two feet, and the editor often wishes to make changes or additions.

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

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

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

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 to the Editor personally will receive his early attention if this is done.

NOISE IN THE HEAD.—W. W. C.—Applications to the ear of hot or warm water are often effective when one has taken a "cold" with the result of an earache. This treatment you should have applied in the beginning. Now there may be a state of congestion affecting the middle ear that it will not be easy to cure. A personal examination is necessary to determine the nature of the trouble, and you should consult a physician who understands ear diseases, without delay. The treatment will be topical rather than by the swallowing of drugs.

To other inquirers with regard to nose and ear affections, which are often related, we would give the same advice. T. M. S.'s case is the direct result of the catarrh.

ELECTROPATHY.—S.—In another number you will find suggestions with reference to treatment by electricity. We should not attempt to give advice to one who knows nothing about physiology and disease, in regard to the use of a battery, for a galvanic battery is a dangerous instrument in the hands of a novice.

CONDIMENTS, SPICES, ETC.—M. T.—No. You should not think of feeding a little girl with mustard, biting sauces, hot spices, or condiments of any kind. That course will be very sure to produce an unhappy stomach condition. Candy is bad enough. A child should have simple, natural food, and no "doctored" stuff. Your

indulgence of the little one is likely to make her a miserable dyspeptic before she is ten years old.

INCLINED TO DESPOND.—P. S.—Do not permit the habit of brooding to grow, but shake it off and *look up*. Let me give you the excellent counsel that was given to another young man who considered himself an unfortunate in the march of life:

It is of little consequence in a march whether a man is near the head or rear of the column, but it is all important that his face be turned the right way, and that his feet falter not in the path. There is no fallacy so great as that which despondency suggests, that, because the way is long or the road is hard, or because others have had to go so far, it is not worth while to take the steps that are possible. All the grand results of human achievement have come from each one's doing from day to day what he could. That is all that is demanded of any man or woman; but this is demanded of each one.



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

WACO, TEXAS, JUNE 12, 1888.

Another Reading of the Bones.

—Dr. F. W. Oliver, in the JOURNAL for June relates an incident of a skull which occurred at Ruthven, Iowa. It reminded me of an incident in my own experience of several years ago, and as he says "let us hear from others" I will relate it. It was in 1870, early in the year, that I visited my brother, a physician, who resided in an adjoining county. He had recently returned from college and brought back with him the ideas on Phrenology that are usually inculcated in some medical schools. For three years I had delivered occasional lectures on the subject, having become an earnest believer in the science in early boyhood. My brother knew this and on our entering into conversation on the subject, he produced a skull.

"Tell me about this fellow," he said.

I took a look at the skull in my hand. It

was a negro skull beyond question. To his remark, after examining the skull, I replied :

" This is the skull of a negro man. He was simply an animal. I would not be surprised if he had been hanged for the crime of rape."

This was the truth, and it made a believer of my brother. He has attended another medical college or two since then, but he does not criticise Phrenology.

J. B. CRAWFIELD, Editor *Advance*.

Women Voting.—There are arguments for and against this question. It is very far from being established as a fact that the world would be better governed by women than men or by them jointly. Woman already has all the executive rights of man. She is a passive citizen, not an executive one. She has the same rights before the law for the suppression of crime or law breaking, yet she never, or almost never, exercises these rights.

She has the right of petition. She has as deep and vital inherent rights and duties as man, and yet no state looks to her as an executive of the law. It is a great and alarming fact that the states have already too many passive voters—too many voters who do nothing toward supporting the laws, or, to put it stronger, toward enforcing the laws except to obey them. If our government ever fails it will not be for the want of good laws, but because of their non-enforcement.

A broken law breeds contempt for all law. The weakness of our government lies in the direction of broken laws—laws a dead letter upon the statute books. Will placing the ballot in woman's hand increase her strength as an executive of law? Hardly. It may increase her interest in law, her sorrow at seeing good laws daily defied, broken, trampled under foot, but she will remain the passive citizen still.

There are a vast number of passive voters among men. A large majority of those created by the 15th amendment to the Constitution are such. Their ballot is of little or no value to themselves. They fail as executives. While the ballot in woman's hands would be exercised with as great, perhaps greater, wisdom and discretion than in man's, yet the stubborn fact remains that

the wiser the law the more improving in its logical teachings, and in its hampering negatives, the less willingly will it be enforced.

We do not deem it necessary to argue these points. As facts they are self evident. If woman assumes the ballot she must take with it active police labor in every walk of life, and with her own might as zealously enforce the laws as she would lovingly and wisely enact them.

W. H. GARDNER.

PERSONAL.

THE REV. JAMES FREEMAN CLARKE, the eminent Unitarian clergyman, died June 8th at his residence in Jamaica Plain, after several days' illness. He was born at Hanover, N. H., April 4th, 1810, of a family that figured in the war of the Revolution and 1812. Dr. Clarke was in many respects a model preacher, and though his influence was felt in literary, educational, society, and political life, it is not too much to say that the great good accomplished by his candid, earnest ministry has left the impression on his people that will endure the longest.

MARCUS A. ROOT, called the first American daguerreotypist, died recently in Philadelphia at the age of eighty. Mr. Root had a taste for portraiture, and very early in life went to Philadelphia to study under the famous painter Thomas Sully. Mr. Sully, however, discouraged his efforts, so he started a writing school, and made a fortune out of copy books of his invention. In 1843 his attention was called to the daguerreotype, and he soon became the leading exponent of that art in the United States. It is said that his gallery used to be filled with people waiting their turn, as one sees them now at a theater box office during the limited run of a popular play.

THE KING OF DENMARK, when a prince and before he was called to the throne at Denmark, lived in obscure poverty for several years. He had an income of exactly \$1,200 a year. There were five children to be supported and educated from this sum. The young ladies of his household learned to cook, to sew, and to do all kinds of housework. They were obliged to make their own dresses for many years, and yet no members

of any family have risen to more brilliant positions than this Danish family. One son is the king of Greece. His three daughters are the Princess of Wales, the Czarina of Russia, and the Duchess of Cumberland.

WISDOM.

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

MOST people neglect the eyes, but very few neglect the I.

"Athenians, I love and cherish you, but I shall obey the God rather than you."—*Socrates*.

I FIND the great thing in this world is not so much where we stand, as in what direction we are moving.—*Holmes*.

THE beauty that addresses itself to the eyes is only the spell of the moment; the eye of the body is not always that of the soul.—*George Sand*.

THE hero we love in this land of to-day
Is the hero who lightens some fellow man's
load—
Who makes of the mountain some pleasant
highway;
Who makes of the desert some blossom-
sown road.

TEACH self-denial and make its practice pleasurable, and you create for the world a destiny more sublime than ever issued from the brain of the wildest dreamer.—*Sir Walter Scott*.

MIRTH.

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

"How must I take these pills, doctor?" asked a patient. "You must take them in water." "Take 'em in water? Why we haven't got any bath tub."

The Rochester *Union* refers to families in that city "who are raising girls for the export trade," meaning girls who are expected to one day marry wealth and a title.

MCQUIDEN. "Do you believe that theosophy is a remedy for the mundane ills that clog the esoteric development of our inner selves?"

MISS FOOTE.—"I don't know. Mamma always uses goose grease."

OLD LADY (to tramp who has asked for

something to eat)—"What kind of victuals do you mostly get when you beg a bite?"

TRAMP—"Cold shoulder, ma'am."

"WHY is it," said a husband to his wife, "that married women, as a rule, are such terrible gossips? "Because they find such attentive listeners in their husbands," the lady replied.



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

PRACTICAL SUGGESTIONS ON THE USES OF ELECTRICITY IN MEDICINE. By Ambrose L. Ranney, M. D. 12 mo, pp. 160. Published by D. Appleton & Co., New York.

A useful manual to the student or practitioner of medicine who would possess for himself a knowledge of the principles of electricity in its application to medicine. The writer describes the various sorts of instruments simple and compound employed by the electropathist at sufficient length to impress the reader and student that the use of electricity is no simple matter to be picked up in a day, but a field by itself at once important and of great prospective development. The application of the galvanic Faradic and Franklinic currents to the treatment of disease is but sketched, and properly so. The physician should understand the mechanism of his instrument and the philosophy involved in it before attempting to use it.

As Dr. Ranney writes as a specialist his book is stamped with the character of authority.

THE WINNING SIDE. By Mary Dwinell Chellis, author of "The Turning of the Wheel," "The Temperance Doctor," etc. 16 mo, pp. 323. Cloth. Price \$1. New York. The National Temperance Society and Publication House.

From an author whose skill has been abundantly proven in stories of a high moral tone and reformatory aim this new book comes, and it is quite equal in quality to her previous work. Realistic in its delineation of character and life it nevertheless preserves a tone that is suggestive of sentiment higher than the common play of character. As an illustration of doings in the sphere of New York dram selling and dram drinking it is truthful and strong and the incidents point their own moral in most cases. The spirit and style of the book are adapted to young people, and those who may know something from personal observation of the life the author depicts.

IN NESTING TIME. By Olive Thorne Miller. Houghton, Mifflin & Co. 12 mo. Cloth. 275 pp. \$1.24.

Those who have read the previous writings of Mrs. Miller will need no urging to read this. To those unacquainted with them we would say there is no one who treats familiar members of the animal and bird kingdom more pleasantly and instructively than she does. And one striking thing is that which she says may be taken as a fact, in her preface to this very interesting book on birds and bird life: "The sketches of bird manners and customs in the little collection are the record of careful observation and scrupulously true in every particular." We recommend it to our readers, especially to the young, in the hope that its personal may induce them to become careful observers also.

PUBLICATIONS RECEIVED.

FORTY-FOURTH ANNUAL REPORT of the Board of Managers of the Protestant Episcopal Church Missionary Society for Seamen in the City and Port of New York.

ST. LOUIS HYGIENIC COLLEGE of Physicians and Surgeons. Announcement of the Second Collegiate year—1888-1889.

The prospect is encouraging to those who have inaugurated this excellent enterprise.

STIMULANTS, uses and how best conserved. Moral and Legal Reform Methods. By J. M. Emerson. New York. Dick & Fitzgerald.

A little book that is a plea for the use of alcoholic beverages in moderation, and therefore distinctly hostile to the principles of prohibition. The author laments the ef-

fects of habitual tipping and suggests that the use of pure wines will tend to affect the habit of drinking whiskey and such like intoxicants. He appears to lose sight of the tendency to a growing indulgence that wine drinking occasions, and which is well shown in the wine-producing countries to-day.

THE UNIVERSALIST PROFESSION OF FAITH.

Composed in the light of reason and revelation with the teachings as those who condemn it as heresy. By Orrin Hutchinson. Published by the author. New York.

THE TWENTY-NINTH ANNUAL REPORT of the Trustees of the Cooper Union for the Advancement of Science and Art.

This last showing of the work done in the interest of the young men and women should prompt fresh tributes of grateful remembrance to the founder of the Union. The institution is Mr. Cooper's noblest monument.

BOVINE TUBERCULOSIS. By E. F. Brush, M. D., of Mount Vernon, N. Y.

A small brochure which discusses a serious topic. It shows plainly enough that a very large proportion of American cattle are affected with a disease akin to human consumption, and the horrible query is too readily suggested—how many people contract phthisis from drinking the milk or eating the flesh of affected animals? We agree with Dr. Brush that the bovine malady should be stamped out by vigorous measures.

CONDENSED THOUGHTS ABOUT CHRISTIAN SCIENCE. By Dr. William H. Holcombe. Purdy Publishing Co., Chicago.

In this pamphlet of fifty-three pages the writer claims to review this new movement in the world of medicine, and to show its reason for being—"The whole secret of Christian healing," we are told on page 28, "consists in the denial of the false self and the affirmation of the true self—the rejection of appearances and the acceptance of realities, the renunciation of the Letter, and the declaration of the Spirit, the casting out of Evil, and the manifestation of Good. Every cure is simply the unfolding into external form of the divine life, strength, health, peace, and joy, which already exists in the secret recesses of every soul." How easy, one will say, to practice as a healer of the ills of the flesh—atomy, physiology, hygiene, and the whole body of the Materia Medica and the paraphernalia of the laboratory being unnecessary!

THE TONGUE IN DIAGNOSIS. By C. Coleman Benson, M. D.

This is a convenient little chart of the tongue, showing the areas of irritation that may be related to disorders of the different organs in the internal and respiratory tracts. It supplies at a glance information of value to the physician and nurse. Price \$1. Geo. H. Field, Publisher, St. Louis, Mo.

WARMAN'S PRACTICAL ORTHEOPY AND CRITIQUE.—The Science of Pronunciation, by E. B. Warman, A. M., with an appendix giving 6,399 words usually mispronounced. Large 12mo, 448 pages, cloth, \$2.00. W. H. Harrison, Jr., Publishing Co. Chicago.

We are of those who are longing for the day when our spelling of English words shall be less intricate and inconsistent, but while we must do as others do or be accounted unlearned and ignorant, such volumes as Mr. Warman's will prove of important service, especially to the young student of our language. The analysis of pronunciation contains many sound hints on true and false methods, and while the author may appear now and then to be finical in his criticism of dictionary rules and examples, he has good warrant for his strictness on the clashing and conflict of authority that they indicate. The list of 6,399 words usually mispronounced with its interspersed reflections is the most useful part of the volume, we think, because these words are for the most part those in frequent use by writers and talkers, and not as one might think by the numbers given, uncommon and technical terms. Take for instance a single page opened at random, we find these: get, geyser, ghastly, gherkin, ghoul, ghost, giour, gibber, gibberish, gibbet, gibbous, giblets, gigantean, gigantic, giraffe, girl, gives, given, glacial, glacies, glaxis, gladden, gladiator, gladiolus, glamour, glance, gland, glare. On the next page the words are more familiar than these.

OGILVIE'S POPULAR READING, No. 42. Several complete stories. J. S. Ogilvie, New York.

CURRENT EXCHANGES.

The Popular Science Monthly for July gives its readers a list of papers of greater topical variety than usual. Safety in House Drainage. Darwinism and the Christian Faith. The Teachings of Psychology. Lines of Progress in Agriculture. Arctic Alaska. Manual on Industrial Training. A sketch with a very graceful portrait of Paul Bert, and a fuller miscellany than usual are among the prominent features. D. Appleton & Co. New York.

Banker's Magazine and Statistical Register. Monthly. Homan's Publishing Company. New York.

Woman for June has but three male names in its long list of contents. The names with a feminine significance are of good quality, and the matter generally worth attentive reading. New York.

Buds and Blossoms and Friendly Greetings. Monthly. J. F. Avery. New York.

The Century comes with its well filled June edition, saying more about Siberia, describing Ranch Life, the Plantan-Moretus museum at Antwerp, and discussing topics of the day. Among them Matthew Arnold's Criticism, Bird Music, What Should

we Eat, Richard M. Johnston, Legislative Reform, American Coinage, The Workingman's School, etc. Of the illustrations it is enough to say they possess their usual excellence. New York.

The Hahnemannian Monthly for June shows that "New School" ideas show no signs of "weakening" yet. Philadelphia.

National Law Review. Monthly. A good reporter of decisions affecting interests of all kinds in the different States. N. M. Taylor. Philadelphia.

The Union Signal, organ of the W. C. T. U. The White Ribbon Army. An energetic and influential weekly. Chicago.

Harper's Bazar. Favorite Weekly of society and reporting the current movements in the world of fashion and pleasure. New York.

The Old Testament Student. Monthly. Wm. R. Harper, Ph. D., editor. New Haven, Conn.

La Gazette Medicale, de Montreal. Monthly review of medicine and surgery. Dr. Beausoleid, Secy.

Book Chat. Monthly. Brentano. New York.

Good Health. Monthly Journal of Hygiene. Battle Creek, Mich.

The Western Rural, and American Stockman. Weekly. Chicago, Ill.

Youth's Companion. Well known weekly. Perry Mason & Co. Boston.

Christian Thought. Bi-monthly. June number contains Social Problems. The Religions of India. Charles Darwin and Asa Gray. Religion (J. R. Lovell), and other topics. New York.

The Homiletic Review. Funk & Wagnalls. New York. In the June number has in the first section Historical Studies, Their Homiletic Value. The Religious and Moral Views of Horace. Were all Mankind From one Pair, etc. And in other sections contributions from Dr. Storrs, Dr. John Hall, Dr. Stuckenberg, and others.

Lippincott's for July opens with a novel of adventure called "The Yellow Snake," With Guage and Swallow. Chap. VI, My Experience as an Adventuress, Our Friends and Foes among the Toadstools, A Case of Weakness for the First Person Singular, and Ultimate Failure, make up the remainder of the issue. My Experience as an Adventuress is particularly readable, and is not entirely made up of guesses. J. B. Lippincott. Philadelphia.

ECHOES FROM THE CONSULTATION ROOM.

BY PROF. NELSON SIZER.

WE offer a letter with meaning in it to the writer and receiver, and it may mean something to the reader.

PROF. NELSON SIZER,

Dear Sir: In the fall of 1885 I left Wisconsin for New York City to obtain a phrenological examination at your office, which I duly obtained. My esteemed relatives and friends insist upon it that it is true to the letter, and I pronounce it to be correct in every respect; and the direct as well as the indirect benefit that I have derived from it is very great, and I now fully appreciate the truth of your science. I was long in doubt as to what should be my future occupation or profession, and in order to make sure as to my adaptability to business or to science in the various fields of effort, I resolved to make safe my steps and to consult you in the matter. In my examination you made the following very emphatic remark: "Your Constructiveness is excellent, and you will understand complications in business as well as in machinery; you would learn to be a dentist and be a good one, and you would know how to use the instruments." With dentistry in view I spent three years at college preparing myself for my chosen work, and I have just graduated, first in my class, from ——— College of Dental Surgery at ———. And it not only so happened that I was first in my class, but I was honored by my class mates in being chosen as Valedictorian of the occasion. I am delighted with my profession, have opened an office in ———, and the future is bright.

Very Sincerely Yours,

X. X. X.

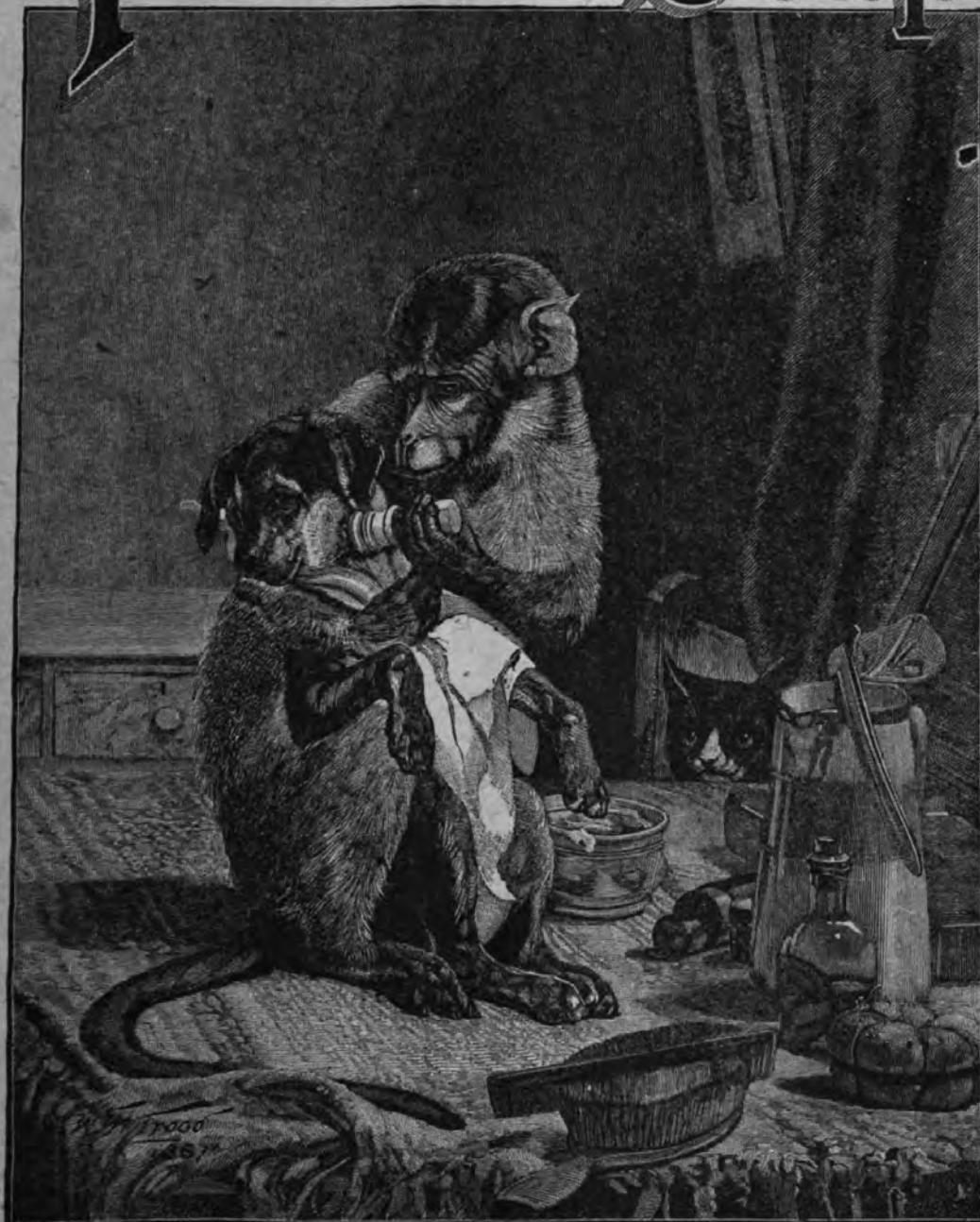
It would have given us pleasure to mention the name of the college and the location of our young friend, but the letter was not intended for publication, and therefore we refrain from giving the identity of the college or the writer.

A MISTAKE CORRECTED.

Some persons are wise enough to take advice, but most children want to put their finger into the blaze of the candle for themselves, and know about it. Experience is a good teacher but sometimes comes rather late, to our regret.

We remember a genial, blonde man, who brought in his blue-eyed boy for an examination to see what pursuit he was adapted to follow, saying: "I believe in Phrenology as a proper guide to a choice of pursuits, and have good reason to believe in it; please tell be about this boy." In explaining the reason of his belief, he said: "I brought my eldest son here, and you wrote out his character in full, saying that architectural drawing and mechanical engineering were indicated as his best business. He was then fifteen. We read and laid away the description, and a year afterward, when the boy finished school, somebody offered him a place in a drug store; he stayed a year and tired of it; he then found a place in a cigar store, and then in a gentleman's furnishing store; in turn quitting each of them, and thus he fritted away eight blessed years. At twenty-three, however, a pair of beautiful black eyes attracted his attention and awakened his admiration, and he at length came anxiously to his father, saying: 'Do you know, sir, that I have no business, that I do not earn enough to support myself, that I spend my salary on odds and ends and incidentals, while I get my food at your table; and when I want a suit of clothes mother takes me out and has me fitted, and she pays the bill?' 'Yes, I know that.' 'Now, father, what am I to do? I want to get married sometime; how can I support a family? I have been reading over the character that the phrenologist gave me when a boy, and he says architectural drawing and mechanical engineering is my best place. Now, sir, if you will help me into that I will go at it with all my might.'" The father being a friend of the superintendent of the Architectural Iron Works in New York, visited him and asked for a place for the young man. His reply was: "I already have seventy-five applications on the books, but with such a description as the phrenologist has given your boy, let him come; I will try him." He agreed to work three years for a moderate stipend, but in six months' time he had attained such proficiency in drawing that the contract of apprenticeship was cancelled, and he was paid twenty dollars a week. "Now," said the father, "he is working on the Centennial buildings at a salary of fifty dollars a week, and if he had gone into the business at fifteen when he went into the drug store, he might have been, perhaps, the master architect of the Centennial buildings to-day. Yes," said the father with a flushed face, and a tender tremulousness of voice, "yes, I have every reason to respect Phrenology."

Pear's' Soap



"A LUXURY FOR SHAVING."

PHRENOLOGY FOR BUSINESS MEN.

The American Institute of Phrenology will open the session of 1888 on Tuesday, September 4th, and continue six weeks. The session for 1887, held in Cooper Institute, was attended by a large number of professional and business men as well as those preparing for the lecture field, embracing one Doctor in Divinity, several physicians and teachers as well as several laics.

Business men who have to deal with strangers of every sort, by understanding Phrenology, can read their customers at a glance and know whom to trust and distrust, whom to soothe and with whom to stand firm. The man who understands men best, will be the best salesman, and the best manager with men in every field of life and duty. A student in the class of 1867, learned enough before the class was half finished, to save his firm from trusting a villain to a considerable amount which would have been totally lost; other sagacious men trusted him for several thousand dollars and he shipped their goods to Philadelphia, sold them at auction and left for parts unknown.

At the close of the last term, 1887, the students expressed themselves earnestly in regard to their appreciation of the subject and of their advancement under the course of instruction, cordially commending the topic and the Institute to public approval. One of the students of last year, a business man residing in this city, permits us to publish his opinion of the value of the course of instruction as given at the Institute.

After attending the course of lectures of the American Institute of Phrenology for the season of 1887, I take pleasure in saying I have derived a great deal of practical benefit from them, and am very much surprised that a subject which has been so ably and elaborately explained and taught should receive so little attention from practical business men. Although I have been compelled to neglect pressing business engagements to attend this course of lectures, at the same time I feel satisfied that they have well repaid me for the time I have devoted to them, and as far as the expense is concerned, I consider it one of the best investments I ever made.

A very important thing to every business man is an education which will enable him to put the right man in the right place, and I know of no course of instruction that will compare with Phrenology in this important matter.

CLINTON E. BRUSH,

Manager Chicago Corset Co., 402 Broadway, N. Y.

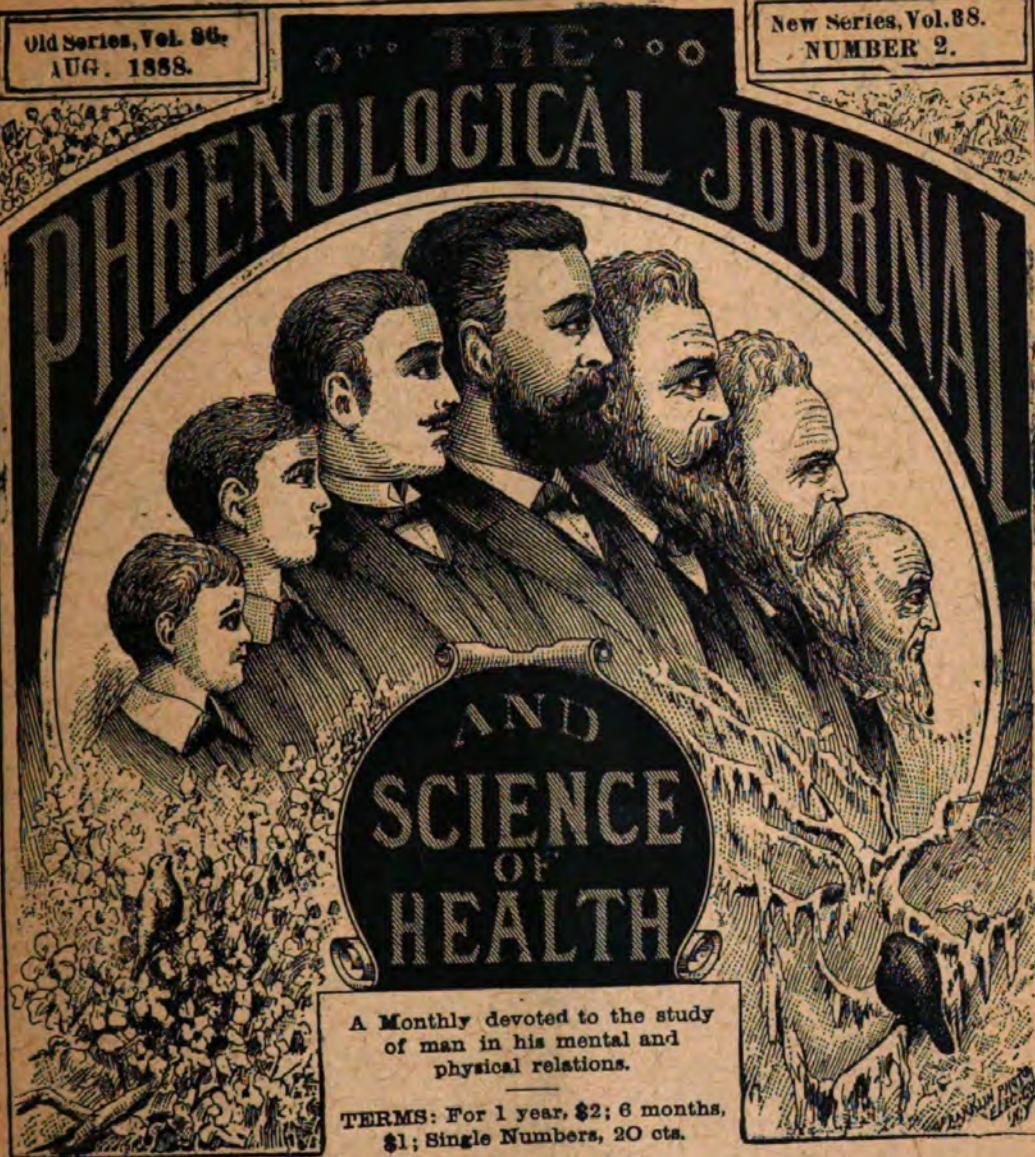
The man who best understands human character by study or by experience is the one who can move most smoothly and successfully among men in the transaction of business. Men sometimes think that a suit of nice clothes on a man who has a good address, will help him to be successful, and we have known merchants to clothe up an agent so as to give him a more presentable appearance when he started out in their interests, and it was doubtless a good investment; if such a merchant had spent the same money in giving him tuition in The American Institute of Phrenology, he would have imparted to him an equal or superior source of power or influence that would not, like a suit of clothes, wear out.

All men, and especially young men, should consult Phrenology, or the science which judges mind, character and motive, and as a means of ascertaining their true place in life. Most men of health and fair development can succeed in something; hundreds of men, if they could change places in business with others, might be better adapted to the new pursuit and more successful.

Persons desiring specific information on the subject of the Institute as to course of instruction and cost of tuition, may address the undersigned asking for "Institute Circular."

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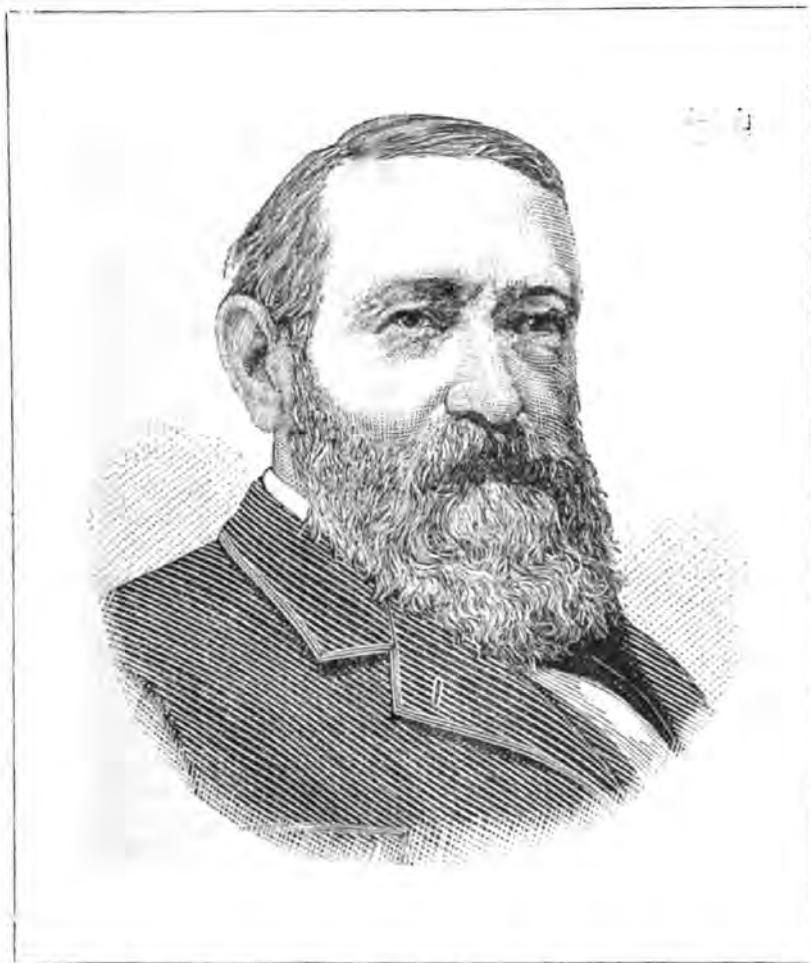
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August, 1888.

[WHOLE NO. 596



NOTABLE PEOPLE OF THE DAY.—No. 11.

BENJAMIN HARRISON.—REPUBLICAN CANDIDATE FOR PRESIDENT.

IN the May number of the JOURNAL a short sketch of this gentleman was given, and reference was made to his good prospect of receiving the vote of the Republican Convention already

arranged to meet in Chicago, Illinois, for the purpose of selecting candidates for the Presidency and Vice Presidency. Now that Senator Harrison has been selected to lead the Republican cause to

victory or defeat at the ballot box next November, it is proper to give the reader a more extended account of the man, first introducing a phrenological view of his mental constitution as drawn by Professor Nelson Sizer, from an excellent photograph.

We judge the original of this portrait to be of rather light complexion and of the mental-vital temperament. His head appears to be large, amply developed in the intellectual region, especially in the upper part of the forehead where the brain convolutions are devoted chiefly to the reflective and reasoning powers. The middle section of the forehead indicates a pretty good memory and the lower part decidedly good perceptive powers. He has evidently large language and ought to be an easy and copious speaker. His Benevolence and Veneration appear to be strongly developed and his head is high enough at the region of Conscientiousness. It is full at the sides, indicating abundant energy and executive force with an ample endowment of economy and prudence in action and expression. He seems also to be large in Constructiveness and able to comprehend the laws and philosophy of mechanism. His Mirthfulness and Agreeableness seem to be well marked and in correspondence thereto his manners should be easy and acceptable as a rule.

The social elements not being presented by the front view picture, must be inferred from the features of the face, or physiognomically, we should regard him as a companionable, approachable, and friendly man. There is dignity but no arrogance or stiffness, nothing of hauteur.

He has a healthful expression of face and form, intimating excellent bodily functions, a good hold on life and a full enjoyment of it, while inclined to do a good deal of work and being capable of doing it easily and well.

His Hope leads him to look on the favorable side of the future and the gen-

eral scope and tendency of his character qualify him for the occupancy of a good place in society, where he can exert influence that will be serviceable and acceptable to others. There are men in responsible places who are angular and hard and domineering, and people feel repelled when in their presence, and at such times the thought is uppermost how soon and how successfully they can manage to get away from their influence and power. This gentleman's make-up would indicate quite the reverse of such characteristics; he must be approachable, companionable, friendly, kindly, and agreeable, and with enough of breadth of intelligence and force of character to enable him to win attention and command respect.

Benjamin Harrison comes of a line that was conspicuous in the period of the English commonwealth, on the side of Cromwell, and about a hundred years later figured conspicuously in the American Revolutionary struggle. His great-grandfather, Benjamin Harrison, of Virginia, was one of the signers of the Declaration of Independence, and was prominent in public affairs from 1774 until his death in 1791, being for four years a member of Congress and three times Governor of Virginia. He entered upon his public career in 1774, soon after reaching his majority, as a delegate to the Williamsburgh Convention. General William Henry Harrison, his son, served his country almost continuously from 1791 to 1841, both in military and civil positions. He fought the battle of Tippecanoe in 1811, was a member of Congress, a United States Senator from Ohio, Minister to the Republic of Columbia, and for one month (March 4 to April 4, 1841, when he died) President of the United States. His son, John Scott Harrison, who was a Member of Congress from 1853 to 1857, died in 1879 or 1880, at his home in Cincinnati.

The Republican nominee was born at North Bend, Ohio, fifteen miles below Cincinnati, August 20, 1833. His early

education was obtained at home, under the care of a tutor. When fourteen years old he was sent to Cary's Academy, on Walnut Hills, a suburb of Cincinnati, where he remained for two years. In the fall of 1850 he became a student at Miami University, Oxford, Ohio. He entered as a member of the Junior class, and in June, 1852 was graduated fourth in a class of sixteen. At the University with Harrison were Professor David Swing, of Chicago; the Hon. Milton Saylor, of Cincinnati; the late Oliver P. Morton, of Indiana, and the Hon. W. P. Fishback. Professor Swing says that Harrison, while at Oxford, though very young, was a studious scholar, and early gave evidence of being foremost in whatever he might undertake. He there acquired the habits of study and mental discipline which have characterized him through life, enabling him to concentrate his intellectual forces and give his mental energies that sort of direct and effective operation that indicates the trained and disciplined mind.

After leaving the University, Harrison began the study of law in Judge Belamy Storer's office in Cincinnati, where he remained for two years. In October, 1853, before reaching his majority, he married Miss Carrie L. Scott, daughter of the Rev. J. W. Scott, of Oxford, Ohio. He has two children. In 1864 he removed to Indianapolis with a fortune of \$800 inherited from one of his relatives, and during the next few years the young lawyer gradually obtained a firm professional foothold, becoming known as a vigorous, painstaking attorney and advocate.

His work as a Republican speaker was begun in the great campaign of 1856, and ever since he has been a conspicuous figure in every political campaign in Indiana, and on many occasions he has appeared for his party in other states. In 1860, at the age of twenty-seven years, he was elected Reporter of the Supreme Court of Indiana for four

years, and it was during the same year that he formed a partnership with W. P. Fishback. In 1862, when the Union armies had met with reverses in the South and volunteers had in a measure ceased to offer themselves, Harrison abandoned the quiet occupation of his office to another and, leaving his wife and children, obtained a Lieutenant's commission, went into camp with Company A of the 70th Indiana Regiment, and in less than thirty days led to the front a regiment of 1,010 fighting men. The regiment served in Kentucky and Tennessee with the Army of the Cumberland. During the Atlanta campaign it was attached to the Twentieth Army Corps, "Fighting" Joe Hooker's command, Harrison taking the place of General Butterfield, as Brigade Commander. The reports of his superiors bear record of his courage and fighting qualities at the battles of Resaca and Peach Tree Creek, and later in the operations about Nashville under the general command of General George H. Thomas, that ended in the discomfiture of Hood. At the close of the war he won the place of a Brigadier-General by brevet.

In 1864 General Harrison resumed his law business and gave incidental attention to current politics. In 1876 he was nominated for Governor by the Republicans and made a gallant fight, but was defeated. In 1881 he was elected to the Senate of the United States, succeeding Mr. McDonald, a Democrat. Of his term as Senator it may be said briefly that it established his reputation as a sound and enlightened statesman, and a ready, finished, and powerful debater. The more his record in the Senate is studied, the clearer appears his claim to a high place among lawmakers.

Upon his retirement from public life last year, General Harrison once more devoted himself to the duties of his profession. Of him as a lawyer in the full maturity of his powers, his old partner, Mr. W. P. Fishback, says: "He possesses all the qualities of a great lawyer

in rare combination. He prepares a case with consummate skill; his written pleadings are models of clearness and brevity; he is peerless in Indiana as an examiner of witnesses; he discusses a legal question in a written brief or in oral argument with convincing logic, and as an advocate it may be said of him that when he has finished an address to a jury nothing further re-

mains to be said on that side of the case. I have often heard able lawyers in Indiana and elsewhere say that he was the hardest man to follow they had ever met."

General Harrison is a man of medium height, well developed, and strong physically, having a massive head, a finely expressive face, and is cheery and courteous in manner and language.



LEVI P. MORTON.—REPUBLICAN CANDIDATE FOR VICE-PRESIDENT.

Associated with the man of the West is a prominent Eastern man, one who in commercial and political spheres has won reputation. At first sight the face of Mr. Morton would suggest that its owner was of that analytical and deliberate type that is represented by the justice in a high court.

His temperament and mould of brain and faculties would, as a rule, have adapted him also to authorship and

journalism. The head in profile is well designed; it manifests balance and harmony, while the brain is not wanting in susceptibility and resilience. There is power of application, the disposition to make a study of things and to understand them. We should say that such a mind is not content with "second-hand views," but likes to investigate, to see and know for itself, to realize the inner meaning and essential composition of things

that invite its consideration. With his fine grain and disposition to close study Mr. Morton would have made a figure in the higher walks of scholarship, especially as related to those studies that concern social ethics and economics. While his intellect has a philosophical bias, the practical and economic elements that enter into human activity recognize and impart significance to his reasoning. The indications of facility in language and value are marked. The fulness of the sidehead shows interest in culture, and refinement, and a disposition to mingle as much of taste and finish as may be expedient in his daily avocations. We can easily imagine such a man employing much of his leisure in reading and study, so that he shall be abreast with the world's civilization, and conversant with the liberal arts. After the busy day in the counting room, the quiet of the library would be a grateful change for his evening leisure. Whether or not Mr. Morton has cultivated the quiet of his library we do not know, but for such an organization books and reflection at stated times could not but be profitable in many ways.

Levi Parsons Morton was born May 16, 1824, at Shorham, Vt. His father was Rev. Daniel O. Morton, a congregational minister and a lineal descendant of George Morton, who came to this country from England in the ship *Ann* in 1623. The boy early left school and began his business life as a clerk in a Concord, N. H., drygoods store, but not until his constitution, physical and mental, had been established by the best of home influences. When twenty-one he set up in business for himself, opening a drygoods store in Concord. Four years later, in 1849, he moved to Boston and became a member of the drygoods firm of Beebe, Morton & Co. His connection with this firm continued until 1854, when he moved to New York, and founded the drygoods house of Morton & Grinnell. This firm became financially involved at the beginning of the

war, and compounded with its creditors at 50 cents on the dollar.

Later, in 1863, Mr. Morton established a banking house and found it profitable. One day the late creditors of the firm of Morton & Grinnell received an invitation from Mr. Morton to dine with him. When they sat down at dinner each man found beneath his plate a check signed by Mr. Morton for an amount of money that paid their claims in full with interest. Mr. Morton was not legally bound to pay the money, and his honorable conduct in this matter therefore won him many friends. In 1868 Mr. George Bliss entered the firm and it became known by its present title of Morton, Bliss & Co. The same year, in 1868, Mr. Morton founded the London house of Morton, Rose & Co., his leading partner being Sir John Rose, some time Financial Minister to Canada.

In 1876 he entered political life, was nominated for Congress but defeated. Again in 1878 his name was placed upon the Republican ticket and with a successful result. As a member of Congress he took a commanding position whenever financial questions were under consideration. He strongly opposed the bill providing for the unlimited coinage of silver dollars, and his influence had a great effect in defeating it. At the extra session in 1879 he made two speeches on the silver question which convinced the country that he was a master of the complicated laws of finance.

After his election President Garfield offered Mr. Morton the office of Secretary of the Navy, which the latter declined. He accepted, however, the appointment of Minister to France. These honors President Garfield desired to confer as a reward for Mr. Morton's faithful and effective work for himself while the contest for the Presidency was in progress.

Being acquainted with Paris and the needs of the American Ministry there he at once proceeded to make such improvements in the material relations and

surroundings of his position as would command more respect than it had received. He secured better offices for the Legation and made them a popular resort for Americans, and for the representatives of other governments resident in Paris.

Mr Morton hammered the first nail in the construction of the Bartholdi Statue of Liberty, recently erected in New York, and delivered a speech on June 15, 1884, accepting the statue in behalf of the American Government. He was present at the unveiling of the Statue of Lafayette, at Le Pui, the birthplace of the French patriot. Through his acquaintance with bankers and manufacturers, the commercial relations of France and the United States were made to run smoothly throughout his term. With the coming into power of a Democratic Administration at Washington, he of course returned home, and since then has held no office. He had been a very popular minister, was extremely obliging, ready to promote any American cause or interest, and generally showed much

tact in his official and social relations. Mr. Morton has shown a liberal and philanthropical spirit on several occasions. One that New Yorkers will remember was the Rockaway Beach Improvement trouble in the summer of 1880, when 500 workmen were unable to obtain their wages because of the financial ruin in which the gigantic hotel enterprise had been involved. Certificates of indebtedness were issued to the workmen, but they were useless to the men, as they could not obtain even food for their wives and children for them. At this juncture Mr. Morton joined the house of Drexel, Morgan & Co., and each contributed \$50,000 for the relief of the workingmen. They paid the full amount of the certificates and declined to accept any discount.

In 1885 he gave to Dartmouth College a house and lot near Rollins Chapel, for the purpose of enabling the college to erect an art gallery and museum. When Mr. Morton was made minister to France, Dartmouth conferred on him the degree of LL. D.

WANT OF COURAGE.

SIDNEY SMITH, in his work on moral philosophy, speaks of what men lose for want of a little self-reliance:

"A great deal of talent is lost to the world for the want of courage. Every day sends to their graves a number of obscure men, who have only remained in obscurity because their timidity has prevented them from making the first effort, and who, if they would only have been induced to begin, would, in all probability, have gone great lengths in the career of usefulness, if not of fame. The fact is, that in order to do anything in the world worth doing, we must not stand shivering on the bank and thinking of the cold and danger, but jump in and scramble through as well as we can. It will not do to be perpetually calculating risks and adjusting nice chances; it did all very well before the flood, when

a man could consult his friends upon an intended publication for a hundred and fifty years, and then live to see its success for six or seven centuries afterward; but at the present, a man waits and doubts, and consults his brother, and his uncle, and his first cousin, and his particular friends, till one fine day he finds that he is sixty five years of age; that he has lost much time in consulting first cousins, and particular friends; that he has no more time left to follow their advice. There is so little time for over-squeamishness at present that the opportunity slips away. The very period of life at which a man chooses to venture, if ever, is so confined that it is no bad rule to preach upon the necessity, in such instances, of a little violence done to the feelings, and of efforts made in defiance of strict and sober calculation."

Such advice is all very well for a wide awake Englishman to give to his apathetic countrymen, but the danger here, is that we are, as a people, already too fast, too enthusiastic, and too violent, while our people need "toning down," the portly Englishman needs "firing

up." So different are we and he temperamentally. But it is equally true, that there are modest, sensitive, and timid persons in all countries, who remain in obscurity through life, simply for the want of courage, assurance, and self-reliance.

S. R. W.

THE OLD SHOEMAKER

IN his little hut by the rocky shore,
Where the waters ever with changing hues,
Creep in and out with a drowsy roar,
Sits an old man fashioning babies' shoes;
His face is wrinkled, his hair is white,
His form is bent with his years of care,
But always the old man's heart is light,
And he sings to himself as he labors there:
"Pegging away,
All the long day,
Stitching ever till set of sun;
Tides ebb and flow,
Hours come and go,
Rest comes after the work is done!"

Through the window, glistening far away,
He watches the white sails out at sea,
As they slowly fade from the shining bay,
Chased out by the west wind light and free;
And a far-off look in his faded eyes
Reveal that his thoughts are drifting far
With the gleaming sails where the sea-gull flies,
And he sings with his heart o'er the harbor bar:
"Pegging away,
All the long day,
White sails drifting across the sea;
Tides ebb and flow;
Days come and go;—
Voyage soon over for you and me!"

He turns to his work, and his rough old hands—
As honest as human hands can be—
Draw out the threads with their twisted strands,
And stitch the crooked seams faithfully;
For babies' feet must be shod with care;
And old age carries the work along;
And shoes are better by far to wear,
When pegged and stitched with a little song:
"Pegging away,
All the long day,
Infancy, childhood, youth and age;
Tides ebb and flow;
Years come and go;
Life is only a written page!"

And thus he toils, while the days go by,
Springs turn to summer along the shore,
The summers fade and the roses die,
And snow-drift whitens the headlands o'er;
And, day by day, as the seasons run,
He sings and toils in a thoughtful muse,
His thread near wasted, his work most done—
An old man fashioning babies' shoes:
"Pegging away,
All the long day,
Shine and shadow, and spring and fall;
Tides ebb and flow;
Men come and go;
God the Father is over all!"

J. S. CUTLER.

SHORTHAND, STENOGRAPHY, PHONOGRAPHY.

AS there are many persons who do not fully understand the meaning of those words, we will first consider their definitions.

Shorthand—A compendious method of writing by substituting characters or symbols for words. **Stenography**, the act of writing shorthand.—Webster.

Stenography—The art of writing by means of brief signs which represent single sounds, groups of sounds, whole words, groups of words. A generic

term embracing all systems of shorthand or brief writing.—Munson.

While these definitions seem to imply that characters other than the ordinary letters are used in shorthand, there seems to be no good reason why condensed longhand, or an abbreviated way of writing the ordinary writing might not be called shorthand; although condensed longhand is not generally so understood.

Phonography—A description of the

laws of the human voice; or a representation of sounds, each by its distinctive character.—Webster.

The art of representing spoken sounds by written signs; also the style of writing in accordance with this art.—Isaac Pitman.

A shorthand system of writing according to sound or pronunciation, rejecting silent letters and ambiguous signs.—Graham.

The art of expressing the sounds of a language by characters or symbols, one character being appropriated exclusively to each sound.—Munson.

A system of Shorthand based on an analysis of words into elementary sounds, and a philosophical representation of those sounds with regard to the ordinary mode of spelling or writing.—Longley.

Phonography is a system of *phonetic* shorthand, or brief writing, in which the sounds of speech or language are represented by *concisely* written characters, other than the ordinary letters. Here we have a variety of definitions, some more to the point than others.

Some of the distinguished features of phonography are, the writing of words, according to sound principally, with few arbitrary characters, and a more philosophical alphabet. Stenography generally follows the old Roman (English) alphabet, and has many arbitrary signs, but sometimes is written by sound. •

HISTORICAL SKETCH OF SHORTHAND.

There are records of the existence of shorthand as far back as 50 B. C. Among the early Romans, shorthand was taught in schools, and was practiced for several centuries. Some systems were very elaborate, having a great number of signs; one system is said to have been invented by Cicero, and was afterward enlarged by Seneca until it had 7,000 characters.

Later the art seems to have been almost entirely neglected for more than a thousand years; until toward the end of the 15th century it was revived by Dr.

Timothy Bright of Yorkshire, England. His system was quite elaborate and his characters numbered over 500. His work was dedicated to Queen Elizabeth, from whom he received letters of patent. Some account of Dr. Bright and his system may be found in the book entitled, "The Teaching, Practice, and Literature of Shorthand," by Julius E. Rockwell, one of the most valuable works on shorthand in existence; published by the Bureau of Education, Washington, D. C.

In 1590 Peter Bales, England, a very skilful penman, invented a system of shorthand called, "The art of Brachygraphy." In 1602 John Willis, England, bachelor of divinity, invented the first English stenographic alphabet, and his book was called "Spelling Characterie." His works were quite popular and reached about fifteen editions. From that time until 1740 there were about fifty systems of stenography invented by as many different authors, but the only one that gained any special prominence was the system invented by William Mason, about 1672. His system survived many years and his works passed through several editions. About 1740 Thomas Gurney invented a system of Brachygraphy or swift writing. His works reached many editions; but his system has been much improved by his descendants and is in use at the present time.

The first *phonetic* system of shorthand seems to have been invented by William Tiffin, England, 1750. In this system a marked change is made in regard to the vowel signs, and it has a more philosophical arrangement of the alphabet than most others.

In 1786 Samuel Taylor, England, invented a system of shorthand which was much practiced for many years. His system was taken as the basis of two French systems of shorthand, and is in use to some extent in a modified form, at the present time.

From 1750 to 1837 there were at least 150 systems of shorthand invented, but only three of them were phonetic, viz.:

Lyle's, England, in 1762; Roe's, England, in 1802; and Bailey's, 1819. This last was invented by Rev. Phineas Bailey, of Vermont, U. S. His book passed through several editions, but his system did not become firmly established.

In 1837 Isaac Pitman, England, invented a system of Phonetic shorthand. His first book was called "Phonographic Shorthand." His next book, published in 1840, was called "Phonography." This system, with some modifications by the author and others, is the basis of the systems used by the majority of the writers of phonography in the English language at the present time. Isaac Pitman has undoubtedly done more to establish phonography as a practical art than any other person. He is now living at the advanced age of seventy-five years.

Of the thirty or more systems of shorthand in English, invented since 1837, twenty-five are phonetic. Two-thirds of these phonetic systems follow the plan of independent vocalization, that is, the vowel signs have their full meaning without regard to, or independent of, the consonant signs. Nearly all German and French systems use the vocalization. The other one-third of the phonetic systems follow the plan of dependent vocalization, that is, the vowel signs need a consonant sign to give them meaning, according to the Pitman method.

About one-third of the phonetic systems use the Pitman consonant signs mainly. No two of the other two-thirds of phonetic systems agree, either in their vowel or consonant signs. Only two or three of the latest thirty systems of shorthand follow the plan of the English (Old Roman) alphabet. The leading authors and writers of phonography (on the Pitman basis) agree in the greater number of their condensations and word-signs.

The number of works of shorthand in all languages at the present time is about 3,500; of which number nearly 1,000 are in English; 1,500 in German; 500 in French. Although hundreds of systems of shorthand have been invented, but few have gained a firm foothold; but as we look over the history of shorthand we see that there has been a constant and growing desire to find some way of representing the spoken language in an exact, concise, and rapid manner. This the ordinary longhand writing can not do. Whether any of the present styles of phonography are perfect or not, is not of much importance, as a thorough reform of the present absurd way of spelling and writing the English language, which is the greatest need of the literary world to-day.

In a future number we will consider some of the absurdities of the English language. ALFRED ANDREWS.

THE AFRICAN, HIS FACE AND CRANIUM CONSIDERED IN RELATION TO INDUSTRY, SKILL, AND ECONOMY IN HIS NORMAL STATE, AND THE EFFECT OF CAUCASIAN INFLUENCE ON HIS FACIAL AND CRANIAL DEVELOPMENT.*

THE diversity of human development, represented by nations and tribes, is manifest in some particulars which are too well known to require more than mere mention. The long, soft, straight hair of the blonde nations, the coarse, black hair of other nations

and tribes, and the curly and woolly hair of others, are distinctions which are readily appreciated. With the blonde hair we look for blue eyes and a light skin. The long, strong, glossy black hair and dark eyes we find with the yellow and brown races, the Chinaman, the Japanese, the Hindoo, the Australian, the Sandwich Islander, and the American Indian from Beliring's Straits

* Paper read before the International Congress of Anthropology, held at Columbia College, New York, June 4th-7th, 1888, by NELSON SIZER.

to the Straits of Magellan. We can find similar hair among the Spanish, the Italians, and the French, with a white skin, and frequently with light eyes.

The woolly hair of the Negro, however, is his own mark and distinction. If we study the color of the skin, *merely*, the copper colored races might often be mistaken the one for another; but when we study the eyes, the nose, the mouth, and teeth, we find differences by which alone we can distinguish one nation from another. Suppose a face were to be taken in plaster, giving us simple *form*, it would not be difficult to select most of the nationalities represented by the dark complexioned races, other than the Negro.



Fig 1. Native African.

In the study of the bare skull, however, many who consider themselves critics would be silent. The difference in the shape of the *cranium*, and some other marks which are known, besides general form, would enable a person to determine the nationality of a skull nine times in ten, and never to mistake a Caucasian for any of the colored races, and he would generally understand, also, the grade of color in its departure from white to black.

The general form of the native African skull differs in some respects from all other tribes of people. The Hindoo has a short, vertical head front and rear; it is round at the sides and small in size.

The Chinese has a larger skull; it is nearly vertical behind, and generally rather square in front, and it rises higher at the crown than the Hindoo. The North American Indians have short heads when measured from front to rear, but their heads are broad between the ears, producing general roundness in the cranium. The anterior portion of the North American Indian skull is prominent at the superciliary ridges, and generally inclines rapidly in the upper part of the forehead. The middle lobes of the brain in the Indian are broad, deep, and massive, and the head tapers as it rises, and is high at, and forward of, the crown. The Flat-Head Indians have heads artificially disturbed in form and are not regarded as natural, and for the present are left out of consideration.

The Negro skull differs from all these in a manner so marked that in a specimen of unmixed blood of the common African—not a man of genius educated, and yet thoroughly African—the form of the skull is so marked as to admit of doubt not one time in fifty. The distance from the opening of the ear to the root of the nose in the Negro is short compared with the distance from the opening of the ear to the center of the occiput. The anterior lobes of the brain in the native African are short and narrow, and somewhat flattened, and lack upward and forward expansion; hence the forehead retreats. Living in a rude manner he uses his teeth abundantly, which tends to give his face and jaws more development than that of the Caucasian who has mills to grind his grain, and practices cookery to reduce food to a mellow condition. Uncivilized man, anywhere, appears to have a larger face and better developed teeth than civilized man, and, as a rule, they have a smaller anterior lobe of brain, and this fact is conspicuous in the Negro, and he has projecting, prognathous jaws. Hence the Southern slave was often spoken of as having a protrusive “muzzle,” partly because he was moder-

ately developed in the forehead. The anterior and intellectual lobes of brain being relatively small, make the face appear to project in contrast with the narrow, retreating forehead. In reality his jaws and features are not so much larger than those of white men as they seem. The contrast between the large features and moderate forehead makes the difference apparent, and since the Negro's head is long in consequence of the occiput being extended, it heightens the impression that the face is protrusive.

Fig. 1. A native African head, exhibits a small, narrow, low forehead, and consequently light and poorly developed anterior, or intellectual lobes of



Fig. 2. Outline of Skull.

the brain, while back of the opening of the ear the head is considerably developed.

Fig. 2 is a careful drawing from the native African skull belonging to the type of Fig. 1, and having the special characteristics, viz.: the great length of head behind the ears as compared with the small size and weight of brain in front.

In Fig. 3, we have a top view of Fig. 2, the native African skull, in shaded outline, and laid over it is the dotted outline of the skull of the famous

Indian Chief and warrior, Big Thunder. The skull of the African is half an inch longer, and one and a half

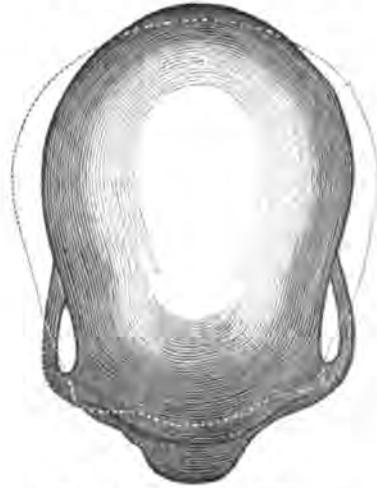


Fig. 3. Horizontal Outline.

inches narrower than that of the Indian Chief, in whose broad side head are the strong elements of force and severity which practically accounts for the marked difference in the character of the two races.

Fig. 4 illustrates the effect of the development of the anterior lobes of the brain. It will be seen that a line drawn from the upper jaw to the forehead is more or less vertical according to the size of the forehead, and it tends to show nearly all the lines represented in Camper's facial angle. This is the *earliest* group of faces that has ever been pub-

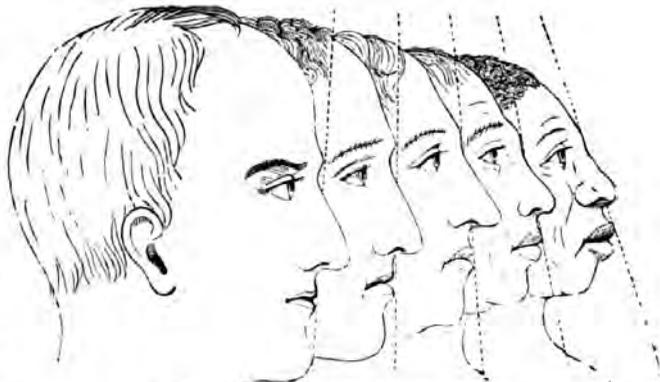


Fig. 4. Comparative Development.

lished to represent peculiarity of facial and cranial development, and it serves

to give, as it were, a bird's-eye and a comparative view of the size of the intellectual section of the brain, and the effects of civilization and education upon the human race. See also Dr. Davis, July No., as a splendid illustration of anterior or intellectual development as a result of civilization and scholarly work.

Fig. 5. 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



Fig. 5. A Contrast.

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, permits 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 Cauca-

sian head, which lies back 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 center 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 in front of the ear, and increasing it behind the ear, the notion of the muzzle and prognathous jaws becomes heightened.

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, just as we begin to study the development of a wheel by starting from the hub, or the 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 and the development manifest itself from that center.

Fig. 6, shows a Caucasian skull, and Fig. 7, an Indian skull represent Camper's "Facial angle."

In the latter part of the last century, just before Dr. Gall promulgated his discoveries, on which for many years he had been engaged in study and observation, Prof. 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 jaw-

bone to the forehead above the root of the nose. The annexed two cuts 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 the front of the face, and give a much better angle. It is not that the face is larger, but that the forehead is shorter,

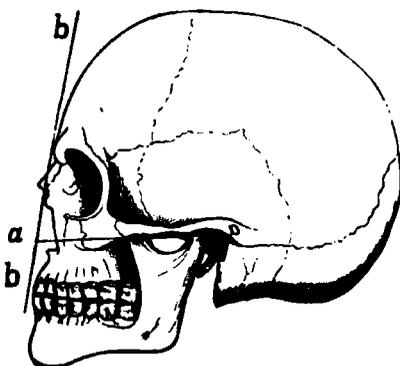


Fig. 6. Caucasian Skull. Outline.

that makes the difference in the facial angle in this case. It will be readily understood that the facial angle, as measured and estimated by Camper, is merely a 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. 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, he will see that the opening of the ear is higher up at the end of the line at D, than is the front end of the line at 'A'. A glance at the engraving of the Indian skull will show that the opening of the ear is so low, that the base line rises as it approaches the per-

pendicular line at the base of the nose. This fact makes the facial angle of the Indian much better than it would be if the ear was as high up as that of the Caucasian. But if the anterior lobes of the Indian brain were as large as those of the Caucasian, the whole face would be pushed down, so that the base line of the angle would be lowest at the forward end, thereby reducing his facial angle, although the intellectual powers were thereby much increased. Camper's facial angle is thus seen to be defective. The mere size of the angle formed by the two lines, is quite unreliable.

We have said that the North American Indian has a head broad in the middle lobes, and according to the psychological theory, the elements of force, policy, ingenuity, and sense of property are manifested through the action of the brain located in the side head, and those traits are strong in the Indian. The Negro, on the contrary, lives in a climate which anticipates his wants, and he does not need energy to acquire subsistence, so he is called lazy the world over. And why should he not be? He does not need to plow and cultivate the soil.

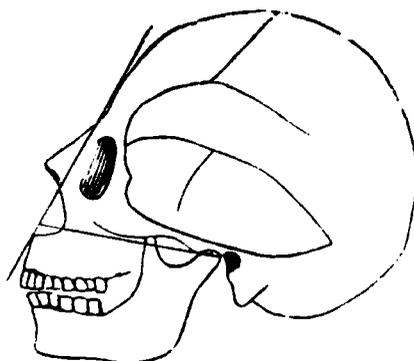


Fig. 7. Indian Skull. Outline.

Food adapted to his wants hangs within his reach every month in the year. No winter requires warm clothing nor houses for shelter, and hence combativeness and destructiveness which gives energy, are not required to develop these things. He does not need secretiveness or policy, for the fruit does not seek to

evade his search nor hide his coming. Since his food is perennial he does not need acquisitiveness, or the desire to acquire property, nor tendency to lay it up for the future. He does not need ingenuity to construct; hence he is narrow in the region of the temples at constructiveness where the skilful and ingenious mechanic and inventor is broad; accordingly the skull in contrast with that of the Indian and white man is narrow and light above and about the ears.

The North American Indian, on the other hand, has a precarious climate, and his winter compels him to store up food. He must follow the chase and outwit the animals that flee at his approach; he must slay his game in order to procure food. When the negro is brought from his native summer-land into a cooler climate, and is thereby compelled to work and to economize to obtain food and clothing and shelter, the middle section of the head in process of time becomes wider, and the anterior, or intellectual lobes of the brain, better developed. He becomes more fond of property, more reticent, more thorough, and forcible and severe; and negroes whose ancestors have lived for a hundred years in New England have broader heads than have their brethren in the warm Southern latitudes, or their ancestors in their native, torrid Africa. The North American Indian with his broad head is cruel, courageous, secretive. He has more sense of property, and it is hard to subjugate him; while the negro, especially the native, having moderate selfish feeling, is docile, and easily civilized and subjugated.

The negro's intellect is mainly objective or perceptive. He gains knowledge chiefly by observation, and remembers what is told him in the domain of things. He is a good talker, and very fond of making known his feelings and his practical knowledge. He is, socially, a gossip in matters of fact, yet he lacks logical force, and this latter remark in regard to logic applies to the North

American Indian as well. It is said that when a committee of Indians was sent East in earlier days, before civilization with its long fingers had stretched across the continent by telegraph and locomotive, and before the steam-plow and reaping machine taught the Indian that the white man had resources beyond his power to imagine,—he was skeptical about everything which he had seen. Forty years ago a deputation would come to Washington, to Philadelphia, to New York, or to Boston; they would see the factories, steamships, and other resources, and when reporting to their tribes these things they would be derided and told that the white man had fooled them, or that they were telling a big lie. Lacking, as they did, the power to comprehend that which they had not seen they had too little of the reasoning ability to take in and comprehend facts when, fairly stated, they deemed it impossible that such things existed, until they had seen them.

It is well known that where the negro is reduced to slavery there is generally a complaint against him that he dislikes to work and that he has to be driven to do it, and that when he becomes free he is idle, shiftless, and inclined to steal. His habits in his native land did not require work nor economy, nor ingenuity, and only the lash in the South, and the extremities of the climate of the North can overcome his constitutional aversion to that which seems to him unnecessary effort. Time and brain-growth, by culture only, can cure the deficiency. It is also a matter of fact that white men who are natives of the cold regions of Europe, but are transplanted to America, if they land in a high latitude, continue their original tendency to industry, economy and ingenuity as long as they have to fight against the inclemencies of climate, and those who go from the northern European countries to the southern sections of North America, or to Central America, may work for a year or two as formerly. The effects of the

climate, however, and the fact that they can get their work done by either slaves or other subordinates, lead them to take life easily, and not to manifest the thrift, the industry, and the energy that belong to the Caucasian race where he belongs, in the higher latitudes. It used to be said that a Massachusetts man, on going to Alabama to reside, would, for a year or two, work like a Trojan, but at the end of seven years he would have learned to take life easily, and that he would also manifest such liberality and hospitality as the neighboring white men who were to the manner born.

If I may be permitted to utter a personal remark founded upon observation, I will say that the young men of the South, since the war and abolition of slavery, which facts have called on them for thrift, ingenuity, invention, economy and industrial enterprise, have heads

much wider above and about the ears than their fathers had forty years ago. I readily see a difference, and the calipers would show half an inch or more of increase in the width of the heads. It requires force of character to prosecute industrial pursuits, it requires constructiveness and acquisitiveness to plan and to economize, an increased growth of which widens the head. The old planter could have his Northern foreman, who carried with him his ingenuity, his energy, and economy, who could make money for the planter, and save money for himself to enjoy, later, with his friends and family. Now the Northern overseer is absent, and the owner of the land engages personally and heartily in the processes of industry and economy, and not only in thought but effort, and now his brain is coming to be developed in the sidehead, accordingly.

A BUDGET OF PAPERS ON PHRENOLOGY.—No. 4.

LABORATORY WORK.—PRACTICAL STUDIES.

OUR laboratory was vaulted over by the blue dome of the sky. Men and women of every nationality and condition of life composed our more than sixty-four elemental molecules.* Skulls for "retorts" and "crucibles;" life's temptations and trying scenes, our "testing tubes;" in the normal and abnormal appetites of men, their aroused lusts and passions, we found furnace fires enough for all our tests.

New York City is the best place in the world to study Phrenology. More varied is the individual type, and the number of races and nationalities represented there is, I think, larger. Life is more intense and the pulse beats faster in New York City than in sluggish London or in Asiatic Constantinople.

In Washington Square, which is near the Institute and opposite the University of New York City, the old aristocratic

*Chemistry recognizes sixty-four elemental molecules in all matter. Man is complex—composed of spirit and matter, hence our "more than sixty-four."

Park at the southern extremity of Fifth Avenue, you can always find the loathsome, lazy loafer. Such we hired or enticed into our class-rooms for a "free examination." In these examinations by the Professor and the class we were very "free," but always found the old Professor right. "In your examinations speak the truth; hit hard and the one being examined will like it best." Such a case as I have described as brought into the class-room, when described as Phrenology or Physiognomy photographed his inner as well as his outer conditions, if at first a little angered, he will soon smile and say, "That's me, Gov'nor; keep right on, yer hitting him."

In Broad and Wall streets life is at its intensest heat. I remember a short interview I had once with a well known broker in his office. "Keep right on, Mr. Dill. I am listening to all you say." "George, run in upon the floor and buy . . . D., L. & W. if you can get it at

....” “Yes,” replying to my inquiry, and turning to another clerk he hurried him off to secure other stocks at such and such figures. All this time his brain was figuring important results as he filled and tore off slip after slip from the pad in his hand, and almost at the same time ran the tape off the telegraph instrument through his hand. What a proof of the complexity of the functions of the brain! Polite, respectful, and attentive, listening and replying, while at the same time watching the telegraphic despatches of the constantly clicking instrument; thoughtful of the interests of others whose capital was involved, figuring his own profits, and deciding upon what the future of the market would likely be; making his decisions and giving orders for their accomplishment, all in a moment's time, much less than it has taken me to describe the scene.

Soon after that interview he told me that he had not taken a vacation in ten years. I scarcely ever saw him, but what he was figuring upon that pad. On the railroad out to his Monmouth Beach summer home, or even on the broad veranda overlooking the ocean—always filling and tearing off the sheets of that little pad. I dare say he is doing it now. His is an intensely active brain. Wall street is a good place to study men whose brains are at work at high pressure; but there are but few men in a thoroughly healthy condition of mind and body, every day found at their post year after year, whose brains work as intensely, or who can so rapidly come to quick and sharp decisions as the one referred to.

New York's down town large restaurants are frequently resorted to as a good field for practical study by the would-be phrenologist. No other city in the world can match the scene. The cashier at one of these will tell you that they average fully ten thousand persons who sit down to their tables every day; and that they keep open all night. I will

not disgrace the American people by describing the scene. On a Western prairie I remember seeing an enormous drove of famishing, thirsty Texas cattle driven into the beautiful little town of Spearfish, D. T. A clear, flowing stream coming down from the adjacent Black Hills was soon turned into a muddy ditch so madly did they rush at it and into it. I am glad we can not see the muddy contents of all these ten thousand stomachs, but only the bountiful dishes served so promptly and rapidly by the trained waiters. To listen to ten or even more rapidly given orders for several dishes, each quickly spoken with each one's peculiar desires—meat with or without gravy, potatoes in every conceivable way, “coffee, one-half milk,” “black tea, weak,” “rice pudding, hard sauce,” to carry these orders in the memory only back to the hurried cooks in the kitchen already crowded with other waiters, calling off their orders, deliver them; return and receive others; then go back to find previous orders ready to serve, and in it all make no mistakes; this is the proof of the skill attained by the famous New York restaurant waiters. A good practical study for the phrenologist.

As students of Phrenology we pursued our studies as bees do honey, obtaining it from each flower, passing none by even if they contain but little. It is not “the much” or “the little” but the honey which the bee is after. Horse cars, crowded streets, ferry-boats were character galleries and every individual an interesting study.

I have time to pause in the midst of a pastor's busy life only long enough to mention two character studies made by me while a student at the Institute. I left before the close of the last lecture one afternoon and hurried over to the elevated railway. Standing in the crowded car I looked down into the sweet face of a young lady sitting near by. Her unusually narrow head, although lacking in force was not lacking

in beauty or refinement, and was suggestive of a refined taste. Glancing down over her costume I saw that it was faultless, fitting her graceful form elegantly; of one color from her throat to her feet, corresponding well with her complexion and form. I said to myself, "Though lacking in force she is not lazy. Probably she has made this very costume herself, for who else could have such exquisite taste! She is not lazy, she is like a deer, active and full of graceful action; but the struggle of her life is almost single handed. She is ill prepared so far as courage and strength and hardihood have their part in life's struggles. Her refined tastes are everywhere offended. I am sorry for her; what a struggle this life must be to her."

At the Chambers street station I hurried out reluctant to leave that beautiful face, not ever expecting to see it again. At the top of the stairway leading down to the street I paused, as is my custom, to allow ladies to precede me in the descent, when, to my surprise, there was the same narrow-headed girl getting off at the same station. I was surprised to see her again; but I was not surprised to see her reaching forward her hand, clasping the hand of another young lady just in advance, whose head was perhaps an inch wider, though she was no taller. At the foot of the stairs I passed them and ran through the streets in the vain attempt to catch the five o'clock boat. Failing in that I took the next, and I watched the girl as she came on the ferry-boat. Through the crowd on the ladies' side she made her way, her wider-headed friend leading, and she clasping the hand reached back to her. On entering the saloon she dropped the assisting hand, but grasped it again on entering the crowd which filled the forward deck. How perfectly Phrenology had revealed to me at one glance that girl's whole nature!

One evening I was invited by some friends to examine Mr. ——'s head. The long drawing rooms were

those of a famous homestead where the leading men of their day had been entertained by my host and hostess. Mr. —— was an Englishman the object of the love of one of the young ladies who were smiling upon him as he underwent his examination, and then as usual indulged in cutting words and sarcastic personal remarks which probably she was ignorant enough and conceited enough to think were signs of a brilliant mind. As soon as my hand touched his head it came in contact with his fine silken hair, which seemed almost to flatten out under the gentle pressure of the hand in order to feel the vibrations of the voice through the skull and thus determine the thickness of the skull in various places. "You are exceedingly sensitive," I said. He dropped his head, but the young ladies laughed as if in one sentence I had proved that both the phrenologist and Phrenology were a failure. "Oh, no, he isn't! I know you are mistaken, Mr. D.," and similar expressions were heard from different members of the family. "Are you Mr. ——?" inquired the young lady who oftenest selected him as the object of her sharp and impertinent tongue. "Are you?" "Y-e-s, exceedingly so," he replied. How it smote to the heart several in that home who had often in his presence had a laugh at the expense of their honorable guest! Woman, with all thy intuitive powers! and Man, less gifted, how little you know of your fellow men even when they are thy nearest and dearest friends! My other statements were applauded as true, after the puzzle of his character had been solved by the student of Human Nature. Once I remember they held their breath in surprise and then exclaimed from all parts of the drawing room, "Is it so?" "Is it true, Mr. ——?" Finding Combativeness abnormally developed, not an inheritance and "working up toward" Caution, I had said to him: "I think in your younger days you must have had an older brother or sister who teased and tormented you." He smiled,

and at first I thought he was not going to reply to their inquiries, but soon he spoke out in a positive and decided way: "Yes

(I have forgotten whether it was "he" or "she"), tormented the life almost out of me."

A. CUSHING DILL.

ON ELOCUTION.

I HAVE often been struck with the manner in which public speakers, lecturers, and readers render certain passages and particular sentences both in poetry and prose, and in the Scriptures. There can be very little doubt, indeed, that many public speakers and preachers would render their subjects much more effective, elegant, and impressive if they studiously followed the rules and regulations which are laid down in the best works of rhetoric and elocution for their guidance.

There is a prevalent opinion abroad—more especially in religious minds—that any approach to what they think and call dramatic effect in the pulpit is highly improper and savors of bad taste, if not of irreverence; hence it can hardly be wondered at that so few ministers of the present day display those qualities of elegance of style and diction in their reading of the Scriptures and in the lining out of the hymns which, when effectively done, inspires the mind of the listener with those pleasing and delightful emotions which the musician experiences when in the presence of vivifying and soul-stirring music. And so little do our ministers appear to appreciate or be aware of the pleasing effects of good reading that it has become a common practice in many pulpits either to read only a couple of lines of a hymn or the first verse, or, indeed, to simply indicate it by the number. This omission must certainly point to some feature either in the speaker himself or the listeners, and it would seem a mistake to connect it with the fact that the congregation read over the whole of the verses when singing (although this may have something to do with it), for it is more or less true that when singing from notes the words are

not so much realized as when the tune itself is known, because the mind is then distracted by attending at once to the words and the music. The great probability is that the omission in most cases arises through the distaste or conscious inability on the part of the preacher to give the verses that poetic and vivifying effect which to many is a source of profound and lasting pleasure.

If we reflect upon the matter we shall come to the conclusion, I think, that the theater is rendered a source of attraction to many by reason of this same quality of rhetorical power proposed in a greater or less degree of efficiency by the performers; and there can be no difference of opinion as to the fact of the prevalence of elocution in the theater. Indeed, it is not often that we have the opportunity to listen to true elocution, and when such opportunities occur we know how eagerly they are sought and appreciated from the crowded houses gathered to hear such public elocutionists as Mrs. Scott Siddons and the late Charles Dickens, whose brilliant gifts were amply acknowledged.

As we can not very well separate good elocution from good acting we may get a fair idea of the power of elocution by remembering how few there are comparatively even in the theatrical world who are able to gain the fame and title of great actors.

Although the talent for acting and the talent essential for the display of elocution depend upon different combinations of powers, yet the two are, I believe, never separated (except in the case of the dumb), and depend in a very great degree for their power to influence and please the mind upon the fact of their close connection and relationship.

The question that naturally presents

itself for solution now is: upon what powers of the mind does the ability to manifest and produce elocution depend?

Upon first consideration we should regard Tune from its bestowing the ability to remember and enjoy harmony as one of the necessaries in rhetorical display, and when combined with Time, adding the power to appreciate rhythm. But that these alone and together are inadequate to the task is evident, for there are musical composers who can not render a psalm of David, and put into it or call out its real eloquence, force, and beauty. We will now add Ideality—that etherealizing power of the mind which would dare of itself to produce harmony and beauty out of chaos, which expands the faculties of our minds and equips them with the wings of the morning, and sends them in search of those perfect attributes of loveliness which the garden of creation is so full of.

Now we seem to have an addition which is well calculated to increase the capacity to appreciate and render elocution in its fuller effect. No doubt Secretiveness adds to these other powers a certain degree of efficiency as it is one ingredient in the composition of a good actor. Add to these language, harmony generally among the faculties and high quality of brain, with imitation, and the person so endowed would naturally feel the deep inspiration of eloquence and elocution in a pre-eminent degree and his style of reading and speaking would be characterized by great purity, perfect rhythm, and moderation, and by that impressive dramatic quality which is characteristic of all our great actors.

Elocution bears the same relation to eloquence that expression does to painting and music. Indeed, elocution may, in a sense, be justly considered the expression of language, from the vitality of which language derives much of its force, for without proper expression, intonation, modulation, and rhythm, poetry would lose the greater part of its beauty and appealing eloquence.

The full power of elocution is very little understood, yet in civilized communities it is almost universally appreciated, and is one of the most captivating, moving, and inspiring of the arts.

By the well directed efforts of the elocutionist men are moved either to weep or laugh, to love or hate. By the elocution of the speaker the multitude may be roused to a warlike spirit against the tyrant and the oppressor, melted into weeping sympathy with the poor and indignant, or bent in prostrate adoration before the august and supreme.

There are very few gifts so potent for good as elocution when directed by the moral sentiments, and the ministers of religion and public teachers have never reaped the full efficiency of this splendid endowment.

It would argue a wise forethought in the principals of our seminaries, secular and theological, to consider this subject in its broadest features, so that the natural powers of the intellect so beneficently bestowed, may receive the greatest expansion of which they are capable, and that individuals and the community may reap the rich rewards so abundantly promised by a kind Creator. T. T.

A WOMAN'S SPHERE.

A WOMAN'S sphere—to love, to serve,
to trust,
Perchance in vain
To give the treasures of a loyal heart
And reap but pain.
And yet how oft what seemeth lost to us
Is sweetly ours;
And e'en the cypress wreath may bud and
bloom
In fairest flowers.
A loyal love must find its own at last.
If earth deny,
Know that a recompense secure is thine
In starry sky.
And do not deem love's faithful service lost—
Reward awaits.
If not on earth, then know 'tis thine for aye
Beyond the gates

CALLIE L. BONNEY.

CUTE ADVERTISING PHYSIOGNOMICALLY ILLUSTRATED.

MEN who have wares to sell, men who have experience in their selling, and money to make them known to the public claim that persistent advertising "pays." Keeping the article constantly before the public in the pages



of the best newspapers and periodicals will eventually secure a demand for it. This principle must be a cardinal one with many business people, a sort of Medo-Persian law, especially affected by manufacturers of the compositions called "medicines," for no class of goods is more perseveringly "written up," and "displayed" in the press than patent or proprietary medicines. A man may be the



subscriber for a dozen different publications, daily, weekly, and monthly, representing the commercial, literary, scientific, and religious classes, a well selected list for personal and family uses, and he will probably find in the advertising department of each a skilfully written plea for "—'s Specific," or "—'s Infallible Tonic," and it is very probable in the reading part of one or more will be a diverting sketch that insidiously develops a crisis in which somebody's Bitters are made to perform a miraculous feat.

We may think that we have grown used to this sort of scheming and regard

it as a matter of course, but the variety shown is so kept up that every now and then our wise heads are taken captive by the blandishments of an "old stager" tricked out in new colors. Our contemporary of *Boots and Shoes* published not long since a series of sketches that illustrate in a striking way the effect of well-sustained advertising, and the reader will confess, we doubt not, that the physiognomy of it is capitally expressed.

We have in the gentleman whose portrait is used in the series one of those practical, hard-headed men who can not be taken in by any advertising dodge.



Oh, no, he's too old a bird to be caught by such common tricks. So in turning over his regular morning sheet at the breakfast table he sees the big capitals of the well-planned catch, but passes it contemptuously. The next time it comes under his vision it merely suggests a feeling like that before experienced. The third time he gives the head lines



an impatient squint, and then proceeds to look down the commercial reports, or the "news from Europe." The fourth time it strikes him as something that he has seen before, but he is indignant that it is there to interrupt the current of his investigation in affairs of importance.

The fifth time he stops merely to glance through it, and see what the thing is about anyhow. He does this in a hasty mental temper, but, nevertheless, gives it time enough to soak a little into his memory. So that the next time it turns up he reads it through, with some deliberation, and at the end cries "Bosh."

The seventh time it comes under his eye he reads it to see if the fellow makes the same preposterous claim, and the eighth time he remarks, "I wonder



what the confounded thing amounts to!" On the ninth occasion he points the attention of wife and daughter to it, and expresses himself oracularly to the effect that "such a way of introducing a thing, and *such a thing* as this, can't pay—no, indeed." But the tenth time he half concludes that it must turn in some profit, for "a man can't be such a fool as to keep throwing his money away."

The eleventh time he reads it and con-

siders himself knowing enough to see a good point in it, and on the twelfth round he is impressed that it would not



cost much to try it and see what it amounts to. On the thirteenth round he concludes to make a memorandum of it, and when he sees it for the fourteenth time he concludes to act on the instant and so hands the money to his daughter with the request that she must be sure to get a "sample" to-day.

If such tough fellows are brought around in this fashion, what must be



the effect upon the average brain by the journalistic purveyor of the bric-a-brac of trade?
D.

COURTSHIP AND MARRIAGE.

THERE was much more than a mere witticism in the remark of the old bachelor who paid attentions to a maiden lady for twenty years, visiting her regularly every night, when rallied for marrying: "If I were married I should have nobody to court, and no place to go at night." He had deeply felt the contrast between his own delicate and ethereal enjoyments and the hard, discontented, fretted life of too many married people; and his answer was irony. He saw there was something in courtship which too often expires after marriage, leaving a cold, dull, monotonous

burden where all was beauty and buoyancy before.

Let us see what that something is. In courtship nothing is taken for granted. Both parties are put on their good behavior. Love keeps itself fresh and active by constant expression in word and act. But strange to say, courting usually ends with marriage. Very soon both parties yield to the sense of possession, and the feeling of security robs gallantry of motive, and extracts the poetry from the mind. The beautiful attentions which were so pleasing before marriage, are too often forgotten afterward; the gifts

cease, or only come with the asking; the music dies out of the voice, everything is taken for granted, and the love that, like the silver jet of the fountain, leaped to heaven, denied its natural outlet, ceases to flow altogether. Then come interventions, interruptions, and interferences, perhaps by others, that make a bitter disappointment of the married relations, besides the dull, heavy, hard days, with the *finale* of two unhappily tied together and wishing themselves apart, not always content with merely wishing.

This is unnatural and wrong. What marriage wants to give it new tone and sweetness is more of the manner as well as the spirit of the courtship which come from constant attention of the parties to each other. Their affection voices itself in all possible ways, every sentence is edged with compliment and spoken in tender tones. Every look is a confession. Every act is a word in the exhaustless vocabulary of love. Kiss and

caress are parenthetical clauses and gestures in the dialect of love; gifts and sacrifices are the most emphatic expressions of the spirit no language can articulate and no devotion can declare. And it is the fact that affection confesses itself continually in look and word and act, making the voice musical and the fingers poetic in their touch, and doing that makes experience so beautiful, the only Eden many a woman has ever on earth.

Love must have expression or it will die. It can be kept forever beautiful and blessed, as at the first by giving it constant utterance in word and act. The more it is allowed to flow out in delicate attention and noble service, the stronger and more satisfying, and more blessed it will be. The house becomes a home only when love drops its heavenly manna in it every day, and the true marriage vow is not made once for all at the altar, but by loving words, and hopeful service, and delicate attentions to the end.

ALLEN G. THURMAN.

DEMOCRATIC CANDIDATE FOR VICE-PRESIDENT.

THE nomination of Mr. Cleveland by the Democratic Party was a foregone conclusion. With the prestige of success in 1884, with a career as President that for the most part had met the expectations of the rank and file of his party, and especially with a declaration of purpose in respect to the tariff and internal taxation that seems to find warm approval among the large number who think that high duties and internal taxes are the cause of most of our social woes, scarcely another name could be expected to be as influential as that of Grover Cleveland at the head of the new ticket. Of him we took occasion to speak freely when he was elected to the Chief Magistracy in 1884, and we should now do little more than repeat what was written then, if comments upon him were ventured.

The selection of Allen G. Thurman

for the second place, is regarded as very happy by the experienced observer of Democratic affairs. He is an aged man, yet like Bismarck and Gladstone preserves a mind of unabated energy, while his physical health is said to be excellent. A Democrat of the old school, uncompromising and independent, he appears to the average party-follower of his side as an ideal man, and whose name must reflect great honor on the cause that has adopted it.

Mr. Thurman was born at Lynchburg, Va., November 13, 1813. His grandfather was a Baptist preacher, and it is said decided to move into a free state on account of his misgivings about slavery. This was in 1819, and the boy Thurman was taken over the mountains with him, and the family settled at Chillicothe, O. Here Thurman's father taught school, and the son was among his pupils.

Later, when the father engaged in wool manufacture, Thurman's mother, a half-sister of Governor Allen, taught the boy. She was his only teacher for many years, in fact, until his admission to the Bar in 1835, after studying law in the office of his uncle, William Allen. For a time he was engaged in the survey of lands, camping out in the Ohio forests.

Becoming absorbed in politics, Mr.

and in 1851 was elected Judge of the Supreme Court of Ohio. In 1854 he was advanced to the highest judicial honor in his State—that of Chief Justice—and presided until 1856. In the meantime he had removed to Columbus, where he has since resided.

In 1867 Mr. Thurman received the Democratic nomination for Governor, but was defeated by Rutherford B.



ALLEN G. THURMAN.

Allen turned over to the youngster his entire practice, and for ten years Thurman rode through four counties on horseback practicing law at the county courts. He soon became the acknowledged leader of the Bar in Southern Ohio, and in 1844, while traveling in the South, he was elected to the Twenty-ninth Congress. He declined a renomi-

Hayes. The following year he was elected United States Senator from Ohio, succeeding Benjamin F. Wade, and was re elected for a second term—his service in the Senate covering the period from 1869 to 1881. During that time he was the acknowledged leader of his party at Washington—its strongest man. Upon all the great questions of Grant's ad-

ministration he was called upon to act, and the moral weight of his character and his power in debate rendered him a strong antagonist. He served on the most important committees, and his name is identified with some of the most important measures of a decade—notably the “Thurman act,” so called, defining and controlling the policy of the government toward the Pacific railroads. The unfortunate course of the Ohio Democrats on the currency question in 1874 cost Judge Thurman much of his popularity there, although in the preceding year, in the greatest political battle of his life, he carried the Democrats of Ohio to an unexpected victory in the election of William Allen as Governor and a Legislature with a Democratic majority of six votes on joint ballot.

In 1876 Mr. Thurman was chosen a member of the famous electoral commission on the part of the Senate, and in the following year, during the absence of Vice-President Wheeler, he was elected president *pro tempore* of the Senate, a position which political changes in the Senate allowed him to retain but a short time. After his retirement from the Senate in 1881, Mr. Thurman resumed the practice of law, being engaged in some of the most prominent cases before the courts. His recent activity in the prosecution of the “tally sheet forgers” is fresh in the public mind, and if he made many political enemies by such a course, he won, we think, a good share of approval from the fair-minded of all parties.

At the time when Mr. Thurman was in the Senate, he was thus described: “At the first glance down into the United States Senate, you would hardly select Allen G. Thurman as a leader. You might hear him speak without noticing his ability or his influence; but after watching the body for a week or two the conviction comes inevitably that no man’s words are more worth listening to, and that no man’s words command such respectful attention. In a

few hours of declamation other Senators show you all their airs and graces, but there is a reserved strength about him which opponents dread and friends confide in. It is not measured, but every one feels that it is there. He is perhaps the plainest looking, certainly the simplest and most unostentatious, man in the Senate. He looks like a well-to-do old farmer, of shrewd sense and sterling honesty. His clothes seem to be of coarser material than those of his colleagues, and his coat is of a loose, comfortable shape. Foreshortened a little in the view from above, he appears low-sized, but his massive head is set upon a square, massive body, the seat of health and strength, rather than grace. All his features are large, and his mouth is especially so. Their habitual expression is quiet, sagacity, and goodness; and the very thought of him suggests *Kent’s* declaration to *Lear*: ‘You who have that in your countenance which I would fain call master.’ When he rises to speak he stands firmly behind his desk, and confines his movements to stooping down to look for a marked reference in a book, and his gestures to putting on and taking off his spectacles. His speaking is essentially a matter of business, not of display, and his voice, though unmusical, is strong and clear enough to be heard without effort throughout the Senate Chamber and the galleries. Out of the breast pocket of his coat, as he speaks, protrudes a red silk handkerchief, and consequently the spectator is prepared to see him draw forth, as the argument progresses, a little black box, tap it gently, and regale himself with a pinch of snuff.”

The red silk handkerchief, to which reference is made, has been seized upon by the young and enthusiastic partizan as a device with which to inspire the Democratic host, and he is no true supporter of the Cleveland and Thurman cause who does not flaunt a “red bandana” in the face of his political foes.



SANITARY REFORM.

BY THE AUTHOR OF "HOUSEHOLD REMEDIES," "PHYSICAL EDUCATION," ETC.
CHAPTER II.—TREE CULTURE.

THE chronicles of antiquity often describe the prodigies presaging the downfall of doomed empires, whose rulers, on the eve of ruin, were warned by portentous apparitions, or the "Mene Tekel" of a spirit hand. Nature has pronounced such dooms against whole tribes of the animal kingdom, and her sentence of death announces itself in the failure of protective instincts. The destructive leming rat of northern Scandinavia often emigrates in myriads, defying resistance, but finally accomplishing their own destruction by entering the sea. Locust swarms, after ravaging the coast lands of northern Africa, have been known to wing their way to the land of death in the heart of the burning desert, and if Providence had ordained the self-destruction of the human race, that purpose could not have been more effectually accomplished than by the consequences of our insane outrages against the life-giving woodlands of our planet.

Forest destruction has reduced the habitable area of our earth by at least one-third. Not the sword, not vice and disease, but the tree-killing axe, has depopulated regions equal in extent to all the arable lands of Europe and North America taken together. By the suicidal insanity of tree-destruction alone

countries once forming the very garden-spots of this globe and blest by every advantage of soil and climate, have been brought to a state of desolation almost precluding the hope of redemption. In western Asia more than 4,000,000 square miles, once studded with cities and country-seats, now hardly furnish the bare necessities of life to a scant population of half-savage nomads. The corn-fields of northern Africa have become barren sand-plains, the mountain-gardens of southern Europe naked rocks, the population of the Mediterranean shore lands has shrunk from two hundred and sixty to less than eighty millions.

The extinction of whole races and the disappearance of thousands of once prosperous cities is not, however, the direst consequence of the blight that has fallen upon the populous paradise of the Eastern Continent. A worse evil is the misery of the wretched survivors. A race of lions shrunk to mangy rats would not be an exaggerated simile of the difference between the heroic natives of classic Greece and Italy and their physically and mentally degenerate descendants, the starving peasants, priest slaves, and bleared-eyed beggars who now haunt the sun-blistered ruins of departed glory. A mute, but incomparably effective, ser-

mon against the evils of intemperance is the collection of drunkard's relics in the museum of the British College of Surgeons, and an equally impressive lecture on the hygienic results of forest destruction is the present condition of the population of Sicily. In the very zenith-period of their national prosperity the citizens of Greece sent out colony after colony to the happy island of woodlands and gardens, where Nature seemed to have combined all the material conditions of human happiness to a degree unequalled even in the Elysian terrace-lands of Arcadia and Asia Minor. Science, art, agriculture, industry, and athletics, all flourished in that island-paradise of the Mediterranean, with its teeming plains and glorious mountain-forests. And now—

“Eternal summer gilds them yet,
But all except their sun is set—”

Dusty plains, long chains of naked sand-hills, harbors shoaled by the diluvium of the treeless uplands, festering coast-swamps, dreary towns, sun-baked hamlets, peopled with paupers and sore-eyed children—a sea-girt lazaretto of marasmus and ophthalmia. All southern Europe with its ramifications of mountainous peninsulas resembles a tree withered by the destruction of its bark; the lack of tree shade, the dearth of woodland-nurtured springs, have doomed millions of Eastern peasants to the misery of an almost hopeless struggle for existence.

How shall we explain the enigma of the infatuation that has failed to heed the lessons of that experience? During the voyage of the “Beagle,” a number of naturalists were greatly puzzled by the stupidity of a sea-lizard that had wriggled out on the open sand and, on being attacked with stones and sticks, failed to save itself by the simple expedient of returning to the protecting depths of the sea, and the only possible explanation seemed the inference that the ancestors of the silly reptile had never yet experienced the necessity of

avoiding perils on dry land, but on the contrary, had often found refuge from the pursuit of marine enemies by crawling out upon the sandy beach. But all the ingenuity of natural philosophers might fail to account for the fatuous obstinacy of a fish that should persist in wriggling out of its native element to endure the tortures of dessication, and after being rescued by a timely rise of the tide, should still repeat the venture of exposing himself to the tormenting heat of the shore-sand. Nor would it be possible to explain (much less to excuse) the persistency of the unspeakable folly that has covered our earth with an ever-increasing area of artificial deserts, if the influence of wide-spread dogmas had not for centuries diverted the attention of mankind from earth to ghost-land, and from the study of the consistent laws of Nature to the belief in the capricious interference of supernatural agencies.

For all their “ailments and pains, in form, variety and degree beyond description,” our mediæval ancestors postulated the agency of a spook. Storms were ascribed to the tricks of malignant wizards, fevers and plagues to the machinations of invisible fiends. If a man's land was rent by a torrent of winter floods, he offered up incense on the altar of his patron-saint. If his crops were ruined by protracted droughts, he was advised to propitiate the wrath of heaven by some signal act of self-humiliation. If his children were stricken down by malignant fevers he suspected the intrigues of night-hags and demons, or sought to conciliate the favor of the saints by burning a job-lot of unbelieving Jews. From an orthodox point of view, it must, however, often have appeared an inscrutable dispensation of Providence that the same countries which, in an age of Paganism, were the happy abode of abundance and health, should now so often be visited by famine and virulent epidemics.

Science has traced that mystery to an

inevitable sequence of natural causes and effects. The animal life of this planet has developed its higher forms on the basis of an advanced stage of vegetable life, and a large number of different species of beasts and birds can prosper only in an atmosphere purified by the influence of arboreal vegetation. The foliage of extensive woodlands exhales enormous quantities of oxygen, and absorbs, or neutralizes, a variety of noxious gases; and forest air, in the literal sense of the word, forms the true life-element of the higher animals. Its beneficent influence extends to large areas of intermediate clearings, mountain-meadows, prairies, etc., but can not redeem the climate of an absolute desert, nor the pest-atmosphere of crowded cities. For the centers of animal life arboreal vegetation performs a function analogous to the influence of saline admixtures in the waters of the sea. The woodlands of all latitudes consequently teem with life in thousands of forms, and there is no doubt that our primitive ancestors were forest dwellers. Even within historical times vast areas of northern Africa, Asia, America, and all western and northern Europe were covered with continuous woodlands. With the exception of the dog faced baboons, all the countless species of our next relatives are specifically forest creatures. Our digestive organs bear an unmistakable resemblance to those of frugivorous animals. Our prehensile hands bespeak their adaptation to tree-climbing purposes. The love of woodland scenery, of greenwood shade, and of forest life in all its forms, is an instinct which centuries of city life have failed to eradicate. The love of the sea is generally cured by the first practical experience of a young mariner, while the recollection of woodland rambles forms the day-dream of countless city children. Like an echo of the fore-world, the rustling of forest trees and the call of a woodbird often awaken the instincts of our forest-born forefathers; and it is a significant cir-

cumstance that trees and tree-shade are everywhere associated with the traditions of our lost paradise. The traveler, Chamisso, describes an interview with a poor native of the north-Siberian coast lands—a Yakoot fisherman—who happened to get hold of an illustrated magazine, with a woodcut of a fine Southern landscape—a river, valley, rocky slopes rising toward a park-like lawn with a background of wooded highlands. With that journal on his knees, the Yakoot squatted down in front of the traveler's tent, and thus sat motionless, hour after hour, contemplating the picture in silent rapture. "How would you like to live in a country of that kind?" asked the Professor. The Yakoot folded his hands, but continued his reverie. "I hope we shall go there if we are good," said he at last, with a sigh of deep emotion. True civilization has never flourished in a treeless country. The stumps of ancient forest trees, if not the abundant evidence of historical records, prove that Greece and Spain were once covered with magnificent forests. In Europe the prestige of superior culture has been transferred from tree destroying to tree protecting nations. The Arabs of the desert remained barbarians till they settled the woodlands of their trans-marine colonies. A hereditary race instinct, rather than any clear conception of scientific motives, teaches our Western settlers to surround their homes with tree plantations; but for *one* tree thus planted, a *million*, at the very lowest estimate, are month after month cut down by the greed of the lumber dealers. Not by acres and groves, but by hundreds of square miles, the primeval woodlands of the American Continent are disappearing from the face of the earth, and unless the work of devastation is stopped in time, the experience of Italy and Asia Minor will, with absolute certainty, repeat itself on the soil of the New World republics. That certainty is still increased by the circumstance that the coast lands of the Mediterranean were

originally protected against droughts by far more effectual safeguards than the large river systems of our own continent. Bays and arms of the sea penetrated the south coasts of Europe in every direction; enormous mountain chains fed their foothills from the moisture stores of their snowy highlands. Yet all those advantages were neutralized by the recklessness of forest destruction. At the beginning of our chronological era two-thirds of the uplands and, at least, one-fourth of the plains and valleys of southern Europe were still covered with arboreal vegetation. But two centuries after, the sunset of Pagan civilization ushered in a night of superstition, the ghastly millennium of monkery and unnaturalism. Science became a tradition of the past. The love of Nature and of secular knowledge were fiercely denounced from a thousand pulpits. The dogmas of "unworldliness" and the reliance on miracles and prayer struck a death blow at rational agriculture. Millions of acres of fine forest lands passed into the hands of ignorant priests, who in their greed for immediate gain, or their professional indifference to the worldly welfare of mankind, doomed their trees to the axe, possibly relying on the efficacy of prayer to avert the natural consequences of barrenness. Those consequences, however, did not fail to avenge the crime against the bounty of Nature. When the Apennines and the southern Alps had been stripped of their protecting forests, winter floods of ever increasing destructiveness ravaged the plains of the coast lands, till the work of dike building almost overtaxed the resources of the impoverished population. Springs at the same time began to fail. The moisture which the network of roots and forest leaves had retained to nourish the fountains of subterranean water courses had been lost in the torrents of the naked hill sides, and droughts became an almost yearly affliction, which irrigation at last failed to remedy. Rivers

shrunk to brooks, brook beds turned into arid ravines. On the banks of the lowland streams and all along the lower coasts the accumulation of river mud formed malarious fens, entailing contagious fevers on millions of shore dwellers, and almost obstructing the waters of harbors which had once sheltered the navies of powerful empires. The cultivators of the treeless plains were stricken with bilious disorders and ophthalmia, the citizens of the sun blistered towns were decimated by summer diseases and ever recurring epidemics. Famine became a chronic affliction. Forest destruction had turned an earthly paradise into a Gehenna of misery and disease.

The impending peril of such penalties more than justifies the pathetic appeals of the Forestry Association. American patriots should not rest till our remaining woodlands are protected by stringent and rigidly enforced by-laws against a system of destruction exceeding the possible rate of natural repair. Bounties on tree-culture should be increased, and "arbor days" multiplied till the plains of our central States are dotted with parks and groves. Parks should redeem the cachectic tendencies of every large city; double lines of leaf trees should shade the sidewalks of every principal street—a plan which, in the midst of reeking coast swamps, has made the city of Savannah the healthiest seaport town of the lower latitudes. The Monroe doctrine should be supplemented by an agreement securing the American Continent against the curse of artificial deserts, and encouraging our trans-Atlantic brethren to redeem their homes from the direst mistake of the millennium of madmen, or, as a British reformer tersely expresses it, "to work the world over again."

FELIX L. OSWALD.

DIET AND DREAMING.—"Ah, if our dreams only came true," sighed the young man that boards on South Division street. "Last night I dreamed that

I called on a lord. I find that I can control my visions to a considerable extent by dieting. For instance: If I wish to enjoy a calm night, I eat toast or bread and milk just before retiring. If I wish to have a little excitement, quarreling, disputing, or a little active exercise I eat squash pie. I have found from experience and observation, that squash pie acts on the posterior part of the brain, where lie the 'bumps' of combativeness and acquisitiveness. I have known times when the consumption of two pieces of squash pie has led me to slay a man for his money within fifteen minutes after going to bed. To make my brain a chamber of horrors, however, I

sit down an hour before bed time and eat three sardines, six olives, a little Rochefort cheese with crackers, washing the whole down with a bottle of Bass. Before morning I charge single handed with my razor on herds of wild horses and jump from sundry steeples. Oh, yes, it is possible to control one's dreams; and when we understand psychology aright, we can lie down and map out our dreams as we map out a day's work."

The above may be a newspaper man item, but the "cloth" of which it is made is pretty good physiology, as hundreds of people who overeat and eat wrongly can say.

HEALTH PAPERS.—No. 8.

NEARLY allied to the question of "Drugs as Curatives" is that of "The Relation of Medical Practitioners to Their Patrons." A great army—one hundred thousand strong in America alone—composed of graduates and non-graduated men, with a small, but steadily increasing, number of women, derive support, while not a few grow rich from medicating the sick. In all civilized countries much the same state of things is found. Everywhere this great brotherhood represents all the departments of medical and surgical practice, general and special, and every shade of mental, moral, social, and religious character.

When important interests are intrusted to any one it is but just and fair to demand of him guarantees correspondingly definite and strong. The interest of the employer should be the interest of the employed. How is this in the practice of medicine? Human nature in physicians is much the same as human nature in other people. It is not reasonable to suppose that the average physician is proof against selfish desires and impulses such as to others would prove irresistible. You are sick; you need, or think you need, professional counsel,

and you call for it. The call is promptly responded to, and the triple war between disturbed vital action, drugs, and the doctor's personal reputation and financial interests at once begins.

Fancy you hear this soliloquy: "I am on my way to see a patient who is well able to pay. I pursue my calling for what I can make out of it—what I can make in reputation and what I can make in ready cash. Two dollars a visit for ten visits! A nice little sum! If I turn off my patient at the second or third visit what will be the result? Reputation and money forfeited. Nothing gained but a good conscience which can not furnish the house, supply the table, clothe the family, or educate the children. A good conscience is a desirable thing. I should like to carry it about with me. But public education is such that little or no confidence is reposed in physicians who make quick cures. Get your patient as near as you can to death's door. Keep him there—the longer the better, so that a final recovery is not forfeited—then let him make a more or less perfect recovery. When I do this, over and over my reputation is made. Who can blame me for this diligence in business? If people can not,

or will not, appreciate more conscientious work, I must do such work as they will approve. Doctors as well as patients need to be emancipated from this abject slavery to conventional methods. Good people do not wish to be constantly tempted to do wrong. But my whole professional life is influenced by the wish that my patrons may be sick, that they may be sick often, very sick, and that their sickness may be prolonged to any extent not detrimental to my good name."

The whole fabric rests on a false basis. It should be entirely reconstructed. The material prosperity of every member of the profession ought to rise or fall with the improvement or decline in the health of his patrons. Doctors are not proof against temptation any more than others are. It is not right so to organize affairs that they should be subjected to such influences. If some are good enough, strong enough, and vigilant, enough to pass the ordeal unscathed, others are not. More than once these words were spoken confidentially by one physician to another: "I consider it not my privilege only, but my duty to myself and to my family, to make all the money and all the reputation possible out of my profession. When I have a good paying patient, therefore, I keep him on hand for weeks or months, when he otherwise might be dismissed in as many days. By doing this I secure a large fee instead of a small one. An enfeebled constitution with chronic tendencies is likely to make future calls more frequent and more urgent. The repeated severity of the sickness and the final recovery, but partial though it may be, do much to increase my reputation and extend my patronage."

Quick cures, as a rule, do not inspire confidence in the professional attendant. Physicians generally understand this if others do not. Their urgency in pursuit of better methods lacks stimulus from the cause. Look around you. Who has the critical cases, the protracted

cases to treat? Is it not he who keeps them on hand for a long time? Is this because the bad cases all go to the physician of superior merit? People do not know when calling for counsel whether they are likely to be very sick or not very sick. If up and about their business, very soon the verdict is that "when nothing is the matter the cure is easy." When the confinement is protracted and results doubtful, "nothing but Dr. Policy's superior skill could have insured so wonderful a recovery." Is not this so?

What then is to be done? This may not be an easy question to answer wisely. Radical changes must be made. Perhaps this plan may be adopted: Let physicians be health officers. Let them be paid as churches pay their ministers. Family subscriptions annually paid in will afford a reliable support. No addition to salary to be contingent upon the care of the sick. The physician will thus become interested in the prevalence of good health and in the speedy recovery of the sick. His reputation will rest on the smallest percentage of disease and the prompt recovery of his cases.

Better methods of both prevention and treatment will thus be developed, for professional success will call for them. Sanitary science will be studied as carefully as it is under the present system ignored and neglected. General good health, prompt recovery when sick, and steady progress in knowledge of personal, domestic, and public hygiene will more and more prevail. Physicians will visit the homes, eat at the tables, look into the cellars, the back yards, and the pig styes; inspect modes of heating and ventilation, give instruction about clothing, exercise, and rest, and look after everything bearing upon the physical well-being of their patrons. They will become leaders; the public will follow on as interested and enthusiastic learners. Every interest will be mutual. Is not such to be the good time coming?

J. S. GALLOWAY, M. D.

WHAT IS DISEASE ?

IN a general sense, disease is the legitimate and necessary results of the violations of the laws of our physical being—the conditions of health. It is reasonable to infer that there is no pain, sickness, and but few deaths which do not result from infringements of these laws—health being in a certain sense natural, and disease accidental, inflicted in the line of penalty. We may conclude that the great and good Father is best pleased with His children when they regard all of His laws, including, most certainly, the laws of the body, established for the regulation of that body, by a proper observance of which a natural condition of good health can be secured—our health being as certainly under our control, and to as great an extent as any branch of our business or employment, or our education—while disobedience, and consequent physical suffering and disease, not only are not in accordance with his pleasure and design, but such violations of his laws will constitute sin, as certainly as a violation of a moral law, both having the same divine origin.

The true condition of the advanced man is that in which his whole being is harmoniously developed, the body so cared for and fed that it will have some of the vigor and endurance of its original state, as he came from the hand of the Creator, when, as one of the best thinkers of the age in which he lived, Horace Mann, said of man before he fell, physically, by gross violations of organic laws, "He was so perfect in his bodily organs, so defiant of cold and heat, of drought and humidity, so surcharged with vital force, that it took more than two thousand years of the combined abominations of appetite and ignorance; it took successive ages of outrageous excess and debauchery to drain off his electric energies and make him even accessible to disease; then it took ages more to breed all of these vile distempers which now nestle, like vermin,

in every fiber of the body!" Although suffering, tortures, and disease follow in the direct line of penalty for disobedience, a disregard of necessary laws of our being, these penalties are administered in mercy, what we call diseases being, generally, only efforts of nature to avert the worst results of our wrong doings, and to improve the general condition of the system.

We may have a cough, yet that is not the real difficulty, but the result of a struggle of the recuperative powers, the vital energies, to dispose of certain accumulations which would otherwise prove harmful, if not fatal. The duty of the nurse, physician, etc., is to co-operate with nature in this friendly effort for improvement and purification, "loosen the cough" and promoting expectoration. Yet some young practitioners, who suppose that they are saturated with science, do the best (or worse) that they can to antagonize nature, crippling her in every respect, by the administration of opiates, retaining such foul accumulations, to serve as irritants in future. Yet, it is well known that, in the advanced stage of lung affections, when expectoration is impossible, when the system is measurably contaminated, death soon follows.

Again, when more food is eaten than can be digested, the remainder ferments, decays, putrifies in the stomach, threatening harm to the whole system. A nausea is instituted, followed by convulsive efforts of nature to expel the putrid and poisonous accumulation in mercy, which we call the disease—vomiting—which should always be encouraged, "rinsing out" the stomach with warm water till cleanliness is secured. Yet, opiates are often given to foil nature in her merciful efforts for purification, and these efforts of the young practitioner to antagonize the recuperative powers too often proving a partial success. The resultant disease, so-called, may be a flux; nature, foiled in her attempt to rid

the stomach of its poisonous burden, by vomiting, *hustles* the mass into the bowels, where another effort at expulsion is instituted. Nature is generally prompt in such measures, doing the best that can be done, under the circumstances, at least, unaided. By the use of opiates, this merciful effort of nature may be suspended, the impurities retained in the body, yet nature is not so easily pacified, not easily conquered. The next effort to purify may be to produce cutaneous diseases, throwing the visceral impurities to the surface, as the next most available means of avoiding worse diseases. Just to the extent that these discharges are effected, health may be secured, the system purified. If astringents are applied, the discharges checked, in consequence of the foolish fear of "running the life away," when nothing but impurities, poisons, are discharged—the more the better—outraged nature may still attempt a cure, a purification, by instituting a fever, which the meddling young practitioner can not so easily control. If the causes are not removed, the fever will be quite sure to have its own course, taking its time for the renovation and cure. The vital energies quicken the circulation, sending the blood to the lungs for purification, these two acts energizing the whole system. What nature failed to expel, in consequence of the astringents, as the

next resort is actually burned by feverish action, the combustion producing the heat of the fever. Such a fever, if not troubled by intruders, consumes vast quantities of effete matters, purifying and restoring health.

If our Heavenly Father punishes us for our physical sins, our reckless disregard of the physical laws which he instituted for the protection of our health and the promotion of our physical welfare he supplemented such penalties with reconstructive instrumentalities, recuperative measures, conducive to our real good. If we suffer, it is because we are wrong; we outrage our physical being. It would be blasphemous to charge the good Father with creating idiots, monsters, the physically dwarfed and diseased, surcharged with the overflowing *rottenness* of licentiousness, the gangrenous and the deformed, the blind and the halt, the thousands of the victims of degraded and vicious parents, in whom the foul emanations, in the form of malignant diseases, are constantly outcropping from week to week, rendering mortal life but a fearful series of plagues and epidemics, the diseased bodies scarcely being capable of containing the constant stream of foulness which naturally flows from a vicious and licentious life down to a sin-cursed progeny. No, if we suffer, it is because we produce sufferings, create our diseases!! DR. J. H. HANAFORD.

ON EXERCISE.

"PLATO," says Leigh Hunt, "had such a high opinion of exercise that he said it was a cure even for a wounded conscience." Be that as it may, the whole world will testify that exercise is a sovereign cure for a weary mind. I take it that the highest mission of the body is to serve the mind. Muscles were not made, primarily and in the best estate of the race, to lift burdens, to hew down trees, to trundle barrows, or to do any physical labor as an end in itself. These things the mind can accom-

plish to a thousand times better purpose by harrassing the giant forces of nature. Our senses, our hands and feet, our entire physical being, must subserve the mind. And the mind says to the body: Please me, play for me, and I will summon genii to do the world's work."

Exercise, then, in its best estate is play—the body amusing the mind. When play is overdone and becomes work it loses its power to recreate the mind, and becomes, rather, a drain upon it. At the outset, then, we must agree

that exercise for its own sake is not the right sort. All exercise that has for its object physical training and the making of muscle is exercise for its own sake. For instance, a man who spends five hours a day every day developing his biceps is committing an outrage upon his intellectual nature. *Cui bono?* What matters it that this man lifts four hundred pounds and that man one hundred pounds, when at a finger's touch there are arms of steel that will lift ten thousand pounds? I would stand, as a mere physical being, before such a piece of mechanism as humbly with a ton upborne upon my right hand as with a pound. Yet this magnificent lifter and worker is one of the mind's genii. To this master mind the physical man, intent on the development of biceps, says: "I will not serve you. What are you to me? I am gaining a more desirable power than you can offer. Just look at these muscles!" So the world of mind advances, summoning its genii, and the physical man cultivates the bunch on his puny arm and is content.

We must take another step, then, and say that exercise is of value only when it is subordinated to the highest welfare of the mind. The physical power and facility which come from exercise are nothing in themselves. The true sort of exercise is found in the absolute obedi-

ence of the physical man to the dictates of his intellectual being.

Plato's view of exercise as the cure for a wounded conscience introduces a further reflection on the moral character of exercise. Nothing wounds the conscience of the average man more sharply nor rankles longer than neglect of duty. Exercise for its own sake simply is a sin—unless it be that sometimes necessary overdoing of the physical powers, lifting burdens, trundling barrows and the like, which is a misfortune—a misfortune, however, which the world is rapidly outgrowing.

As a means—not as an end—exercise fulfils its true mission. It is the only renewer of the mental energies, save that healing balm which Nature poured upon both mind and body—sleep. Exercise is that subjective bodily function by which the mind prepares itself betweenwhiles for the herculean tasks. Otherwise than as the humble servants of the mind muscles are of very little use. They take us on no long journeys; they transact for us no good enterprises. But they are the means of restoring vital energy to the power within us which does these things.

Exercise is the physical man giving the intellectual man a ride upon his shoulders.

JAMES BUCKHAM.

TREATMENT OF SCARLET FEVER.

THE *London Lancet* surveys the methods more commonly in practice for the treatment of this alarming malady, and comments as follows:

It would be interesting if a census were to be taken with a view to ascertain what treatment of scarlet fever was most in vogue among practitioners to-day. We suspect that not an inconsiderable portion of this vote would fall to the lot of expectancy, by which must be understood the absence of any attempt to arrest the course of the malady, combined with great watchfulness of the symp-

toms and the treatment of the most dangerous of these morbid phenomena. The present epidemic is for the most part of a mild nature, but considerable attention has to be given to the throat, which seems to suffer in a marked degree, the glandular swelling being correspondingly marked. Hence it will be found that gargles of all kinds, and especially those of an antiseptic nature, are freely used, together with compresses of various degrees of heat and moisture applied to the neck. Most practitioners, even those of the most expectant schools, em-

ploy topical applications to the throat and nose. Many articles are used to relieve the thirst and sensation of dryness, but nothing is more effective than ice and a little raspberry vinegar. It is important to keep the nostrils and nasal passages sweet and clean. For cerebral symptoms, nothing is better than the application of cold, either in the mild form of lint soaked in ice water and applied to the shaven head, or in the more effective capilline tubes, with irrigation. Compression of the carotid arteries and bleeding are seldom practiced nowadays, either in scarlet or any other fever. Aconite in minute doses, frequently repeated, is still the favorite drug of many practitioners, but its employment needs the exercise of clinical discretion, especially in children. Actual bathing in cool or tepid water is practiced by a few physicians, and the number of practitioners who recommend the use of cold or tepid sponging, the patient lying in bed on a mackintosh, appears to be largely on the increase. Most of the alleged specific and curative agents have long since lapsed into discredit.

Belladonna finds but few adherents, and carbonate of ammonia almost none. Considerable difference of opinion exists on the merits of inunction with fat, cold cream, and the like, two of the most recent authors on the diseases of children taking opposite views, Dr. Goodhart advocating and Dr. Angel Money opposing the universal inunction, though the latter sees no objection to relieving the tension of the palms and soles by the application of geoline or vaseline scented with eucalyptol.

From the above the logical inference is to be drawn that hygiene is of more importance than the exhibition of pills and potions in controlling the activity of this zymotic disorder. An intelligent nurse with facilities for antiseptics or the neutralizing of the poisonous germs developed in the system of the patient, and thrown out with excretions, cooling applications, and well selected food and drink, may be relied upon to aid nature in the effort to conquer the enemy. The increase of physicians who approve cold or tepid sponging is an encouraging sign that is welcome to American sanitarians.

EFFECTS OF THE CORSET.

IN a paper Dr. R. L. Dickinson, lecturer on obstetrics in the Long Island College Hospital, discusses the old question of the corset, and the ill effects produced by it, with reference to pressure and displacement. His method of study was the following: An inelastic bag is connected with a manometer in such a way that when the bag is held on a level with the fluid in the tubes of the manometer, the latter registers zero. The bag (kept at the zero level) is introduced beneath the corset, which is then closed, and the readings are made. Two inches of mercury displaced, *i. e.*, an inch on each side, will signify a pound of pressure to the four square inches of bag surface. To obtain the number of pounds' pressure on one square inch of surface, the reading is divided by

eight. Without presenting the results of his studies in detail, the following are his conclusions, briefly stated:

"1. The maximum pressure at any one point was 1.625 pounds to the square inch. This was during inspiration. The maximum in quiet breathing was over the sixth and seventh cartilages, and was 0.625 pound.

"2. The estimated total pressure of the corset varies between thirty and eighty pounds—in a loose corset, about thirty-five pounds; in a tight corset, sixty-five pounds.

"3. Within half a minute after hooking the corset, such an adjustment occurs that a distinct fall in pressure results.

"4. The circumference of the waist is no criterion of tightness. The difference

between the waist measure with and without corsets gives no direct clue either to the number of pounds' pressure or to the diminution in vital capacity. Relaxation and habit seem to affect these factors largely.

"5. The capacity for expansion of the chest was found to be restricted one-fifth when the corset was on.

"6. The thoracic character of the breathing in women is largely due to

prevalent practice of corset wearing.

"7. The thoracic cavity is less affected by the corset than the abdominal.

"8. The abdominal wall is thinned and weakened by the pressure of stays.

"9. The liver suffers more direct pressure and is more frequently displaced than any other organ.

"10. The pelvic floor is bulged downward by tight lacing one-third of an inch (0.9 cm.)."

ELECTRICAL THERAPEUTICS.

THERE is a prevailing notion that to treat disease with electricity is an easy matter, and hundreds of people who know nothing of anatomy and but little more of physiology get batteries and practice on themselves and others expecting wonderful things. A writer in the *Medical Register* puts the matter in a good light.

The importance of electrical therapeutics is meeting now, after long delay, with proper recognition from our medical colleges. No student is graduated to-day without some knowledge of this branch of medicine, though few acquire it to the degree of proficiency. This is, perhaps, more the fault of the student than the instructor. Electro-therapeutics seem so simple, when considered superficially (which is the way they are considered by most medical tyros), that very little time is given to the study of the subject. Many fancy there is nothing to be done but to start the current and apply the electrodes, that electricity can't do any harm if it don't do any good and that this systematic application is mere ceremony. It is this lack of knowledge that begets lack of faith both in the patient and operator. The careless use of the battery, the ignorant application of galvanic and faradaic currents *ad libitum*, not only fails signally, but may produce genuinely deleterious effects. It is a great misfortune that the advertising of electricity as a cure-all has thrown discredit on electro-therapeutics, which

have been branded, therefore, to some extent as a kind of quackery. This is even more so with magnetism. Very often we find people opposed to the use of electricity. They have tried it, they say, and it has done them no good. Investigation generally shows that such patients have worn some of the so-called electrical apparatus or clothing, have used electrical hair-brushes, or worn "Voltaic medals," which, of course, have nothing to do with electricity, and are not of much use as a liver pad. Occasionally we come across some who have really tried a battery, but it has, perhaps, been the wrong current, applied too strong or too weak, and generally in the wrong place altogether. It is a great pity that it is possible for people to trifle with such a valuable therapeutic agent as electricity, which is often brought by pure ignorance into undeserved disrepute. But it is not only the unprofessional experimenter who err in this way. Many older or less progressive practitioners, who hear the merits of electricity noised abroad, invoke its agency without understanding properly the mode or theory of its application. They had not, as students, any opportunity of studying electro therapeutics, then in its infancy; and latterly, as physicians, they have not appreciated the importance of the subject sufficiently to give it due attention. It is in this way that the usefulness of a great remedial agent is hindered and perverted.

QUACK ADVERTISING IN RELIGIOUS PAPERS DENOUNCED.

AT the late meeting of the Medical Society of Arkansas a series of resolutions was passed censuring in strong, but appropriate, terms the practice so common among publishers of religious organs of advertising patent nostrums and so called medical advice. Let the resolutions speak for themselves:

Resolved, That the members of the State Medical Society of Arkansas have for years observed with pain and mortification the patronage given to charlatanism in all its multifarious aspects by the religious press of our country.

Resolved further, and most specifically, That the appearance in religious papers, ostensibly published for the inculcation of truth and morality, of serious homilies on prayer and praise side by side with cures for consumption, cancer, Bright's disease, and other incurable ailments, to which an editorial endorsement is often given, as well as secret preparations under the cloak of remedies for disease, but really intended for purposes of foeticide and other immoral uses, largely tends to shake the confidence of the profession of medicine in the integrity and purpose of the managers and editors of such journals.

Resolved, further, That it has been the well known custom of the profession to render services gratuitously to clergymen, which we do not regret nor do we propose to recall; yet we must assert that the frequent occurrence of endorsements and recommendations by the clergy of peripatetic doctors and advertising charlatans has in many instances been the only reward of our gratuitous services.

Resolved, further, That we are aware that the editors of religious newspapers admit the painful situation in which these advertisements place them, and attempt to excuse themselves by saying that it is necessary to take these advertisements in order to obtain means to conduct their papers; but, in the language of orthodox theology, we would say: "Put behind you that damnable doctrine that we must do evil that good may come."

Resolved, further, That, as a Society, we declare that the continued perpetration of the above offences by some of the clergy and religious press brings harm to the bodies of their constituency, and damages materially their influence upon the thinking class of the medical profession.

WHO IS EXEMPT.—There are many firm believers in the theory that most people are crazy at times, and facts seem to support their belief. The following from a source unknown to the writer, will likely remind a number of our readers of some incident in their experience, which at the time of its occurrence seemed to them most unaccountable:

"A wise man will step backward off a porch, or into a mud puddle, a great philosopher will hunt for the specs that are in his hand or on his forehead, a hunter will sometimes shoot himself or his dog. A working girl had been feeding a great clothing knife for ten years. One day she watched the knife come down slowly upon her hand. Too late

she woke out of her stupor with one hand gone. For a few seconds her mind had failed, and she sat by her machine a temporary lunatic and watched the knife approach her own hand. A distinguished professor was teaching near a canal. Walking along one evening in summer he walked as deliberately into the canal as he had been walking along the path a second before. He was brought to his senses by the water and mud and the absurdity of his situation. He had on a new suit of clothes and a new silk hat, but though the damage was thus great he still laughs over the adventure. Our mail collectors find in the iron boxes along the street all sorts of papers and articles.

Child-Culture.

THE DRUMMER BOY.

THAT touching little poem of the late war called "The Drummer Boy," concerns a brave little lad, who, as the poet tells us, served under General Lyon, and was rescued by him after a battle, but only to die. The facts of the boy's story, as related not long ago by a trustworthy comrade, are even more pathetic and significant than they are made in the poem.

When General Lyon was on his march to Wilson's creek, a Tennessee woman, dressed in deep mourning, brought her son, a lad of twelve, into camp. She was starving, she said; her husband was dead, and the boy wanted to enlist as a drummer.

The lad watched the officer's doubting face eagerly.

"Don't be afraid, captain! I can drum!" he cried.

"Give him a trial!" the captain ordered.

The fifer, a gigantic fellow, looked on the puny boy contemptuously, and broke into an air very difficult to accompany with the drum; but so well did the child succeed that even the captain applauded. "Eddy" was enrolled as drummer, and became the pet of the camp. He was the special favorite of the fifer, who, when the march led them over creeks difficult to ford, would hoist the boy on his shoulders, and, fifing and drumming merrily, they would lead the way for the line.

At the battle of Wilson's Creek, Gen. Lyon was killed and his force routed. Toward morning one of his soldiers, lying wounded by the stream, heard a feeble rat-tat in the woods.

"That is Eddy beating the reveille," he thought. He crept to him and found the lad with both feet shot off, thumping on his drum.

"Don't say I won't live!" he said. "This gentleman said he'd fix me until the doctor would bring me all right again." He nodded to the body of a Confederate soldier, who, although dying, had dragged himself through the grass to the child, and had tied up his legs with his suspenders to check the flow of blood from the arteries.

Later in the morning, while the comrades lay helpless together, a body of Southern cavalry rode up.

"Look to the child," said the Yankee soldier.

Two of the men, grizzled old soldiers, who were probably themselves fathers, sprang to the ground and lifted the boy tenderly. As they carried him, he tried to tap his drum. With a triumphant smile, and still smiling, he died before they could reach the camp.

This incident tells us of the bravery and tenderness which filled many hearts beating under blue coats and gray, and who doubtless grieved over the horrible scenes of battle, and devoutly longed for its cessation.

MOTHER'S WORK.

A CHAPTER of Mrs. Diaz's "Bury to Beacon Street" is full of sound counsel to the young people of the day, and is worthy of wide distribution. The mother of a family, after a hard forenoon's work, had given up to tears, for her girl and boy had gone

away leaving their tasks undone, and the burden of the day seemed to be growing greater than she could bear.

Her husband, finding her thus discouraged, inquired into the matter, and came to the conclusion that their children should be made to realize that a

part of the household work belonged to them, and not that they were generously "helping mother" when they gave any assistance.

"So one evening, after Laura had finished her examples, her father asked her to write down all the different things I had to do in the different days of the week. She began to write, her father and Fred prompting when her memory failed.

"The list covered both sides of the slate. Husband wrote at the beginning, for a title, 'Mother's Work,' and then remarked that it was a good deal of work for one person.

" 'I help her some,' said Laura.

" 'Yes,' said he, 'I suppose you call what you do helping her, and that Fred calls what he does helping her, but after all, you are only helping yourself. Mother eats a small part of the food she cooks, and wears a small part of the clothes she makes, and washes, and irons, and mends. So all this work is not really hers, but only hers to do.'

"Then he rubbed out the title, and

wrote in its place, 'The Family Work which is called Mother's Work.'

" 'Now, I should like to know,' said he, 'why members of the family consider it a favor to mother when they do parts of their own work?'

" 'For instance, I have noticed that, to get a meal and clear it away, there must be wood and water brought, vegetables got, cleaned, and cooked, other things cooked, the table set, dishes washed, knives scoured, and some tidying of the room afterward. Now it doesn't seem right for one person to do all this labor and for other persons to feel that their part is only the eating part. That isn't fair play.'

Having thus convinced the children that it was not, indeed, fair play, the father proceeded to allot them a certain portion of the family work for their own doing. Reader—big boy or little girl—profit by the hint, no longer pluming yourself on "helping mother," but honestly assuming the labor which belongs to you.

THE PSYCHOLOGICAL BASIS OF EXPRESSION.

FROM the report of a lecture by Francis W. Parker, recently published in *The (Werner's) Voice*, the following points are taken:

"The non-development or the over-development of any mode of expression may be considered a deformity. Any deformity obstructs thought. As illustration, I call to mind Sam Weller, a young man bright in many things. But see how he labors when he writes a letter! He does not hold his pen properly; his hand lies over on one side, thus offering the greatest resistance. His feet are curled back under his chair; his tongue is run out of his mouth; and his thoughts, so fluent in oral expression, are so obstructed by his imperfect development that he can hardly write anything. You have all seen boys working over their copies in the same way.

To touch briefly the intellect in regard

to bodily development: Can there be a normally developed body without a normally developed mind? The brain is not only as a whole the organ of mind, but certain parts of it have specific functions. Each nerve-fiber and each nerve-cell has a specific function. There is in the brain a certain nerve-mass devoted to modes of expression. Now, if all the brain were not cultivated, would not that part by disuse sink into oblivion or wither up? Does not the disuse of one brain-part affect the whole brain?

There is a time when all the brain-parts are ready for cultivation; there is an order of growth and evolution. The child is unaware of this time; it is unaware of the possibilities that exist within it. Therefore, it is safe to conclude that if the child has not proper conditions presented for its development, it will not of itself develop to its utmost capabili-

ties. True, every child shows a preference for something. Let not the parents or teacher ignore this preference, for it is God's finger-point toward the child's best development. We call it instinct in animals; it is instinct in the child. Human instincts are the products of all the past.

If this time for development is allowed to pass, then self-consciousness sets in. It is not really consciousness of self, but consciousness of the organ that expresses the idea or thought. That consciousness paralyzes energy. If you ask a little child to draw something for you, he grasps his pencil with the confidence of an artist. Then is the time that the power of drawing should be developed. If it is neglected, the child may never be able to draw. The same is true of all the modes of expression. Just here I want to say a word about the school boy's speaking pieces. Declamation is the archfiend that has paralyzed expression. It has produced self-consciousness and many other evils. I once heard a little girl recite a piece in school, which I could not help thinking "a wonderful bit of mechanism." After she had finished I went to her and asked what she got for the recitation. "Oh, I got 75 per cent. for my gestures, 80 per cent. for my facial expression, and 95 per cent. for my position and attitude!"

Early development of the modes of expression means freedom. The brain is ready, and there is no room for self-consciousness. All children are fond of doing something, of *making*. There is not such a thing as a lazy child in the world. Activity is their element; let this activity find its outlet through the proper use of the modes of expression. Teaching is simply a presentation of conditions for growth at the proper stages.

The fundamental use of oral language is to arouse in a person definite conscious activities. When printed words are presented to the eye, they arouse definite activities in us. When these printed words arouse certain definite conscious

activities, it is reading. The elementary idea, which is that in the mind that corresponds to reality, is not strengthened by reading. We are conscious only of what we are conscious; we see only what we have seen, hear only what we have heard. Weakness in any one of the modes of expression means inefficiency of latent energies, a small number of these energies. By education, which deals with these activities, the energies may be strengthened; this is the province of education. The result expressed corresponds to the concept. Imitation is only the reproduction of an external object.

In regard to language, there is no correspondence between the oral word and the concept. Very probably there once was, and this may even have been the origin of spoken language. We have still many onomatopoeic words, which I think show this, and which I hope will remain in use. Printing or writing sprang from drawing. Oral language is far more difficult than written language; if a child could foresee what learning to talk meant, he might say that he did not wish to learn to talk. Enunciation, articulation, accent, emphasis, are all extremely complex. It is a fact that most people live and die without being able to analyze a word. In a class of 80 teachers that I once tested, not one could do it.

The child uses the word to express his thought. The more intense the desire to express thought, the more intense is the conscious activity, and, consequently, the more quickly the word is learned. What is expression by language? Language steps in when reason and judgment begin to appear, to express what the other modes of expression can not. Words are learned by the law of association. When a child sees an object and asks what it is, he is eager to know; and, his conscious activities being roused, he associates the word you tell him with the object so quickly that often one telling is sufficient to impress the word on his mind forever.

Now, why should the child read orally? Why not read to himself? Oral reading is a stimulus to give the thought he has to others. He has a motive. Unfortunately, most oral reading is simply reading to one's self without the motive of giving. Another kind of oral reading is just pronouncing words. Both of these are bad for the child. He does not give what is in him. Every rule of elocution may be referred to this motive of giving. When a child thinks only of pronouncing the word, he is stultified. The amount of effort he puts into "I—see—a—cat" is not worth the result obtained! This drawling in oral reading means obstruction in the mode of expression. Anything in the voice of the speaker, as huskiness, stammering, distracts the attention. In great oratory the thing is to lose sight of the man and think only of the idea. In oral reading the child should think more of the idea he is giving than of the word.

A principle in ethics should be to have the child write well, think well, and speak well. Ease in expression means the least possible effort to express economy of power. Lack of ease means friction, which destroys. Any rigidity in the muscles is obstruction to thought, and obstruction to thought weakens the power to think. The same thing obtains in speaking; obstruction in speech weakens the power to speak. Elocution, as generally taught, deliberately trains the muscles of the throat to rigidity. Rigidity of throat muscles occurs when the orotund is used. I think I know whereof I am speaking, from my own experience in elocutionary training. When one thinks of voice, the particular muscle or quality he is to use, the audience thinks of his voice and nothing more. Elasticity is absolutely necessary in speaking. Rigidity of muscle means rigidity of mind and rigidity of soul.

I believe that all modes of expression were evolved from gesture. In the development and progress of gesture you can trace the simple movement of the

hand in asking for food up to the highest expression of thought. Gesture harmonizes and combines the modes of expression. Moreover, one can not assume a bearing without feeling the result of the action, for the mind conforms to the action of the body. There can be no bodily action without its affecting the mind and the soul. The province of elocution is to develop the soul. In the child we find life and the preparation for life. No elocutionist can teach a child of six years how to speak: In it, melody, pause, harmony, and emphasis are all perfect. The great elocutionists, on the contrary, realizing this, go to the child to learn of him. The child is unconscious of his perfection. What gives unconsciousness? Thought, purpose behind the action. In closing, I would say that all education and elocution should be for the purpose of developing the individual being to its highest expression, to bring out the individual from the mass. Each mode of expression enhances the conscious activities, and helps to lift the being toward perfection.

THE MINISTRY OF SONG.

NOT the child's song with careless laughter rising
From his rosy lips in childhood's sunny days,
Not that sweet strain, which youth delights in singing,
Are life's best melody and truest praise.
Gladsome are these, and beautiful; their cadence
Floats down long years; life's morning song seems best,
Although maturity, with sighs, confesses
Her children's songs bring pity and unrest.
Who soothes the ear of grief with hint of pleasure?
Who comforts age with hopes of things to be?
Why have youth's songs and life's maturer measure
No common keynote in life's harmony?
None knew—and yet, from out our care and clamor
We hear the wondrous music silence holds.
In piteous need, one human lamentation
Most beautiful strain of sympathy unfolds.

NOTES IN SCIENCE AND INDUSTRY.

Scientific Secrets.—Probably the only secret process which has been kept inviolate, and for ages openly defied the world of science, is the iron trade of Russia. The secret of making Russia sheet iron is owned by the Government, and is such an immense monopoly that it is currently supposed to defray the entire expenses of the Government.

The works constitute an entire city, isolated and fortified against the rest of the world. When a workman enters the service he bids a last farewell to his family and friends, and is practically lost to the world. He is never heard from afterward, and whether he lives or dies, all trace of him is forever lost.

There have been several desperate attempts made to steal or betray the secret, but in every instance it has resulted in the death of the would-be traitor.

In one case a letter attached to a kite, which was allowed to escape, was picked up by some peasants, and, despite their protestations that they were unable to read, they were at once put to death by the guards to whom they delivered the letter, and it was afterward decreed that the guards themselves should pass the remainder of their days within the works.

The wonderful properties of this iron are so well known that it is unnecessary to enlarge upon them; imitations have been made closely resembling the original article, but the durable polish, toughness, and anti-rusting properties are lacking, and to-day the secret remains as hidden as the philosopher's stone.

It has been recently claimed that a new discovery has been made, which it is believed by some will develop into an article equally as good, and preparations are now being made to erect large works in this country for its production, but it is too early yet to predict what may be the results.

How Rats Cause Fires.—According to *Fire and Water*, Fire Marshal Whitcomb, of Boston, has been recently experimenting with rats and matches, shut up together in a cage, in order to ascertain

whether they were likely to cause fires or not. In the absence of other known cause, frequent fires have been ascribed to their agency, while at the same time many underwriters affected to scoff at the idea. The question may, however, now be considered as settled. The very first night that Marshal Whitcomb's rats were left alone with the matches, four fires were caused, and not a day passed while the experiment was being tried that fires were not set in this way. The rats were well fed, but they seemed to find something in the phosphorus that they liked. It was noticed that only the phosphorus ends were gnawed, and in nearly every instance the matches were dragged away from the spot where they had been laid.

Test for Arsenic in Wall Paper.

—A simple and easily applied test for arsenic in wall paper has been devised by Mr. F. F. Grenstedt. No apparatus is needed beyond an ordinary gas jet, which is turned down to quite a pin-point, until the flame is wholly blue; when this has been done, a strip of the paper suspected to contain arsenic is cut one-sixteenth of an inch wide and an inch or two long. Directly the edge of this paper is brought into contact with the outer edge of the gas flame a gray coloration, due to arsenic, will be seen in the same. The paper is burned a little, and the fumes that are given off will be found to have a strong garlic-like odor, due to the vapor of arsenic acid. Take the paper away from the flame and look at the charred end—the carbon will be colored a bronze-red; this is copper reduced by the carbon; being now away from the flame in a fine state of division, the copper is slightly oxidized by the air, and on placing the charred end a second time not too far into the flame, the flame will now be colored green by the copper. By this simple means it is possible to form an opinion without apparatus, and without leaving the room, as to whether any wall paper contains arsenic, for copper arseniate is commonly used in coloring wall papers.—*British Medical Journal*.

Progress of Electricity.—Little

was added to our knowledge of electricity during 1887, but there was a remarkable development of its practical applications. One of the most important scientific discoveries was that sparks in tubes dissociated iodine, bromine, and chlorine. Immense improvements have been made in the construction of dynamos, motors, accumulators, and secondary generators, and in consequence the electric lighting and working of railroads and tramways has entered upon a commercial and useful stage. The application of powerful electric currents to smelting, as in the Cowles process for producing aluminum, and to welding, as proposed by Elihu Thomson, is gaining rapid progress, while the use of enormous dynamos for the deposition of pure copper from impure ores is gaining ground with giant strides.—*Electrical Review*.

Fluorine.—The isolation of fluorine is a recent scientific achievement of M. Moissan, and has been made the subject of a report to the Chemical Section of the French Academy, which, according to Engineering, sets forth the work of preceding chemists leading up to the late discovery. From this it appears that Scheele and others taught us how to prepare fluoric acid, and Davy attempted to isolate fluor, or fluorine, as he called it. Since Davy's attempt several others have tried it by electrolysis, some of these injuring their health in the process. M. Moissan succeeded by the electrolytic method, and came to the conclusion that the gas which is disengaged at the positive pole by electrolysis of anhydrous fluorhydric acid is fluor. This conclusion has been justified by the report of the above mentioned committee. This gas was found to have the following properties: It is completely absorbed by mercury, with the production of proto-fluoride of mercury; it decomposes cold water, disengaging ozone; phosphorus burns in it, producing fluoride of phosphorus; sulphur warms, melts, and even flames in it; iodine is transformed in it to a colorless gaseous product; antimony and arsenic in powder burn in it; crystalline silicium takes fire and burns in contact with it, producing fluoride of silicium. Adamantine boron burns in it with greater difficulty. Carbon seems unaffected, but iron and manganese in powder burn in it with sparks. It attacks most organic bodies with violence; alcohol, ether,

benzine, turpentine, and petroleum take fire in contact with it; and fused chloride of potassium is attacked cold, by it, with disengagement of heat.

Dishorning—Good Results.—H. H. S. says in the *Country Gentleman* on this topic:

Having read with interest all that has been written, and having had my cattle dishorned. I would not have the horns back for any money. Of cattle dishorned in this section I have not heard of an instance where shrinkage in the flow of milk could be noticed or the loss of a single feed, where the work was properly done. The cases of which Dr. Horne speaks must have been done in a bungling manner. We employed W. H. Richards, of Howard county, Iowa, who has improved apparatus for holding the cattle, and with an experience of dishorning 25,000 head has not lost an animal. With his machine an expert can dishorn from 100 to 150 per day. My twenty-eight were dishorned in fifty minutes. The cattle are much nicer to handle in every way; no hooking or bossing; cows and steers, yearlings and calves bunch like a flock of sheep. I can not see that there is any need of chloroform as the time it takes is so short that much time would be lost in giving it. Neither can I conceive how the result of which Mr. Horne speaks could arise from the dishorning if properly done and at a proper time, say from Oct. 15 to March 20, so that they are thoroughly healed before flies come. One thing more—let none but experts do such work; an amateur is not a success.

Dust Particles in the Air.—Mr. John Aitken, a well-known investigator of the atmosphere, has recently made a series of experiments on the number of dust particles in ordinary air. So far his results show that outside air, after a wet night, contained 521,000 dust particles per cubic inch; outside air in fair weather contained 2,119,000 particles in the same space, showing that rain is a great purifier of the atmosphere. The air of a room was found to contain 30,318,000 particles in the same space; that near the ceiling containing 88,346,000 per cubic inch. The air collected over a Bunsen flame contained no less than 489,000,000 particles per cubic inch. The numbers for a room were got with gas burning in the room, and at a height of four feet from the floor.

These figures, though not absolute, show how important is the influence of a gas-jet on the air we breathe, and the necessity for good ventilation in apartments. Mr. Aitken remarks that there seem to be as many dust particles in a cubic inch of air in a room at night when gas is burning as there are inhabitants in Great Britain, and that in three cubic inches of the gases from a Bunsen flame there are as many particles as there are people in the world.—*Cassell's Family Magazine*.

A Solution of the Education Problem.—The little town of St. Fargean in France is a good illustration of the truth that all the wisdom of this world is not found in the big cities. For that place of 2,600 inhabitants has successfully solved the problem of giving boys a handicraft and a

good education hand in hand, and without making a fuss about it. In this school of apprenticeship of theirs every boy divides the week between manual labor and study. For three days he does nothing but work in the shop of some accredited tradesman in the town, it being left with the boy's parents to choose what the trade is to be. The other three days he spends in studying practical matters, such as geography, modern history, modern languages, physical and mathematical science, etc. At the end of three years he has a trade and a much better education than falls to the lot of most mechanics. The apprentices take their meals at the school and sleep there, and all they pay is \$90 a year, which includes books, pens, and ink, etc., the only extras being washing and medical attendance. Day scholars pay \$10 a year.



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TEMPERAMENTAL ADJUSTMENTS.

An organization in which the temperamental elements are well balanced, or harmonious, is certainly a most desirable possession, but how rarely is it seen. One may inherit a constitutional bias toward such harmony with its graces of body and gifts of mind, but lose much of it as he grows older. Another who has inherited a marked predominance of one temperament may as he matures modify greatly the influence and physical indication of that temperament and approach the desired balance of constitution.

Heredity marks the children of men permanently. This must be admitted as a principle, or law of biology, yet the effects of heredity are subject to much differentiation through culture. A man can not hope to eradicate from his face, or from his body the marks that family lineage has impressed. He may live and labor in such a manner as to be heavier or lighter than his father, having more or less of flesh distributed over the bones and muscles than his father carried, yet the resemblance established by nature in feature and form can not be effaced.

But within this provision of nature for the perpetuation of family distinctions there exists the law of personal development or culture. The quality of the species is subject to change, while the stock of the species, the basis of the individual growth preserves its severalty. This is as necessary to the integrity of body as to that of mind. Personality includes both body and mind; is manifested as much through one as the other.

A person has inherited, let us say, a

predominance of the vital temperament; his digestive and assimilative functions are active, giving the tendency to increase of flesh and largeness of body. Knowing that to favor this tendency by habits of care and self-indulgence would be to render himself a great hulk of useless fat and brawn, he adopts habits of temperance in eating and of mental and physical activity, and is systematic in their every day pursuance; what is the result?

In time the mental and motive elements become more influential factors in his organization and impress their distinctive marks upon the external form. There is less rotundity of feature, less of heaviness in the expression, the lines of cheek and brow are stronger and the whole expression is heightened, giving the idea of a clearer intelligence and more mental power than were formerly possessed.

What has been gained? In a few words, greater command of the brain forces; a better correlation of the mental faculties. The resources of the nutritive system have been made contributory to the uses of the nervous and mechanical agents of the man. Instead of wasting their generous products in habits of idleness, or conventional ease, he now applies them to objects of practical value, and while he may be the chief gainer, the community also receives a measure of benefit.

Another person has a spare, bony frame, with its accompaniment of strong angular features, and dark crisp hair. He has the bilious phase of the motive temperament, and finds early in life that his disposition to activity, to energetic muscular effort is handicapped by a poor

stomach. His working powers draw so much upon its resources every day, that there is no chance for any accumulation of vital stock. He determines to improve his bodily condition, and to that end modifies his habits of working and living; uses his muscles much less, takes abundant time for sleep and rest, and cultivates leisure at the table.

In the course of a few years a notable change is accomplished. His cheeks fill out, the brows become rounded, the neck much less furrowed, the joints of his limbs are far less pronounced, and he is altogether a more "sightly" man. With this change there has come an improved mental tone; his manners, speech, and faculties generally have gained in refinement and facility; he is abler, more useful than while in the old condition.

A man with special gifts of mind and opportunity for their exercise may, with a physical constitution that is uneven, manifest power, but the expression of it is uneven and eccentric. With a temperamental combination that approaches harmony the expression is sustained and regular; less striking to others, but none the less powerful, and in the long run far more effective as regards permanent results. An examination of any field of human activity will demonstrate the fact that the most useful, the "fittest to survive," are they whose organizations are "well tempered," and adjusted in close proportions. The extremists, they who are precipitate and head-strong, they who flash out with a sudden brilliancy that awes the multitude for a little space and then leaves the multitude a wondering as to what has happened, they who disappoint the great expectations of

friends and neighbors, are as a rule one-sided and ill-balanced temperamentally. The excitement and susceptibility of an excessive nervous temperament may intimate qualities that partake of genius, but the goal of substantial achievement is rarely reached by the man whose mind is subject to their fluctuating influences.

Hundreds, yea thousands of gifted and educated men fail of their purposes, not for the want of brain, but because of the failure of the body to respond to the needs of the naturally over-active brain and nervous system; and in the great majority of these cases a prudent regard to the functional requirements of the body and brain, especially in the period of their development—youth and early manhood—would have brought about a betterment of their relations.

It has been intimated in these pages that a predominance of the mental temperament when it is not great is conducive to vigor and endurance; as the mind is greater than the body, so the mental temperament by exercising a normal stimulus upon the nutritive and mechanical systems will promote the health and efficiency of the entire man.

HYGIENE AND ANTISEPTICS.

THE success of a surgical operation depends not so much upon the skill and care of the operator—it being understood that no bungler shall undertake to use scalpel, hook, or clamp—as upon the avoidance of septic inoculation. We have hundreds of men who are well read in anatomy and are well informed in the technics of surgical manipulation; some who are ready to perform tracheotomy, laparotomy, nephrotomy, osteo-

tomy, lithotomy, etc., etc., and all of them, we hope, appreciate the danger a patient runs who submits to an important operation, on account of possible exposure to poison sown in the surgical wound, by germs floating in the atmosphere or lurking in the dressings. Vigorous efforts are made by the best operators to render their work free from infection by the use of acids and salts of great antiseptic power, poisons in themselves, and requiring judgment in their application.

From the experience of the surgeon in this later time, general medicine is learning most valuable lessons with regard to the necessity of cleanliness and purity to individual and community health. The first step toward cure in sickness is the establishment of a strict hygienic system in the management of the patient. Malignant diseases can not spread when their march is opposed by hot water, soap, bi-chloride solutions, and the scrubbing brush. Neatness and sweetness in the ordering of the daily home life are the best preventives against contagion.

With what is known to-day of sanitary science, the government of any town, large and small, that does not insist upon the observance by every family or householder, of certain rules for the purification of the dwelling, the out-buildings, the stables, etc., is gravely culpable, and responsible for a great proportion of the sickness and mortality of its people.

AN OCEAN REFLECTION.

ONE day, not long ago, we were sitting on the rocky cliff that juts out from the beautiful beach at Newport,

and quite alone were enjoying the wave-play seaward. One after another the billows rolled in, some with a calm movement that produced little commotion as they passed in between the rough headlands; others, however, came in with a rush and roar that seemed to growl defiance to all opposition; they dashed fiercely against the rocks, hurling foam and spray high up into the air, and then, with an angry, impetuous recoil, seemed to rush toward the smooth beach as if determined to overwhelm it. Here and there would be seen bursts and spouts of green water revealing the presence of hidden rocks, and the strong wind coming in sudden puffs would at times cover the surface, as far as the eye could reach, with crests of white.

How like human character in its varying expression is the sea! This thought, old enough to be sure, occurred to mind with strong impressiveness, as we gazed upon the restless prospect. The quiet, deep-toned thoughtfulness of one was there set off against the impatient, noisy, and superficial action of another. The lower, brutish nature has its analogue in the hoarse conflict of wave with rock, and the clash and clamor of the surf. The bursts of foam and spray over the broken headland reminded us of the spasmodic efforts of ambitious, headlong men, who for a moment flash upon our notice and then are gone; all their strength concentrated upon a single attempt to force the world's acknowledgment of their pre-eminent capacity in this or that field, and then collapse into obscurity, or oblivion. The humors, caprices, excitements, and passionate outbursts, like the sudden spouts of

foam on the heaving water, reflect their nature!

The poet usually sees in the ocean a figure of the Infinite—as one says:

“Thou glorious mirror where the Almighty's form

Glasses itself in tempests; in all time,
Calm or convulsed, in breeze or gale or storm,
Icing the pole, or in the torrid clime;
Dark-heaving, boundless, endless and sublime.”

But one, an observer of human life and given to reflection concerning its inner meanings, has caught the human side of the ever-moving, changeful deep. It is Bayard Taylor who fitly sings:

“Children are we
Of the restless sea,
Swelling in anger or sparkling in glee:
We follow and race,
In shifting chase,
Over the boundless ocean-space!
Who hath beheld when the race begun?
Who shall behold it run?”

◆◆◆◆◆
A WHOLESOME BILL.—Reform must begin as the basis of organization to be thorough. We have little expectation of anything like substantial progress in the improvement of civil and social affairs from exhortations and homilies on immorality and dishonesty, whether put forth by independent or organized effort, unless the fundamental causes of vice and criminality, as found in the human organization, are politically recognized, and the law-makers conscientiously join the reformers in the effort to elevate society at large. In the Kentucky legislature a bill was introduced with the view to prohibit marriage “with an idiot, lunatic, pauper, vagrant, tramp, drunkard, gambler, felon, or any person rendered physically helpless or unfit for the marriage relation, or any person with a violent temper, or who has, with-

in one year, been a frequenter of any immoral house."

This certainly shows that the Blue Grass State is awaking to a sense of popular need.

A people that has produced fine horses for so many years should, we think, have learned the effects of horse

pedigree so well that the application of principles in human culture, not very dissimilar to those in horse breeding, would be a natural outcome. The last two counts in the quotation show that a physiologist of very advanced views in heredity has been one of counsel in prescribing the terms of the bill.



To Our Correspondents.

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

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

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil; as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address also.

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 to the Editor personally will receive his early attention if this is done.

LIPS AND CHINS.—J. M. B.—Writers on Physiognomy are not quite in agreement with regard to the differential significance of the lips and chin. Some ascribe the amatory character to the former, others to the latter. There is, we believe, a physiological relation between the lips and the affectional nature; the practice of kissing intimates this, although in some savage tribes and in Northern Asia, affection and friendly regard are shown by rubbing noses. Large, full, red lips indicate good blood movement, an abundant vascular supply. So a large, or well-rounded chin shows an excellent circulation in the vessels of the head. The organs of the brain being well-nourished, their functions are indicated in the measure of their development. Usually with a large chin we find a strong social development. In the lips the physiognomists find intimations of courage, self-reliance, or timidity, and diffidence, as well as signs of affection. Receding chins usually accompany weak characters, inefficient minds. Wells' Treatise on Physiognomy will give you points on these subjects.

LEMONADE.—G. V. M.—The use of lemonade, or water acidulated with lemon-juice, is proper in warm weather. The acid produces effects that are agreeable, because it lowers the temperature of the system. Of course lemonade should be taken in modera-

tion, like all beverages. Working men drink too much in hot weather, overtax the excretory organs, and weaken themselves in consequence. A good drink for workmen in mills and foundries, is oatmeal-water, with a little lemon-juice or raspberry-juice to give it a flavor. A few sips of this, three or four times a day, are far better than the tumblers of iced-water that are poured into the hot stomach. Serious harm often results from excessive iced-water drinking. We doubt not that the majority of sudden deaths among laboring people in summer are due to over-drinking of ice-cold water and of saloon drinks.

DULL AND LAQUID.—J. B.—Your liver is in a torpid condition, and the functions of the body, generally, are performed without vigor. We think your lungs need a lively every-day contact with the out-door air, and we would suggest a simple form of exercise at once useful and beneficial, with the aid of a machine thus described: "A flat piece of steel, notched on one side and fitted tightly into a wooden frame. Grease it well on both sides with a bacon rind, then rub the rough edge of the blade into a stick of wood laid lengthwise of a sawbuck."

BISHOP OF LONDON.—A. J. B.—The present incumbent of the London episcopate, is the Right Rev. Frederick Temple, who was appointed to the place in 1885. He is a gentleman who has, we think, given dignity to his church relation by the philanthropic character of his ministrations in public and private life.

COOKING VEGETABLES.—C. E. F.—*Questions:*

- (1). Do all vegetables lose their salts by the action of water?
- (2). If so, by what method of cooking can we avoid this loss?

Answers:

- (1). Vegetables differ as regard the solubility of their saline elements, but as ordinarily cooked they all lose a good proportion of them. The soft, loose-fibered sorts sustain the most loss.
- (2). Steam cookers are best. They confine the vapors from the boiling food, and induce condensation by which the natural juices are for the most part retained.

THE TEXAS BRAIN CASE.—J. H.—Aside from the clipping which you send, a dupli-

cate of which was sent to the editor soon after the accident, we have heard nothing about the case. To form an opinion, exact data would be necessary, and we should scarcely expect to find them in a newspaper account that had not been supplied by an experienced observer in brain cases. Taking the account as it is furnished by the correspondent we find in it nothing that invalidates the doctrine of organic localization. If it furnishes any testimony at all credible, it is in favor of that doctrine. The injury was one-sided, the right, and appears to have been of a nature that affected the brain superficially. If treatment by expert neurologists had been at hand soon after the accident, it is not unlikely that the man would have helped to recovery. What he was compelled to suffer before any medical attention was given was enough to kill him.



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 Fowler Tour in Australia.

DEAR EDITOR: Good resolutions well carried out are worth something. I have made many resolves to write to your JOURNAL since we landed in the colonies and tell you of some of our experiences, but the days have slipped by. They are shorter here than in the old country, as there is scarcely any twilight—more like the American days, and they are like them inasmuch as there is a great rush and hurry, a great deal crowded into them. People in Victoria—especially in Melbourne—are all bent on business, and how to get rich. You hear of nothing but business while going about in the trains and trams during the day. As soon as dusk comes that is thrown one side, and the cry is how can I best amuse myself? What will give me and my family the most amusement, so I can forget care and all the worries of the Stock Exchange and about the new mining shares speculated in during the day? I doubt, even then, if a thought does not creep in about how much one will make on his share the next day. Well, the above is the state of affairs we found in the great city

of the Southern Cross, where we landed last November.

Lectures were at a discount; books must be light or there was no time to read; but notwithstanding all this, we said we will create a taste for lectures, if we begin with only a few. We heard of Dr. Simms, who was a long time in Victoria, and gave a great number of lectures. There was a great diversity of opinion about these lectures. One gentleman told us he attended forty-one of them in hopes to learn something about the Science of Physiognomy, but he was really amused; so the Doctor had soon learned the secret, if he meant to make money (it is said he made a pile) in Victoria he must amuse the people, whether he taught them any truths or not. One thing Dr. Simms did not do, and that was to help Phrenology; he did harm to it. He made many happy hits from the face, but there must have been the character behind to give the tokens in the face to help the Doctor to his conclusions. Phrenology did not take; Physiognomy did; and we have wondered if that had any thing to do with his avowed disbelief in Phrenology. We began our lectures in the Athenaeum with audiences that increased as we went on. We extended them to different parts of Melbourne; and, as we got known, became busy with consultations. First people came to us because we were daughters of L. N. Fowler; and then, after our sister was heard, the worth of her own work made her many friends and converts. Although Americans, we could not do the thing in the spread-eagle style that most Americans love so well, and was expected of us. We have tried to do work that will tell all through the Colonies, for we wanted to leave a good impression behind us—put Scientific Phrenology on a high level, not draw it down, as we find so many have done, even in this country. We want ministers, doctors, and scientific men to recognize that there is a science of mind worth their attention. We have met many clergymen and ministers in Victoria, and where they knew nothing, or next to nothing, of Phrenology, found them always ready to give Miss Fowler a hearing; and when we had a chance to attend some of their churches on the Sunday, heard them publicly recognize some of our statements.

Doctors as well have visited our Melbourne office, some with large brains, and showing a willingness to stand on the side of truth; besides men of all classes, from miners to statesmen. Many men here have a long story to tell; how they began with nothing, took the first place that offered, even if the work was repugnant to them, but it was a stepping-stone to something greater; by it they were enabled to rise to high positions. Some are fortunate in speculation, and every share or bit of land turns into gold, while many lose their all. Australia is a young country, and offers much solid work to men of sterling worth who will take their places against the speculators; and some of these are making themselves felt, and in a few years Melbourne will be the queen of cities. The foundation of the city is good; it has wide streets, and it is only a matter of time to pull down the one-story shops and erect fine buildings in their place. The coffee "palaces" are very fine buildings, but the food is not to our taste at many of them, but then we have lived in refined cities, where eating was made a study; it no doubt suits most people. The coming exhibition will be a tax on the hotels, for even on the great Cup Day there is not a bed to be had by a late comer; so what it will be when the great ocean greyhounds pour their thousands of visitors into Melbourne, during August and the following months, is a mystery. We have had a three months' tour in Victoria, and in a future letter will tell you something about the great country that produces so much wealth.

L. L. F. P.

Melbourne.

Imaginary Pains.—In the February number of the PHRENOLOGICAL JOURNAL W. H. Gardner mentions numerous instances of pain and cold in *amputated* limbs as "Evidences of a Spiritual Body." The late Prof. Fowler refers to numerous similar instances; and among the writer's personal acquaintances is an old man who, having lost a leg thirty years ago, still complains of having rheumatic pains in the missing limb every time a spell of wet weather sets in.

Although believing in the doctrine of a spiritual body, we are of the opinion that the pains referred to are simply imaginary. The persons having experienced pain, heat, and cold in these parts for many years,

and having sensations at the end of the part from which hand or foot has been severed, imagine that the sensations reach to the fingers or toes, and consequently endure a great deal of needless suffering from the fact that they can not apply any remedy to the missing part.

A case in point :

A friend of the writer had his right hand and arm drawn through the knives of a planing machine, cutting away the flesh, crushing the bones, and laying bare the cords in a most shocking manner. With his left hand he pressed upon the stump of the injured arm and so stopped the bleeding until the arrival of a surgeon; but it was several hours before amputation was performed and the wound properly dressed, so that for those few hours the pain did actually extend to the ends of the crushed and mutilated fingers.

But having heard and read a great deal about people enduring pain in amputated limbs, he immediately made up his mind that he would *not suffer pains* in the arm that he had lost; and as soon as the mutilated flesh and bones were removed, he courageously "located the pain where it was" (to use his own expressions), "viz.: in the stump of the severed arm." Instantly on feeling a twinge of pain reaching apparently into the lost hand and fingers, he would place his remaining hand where the amputated member *had been*, thus bringing to his mind an immediate realization of the fact that the arm was *gone*, and so *could not* be subject to pain.

After about two weeks of this "heroic mental treatment" the idea of pain in the severed member was entirely overcome; and though the accident happened six years ago, he has never suffered from a return of it. A like procedure upon the part of all persons who are so unfortunate as to meet with the loss of a limb would, we believe, bring about the same result.

JAMES FERRIGO.

Phrenological Science in Court Practice.—There has been a great amount of newspaper talk about the Graham-Cora Lee, and Malloy murder in Missouri. Mr. Patterson, the prosecuting attorney of Greene County, is a graduate of the Phrenological Institute.

Cora Lee, as the reader may know, was acquitted by a jury of the murder. But what I wish to say is "How true the science of Phrenology is when rightly applied." I was employed by the defence in this case to select a jury of 12 from forty persons; but as the State had already thrown out part of them, I did not have all to choose from. In doing this I endeavored to associate those who would act in unison. The jury were out only *seven* minutes, and brought in a verdict of not guilty. The foreman simply stepped on one side of a table and said: "All that believe the defendant not guilty stand around on this side of the table with me," and all followed.

I took a measurement of George Graham's head April 27, 1886, the day after he was lynched, being aided by the undertaker, and found it as follows: 22½ inches around, 13½ from ind. to occipital bones over tophead, 13½ between orifices of the ears over Firm, 12½ between orifices of ears over Ind., 7 between Dest. and Dest. by Caliper.

It can be inferred from these measurements that the head was large in the base, especially between the ears. His temperament was of the vital-mental type.

R. G. PARKER.

North Springfield, Mo.

Character of Nitrogen in Fertilizers.—Agriculturists complain of lack of important information in the analysis of fertilizers, in that they do not determine the character of nitrogen. According to the fifth bulletin of the Vermont Agricultural Experiment Station Prof. Cooke has recognized this want and has been doing some important work in that direct line. He classifies the forms of nitrogen as follows: nitrogen of ammonia salts; nitrogen of nitrates and organic nitrogen or that which is in combination with animal or vegetable matter. It is fully time that there should be a recognition of the condition of availability of the nitrogen that is applied as plant food. The ammonia salts and nitrates being soluble in water are immediately available, but the case is different with the organic nitrogen, with the exception of dried blood which, being of a nature to rapidly decay when subject to heat and moisture, soon yields its nitrogen to growing crops, but hoof and horn meal, leather waste and similar nitro-

genous substances require an indefinite time for decay and consequent availability. It is gratifying to learn that of thirty different fertilizers subject to examination upon this point, fourteen show that not less than eighty per cent. of the nitrogen is available, while the lowest gives a percentage of available nitrogen of sixty-one per cent. The highest stands at eighty-nine per cent.

Variation in Mountain Heights.

—The Cordillera of the Andes has for some time been exhibiting a curious phenomenon. It results, from observations made upon the altitudes of the most important points, that their height is gradually diminishing. Quito, which in 1745 was 9,596 feet above the level of the sea, was only 9,570 feet in 1803, 9,567 in 1831, and scarcely 9,520 in 1867. The altitude of Quito has therefore diminished by seventy-six feet in the space of 122 years. Another peak, the Pichincha has diminished by 218 feet during the same period, and its crater has descended 425 feet in the last twenty-five years. That of Antisana has sunk 165 feet in sixty-four years.

PERSONAL.

THE British Empire during the past century and a half has not been fortunate in its male rulers.

The four Georges were either weak almost to imbecility, or otherwise worthless. William IV. was a nonentity on the throne. Victoria is a woman of ability and accomplishments, and is a stronger ruler than all her Guelph predecessors would have made put together.

The Princess Royal, now Dowager Empress of Germany, is a bright, intellectual, and gifted woman. Alice, the Grand Duchess of Hesse and mother of the new bride, Princess Irene, was remarkable for her attainments as an artist, an author, and a musician. Princess Louise, the wife of the Marquis of Lorne, is wilful, but in every respect the "better horse" of the team. Helene and Beatrice are women of superior capacity.

THE late Col. Alfred B. Meacham was one of those brave and loyal souls who deserve to live in the memory of their people, and we welcome the report that Prof. J. Jay Watson, of New York, has earnestly undertaken to raise a fund for a permanent me-

morial of him. Col. Meacham's personal sacrifices in behalf of the Indian have compelled a better and more creditable relation of the white man to the red man.

MISS ANNA DICKINSON, whose magical oratory has been so long missed from the American forum, is about to return to her wonted field of usefulness—the lecture platform.

Her departure from this line for a brief sojourn before the footlights may have had its useful side to Miss Dickinson, but the public who had so generously crowned her with laurel, can never quite forgive her for stepping down unceremoniously from the high pedestal of popularity when it had crowned her a leading orator of her time. Miss Dickinson is now stopping in New York, where she is under contract to the National Committee of the Republican party for active service in the Presidential campaign. We are glad to welcome her again to the lecture field, and hope that not only in this canvass but for many years on she will make the arches ring with her words of eloquence. Miss Dickinson's retirement from public life the last few years has been due to a prostration of the nervous system, which followed as a result of undue labor and anxiety in her new profession. Now that she has taken up a work in which she is at home, we hope that good health will follow.

MRS. BELVA LOCKWOOD, of Washington, D. C., the recently nominated lady candidate for the Presidency, has commenced her work in good earnest. She has already placed an Electoral Ticket in the field for Kentucky, Iowa, Delaware, California, and is in New York city at the present time arranging one for the State of New York. Mrs. Lockwood was among the first of her sex to study law, and is now admitted to the practice of her profession in the Supreme Court of the United States.

She was nominated for President by the Equal Rights Party in 1884, at which time she made quite a respectable canvass. She has again been nominated by the same party for the year 1888, and may develop surprising strength. She is a great advocate for peace, and is the associate editor of the *Peace Maker*, with Mr. Alfred Love, a quaker, who has been nominated for Vice-President on the same ticket.

WISDOM.

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

THE savings bank of human existence is the weekly Sunday.

THE innocence of the intention abates nothing of the mischief of the example.—
Robert Hall.

GIVE what you have. To some one it may be better than you dare to think.—*Longfellow.*

THE darkest hour in the history of any young man is when he sits down to study how to get money without honestly earning it.—*Horace Greeley.*

HOPE nothing from luck, and the probability is that you will be so prepared, forewarned, and forearmed, that all shallow observers will call you lucky.—*Bulwer Lytton.*

THE human mind will be constantly employed. Let it dwell much upon subjects which tend to improve and elevate. Many passing thoughts are not worthy of a lodgment.

It was a sensible man who said of a certain church, "that it was dying of the foot-and-mouth disease; the members spent all their time going about talking against each other."

MIRTH.

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

"WILLIAM," said an Ohio mother, "stop throwing stones! You might hit a Presidential candidate."

"How did you begin life?" the young man asked the great man. "I didn't begin it," truthfully replied the great man. "It was here when I got here."

HUSBAND—"I tell you, my dear, I don't have any kind of success in business. I'm afraid I have a Nemesis." Wife—"Well, why don't you see a doctor about it?"

YOUNG WIFE—"Horrors! See here, sir, your dog has run off with a whole sponge cake I left outside to cool." Tramp—"Dont worry, mum. That dog's tougher'n he looks. He kin eat anything."

HER PARENT—"Do you think, Mr. Filkins,

that you could support my daughter in the style to which she is accustomed?" Bright young man—"I think I could if you would let us board with you."

A MINISTER overtook a Quaker lady and politely assisted her in opening a gate. As she was a comparative stranger in town, he said: "You don't know, perhaps, that I am Mr. ——. Haven't you heard me preach?" "I have heard thee try," was the quick rejoinder.

AN advertisement reads: "Wanted, a young man to be partly out of doors and partly behind the counter." A young lady has written to ask, "What will be the result when the door slams?"



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 or physiological science. We can usually supply any of those noticed.

THE STRUGGLES, SOCIAL, FINANCIAL AND POLITICAL, of Petroleum V. Nasby; sometime pastor of the Church of the Slawtered Innocents, etc. Likewise his Views of Men and Things, etc. Together with Lectures, "Cussed be Canaan," etc. With an introduction by Hon. Charles Sumner. Illustrated by Thos. Nast. Boston: Lee & Shepard, Publishers.

The recent death of Mr. D. R. Locke, so popularly known as "Petroleum V. Nasby," tends to revive interest in his remarkable letters, that for years, especially during the troublous era of the war, were published in the Toledo *Blade*, and from thence were distributed throughout the country. The eccentric spelling may have been the characteristic that invited attention, but there was so much of homely sense and humane sentiment in them, that the reader interested in the movements of the times was generally disposed to look for their appearance. As Mr. Sumner said in the introduc-

tion to the first edition as published in 1872, these letters "have an historic character from the part they performed in the war with slavery, and in advancing reconstruction. Appearing with a certain regularity and enjoying an extensive circulation, they became a constant and welcome ally, and, unquestionably, they were among the influences and agencies by which disloyalty in all its forms was exposed, and public opinion was assured on the right side." The volume covers 180 of the letters, besides the three lectures, "Cursed be Canaan," "The Struggles of a Conservative with the Woman Question," "In Search of the Land of Sin."

The humor of Mr. Locke is of its own kind, American, to be sure, not precisely of the style of Major Jack Downing or Sam Slick, not so much of the Yankee as they exhibited, nevertheless closely akin to that certain freedom, we might say rudeness, that characterizes more the Western man. It is altogether likely that had Mr. Locke written out the sentiments of his letters in properly spelled words and good syntax, he would have excited little comment beyond his own locality; certainly much of the entertainment of them would have disappeared, while the arguments remained. The publishers have made in this book, or rather the new and complete edition, a sort of memorial appropriate of the man who thus signalized his loyalty in a most trying time.

PHYSICAL DEVELOPMENT, or the Laws Governing the Human System, by Nathan Allen, M. D., L. L. D., Member of the American Medical Association, American Academy of Medicine, etc. Lee & Shepard, Publishers, Boston, Mass.

In this volume of 348 pages, Dr. Allen collates a series of papers that have been published from time to time on topics of vital interest to American society. It need not be said that at the time of their publication most of them attracted the attention of the press both in this country and in Great Britain, and imposed upon the writer a large correspondence as well as a demand for further contributions. In these papers, new and important principles in physiology are discussed, their various applications indicated, and it is well that they are not permitted to lapse from public attention as is the case with matter, however valuable, that is left

entirely to the mercies of a periodical press.

The book is practically a new one, for it includes several new papers, the old one's being also largely rewritten and comments and correspondence of a valuable character being added in an Appendix. Of the topics of these papers, mention should be made of "The True Basis of Education," "The Law of Longevity," "The Prevention of Crime," "Hereditary Influences," "The Law of Human Increase," "The Human Body; its Relations to Civilization," "College Sports," "Mental Philosophy; its Connection with Medicine." These should sufficiently intimate to the thoughtful reader the importance of the whole series.

Dr. Allen is one of our older observers, in himself possessing the accumulation of over fifty years of earnest thought on the subjects of his writing. An interesting biographical sketch of him properly opens the volume. Following that is "A View of Physical Culture in Amherst College," which invites special notice from the fact that Dr. Allen has been prominent in the development of the system of physical training in use at that institution.

JOURNAL OF THE TRANSACTIONS OF THE VICTORIA INSTITUTE, or Philosophical Society of Great Britain; Capt. F. H. Petrie, Hon. Secretary of the Institute. Volume XXI. London: Published by the Institute.

This volume of 400 pages or more, oct., is a very interesting collection of the papers and discussions during the past year in the different sections of the well known Victoria Institute. Anthropology seems to have occupied a very considerable share of the attention, as a more important part of the contents is given up to topics related thereto; such, for instance, as "The Sepulchral Chambers and the Sarcophagi of Sidon," "The Empire of the Hittites," "On Caves," "Petra, the rock-hewn Capital of Idumea," "The Religious Beliefs and Traditions of the Aborigines of North America," "Krishna and Solar Myths."

The Victoria Institute, as those informed with regard to British scientific institutions know, represents the Christian side of ethnic research and general scientific discussion, and its discussions prove that its members are by no means handicapped in their treatment of topics that have relation to the or-

igin of man, by their loyalty to Christian philosophy. The Editor takes occasion to thank the Honorary Secretary of the Institute, and also the officers of the Smithsonian Institution in Washington, for their kindness in sending and forwarding the volume to him.

PUBLICATIONS RECEIVED.

THE DRIFT OF THE AGE. Viewed from the Higher Leve's. Pith of the celebrated Dix Lenten lecture epigrammatically illustrated. The Dwight Print.

Striking and earnest passages are here taken from Dr. Dix's Lenten lecture on the vices of society, and confirmatory extracts from other sources are given on the opposite pages. The whole weight of this brief compend is thrown with great force against the crying sins and evils of the time, and as a tract for distribution among people of education and those who esteem themselves of the better class, it is an admirable compilation.

IS THE MULTIPLICATION OF MEDICAL JOURNALS Advantageous to the Profession?

This is the title of a paper read by Dr. T. D. Crothers, of Hartford, before the American Medical Editors' Association. The author tells some plain truths in regard to medical journalism, especially that of the tendency toward a low literary tone and unscientific practices. There are too many periodicals representing the allopathic, eclectic, and homœopathic stripes of practice that are "sandwiched" with advertisements of proprietary stuffs, and too many that are "run" by manufacturers of "remedies" or publishers who have only the motive of profit in their establishment.

SIGNS OF CHARACTER, or How to Read Character at Sight. By A. Wallace Mason: 12 mo., pp. 70.

The author is an observer of experience, and writes with emphasis. Of course his "signs" are chiefly of the physiognomical class, as they must be to serve one "at sight"; and in describing them he uses materials employed by other authors, while his style is his own, and, in the main, a pleasing style.

MATRIMONIAL ADAPTATION, or Phrenology Applied to Home Life and the Domestic Relation, showing what mental qualities harmonize, and who may and who may not unite in marriage. By S. P. Shull. Price, 30 cents in paper.

This pamphlet of 64 pages, received from Shull Brothers, of Ohio, is neatly printed, and a fairly well written treatise on the subject of its title. The organic relations of the

domestic instincts are clearly defined, and sound counsel given, based upon physiological law and experience. The author has given us a clean and practical book, one that we cordially approve.

FORWARD, FOREVER! A Response to Lord Tennyson's "Locksley Hall Sixty Years After," Heaven on Earth, and other Poems. By William J. Shaw, the poet hermit.

The "other poems" are *Stand Fast*, and *The Evening Hour*, altogether forming a little chaplet of thirty-four pages. In his *Forward, Forever!* Mr. Shaw takes a more cheerful view of life's conditions at the present day than Lord Tennyson does in his late poem, and points in its Alexandrine lines to many features that intimate advancement in moral as well as material affairs. Without claiming to be a great poet, Mr. Shaw reads us in his quaint rhymes lessons of value in our domestic and secular life.

THE PROPHYLACTIC AND THERAPEUTIC RESOURCES OF MANKIND. A Paper read before the International Congress of Anthropology, held in New York, June 4-7, 1888. By Henry G. Hanchett, M. D., author of "Modern Domestic Medicine," &c.

An expression of independent opinion that shows the writer to be among those progressive physicians who hold themselves above the biases and prejudices of class, and view medicine with a rational and scientific eye.

CURRENT EXCHANGES.

Phrenological Magazine, for July. Our eminent contemporary keeps apace with the age. The late number is more than usually interesting to the student of brain and mind. L. N. Fowler, London.

Annals of Surgery. Monthly review of surgical science and practice. Considers the most recent topics within its department. J. N. Chambers & Co., St. Louis.

Christian at Work. Weekly. J. N. Hallock.

Woman, for July, has a full list, with some good illustrations; always entertaining and suggestive. Woman Publishing Co., New York.

Medical Summary. Monthly. A conspectus of practical medicine, new preparations, and so on. R. H. Andrews, M. D., Philadelphia.

The Theosophist. Magazine of Eastern occultism. Continues in the old line, unabated. Monthly. Madras and London.

The Western Rural and American Stockman. Weekly. Independent in opinion, and comprehensive in its relation to the subject of agriculture. Chicago.

- Good Health.* Journal of hygiene. July received. Battle Creek, Michigan.
- Vick's Illustrated Monthly Magazine.* Exponent of esthetical horticulture. James Vick, Rochester, N. Y.
- Harper's Young People.* Weekly. Harper & Bros., New York.
- Christian Advocate.* Leading organ of the Methodist Episcopal Church. Weekly. Phillips & Hunt, New York.
- Medical Record.* Weekly. Liberal in tone, well edited, and, therefore, much circulated. Wm. Wood & Co., New York.
- Power-Steam,* relating to those industries implied by its compound title. Weekly. New York.
- Rural New Yorker.* Always cheerful in its views of American agriculture. Weekly. E. S. Carman, Manager, New York.
- America.* Journal of to-day. General in its purview. Weekly. Chicago.
- Quarterly Journal of Inebriety.* The July number has some good names, and the work of thoughtful observers in its line. We note the rapid increase of scientific interest in inebriety; such information disseminated can not fail to promote the growth of healthful opinion with regard to public temperance. T. D. Crothers, M. D., Hartford, Conn.
- Medical Bulletin.* Monthly journal of medicine and surgery. Somewhat "sandwiched", but in the main a useful publication. F. A. Davis, Philadelphia.
- Our Day.* A record and review of current life. Relates to the general interests of social life, especially reform. Monthly. Boston.
- Our Little Men and Women.* Well conducted, and down to the level of juvenile heads. Monthly. D. Lathrop & Co., Boston.
- The Woman's Magazine.* Of a literary character, devoted to the development of Woman's cause. Frank E. Housh & Co., Brattleboro, Vt.
- Public Opinion.* As vigorous as ever in the presentation of views of the American press on all topics, political, reformatory, sacred, and secular. Weekly. Washington and New York.
- Harper's Monthly,* for August. Fully up to the mark "A Mid-Summer Trip to the West Indies" gives us views of old Franco-American life in the French islands; "Holstein-Friesian Cattle" treats of an important topic in agriculture and stock-raising; "The Montagnais," an interesting sketch of a partly civilized Indian tribe in British America; "A Chiswick Ramble" describes that old English town, with numerous effective illustrations; "Sandro Botticelli," a criticism of the art of this distinguished Italian, with fine designs. Taken altogether, an excellent number. New York.
- The Kindergarten.* A new monthly comes from Chicago, and shows that the new and progressive truths affecting the training of children are appreciated in some quarters of the West. It is a venture in good hands, editorially, etc. Alice B. Stockham & Co.
- The August Lippincott* opens with a strong novel entitled "Mammon," which has a satirical vein, and is evidently drawn from the life with a pencil steeped in vitriol. A pleasant sketch of "The Eastern Shore of Maryland," and "My Reasons for Becoming a Woman-Suffragist," are other notable features. The close of the prize competition, which began in the February number, is announced, and the winners' names with the comparative standing of all the competitors given.
- The St. Nicholas.* For Young Folks. Standard Monthly. Century Company, New York.



ECHOES FROM THE CONSULTATION ROOM.

BY PROF. NELSON SIZER.

THE price which men receive for their work is not always the richest part of the reward, and though pecuniary compensation is indispensable to those who are not independently rich, yet words of generous approval of what a man has tried to do well in behalf of another, are like "apples of gold in pictures of silver." This very hour I received a letter as follows:

July 27th, CALIFORNIA, 19th July, 1888.

PROF. NELSON SIZER.

Dear Sir: The written description of my character from photographs is just received; of its truthfulness there is no doubt. As your idea harmonizes with my own opinion I shall adopt the law as my vocation, and commence the study as soon as possible. I shall endeavor to master every impediment, and when I shall have succeeded I trust you will find that your advice was treasured at its full value.

Yours truly, A. A. E.

From a mass of testimonials, unsolicited, we select a few, simply avoiding the identification of the parties.

"Gentlemen:—I have received the description of character written by you for me. You have done more than to describe my character by showing how to regain my health, which is worth a thousand times more than it cost to have the character written. My associates all say you know more about me than I know myself."

Another writes: "You wrote the character of our only son when he was eight years old, and told us he would be difficult to manage as he increased in age. You gave special directions how to train him. We read the description, and it was laid aside and forgotten, and the boy has become a vagabond and is utterly lost to self-respect; the other day we came across your description and find it a perfect prophecy of his career. You told how he would be likely to go astray, and how he might be guided to success and honor. As you say, he is smart and capable, but wayward and easily misled."

Another, "Our puny little girl has gone back to school, enduring study without detriment to health. We are astonished that the change in dress and diet which you advised, and the change in habits you insisted on, should make such a complete revolution in her life. We hope now to raise her."

Another, "I can not refrain from acknowledging the truthfulness of your description of my character: you hit every nail squarely on the head and drove them through and clinched them. I shall take your advice about diet and habits, and try to follow the best course generally."

A mother wrote, "My wild, rough, head-

strong boy whose character you described so accurately, and in doing so advised a complete change in our treatment of him, has become, in a single year, completely changed in his manifestations: you told us to stop commanding him and take away the fences, giving liberty, and teaching him self-control and self-restraint: he is now all we could wish for, yet he has all the fire and force of the former time, but he has learned to use them unselfishly."

Another, "Your advice to me about my boy has brought joy and hope to our home: we now see, with all our good intentions we were spoiling him. You told us that our stringent restraint would ruin his disposition and make him more restive and disobedient, and your instruction works like a charm."

Another, "Your examination of my head opened to me a sense of my defects, and how to overcome them, as well as to point out to me a business in which I take delight and in which I have succeeded. I think I owe all I have become in morals and in business to my short hour's interview with you."

A precocious boy nine years old, having a head measuring 22 inches, was described and instructions given as to how he should be treated: at twenty-four years of age he called in and said his mother had followed our advice and thereby saved the boy: his head had increased but a quarter of an inch in fifteen years, and he weighed 140 pounds. His mother requested him to come in and say that she owed her son's life and health to our advice.

A mother said: "I hardly know what to think of your description of my little girl: several points which you make are very correct, but the most of it I have not yet seen: I can not say it is not true; this, however, is certain, you have described her father's disposition to the letter, and as you say she resembles him, it may all prove to be true in time."

"I have read over your lengthy description of my character until I can nearly repeat it. I have faithfully put your advice in practice and have recovered from dyspepsia and have gained eleven pounds in weight: I have called to thank you for several reasons: First, because it is the proper thing to do; Second, because you deserve it; Third, because I wish to encourage you to tell others what they need to know and do; and, lastly, because I do not want to hold on to my thanks until we meet on the other side." You told me I need not abandon my lucrative indoor business and learn a new one which would take me out of doors, as the doctor insisted, and here I am in excellent health and spirits and able to follow my regular business."

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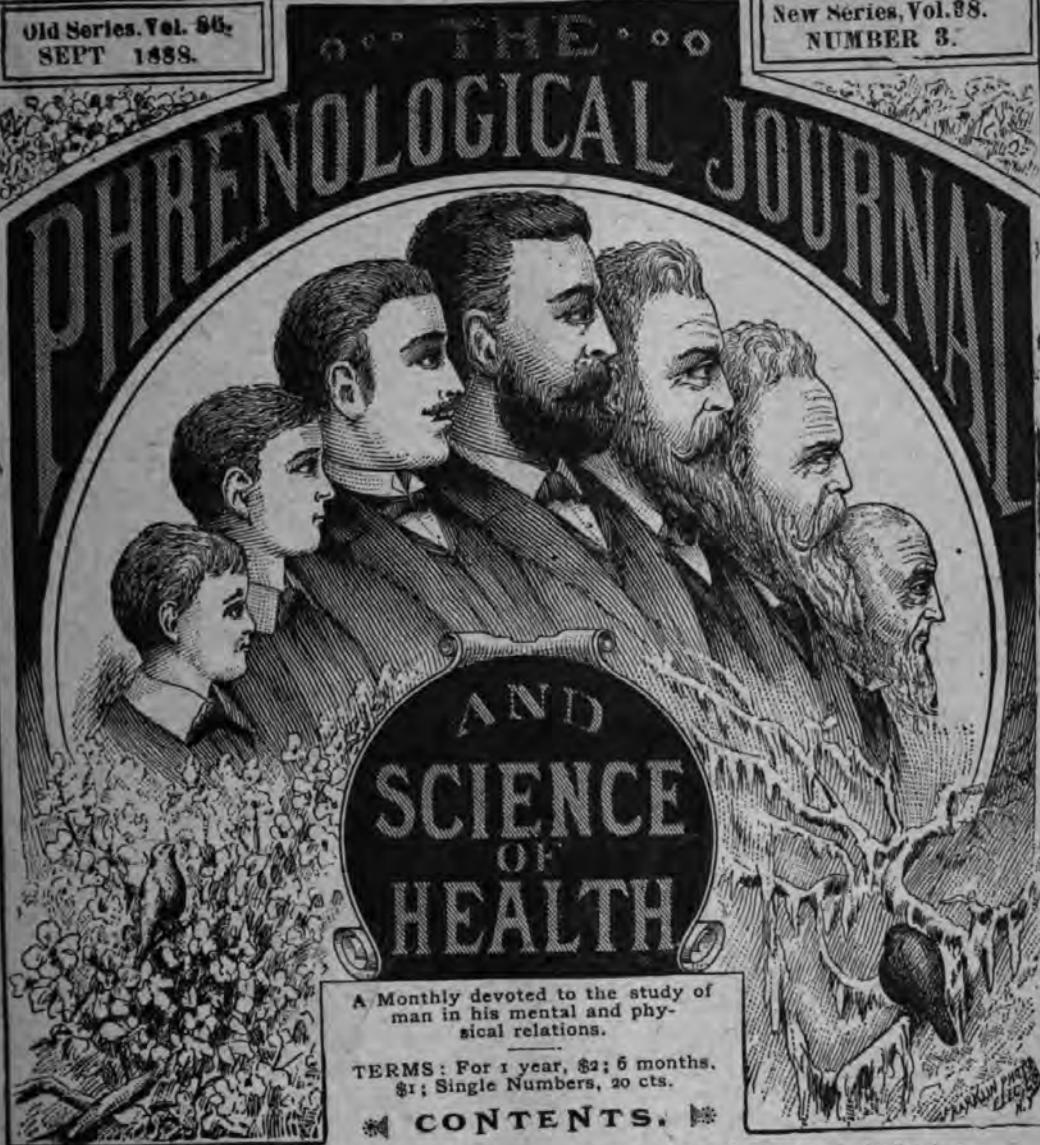
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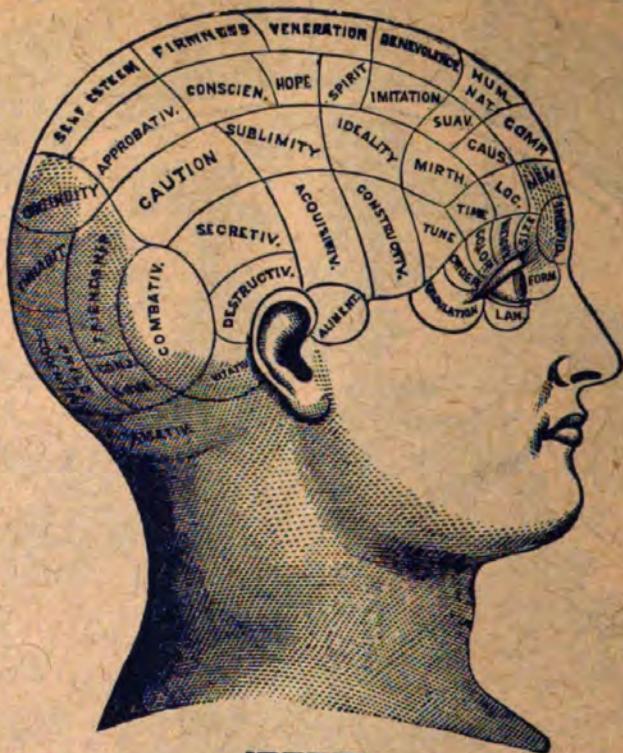
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[WHOLE No. 597



NOTABLE PEOPLE OF THE DAY.—No. 12.

WILLIAM II., EMPEROR OF GERMANY.

IT is unnecessary to recite the peculiar and most interesting circumstances under which this young man succeeded to the crown of Germany. By the right of birth he is emperor, and in that rela-

tion may be regarded at the present time as the most conspicuous figure of the time. The newspapers have done their utmost, one might say, to render him conspicuous by publishing highly color-

ed accounts of his conduct toward members of the royal family, in which it was alleged that he displayed infirmities of temper that were unbecoming any young man, and also stating that in spirit and purpose he contrasted strongly with his father. We have read that he possessed a high temper and an arbitrary disposition that augured anything but peace and a liberal policy to Germany, and would be likely to disturb, at an early day, the harmony of Europe. We have seen it stated more than once that he suffered from hereditary disease and a defective limb, and that these things rendered him impatient of control and advice from any source. Such statement must be taken with a large grain of salt, if later accounts of the young man are to be credited, and the portraits of him have any physiognomical value. That which is given here is of the average quality, and represents him as a person of fair brain development and good physical constitution. He is more of the Guelph family than of the Hohenzollern, resembling his cousins of England closely. He has a good degree of will-power and ambition, and doubtless the exercise of authority is very agreeable to him. The intellectual development does not intimate great power of reflection, or very broad views of subjects, but there is good observational capacity and quickness of impression. He is not inclined to copy others to any marked extent, but is, we think, strongly individual, and exhibits his individuality in manner and speech most strikingly under circumstances of irritation, or when subject to opposition. We should credit him with a full average amount of good nature; he has a rather active social nature, so that he likes companionship and treats his friends with sheer cordiality. He may not be effusive in this respect, and not show all the freedom and openness of the average German, but he is hearty in his expression of interest toward those who have his confidence.

We think that he believes in the dignity and importance of his imperial station, and purposes, as far as he can, to sustain its influence as recognized in the days of his grandfather. A sketch of the emperor, obtained through English sources, a fact that should suggest that its writer has not been much inclined to flatter him, informs us that Frederick William Victor Albert, hitherto crown prince, son of Frederick William Nicholas Charles, the late emperor, and of the Empress Victoria Adelaide Mary Louisa, princess royal of Great Britain, was born at Berlin on January 27th, 1859. At the age of ten he was, like his father, placed in the Prussian army as a second lieutenant of the 1st regiment of foot guards; he was educated by private tutors, and in the gymnasium at Cassel, and at the university of Bonn. The early part of his education, at Berlin, has been recently described by a former tutor, who, in *Murray's Magazine*, refers to him as "a frank, well-mannered, genial boy."

Reviews and similar state functions were, as we are told, the only interruptions to the work of the young prince; he never had any holidays. "He went on with his studies the entire morning with only the half minute's break that was afforded as one professor rose to go, and a second entered the room and took his place. And if the full tale of sixty minutes was reduced by one through the unpunctuality of the master, a heavy frown used to cloud the kindly features of his governor." The tutor adds that, judging not only by the prince's general intelligence and information, and by his knowledge of English, the system was successful. "After," he says, "an experience of teaching many hundreds of English boys of the same age, I do not hesitate to say that Prince William could write English and knew English history and English literature as well as boys of fifteen at an ordinary public school." It is further said, "Nothing could be more simple and natural than

the lives the princes lived. Whether in their school rooms, their meals, or the manner in which they were treated, there was but little to distinguish them from the children of any gentleman of good fortune. The words 'Royal Highness' were never used. 'Prince,' or 'Prince William' was the universal form, except indeed from their gover-

ndergoing a process of higher education, military and civil, for the exalted station which he is now called upon to fill.

He was married on his twenty-second birthday to Princess Augusta Victoria of Schleswig-Holstein, daughter of the late Duke Frederick of Schleswig-Holstein. A recent biography of the late



AUGUSTA VICTORIA, EMPRESS OF GERMANY.

nor, who more often, perhaps, used the phrase 'Lieber Prinz.' The prince was very fond, I remember, of fairy stories, and lent me more than one of Lord Bra-bourne's books." Having passed his final examinations a few days before his eighteenth birthday, in 1877, the prince was introduced to officers for special instruction in military matters, ever since

emperor, referring to the betrothal, says the princess was Prince William's free and unconstrained choice. As it has been stated otherwise in certain newspapers, and that William and his wife were not on such terms as young married people should be, we are pleased to enter this disclaimer from an authoritative source. The Princess Au-

gusta was looked upon as thoroughly German by descent, by training, and in all her sympathies, and therefore a perfectly eligible match for William. Of their children the eldest, Prince Frederick William Victor, born on May 6th, 1882, is now crown prince; the second, Prince William Eitel Frederick Christian was born July 7th, 1883; and the third, Prince Adalbert Ferdinand, July 14th, 1884. There are two others also, the fifth, a boy, having been born recently. For a young man William is well supplied with family.



Leopold Methudy,

WITH their translation to the American soil and introduction to its busy life the Germans do not lose their interest in the social enjoyments of the Fatherland. Music is one of the things that old and young, whatever their station, take special delight in, and wherever a considerable number of Germans is congregated, we are sure to find a musical *Verein* or union. In all the large cities of the United States there are such societies, and especially in the western cities, whose population is to a good percentage German, these societies flourish.

The extent to which the systematic study of music is carried among them is shown by the large annual festivals that are held in St. Louis, Cincinnati, and elsewhere. At the St. Louis Sangerfest last June upward of 2,800 singers composed the chorus, and the entertainments continued for several days, tens of thousands gathering to hear the music. Certainly no diminution of interest is shown by our foreign born population in this class of esthetic recreation, despite the stimulus which our American life gives to the naturally industrious temper of Teutonic mind.

The president of the "North American Singer Unions" is Leopold Methudy, who came to this country from Vienna, and is about fifty-one years of age. He was a student in the polytechnic schools, and began his career as a clerk in the old banking house of the brothers Meisl. At eighteen he left Austria and came to New York, and seems to have soon become a loyal citizen of the United States, as he entered the army of the Union when the war began. The value of his services obtained notice and promotion, he was made first lieutenant of a cavalry regiment, and when mustered out held the position of captain and brigade adjutant. Soon after this he settled in St. Louis, where he entered the lumber business which he still conducts.

Mr. Methudy is personally related to the city government, being a member of the schoolboard. He is active in promoting the interest of the St. Louis people in the higher arts and industries, being a director of the St. Louis Exhibition, and of the Music Hall Association, and president of the Germania Club. Thus it will be seen that he has been active in useful directions, and employed his gains in part toward ends of liberal and esthetic culture.

The engraving is that of a man well organized for mental activity. He has clean cut features that show clearness and readiness of discernment, ambition,

and sensitivity. He loves the artistic, and enjoys surroundings that express neatness, method, and taste. That he is a social man may be gathered from the fulness of the lower part of the face, and the suggestion of a full back head from what can be seen of it. He ought to be hearty, good natured, and kindly, very quick to show his feelings, and very energetic in whatever engages his active participation.

MRS. AZUBAH F. RYDER.

It is a common thing at this day to hear of centenarians. If we believe all that is reported almost daily in the press, men and women who have passed their hundredth year and are still "pert and chipper" are "thick as bees in June." Mr. Thoms would certainly feel discouraged after a survey of the American field of longevity, and withdraw many of his sharp criticisms regarding the common credulity of people on the subject of centenarian pretensions. The story of Old Parr, Peter Czartan, and others that statistical writers of the last century often referred to, may be largely fable. Dr. Van Oven and Mr. Bailey may be subject to the criticism of having taken too much on trust. Yet in this country there are so many very aged people with a register behind them, that we can scarcely do otherwise than believe in the attainment of considerably more than a hundred years of life, if the physiology of the person be sound, and the hygienic and other circumstances of his life be favorable to health of body and mind. Mrs. Azubah Freeman Ryder is said to be the oldest person in the State of Maine, at least so says a correspondent. We should not be surprised, however, if one of our Maine readers, on seeing this statement, should write from some hamlet far in the interior of that temperance-loving commonwealth: "I know of a person older still." But until we hear from somebody with respectable credentials who prefers such a claim, we shall keep Mrs. Ryder at the head of the list of notable centenarians in Maine.

Mrs. A. J. Harding, a grand-daughter of the old lady, sent us an excellent photograph, representing Mrs. Ryder as she appeared on the 6th of July last. The engraving fairly represents her, but does not show so much of the general character as the photograph. Evidently the head is quite large, showing that she possessed a good-sized brain, in its prime well developed and active, with breadth and prominence in the sides and forehead. A large and active brain are conducive to health and longevity, and she certainly is in much better form than it is customary for very aged persons to be.



MRS. AZUBAH F. RYDER.

We do not doubt, considering the portrait merely, that she has been always remarkable for her active qualities of body and mind, for endurance, industry, and spirit, yet free from irritability and fretfulness. The grand-daughter says that she is in her usual good health, eats and sleeps well, rises at about 5 A. M., and retires at half-past four P. M., not lying down or napping during the day. She is quiet and even-tempered, and very intelligent for an old person. Her height is about average, with a "very pleasing figure."

Mrs. Ryder was born at Eastham,

Mass., January 5th, 1784; hence is well on in her one hundred and fifth year. Her parents came to Orrington, December 17th, 1788. They came in a sailing vessel, on which the cooking was done in a fire place. They brought with them seven daughters and three sons, the youngest child being the subject of this sketch.

Mr. Freeman settled on the farm now owned by Mr. Witham. He was one of the first board of selectmen in Orrington, and the first representative to the General Court of Massachusetts from Orrington. He died September 11th, 1828. When Washington was elected and assumed the duties of first President of the United States, Miss Azubah was a little girl, five years of age, playing in the sunshine and learning to read, knit, and sew. When Washington died, a memorial sermon was delivered in Orrington. A grave had been dug, and Miss Azubah was one of the sixteen young ladies, each one sixteen years of age, representing the sixteen States of the Union, who walked around the open grave, scattered flowers, and sang a hymn composed by a citizen of Orrington for the occasion. Miss Azubah was a successful school teacher before and

after her marriage. The building in which she taught the young ideas of those days "how to shoot" was called the Pine-top school house, and stood in a pine forest on the land now owned by Mr. W. T. Little. She was married to Mr. Samuel Ryder, of Provincetown, Mass., in 1806. Her wedding outfit, of linen, cotton, and woolen garments, bed clothes, table linen, and towels, were all manufactured by herself from the raw material. She manufactured the first suit of new clothes her husband had after their marriage. It was brown, dyed in the wool, and fullled at the mill. He was very proud of it. Mrs. Ryder has had eight children, of whom but three are living. Besides she has a nephew, who is ninety-five. There are nineteen living grand children, thirty-three great-grand children, and five great-great-grand-children.

Although so old, she is far from helpless, being able to dress without assistance, make her own bed, and perform many household services. The signature under the engraving shows that she is still able to write—in itself an instance of remarkable nerve vigor in one past a century.

EDITOR.

HEREDITARY INFLUENCES.

A pebble in the streamlet scant,
Has turned the course of many a river;
A dew drop on the infant plant,
Has warped the giant oak forever.

THE influence of the most ordinary events of daily life, the mould or bent that they give to various minds, who shall determine their individual value? This thought is never more clearly set forth than in the study of the science of heredity, and its multiple influences and bearings. Slowly, but surely, the rising generation are learning what heredity means. If you ask the larger part of the young people who have arrived at years of discretion, you will probably receive an ordinarily satisfactory reply upon the subject. The knowledge is largely superficial, how-

ever, at best. Superficial, because modern life is more or less superficial in all its phases, except to a few. The blame rests upon the educators of the day, as well as on parents. There is little desire on the part of the average student to probe any one matter or study to its depths. Not, indeed, that many would not, but rather that they lack proper training to accomplish the work upon trial. There are few young people starting in life, who have any idea of the vital importance of having a thorough knowledge of the practical questions which will necessarily arise, whatever the condition of life in which each one moves. They will talk to you glibly of money and house-furnishings, but be-

yond that they let life come as it may, treat it, in fact, in such a haphazard fashion that the great wonder is, not that we are as we are, but rather that we, as a nation, were not long ago exterminated. We have paid for our lack of knowledge on the laws of heredity to some extent. Whole families of children have been carried off in what seemed a most singular manner. Primarily, it was due to lack of knowledge on the part of their parents, or a wilful breaking of well established laws of which they were cognizant. Secondarily, to a large number of local causes, unnecessary to enumerate. We have been said to be living in a practical age. It may readily be granted so far as inventions are concerned. Indeed, the labor-saving contrivances of to-day will undoubtedly save the lives of many children in future generations. Yet a general practical knowledge of the laws of hereditary influence must supplement all this, if we would have men and women to continue the human race, and not miserable apologies for the same. In the course of a necessary examination into the ancestral pedigrees of several ancient American families, the writer has had a chance to observe the effects of a general knowledge of the law of hereditary influence, in contradistinction to those whose knowledge of the subject was superficial or entirely lacking. The average of these families (covering a period from 1645 to 1888) who had a knowledge of the subject was very small.

Many of them, it was found, gained by chance what they did not realize at the time of action. We will take, for an example, two brothers, who, about 1700, were living in Maine. Their surroundings at that time were not as elegant as their ancestors had known, yet they had the comforts and necessities of life. They had inherited refinement and talent; no alien strain of impure blood was known to them in their ancestry, consequently they had the advantage of a good foundation on which to build

the super structure of a long and prosperous line of descendants. The town was prominent then, but it is not necessary to name it, save, perhaps, to say there was no need for either to go away from home to find a suitable wife. Force of circumstances, however, kept the younger brother at home, while the elder was called to Boston, and elsewhere thrown among the most refined and learned men and women of his day. In course of time, the young man met a most amiable, engaging young lady in the classic realms of Cambridge. She was a daughter of one of the early presidents of Harvard. Her father a clergyman, she inherited not only a love for literature from him, but from her father and mother as well a strong constitution, and a refined and dignified carriage. The young people were engaged and married in due time. Their children were remarkably bright and strong. One of the sons became an eminent lawyer, and was at one time a Speaker of the House of Representatives. Others were eminent in office nearer home. The grand-children and descendants have been even more distinguished, inasmuch as this worthy couple's posterity added to the health and valuable hereditary traits already possessed, in as equally advantageous marriages as their father's. The principle has been carried down in each succeeding generation, until to-day the combined result is certainly a most felicitous one. It can not be readily determined at this day whether the older of these two brothers had anything more than a general knowledge of heredity in its various aspects. It can merely be adduced as an instance of a person building "better than he knew."

The younger brother remained in his native town in Maine. His marriage was with a young girl who inherited a good stock of health and common sense. Her father was a man of ability, but lacked the native refinement of a thorough gentleman; a sort of man who was not able

to use his abilities to advantage. Whether or not from a lack of early education in the right direction is not known. The young couple had a large number of children, of whom the greater proportion were girls. They had the sterling qualities of their mother and the talents of their father. That they were more strongly attracted to the laboring class of men is not a matter of wonder. One of them married a worthy blacksmith in a neighboring town. Her only brother, much younger than herself, was early inclined to the same trade, and was undoubtedly instructed in his brother-in-law's shop. The other sisters married mechanics in the same way. Through ignorance or carelessness they never fitted themselves mentally in marrying, however much they may have gained in other things. The children of the succeeding generation, especially those of the brother, followed the trade of blacksmith. Good, honest, sensible workmen; anything but a discredit to the family or the town in which they lived, but nothing more. A generation later we see a change. Two of the descendants, by chance or purposely, allied themselves to families whose mental traits were more prominent than their physical abilities. As a result there are to-day at least three descendants who are eminent; two in the law in California, one in journalism and authorship in Massachusetts. These two examples afford a very fair illustration of what, with a little care, might be found in the records of any old American family: the influence of marriage of equals, who are possessed of valuable traits to be handed down, and the influence of the marriage of those who, though perhaps not unequal in station, are unequally united in point of mental ability. More than all is the influence shown of the mother, and the fact that one generation may build up or tear down in some degree what their ancestors have bequeathed them in mental, moral, and physical equipoise. There are too few examples

in print of the traits of American families. We learn by national examples how best to treat national evils or defects. Numerous practical illustrations are required to form correct ideas on the value or worthlessness of a given subject.

An interesting phase of the study of hereditary influences in American families, is the frequency in early days of consanguineous marriages. This was undoubtedly attributable to at least two causes. The desire to keep property in one family, as instanced in manifold cases prior to that in Europe, and the scarcity that cultivated men found of girls of their own social and mental standing. Other reasons there were, but these are the more prominent. It is doubtful if one-tenth part of those who were thus united had any idea of the general disastrous results that might result therefrom. This is seen most prominently in the fact that the enlightened world of to-day does not, as a rule, follow this custom of early times. That consanguineous marriages were not confined to any one family can be readily determined by consulting any family genealogy which covers a period from 1650 to 1700, or later. Without going into the question of the attendant evils, where the affinity was as near as that of own cousins, it can be shown that they are seldom, if ever, judicious.

In a New Hampshire city, prior to 1800, two cousins were married. Their families were of high standing, and the young people were educated and refined. They had seven children. Only two of these lived to manhood and womanhood. The remainder faded away at an early age. The two who survived to reach years of discretion, died before thirty; the young man, only a month after leaving college, and completing the regular course. This is one of many like instances in the early annals of our country. It was due in nearly every case to a lack of knowledge, inasmuch as the matter could have been remedied,

if the full evils attendant thereon were widely known. Progress is gradual, but sufficiently marked to show that we of the nineteenth century are learning by force of example, although there still remains much to be learned. Out of the medley we have of humanity to-day must come the citizens of our future republic. Who shall say that due attention to the influences of heredity, in all its various phases, will not bring forth a well rounded and developed nation physically, spiritually, mentally, and morally? Yet carelessness has brought us many evils which might have been remedied by a very little effort in the beginning. We feel like exclaiming (involuntarily), "How long will it be at this rate before we arrive at a period when man and woman shall consider their first duty, to know themselves thoroughly?" Examples of the disobedience of natural laws are not more numerous than those where the laws of nature are obeyed. Yet the mind is naturally drawn to the former first, inasmuch as their effect is more prominent. If they impress one with the desire to correct in future the evils as seen therein, they have not been in vain. On the opposite side, examples of transmission of talents and physical and mental stamina are forcibly seen in many prominent families that exist to-day. The study of such families as the Sewalls, who first settled in Newbury, Massachusetts; the Quincys, whose name is a synonym for distinction in their native State; the Adams family; the descendants of Rev. Jonathan Edwards, and a host of others. They are examples of what a good physique, and care and good forethought may do for posterity. The evil effects of a lack of knowledge on heredity and its influences are never more sadly shown than where families perpetuate the taint of insanity. The cases are almost as numerous in early days as consanguineous marriages. There seems always to have been a lingering hope that the taint had left, or

might not appear at least in the generation of the individual who married. Sometimes judicious marriages proved that there was such a thing as exterminating the evil. Again, some who should have known better made a bad matter worse by adding the evil of a consanguineous marriage to the inherited evil, and dreadful results ensued. A case of this kind came to the knowledge of the writer which concerned what was once one of the most prominent families of New England. It is a forcible illustration and worthy of careful consideration. The taint of insanity followed the family from England, and though some branches eradicated it by judicious marriages (one of these branches gave a President to Harvard), others seemed destined to be troubled by it forever. Of these, one branch which settled in New Hampshire claims our attention. Two cousins there, inheriting the same name, were married prior to 1800. One was joined to a lady not at all related to him; the other to an own cousin, who was not on the side from which insanity was inherited. The inherited mental disorder followed both branches. In the first case the family all died out in the second generation. They did not all live to develop insanity, but those who lived to maturity developed it, and were inmates of asylums long before death came to relieve them.

In the case where the young man married his cousin, in addition to marrying a near relative, and inheriting a tendency to insanity, he was himself very delicate! His children did not inherit from either side sufficient physique to carry them through infancy, with the exception of two—a son and a daughter. The former died unmarried, free from the malady. The daughter married a cousin, who was also an inheritor of the trait which had carried away so many of their name! This seems almost incredible, except for its being authenticated. The result was nothing more than they had reason to expect. Of their five chil-

dren, none of whom married, fortunately, every one was violently insane at a comparatively early age. Of these, one committed suicide under its influences. The others died off gradually (all under its baneful influence), until there was but one left. She had arrived at sixty years of age, and failed to show it. Being the eldest she had to care for the rest. When her last brother died, she was left alone. All her kindred were gone. Their insanity first evinced itself. Some said she was insane with grief, others with too much care. Few knew of the two close marriages and the inheritance. She finally followed the rest, and a marble slab, in a distant country grave yard, marks the resting place of this fated family. There is food for reflection in this, as well as the preceding illustrations. Even those who are only cursorily acquainted with the subject can hardly fail to see the significance of each one. Mental disease struggled with an inheritance of fair physique, so that long life won at last; but disease

haunted its victims through a long suffering experience.

Let us hope that the more practical Americans grow as regards complex machinery, they will also faithfully study their own idiosyncrasies and inherited traits. That the science of heredity, as it affects Americans, past and present, may yet be more fully known. From the fact that it is almost inexhaustible in its phases, and proportionately intricate, it behooves the men and women of to-day to look into it sufficiently to avoid the quick-sands, even if they do not carry the study to its natural end. The men and women of to day determine largely what is to be the future of humanity. In them and through them only do we see any possibility of a perfect manhood and womanhood. When they have learned and taught the law of their being, we shall have no fear of future deterioration. This is not a theory, it can be accomplished; neither will it necessarily be in the days of the millennium. CECIL HAMPDEN HOWARD.

HOW EACH NATIONALITY HIDES ITS MONEY.

THE peculiarities of the people of different nationalities in their way of carrying money formed a topic of conversation at Castle Garden the other day.

"Most of the English immigrants," said one of the money changers, "carry their coin in a small case, in which their sovereigns or shillings fit snugly, and have the case attached to a chain, which they keep in a pocket, as they would a watch. An Irishman always has his little canvas bag in which he keeps gold, silver, and notes all together. But a great many of the Irish girls have their sovereigns rolled up and sewed on the inside of their dress—very frequently, too, inside of their corsets—and often have to borrow my pen-knife to cut them out when they come to get them changed.

"I have seen some old Germans who

would pull off from around their body a belt that I am sure must have cost forty or fifty marks, and fish from it three or four marks in silver to have changed. The French mostly carry a small brass tube in which they can place forty or fifty 20-franc pieces, and remove them very handily one at a time, and only one at a time. There are very few Italians who don't own a large tin tube, sometimes a foot long, which they have hung around their neck by a small chain or cord, and in which they keep their paper money or silver coins. Swedes and Norwegians are sure to have an immense pocket-book, that has generally been used by their fathers and grandfathers before them, and which will have enough leather in it to make a pair of boots. The Slavonians, or Hungarians, generally do not carry pocket-books, but they find more ways of concealing what

money they may have than any other class of people I know of. Their long boots seem to be the favorite place, and in the legs of them they also carry the knife and fork and spoon with which they have eaten on the way across. But I have seen them take money from between the lining and outside of their coats, which they would get at by cutting into a button-hole. Some of them use their caps, and very many use their prayer books, placing the paper money on the inside of the cover and pasting

the fly-leaf of the book over it. But I think more of that nationality which stow away their change inside their stocking than any other place, and don't take their stockings off from the time it is put there until they want to use it."—*Commercial Advertiser*.

Each of these peculiarities has a history that relates to some peculiar relation of the mental development of the people who practice it. To trace that history would, in itself, prove an interesting line of anthropological research.



EDMUND WILLIAMS.

“THE human face divine,” is always an impressive tell-tale. The countenance, like the tell-tale lips, will reveal facts, truth, character, and guilt, which can not be described by written or oral language. The portrait herewith presented represents Mr. Ed-

mund Williams, of the well known firm of E. & J. C. Williams, of Montclair, N. J. The two brothers manage a small farm, and cultivate small fruits. An expert reader of character, at the sight of the phrenological developments and the physiognomical indices of this por-

trait, would say: That face would be an admissible portrait to virtuous and respectable society; and if the man should tell a conductor on the cars, that he had lost his pocket book and ticket, and that he would remit to him the amount of his fare as soon as he arrived home, an intelligent conductor, entrusted with discretionary authority, would accept his face as a "passport-ticket," and tell him, "All right, I will trust your face." That broad and high forehead is indicative of superior mental faculties; and the faculty of observation is large, with a natural disposition to take notice of everything he meets with, and to examine it critically, while other men, ordinarily, would not think that what he saw was worthy of notice.

Let us notice the practical operation of this grand faculty of observation. Many years ago, when Mr. Williams was on the Kittatinny Mountains, he perceived something in a wild black-berry bush which induced him to dig it up, take it home, transplant and cultivate it. From that wild bush the far-famed variety of the Kittatinny black-berry originated. Doubtless many other smart men had seen more of that variety of bushes than the originator of that valuable berry; yet, they were deficient in that important faculty of observation, which has made the subject of this portrait what he is, and given him an enviable reputation from Maine to Florida as an expert and reliable pomologist.

A few years ago, when the great exposition was held at New Orleans, Mr. Williams represented the pomological interest of his native State at the convention of the American Pomological Society, where he read a valuable and instructive paper on the subject of "Training and Pruning Grape Vines." The editor of the *Farm Journal* wrote as follows:

"If Mr. Williams had never done anything else in the world but write the practical essay upon Pruning and Training the Vine, which he read at the meet-

ing of the American Horticultural Society at New Orleans during the great exposition, he would be entitled to a place on the roll of those who have contributed to the welfare of their fellows."

He was born fifty-six years ago, near Montclair, N. J., "of poor but honest parents, on a poor but stony farm," on which he yet lives. His educational advantages were limited to the three or four months of winter school usually allotted the farmer boy of from 10 to 14 years of age in those days, and at the latter age he began work in a factory at \$1.50 per week, boarding himself, and afterward learned the trade of cabinet making. At twenty-five he abandoned the shop because of the effect of dust and confinement upon his health, went back to the "old stony farm," and began the work and study of horticulture, in which he has made fame, if not fortune.

It would be interesting to pen an extended sketch of the phrenological characteristics suggested by this portrait; but we propose rather to show the useful and practical influence of prominent faculties, by way of the admirable and valuable service rendered at a period of life when a beginner needs assistance. That valuable faculty of observation of seeing everything at a glance, and taking particular notice of little things and minor details, made Mr. Williams what he is as a practical pomologist. Without the immense advantages incident to a liberal education, he was obliged to educate himself, which he did more by observation than in any other way. The portrait indicates that his eyes and ears were always watching for something useful and interesting. Without a book-knowledge of grammar, of syntax and rhetoric, he learned to use language grammatically, syntactically, and rhetorically, by observing how educated men used language. When reading books and papers, that habit of observation induced him to treasure up in mind the language that had been employed to convey certain ideas. When he heard

an intelligent person speak, his keen and practical perception caught the impressive ideas and stored up the elegant forms of expression. Then, when planting, training, and pruning vines, trees, and bushes, that faculty of observation kept him on the lookout for some new and unusual development in leaves, flowers, or fruit, which might be turned to some useful purpose. Like all other individuals having large observation and ideality well developed, they always see "Sermons in stones, books in the running brooks,
And good in rugged ways and sunny nooks."

Mr. Williams is a thoroughly practical pomologist. In all his operations in the garden and vineyard, his own skillful hand wields the pruning tools, and handles the plow and horse-hoe. His thorough, practical knowledge in pomological science gives him an immense advantage over most of those who have

a large fund of theoretical education. By critical observation and by indefatigable industry, he has attained to the enviable position of an interesting and instructive writer in several of the leading agricultural, pomological, and horticultural journals of our country. During many years past, he has been elected, unanimously, every year, as the Corresponding Secretary of the New Jersey State Horticultural Society, which is made up of the most reliable farmers horticulturists, and pomologists in the State. In addition to other official duties, he has officiated as the compiler and editor of the Annual Report of the New Jersey Horticultural Society, a volume of which is published every year, under the auspices of the Society, embracing addresses, papers read, and minutes and certain proceedings of the Society.

E. T.

A STUDY OF ALIMENTIVENESS.

ACCORDING to Phrenology, the person whose brain is large in the anterior convolution of the middle lobe, is fond of plenty to eat, plenty to feed. This is the physical or material side of the faculty. If he gives, though inclined to stinginess, his gift will not be scanty. Here is the material man or woman and with a desire for *plenty to furnish*. If it happens to be the system of the body, plenty of food is wanted; if a house, plenty of room and belongings; plenty of all environment which will *feed* or develop anything physical that may be desired. People who are physically alimentive will feed their dumb animals well, for the reason of an instinct in them which grows with practice, not from any moral or spiritual reason. Some brutes are also alimentive, and others are scanty in their providings and feedings. Phrenology considers these.

On the other hand there are persons who are mentally alimentive. This aspect belongs to metaphysics. An alimentive government, for instance, will

provide largely with ships and guns for a country's use. England is largely alimentive, mentally, since she gets all the land she can and is looking for more. She is a "gourmand." The inflow of immigrants to this country is alimentive. The railroad managers of this country are mentally alimentive—the whole country to themselves. I know no other word than "gourmand" to suit the case. The French peasants and hackmen are mentally alimentive—with us. Really this mental alimentiveness is everywhere, for it is common to want to gorge and glut, if not with supply for the purse, which is a link between spirit and the physical, to glut in reading, looking, reasoning, music, working, loving, hoping, desponding, etc.

These outflows of mental alimentiveness are merely mental, without poetic elements and without spirituality. It is one thing to hope materially, another to hope mentally, another to hope spiritually. The material type of man hopes for

things which will feed his environment merely. He perhaps does not want to work so hard, hopes for better times. The mental type hopes for mental positions—for instance, fame, respect on account of intellect. The spiritual type hopes for an elevation of spirit perhaps ; or, if mean, for power over another's spirit, caring little for that other's property or mind.

But, to go on with mental alimentiveness : a man is mentally alimentive when he gives a thing for certain reasons (not from instinct), and naturally gives a "lot" of it. His mental alimentiveness, however, is governed by the brain, its size and development. He is also, as a necessary result, as a fact merely, physically alimentive. Taking the example above, England is *greedy*. She is not only intellectually so, but materially so—the result is, lands. If the intellectual or mental manifestation of type is large, the physical must be so to correspond, but not *primarily active*.

There is a reverse action. The mental governs the physical ; the latter the former. Of the three types, only the physical and spiritual are perfect types ; and the metaphysical, undeveloped merely, and the link which connects remains an intermediate state or type.

Alimentiveness is in one sense a "providing" faculty. A weak mental alimentiveness scrimps in connection with every other faculty in a mental way. For instance, an artist making a picture will fill up every spot of the canvas with multitudinous objects. He loads the canvas with paint. He makes his tints too rich, too positive often ; he uses many brushes and daubs things generally, in an orderly manner or not. His attempted *expression* of the spirit through the body of brush and canvas is marked by plenteousness, while the spirit itself is wanting. In giving, a scantily equipped alimentiveness will not present an article which has muchness in it. He prefers, for instance, not much wood in a chair, while another,

larger in this mental alimentiveness, would prefer to see plenty of wood and a clumsier made article. As we have said, alimentiveness combines with other faculties largely, with Acquisitiveness and Destructiveness especially, and also with Individuality, the reasoning organs, Language, Friendship, &c.

We now come to the spiritual type. For an instance, take the organist. He must have fulness of spirit. Alimentiveness gives *power*, plenteousness of supply. He wants the organ to *tremble* with ecstasy to *feel largely* and completely. In proportion, his chief trouble, as a result, would be a too powerful shuffling of the pedals and the keys. He would ransack the instrument for spirit supply, spirit food, for expression, and if very positive, his touch would amount to a pounding, and there would be a marked heaviness in the performance. Muchness of spirit would ruin him, if he did not make of it a slave. But, you understand, the spiritual type is in the spirit though, perhaps without a thought for manifestations or environment. The musician above described thought never of the organ, or of *how* he would play, but he said instinctively : "I will beat and draw out beautiful music. I wish to express my spirit. I must do this or feel wretched. I must, I must." And, spiritually alimentive, he gives you a *flood* of poetry in music, and if the organ breaks, you are sure he has never even dreamed he was playing at an organ ; he has been living in the spirit. If he is alimentive, he may be mean in selection, he may be irreverent, but there is *plenty* of spirit. The organ is mainly more plenteous and powerful in means than the piano or violin, though these are not without a fine fulness, but not commonly.

In the selection of goods also, alimentiveness prefers full contrasts, yet would have them as soft as possible. There are reds which are violent, yet scrumpy and unbalanced in tint—not supplied with the fulness of the tint itself. Such se-

lections are generally of mental type, yet, when fitting the spirit, may be of the spiritual type. There are voices which we pronounce full, yet we know that the possessors have not a redundancy of breathing power or superior vocal organs. We are, nevertheless, impressed by a plentiful sound. I have heard people say "good-bye," and though it was full of sincerity, I knew they were not over-fond of me; yet there was a feeling of spiritual aliveness in it. We have read poetry where, in describing emotions, the composer seemed hardly able to express his feelings, yet his language was immense and excited to a high pitch. He could not get enough meaning into his phrase; he was *spiritually* greedy, and powerful and full to an extreme.

We have read of people who have shown affection, not with such intensity, but with such power and plenteousness, that they seemed never to be able to shower enough kindness upon the beloved object. On the other hand, it is a common thing for men and women to be spiritually scrumpy in their affections, often causing a great deal of pain at once unnecessary and misunderstood.

Spiritual must necessarily be intellectual and physical: the *brain* is there. But the mental type can not be spiritual till it grows up to that, and the physical can be neither, except occasionally. I have a person in mind who is marked by the chart 6-5 in Mental, 6 Vital, and 6-5 Motive, 6 in quality; is of the physical type, but rather ignorant, with large capabilities for both mental and spiritual development, yet is neither mental nor spiritual in expression, but positively physical. This person is also marked high in Ideality, yet is not properly ideal, although trying to work ahead, to improve, and, as can be observed, mainly in the way of a better environment. I have another in mind of the vital temperament; ignorant, yet it is evident that the nature is very spiritual. I have still another in mind of the mental nature.

Everything must be hard facts, subject to reasoning, to suit him. There is little spirituality or poetry, yet very large veneration. I have been in a chapel where this person would pour out a flood of misery while prostrate in agony on the cold floor. Yet this person never considers the really spiritual aspects of things, but, dry of all this, cherishes the intellect. Others I have seen who seemed a mass of metaphysical facts, but dry as a board.

In reference to the spiritual type in emotion, I will quote from well known poems to represent what is meant. First, of the *fulness* of the spiritual, there is this feeling in the following:

"Thy unseen fingers smite the answering chords,
And torrents of bewildering fantasies
Deluge the mighty hills and lovely vales."

Again:

"On the cushion's velvet lining that the lamplight glistened o'er,
She shall press, ah, never more."

To illustrate scantiness:

"She had sprinkled it o'er sorrow."

Here is one very *plainly* representing both classes:

"O! it was pitiful,
Near a whole city full,
Home she had none."

Here again are some whose *spirit* is plenteous:

"Life had a thousand charms for me."

"A million emeralds break from the ruby-budded lime."

This does not represent spiritual calculation, for there is no counting at all, but a sudden burst of "not-to-be-expressed" charm. *A million*—muchness, as we see by sense.⁷

Again:

"Pass and blush the news
O'er the blowing ships,
Over blowing seas,
Over seas at rest;
Pass the happy news,
Blush it thro' the West
Till the red man dance
By his red cedar tree,
And the red man's babe
Leap beyond the sea.
Blush from West to East,
Blush from East to West,
Till the East is West."

So much blushing, he cannot blush enough in phrase.

Again :

“Love took up the Harp of Life and smote on all the chords with *might*,
Smote the chord of self that trembling passed in music *out of sight*.”

“Cursed be the social wants that sin against the strength of youth!
Cursed be the social lies that warp us from the living truth!
Cursed be the sickly forms that err from honest nature's rule!”

And so on.

And again :

“*Cramming* all the blast before it, in its breast a thunderbolt.”

What is meant is easily seen. The poet has swollen to an immense altitude. He feels terrible and can not give *enough* of his spirit, so he splits and tears and transforms verse to his humor.

The religious man and woman also derive fulness from his or her spiritual alimentiveness. They gain a heartiness and power and spirit abundantly, seeming never to be able to praise enough the Universal Spirit—the Omnipotent one.

Some souls live for material things always, good or bad. When they do acts that are really worthy, the motives arise from some connection with their

environment. Their motives are earthy, though good or bad, moral or immoral. Others live in business, books, reasonings about this or that state of things, rather than in trying to culture spirit for spirit's sake. Yet this stage is unsatisfactory, and mentality at some time rises to spirituality, or gives way to physicality. The spiritual type is accompanied by motives that are finer, but large or mean according to the organic state. How to form a method of observing these differing types correctly as an accessory to Phrenology and Metaphysics, is a question. I have had no time to solve it, and am not sure that I could do so. I feel that there is so much study necessary in this line that it would take months to grow up to it, and the few suggestions made here seem paltry and unsatisfying.

The *quality* of brain, I think, may be at the basis of the types, although not altogether ; *nature* may have something to do with fineness or coarseness, but it is separate. Fineness pertains more to closeness and weight, I think, from observing severely persons who possess neither fineness nor great abilities, but are yet possessed of a spiritual type of nature. M. C.

SAVED BY AN IMPRESSION.

THE following story comes to hand through a contemporary that regards it as authentic:

This gentleman is a Liverpool merchant. One evening, some few years ago, he had occasion to return from Harrogate to Liverpool by the five o'clock express. At a certain station where the line branched off, the Liverpool passengers had to change carriages.

With mind intent on business, Mr. Marshall (only Marshall is not his name) was quickly making his way to the other end of the train, when he found himself seized with a violent but unaccountable aversion to enter it. Amazed, he said to himself, “What's up now?” Common

sense answered not a word; but there stronger still, was the horror of the train.

“Come, come,” he said to himself, “this will never do! If I give way to such nonsense as this, may as well give up at once!”

But the strange feeling—as new to him as it was strange—became well nigh overpowering. However, with a strong effort, he again endeavored to free himself from it; shouted at the porter to bring his luggage, and turned resolutely to enter a carriage. When he attempted to enter the carriage door, his hand on the handle, the repugnance grew so strong that he felt, so to speak, as if dragged back by an invisible power. . .

"What must he do?" The perplexed man had scarcely time to ask himself the question when there came a suggestion to his mind to pay a visit to a friend—forgotten until that moment—who lived in the neighborhood.

"You may do a stroke of business with him," whispered the thought, "and still be in time to catch a later train."

Strange, again, and unaccountable was the feeling of exceeding great relief which he experienced, as, letting the train steam on its way without him, he turned from the station to seek his friend's house, and essay the "stroke of business" which should dispose him to forgive himself for the hour's delay in his journey.

His disgust may be imagined when, on reaching his friend's house after a fatiguing walk, it was only to learn of his absence from town.

Thinking now ruefully of his lost hour, and of his newly discovered expensive weakness of yielding to fancies, he returned to the station just as a Liverpool train was about to start. He entered an unoccupied carriage, and, overcome by a sensation of weariness, he drew down the blind, and was fast asleep almost as soon as his journey began.

On and on he slept, and only when the train stopped at Miles Platting did he awake. He drew out his watch, and to his intense amazement found it was midnight—three hours behind the time at which the train was due.

He called the guard. "My good fellow," he said, "what does this mean—this delay?"

The man looked at him with grave surprise.

"Why, sir," he asked, in a strange, hushed tone, "don't you know? This train is taking on the dead and wounded. We had to pick them up on the way, that's why we're so late."

"Good God! the dead and wounded? What do you mean?"

"Did you not know of the accident to the five express from Harrogate?" said the guard, his look of surprise deepening. "We thought some of the dead passengers were in this carriage, sir, seeing the blinds down, or I am afraid you would have been disturbed long since."

Heartsick, he fell back upon the seat.

"The remembrance of that moment's shock," said he in relating to us the story, "will never, I think, fade from my mind. Before me, like lightning, flashed the experiences of the past few hours. The strong aversion to going on in that ill-fated train; the almost sensible touch of a withholding hand, when, in spite of the repugnance, I was about to enter the carriage; then the sudden recollection of a forgotten friend and the resolution to pay that fruitless visit to his house—these singular causes had saved me, in all probability, from the fate which had befallen so many of my fellow-passengers.

A PLEA FOR COUNTRY WOMEN.

"I AM perfectly exhausted," said a frail little woman to us the other day. "I have worked days, while I could not get over one hour's sleep in a night, so extremely nervous have I become. My physician tells me if I work longer I *will* bring on complete nervous prostration; and yet what am I to do? I can procure no efficient help, as our girls scorn going out to service. With my four children, and all the kitchen work on a farm, the work has to be

done; and the problem is, who is to do it?"

Were the above an isolated case, we would not mention it, but it is an atom of the great cry heard all over our country. Our young women are growing more independent, and looking forward to something better than being a mere household drudge, with the day's work beginning at four in the morning and ending at ten, or even later, at night. We speak from careful observa-

tion during many years, also from too complicated work.

"I like it much better," said a girl to us, "to engage to do some special line of work, not dabbling in everything. I do laundry work, and am chambermaid, and I know when the work in my department is quite finished."

We have seen some who were not satisfied when a girl had faithfully completed all the work for twelve in a family, but they must sew until late in the evening. There is another unpleasant feature: girls do not like being looked down upon; oh, they are, and we know it! We once heard one person say to another, "Who is that fresh, pretty girl, Tom?"

"She is nobody but C——'s hired girl!"

"A 'nobody,' am I?" said the girl, as the cruel stab entered her heart. She was a girl of more than ordinary beauty and intelligence, doing the work allotted her faithfully; yet when the little village milliner came in they were all attention to her, while they left the one who served their tempting bill of fare out in the cold. Which do you think, dear reader, deserved their esteem most, the one who fashioned their head coverings, or prepared food for *pater familias* and the little one's stomachs according to an enlightened hygiene? This servant question is a complex one, for it is many sided. We would not

wish to be understood that those employing the service of others are wholly responsible for the difficulties surrounding the question, for there are very many reasonable people who hire and obtain very poor service.

We have thought if each county—or better still, each town—would organize co-operative unions, and those wishing to hire and the wage-earners would meet to discuss the needs of their immediate vicinities, it would result in great good to both, and that a sympathetic understanding might be reached, as they looked into each other's eyes and clasped each other's hands and felt each other's needs—this great common sisterhood.

The country wives and mothers need help, and need it now, and our girls had far better become good housekeepers, so that if ever they are called to fulfill woman's highest destiny, that of a wife and mother, they will not go to it unknowingly.

There is too much of a tendency for young women to fill other vocations than those of the housekeeper, because of the false notions that have been engendered on both sides, that of employer and employee, which we think could all be brushed away as cobwebs could, and both be brought together, with wise people to solve. Will not some benevolently inclined woman carefully consider this question? and will they not also act upon it?

MRS. S. ROSALIE SILL.

A BIT OF ALEXANDRIA.

THE rapidly increasing intercourse of America with the Orient is fast divesting the latter of its romance, but there is much in the life of the Syrian, Persian, Egyptian, Hindoo, and other Eastern peoples that must appear strangely interesting for generations to come.

In Alexandria, around which much historical interest is gathered, although at no great distance from the chief centers of European civilization, the man-

ners and peculiarities of the people contrast strikingly with ours, and the traveler who is familiar with the life of peoples who lived on the Mediterranean coasts in ancient times, as it is described by Bible writers and others, is surprised to observe how few changes have occurred in thousands of years.

The present city of Alexandria is not the ancient city that Alexander the Great founded, as that was situated on the mainland and has little left of its

ruins now, but is a comparatively modern city, occupying the ancient island of Pharos, which is now connected with the coast by a narrow neck of land. The bombardment by the British fleet in 1882 did considerable damage to many of the important buildings, and later the

The picture represents a common street scene, which, to the unaccustomed eye of an American, would partake largely of the barbarous as well as of the antique. In the foreground is the ubiquitous water-carrier, bearing a skin filled with water. This is the Oriental



A STREET SCENE IN ALEXANDRIA.

troops of Arabi Pasha, who revolted against the authority of the khedive, added to the devastation of the British, and as little attempt has been made to rebuild or repair the damaged structures, the city has lost much of its old attraction.

“bottle,” the mention of which will be remembered in Matt. ix., 17. The old and new “bottles,” according to our understanding of the word, would be of equal strength, as they are of glass, and the new wine would be as secure in one as

the other; but when the bottles are made of skins, the age of the receptacle is a matter which it is not safe to overlook. In the rear is a lady on an ass out for an airing, attended by her servant. Her features are hidden by a veil which conceals all but her eyes. This custom prevails all through the East. A woman in Oriental lands appearing in public without this concealing veil would to this day be regarded as immodest. On the left, on an elevation, are two of the traders, or merchants, of the city. Their establishments are of the simplest character. A few poles so arranged that a piece of matting can be spread over their heads in the hottest part of the day

are sufficient to form a shop or store. They bring their wares in baskets and sit smoking their long pipes while waiting for customers.

The intercourse of Europeans with Egypt has been intimate for centuries, but the customs of Western civilization have made little headway among the people of the Nile. The cause of this lies probably for the most part in their religious habits, which inspire a strong repugnance to anything of a foreign sort. The average Egyptian is ignorant, but not wanting in natural mental readiness, and his indifference to civilized improvements can not be attributed to lack of intelligence.

SOCIETY'S CRIME.

IN the good old days when life was new,
And words were simpler, and hearts
more true,

There lived an old lady of primitive ways
Whom rich and poor delighted to praise.
Dame Hospitality, this was her name,
And her door stood open to all who came,
For she counted it joy with each to share
Her pleasant home and her simple fare,
And the people gathered from far and near
For a smile of welcome, a word of cheer,
And, came they in coaches or rickety wagons,
They had comfort of apples, and slinging of
flagons.

But years passed on, and there came to the
town

A frisky dame in a gorgeous gown,
And she found seven others as silly as she
And they called each other Society.

Their heads were empty, their heels were
light,

So they danced and capered from morning
till night,

And somewhere or other, on every day
They sat down to eat, and they rose up to
play.

They thought themselves happy, but now and
then

They caught a word from the mouths of men,
A word of honest and hearty praise
Of the good old dame, and her simple ways,
And it filled them full of as fierce a hate
As Haman felt for the Jew at the gate;
And each one lifted her jeweled hand
And swore she would banish her out of the
land.

So they sought next morning her open door,
And they flung her down on the polished
floor,

And with ribbons of yellow, of pink, and of
white,

They snared her and noosed her, and pinioned
her tight.

She did not strive and she did not cry,
But the pleading glance of her gentle eye
Was so full of reproach for their envious
spite,

That they hastened to bury it out of their
sight

With roses of every various hue,
Pink, crimson, and yellow, and possibly blue;
They stifled her first with their sweet-smell-
ing savors,

And stopped her last gasp with what they
called "favours."

So there she lay dead, but of all things human
The cruelest thing is a heartless woman,

And, to make her sad ending as sure as
could be,

They drowned her in gallons of "Afternoon
Tea."

They had had their way, and carried their
point,

And their times no longer were out of joint;
So each seized each by her murderous hand
And they danced round the grave to a man-
dolin band.

And this is the terrible way that it came
That the dear old lady is now but a name,
And we mourn the loss of her simple ways
And sometimes sigh for the good old days.

HARRIET GILMAN SMITH.

SELF-ESTEEM VS. APPROBATIVENESS.

PERHAPS no phrenological terms are oftener wrongly used than these, or the action of the respective faculties less understood. If a man is pompous, forward, and loud of speech he is said by the general public to think a good deal of himself, *i. e.*, to have large self-esteem, whereas, it is the esteem or approbation of others he desires. On the other hand, a conceited man, one who has a high estimate of his own merits, is often silent and unobtrusive.

Perhaps no better example of the possession of large self-esteem can be found than in the early New Englanders and in some of their descendants. In examining the characters of many of these, we find them so confident of their own merits as to care little for the opinions of others. They desire a first place in Church and State, and believe they are worthy of it; none more so. They are ambitious to succeed, and feel that they are born to govern; and while they know that they are born great, their fel-

lows should not neglect to thrust greatness upon them. They are stern, domineering, and determined, and withal, conscientious, thinking too much of themselves to turn a hair's breadth from what they believe to be right. Such men were some of the leaders among the Puritans.

Those marked examples of Approbativeness will be found among our Western brethren, and even those with New England ancestry seem to have imbibed it from their surroundings. With them is more suavity and companionship; endeavor to secure the good opinions of their fellows, and a desire to attain positions where they will receive the applause of the multitude. Self-Esteem *knows* he is right; Approbativeness hopes others will *believe* he is, and treat him accordingly. A fair development of both these faculties, that one may keep the other in check, is to be preferred to an excess of either.

L. A. R.

AFFINITY.

BEAT, beat, beat. The great rain falls
With echoing hammers on the sullen
rock;

The small rain comes with timid calls,
And pleads for entrance with a gentle knock.

The mist creeps softly upward from the sea,
The dew falls lightly from the air above,
The south wind murmurs of glad things to be,
The west wind prophesies of hope and love.

The sun turns on the rock his melting glance
And strives to find an entrance to its heart,
Whereby to pierce it with his golden lance,
And tear it from its flinty walls apart.

Thus every art doth zealous Nature bring,
Tries every voice in chorus and alone,
If by all efforts she perchance may wring
The faintest answer from that stubborn
stone.

The eager soil hard by drinks up the streams,
That from the rock's repellent surface run,
And gathers to her heart the straying beams
That fall unheeded from the generous sun.

And teeming with the life she loves to
bear,
Sends forth a thousand forms in gala
dress,
The while the niggard rock with jealous
care
Hoards the poor lichens on her barren
breast.

Beat, beat, beat. The rain of wisdom falls,
The great rock towers upward toward the
sky,
The small rain of the spirit faintly calls,
The promise of the south wind passes by.

And though the hardened rock may never
yield,
And vain may seem the teaching and the
toil,
Somewhere, perhaps in some forgotten
field,
Wisdom shall surely find her native soil.

ALMEDA COSTELLO.



THE EDUCATION AND USE OF THE BRAIN.

THE brain can be trained just like the hand. This is the great subject of education. An empty head is an evil head; an untrained brain is a mischievous brain. The brain must be used all round, and perhaps the greatest danger of school education at present is that the memory is cultivated principally or almost alone. It is not walking encyclopædias that do good in the world, but skilled brains, able to think and not merely to remember. No teaching is likely to be of much permanent value which does not exercise other faculties of the mind, the reflection and judging powers, the power of giving undivided attention, and the power of taking pains. Interest in the work is essential to true progress, and the most enduring knowledge is that which we teach ourselves. Imagination should be stimulated by wholesome and stirring stories and all the wealth of poetry; and the will should be educated by forcing ourselves to do our duties promptly even when disagreeable, as they so often are. Habits are largely the result of training; the same part of the brain is used over and over again; the nervous energy travels the same set of fibers from the same center time after time, until ultimately it passes without any control and almost unconsciously. The painful efforts of learning an art in the end give an un-

noticed mastery over it. Here is the danger of self-indulgence in any vice.

There is almost no limit to what you can teach yourself, if you try long enough. Time must always be given to the brain, and on this condition patient perseverance will carry a student to almost any goal. Hurrying the little brains of children is to force a false pace except with the obviously lazy; but the bugbear of overpressure need not be feared so long as the principles controlling the health of the body generally are observed. Overpressure often means underfeeding.

Sleep is the rest of the brain, its great rest. A variation in work, a change of subject, is another kind of rest, the best rest often for the higher or intellectual centers; and an immense amount of mental labor can be safely undertaken, if sufficient variety is secured. But in the end the brain demands sleep, and this is especially the case when the lower or more animal centers have been much used, as in children at play. Habit has a great deal to do with insuring a good night's rest, the habit of going to bed at a regular hour. Hard mental work up to the moment of retiring may cause the loss of a night's rest, and it is a good plan to indulge in a little relaxation before bedtime, like a piece of light literature, a game, or some music. Trivial

things may win slumber, such as lowering the pillow or turning its cold side; but artificial means of distracting thought have nearly invariably proved totally useless. Children require more sleep than grown people. A healthy baby for the first two months or so spends most of its time asleep. After that a baby should have at least two hours' sleep in the forenoon and one hour in the afternoon; and it is quite possible to teach almost any infant to adopt this as a regular habit. Even to the age of four or five years a child should have one hour of sleep, or at least rest in bed, before its dinner; and it should be put to bed at six or seven in the evening, and left undisturbed for twelve or fourteen hours. Up to the fifteenth year most young people require

ten hours, and to the twentieth year nine hours. After that age every one finds out how much he or she requires, though as a general rule at least six or eight hours are necessary. Eight hours' sleep will prevent more nervous derangements in women than any medicines can cure. During growth there must be ample sleep, if the brain is to develop to its full extent; and the more nervous, excitable, or precocious a child is, the longer sleep should it get, if its intellectual progress is not to come to a premature stand-still, or its life be cut short at an early age. The period of full maturity, with its maximum of mental activity, is the period of minimum demand for sleep; but old age reverts to the habit of childhood, and passes much of its time in slumber. C. F. POLLOCK, M. D.

PNEUMONIA AND TYPHOID FEVER.

AUTHOR OF "NATURAL CURE," "HOW TO FEED THE BABY," Etc.

THE nature of the disorder pneumonia is such as to demand persistent in and in cooling at the chest as a very natural means of reducing the congestion of the lungs, which are engorged with blood, instead of the "hot fomentation or mustard plaster to the 'sore' part," which is often recommended, and which of course increases the congestion, though sometimes temporarily soothing.

The hot foot-bath or "fomentation" is quite useful, unless, owing to a general feverish condition, the feet are warm enough. If the feet are cold, or even cool, or if after applying the cold compress to the chest the feet become cold, or any measure of chilliness is produced, then a *hot fomentation* to the feet and legs is in order. It should be borne in mind that it is the *cooling through the chest to relieve the congested lungs* that does the good, and the moist heat to the feet and legs is required only when necessary to prevent lowering the general temperature too much, or to promote the comfort of the patient; for

this purpose a small blanket should be folded and rolled bottle-shape and saturated with hot water, turned in at the ends short of the need of wringing it. Unfolding this it should be wrapped around the feet and legs four thicknesses or more, as hot as can be borne with comfort. Several thicknesses of stout sheeting should be wrapped around this, so that a good generous heat shall be kept up for three-fourths of an hour or more.

But in case of very high fever this might do mischief by increasing heat, there being need of cooling only.

The cooling of the lungs is best done (particularly if promptly given at the very onset of the attack) by having an ordinary-sized towel folded four to six thicknesses, wrung from the coldest of water, spread over the entire chest, pressed firmly and changed for a fresh one every two or three minutes, or as often as it becomes less than cool. It might be necessary to keep up this constant cooling for one to three hours, certainly until the pressure at the lungs was

pretty much relieved. It should be repeated at any time and for any length of time necessary.

The head may require constant cooling in the same way, and to the fullest extent demanded by the comfort and satisfaction of the patient. There must be no leaving off the cold towel or to become a *hot fomentation* instead of a *cold compress*.

There are instances when a hot fomentation at the back of the chest, to stimulate the roots of the nerves, is demanded, in conjunction with the persistent cooling in front, but this would seldom be required until the body heat is reduced to near normal point (98.4 degrees F.), for in all these cases the temperature is very high, that is, there is a state of fever, which the cooling of the head and chest tends strongly to reduce. The oppressed lungs once relieved, rapid convalescence will depend upon sufficient cooling to keep the temperature down to or near the normal point, and upon the avoidance of injudicious feeding.

The practice in the German hospitals, and it is coming more and more into repute in this country, when the temperature runs very high in typhoid fever, is to place the patient naked on a cot and pour cold water constantly and profusely over the body, particularly the upper half, including the head (the patient for this being face down with the head held over the side of the cot), until the temperature is markedly reduced, resort being had to this treatment as often as the temperature runs high, and the strength permits. In milder cases, however, the constant changing of cold towels will suffice.

In the *Medical and Surgical Reporter*, Dr. Edward H. Sholl says: "A brief descriptive history of the treatment of two cases last spring in and near the writer's old home at Gainesville, Fla., will throw some light on a method of treatment with which for more than a quarter of a century he has been fam-

iliar in its application to other forms of disease, but not in pneumonia. The first case was that of a mulatto girl, fourteen years old. As to medical treatment, it may suffice to say that up to the seventh day all the ground that could be measured out, save blood-letting, had been carefully covered, and in vain. Temperature ranged from 105 degrees to 106 1-2 degrees; pulse and respiration rapid; expectoration characteristic, and the case from its exceeding gravity seemingly hopeless. A lounge was prepared, on which a heavy double blanket, well soaked with the coldest water to be had, was laid. In this, the clothing being removed, she was carefully and thoroughly rolled and packed by careful nurses, and over this another pair of wet blankets were placed. Immediately the shock gave rise to a violent paroxysm of coughing, with abundant expectoration of rusty-colored sputa. In less than thirty minutes the temperature had fallen a degree, the restless, tossing girl had become quiet, and in one hour she was sleeping a gentle and undisturbed sleep. The mistress of the house, an intelligent lady, made repeated observations of the temperature, had the cold water poured on as freely as was necessary, watching the pulse, one hand being left out, and at the end of seven hours, according to my directions, she was taken out of the pack, carefully dried, put back in bed to rest, and from this time on she continued steadily to improve. The temperature never came back to its old height; convalescence was as rapid as could be expected, thus happily terminating a case about as far removed from the possibilities of recovery as is ever seen.

"The second case, a boy of seven years, has a similar history of symptoms of gravest import—delirium, anxious restlessness, high temperature. Stripping him naked, carefully packing him in four blankets, thoroughly wet, the same violent paroxysms of coughing came on with free expectoration, follow-

ed by a quiet sleep. Temperature soon fell one degree. As the blankets grew in the least warm, cold water was poured on freely, till at the end of three hours the temperature seemed permanently reduced, and the general condition more favorable, when he was taken out, dried thoroughly, and put in a warm bed. From this time on the improvement was decided; and fully as rapidly as could be expected he went on to perfect health.

"It will be observed that in neither case was it necessary to repeat the process. Had it been properly indicated, it would surely have been done. So far as results go, it at least shows, if nothing more, that it does not add anything to the perils of a grave case, and very probably promotes decidedly the chances of restoration. Further practical study in this direction is not only admissible, but indicated, for in whatever way we add to our resources to cope with disease, we confer a lasting benefit on mankind."

There should be no proffer of slop-
foods, as milk, gruel, beef tea, etc., that "slip down so easily" that the patient may be induced to take them either for a little palate-tickling or for thirst. Few persons, even in health, can take milk with advantage. It proves very difficult of digestion, overtaxes the kidneys, and with many induces constipation; while given freely in high fever, it is alone sufficient to produce the lesion in the stomach and intestines that is so often fatal.

Beef-tea is now condemned by the few front rank men of all schools of medicine, since chemical analysis exposes the fallacy of its supposed nutritive value, by proving that it is almost identical with urine, there being no significant difference except as regards color, odor, and flavor. Hence physicians have been unconsciously working on the line of our kind old grandmothers with their prescription of "chamber-lye and molasses." All this applies also to the care of typhoid fever, and indeed there

is usually more or less of a typhoidal condition in pneumonia. No well conditioned person can have this symptom as the mere effect of exposure. There must first exist the predisposing cause, however hearty and robust the victim may have appeared prior to the attack.

Says Prof. David Mark, M. D.: "The liability of any person to attacks of acute pneumonia is determined chiefly by the presence or absence in his blood of the waste matter referred to (waste matters arising from lack of exercise) and by the condition of respiratory power.

"If the blood be free from any abnormal amount of such waste matter, because the respiratory capacity is up to the full requirements of the system, no cold, however severe, is competent to originate the disease. But if the blood (and tissues) be charged with the matter, a very moderate irritation will determine an attack."

Hence the importance of deep breathing or "lung gymnastics," and such systematic exercise as promotes the elimination of waste and makes deep breathing at times involuntary. Arm and shoulder exercises are particularly useful as a means of preventing degeneration of lung tissues and habitual shallow breathing. Cold water should never be withheld in pneumonia or typhoid fever, although it is not well usually to flood the stomach with it. It should be given at whatever temperature is agreeable to the patient. Even chipped ice is often the best means of quenching thirst and reducing the feverish condition of the throat and stomach. Either chipped ice or ice-cold water taken in small installments, although as often as the patient desires, is far better than to send down copious draughts of water.

The importance of providing soft water for use in the sick room—that is for drinking and bathing, but not necessarily for pouring over the body—can not be too strongly urged. Every one knows the value of soft water in the wash-tub, and when the question is that

of a human life depending upon its solvent properties in the circulation, surely no one who rightly comprehends the matter would willingly use hard water, least of all render it artificially so by the addition of lime. If the home supply is not of known purity and softness, distilled water can be obtained at the drug store or neighboring machine shop, planing mill, or rolling mill, and no pains or expense should be spared in procuring it.

The sick room should be profusely ventilated, and this means something more than airing once or twice a day. There should be a steady influx of fresh air, and this demands much more than the dropping of a single window a few inches at the top. Even in mid-winter there should be two or more windows open to some extent, and the warmer the weather the more profuse should be the ventilation. In summer every fever patient would be best treated in the open air, and the question should be to make the sick-room in hot weather as nearly like "all outdoors" as possible.

In pneumonia, the colder the air supplied to the lungs the better. In fact one of the most natural, safe, and speedy measures possible to devise as an aid to the cure of pneumonia, and in itself sufficient to insure a speedy convalescence is that of the persistent open-mouth breathing of out door air if in winter, or the same drawn through an ice-packed refrigerator (scrupulously clean and profusely ventilated) in moderate weather, the patient being made comfortable in bed and supplied with a proper face-piece to which is attached a flexible tube, through which the cold air is passed direct to the lungs; this manner of breathing to be *constant* and *uninterrupted*, hour after hour, and throughout the night, if necessary—never remittent—until the temperature of the patient, as indicated by the thermometer placed under the arm, is reduced to about the normal point, and the pressure at the lungs relieved. The philosophy of this

treatment is as evident as is that of the playing of an engine upon the hottest part of a fire.

As for diet, the thought of food of any sort for a day or two should not be entertained, or until the patient is convalescent and known to be beyond danger; and even then, when this step is supposed to have arrived, any excess in diet is liable to produce a relapse.

No tempting of the appetite should be permitted, for when the patient is really convalescent and the organism is in a condition to make use of food as an aid in restoration, he will (and this should be the test) be hungry for the plainest food, and require rather to have his appetite curbed than tempted. Many a patient who under this plan would have been convalescent in three or four days, has been made to suffer a long and painful illness—many indeed have died—for want of complete abstinence from food for a day or two, or three perhaps, while all the forces of nature were engaged with the lesion at the lungs, leaving absolutely no power to digest and assimilate food, rendering it therefore a drug.

The food most appropriate, when the patient is fairly convalescent, is plain Graham bread, made without sweetening, a day or two old, taken in moderate amount twice a day, if the patient is hungry so often. It should be eaten very slowly and thoroughly masticated. To this may be added a little thoroughly ripe fruit in season, or a steamed apple. Diluted fruit juices may be taken frequently. Before solid food is required, the juice of oranges, with equal bulk of soft water, with a trace of sugar if desired, makes a most grateful drink, and is, moreover, very nutritious. Other plain foods may be added gradually, as string beans, green peas, corn berries, melons, peaches, pears, grapes, etc., etc., as the season progresses. Indeed really ripe fruits, in season, may be the first food allowed when the time for eating comes.

Boston.

DR. C. E. PAGE.

DIAGNOSIS BY POSITION.

TH**ERE** is much in the position assumed by the sick which, when carefully observed, will help to determine the nature of the malady.

A writer on the subject says :

The position on the back, which fat people adopt for convenience, is characteristic of inflammation of the bowels, since those who suffer from this affection are not able to endure the least friction of the abdomen, and it is observed also in diseases of acute and grave character, such as tetanus, articular rheumatism, etc. This is assumed passively when the patient, having lost his strength, occupies the lowest part of the couch, the head falls from the pillow of its own weight, the arm, as indeed the whole organism, obeys the action of gravity, as occurs in infectious diseases and intense inflammatory processes. This position is usually accompanied by disordered movements of the hands, as if the patient would reach up to something suspended before the face. It always indicates a grave condition.

Lying over on the stomach is observed in abdominal diseases accompanied by strong nervous pains, gastralgias, flatulent, nervous, and nephritic colics, etc., and sometimes in case of anterior pulmonary cavities. In the former affections the patients find relief by compressing the affected region ; and in the latter they hinder by this position the escape of the secretions from the cavities through the corresponding bronchial tubes, consequently calming the cough.

Children who suffer from hydrocephalus have a tendency to place the head lower than the body, and therefore when held in the arms they allow the head to fall.

Lying upon the side, and especially the right, is the most physiological position that the sick can adopt, and it always indicates a satisfactory degree of muscular strength.

In pneumonia children generally rest

on the left side, but not so adults, who, if they do not adopt the supine position, lie ordinarily on the sound side. This double position in the same disease may be explained by the fact that in children pneumonias are more diffused and affect nearly the whole of a lung, and therefore they instinctively avoid compression of the sound lung in order to allow it to perform its function with greater freedom ; in adults, on the contrary, the disease is ordinarily limited, and there is no inconvenience in adopting a lateral position on the sound side ; at the same time they avoid in this way increasing the contagion of the affected part, and thereby diminish the pain and cough.

In painful dry pleurisies the patient keeps the affected part still as much as possible, and at first rests on the sound side, to diminish the congestion of the affected side, by the elevation of which the cough and pain are mitigated ; but when fluid begins to accumulate in the chest cavity, later in this disease, the patient will constantly adopt a position on the diseased side so as to avoid compressing the opposite lung, and to allow it to perform its function with entire freedom.

A continual change of position indicates intense excitation of the nervous system, the head of the patient turns continuously from right to left, the trunk is not quiet, and the whole individual is attacked with a general irritability, so that he makes continuous efforts to uncover himself and leave the bed. This phenomenon is usually observed at the acme of acute infectious fevers and brain inflammations. The upright position, characterized by a general distress, the forward inclination of the trunk, the fixation and elevation of the arms, as if to give the thorax a point of support and to bring into exercise the auxiliary muscles of respiration, is observed always when an obstacle hinders almost completely the contact of air with the respiratory surfaces, whether this obstacle be in the

larynx, the trachea (as foreign bodies, false membranes, cicatrices, or tumors, which act either by stopping up the passages or by compression), or in the bronchia or pulmonary vessels (exudates in capillary bronchitis, pneumonia, tuberculosis, emphysema, or pulmonary compression by exudates and pleuritic transudations, pneumothorax, flatulent dyspepsia, ascites, etc.), in asthma and in cardiac affections, especially in those of

the right side, which then depend principally on extravasations in the pulmonary veins.

The more obtuse the angle formed by the trunk and the surface of the bed, the more intense is the orthopnea. Consumptives are accustomed to remain seated for many hours, with the object of hindering the escape of liquids from cavities through the corresponding bronchia.

TRANCE CASES.

THE following trance cases are particularly interesting, especially as both the victims were very intelligent and truthful, and all the facts are well attested by conclusive evidence.

A noted lawyer, engaged in the defense of the New York aldermen, was astonished, a few days after the close of the trial, to find that he had no memory of any of the circumstances connected with it. The trial lasted nearly six weeks, and had been long and exciting. During this time he had drunk over a pint of brandy a day, and manifested more than his usual intellectual force. He had an exciting quarrel with a gentleman at a club house one evening, and was severely censured by his friends. When the trial was over, he retired to his country residence to rest, and after a day or more gave up all use of spirits. He awoke one morning with no memory of what had taken place from the beginning, or first day of the trial. He could not recall the slightest incident from the first forenoon of the trial. His critical examination of witnesses and exceptions to the rulings of the judge, his final summing up, were all an oblivion, and his reading of the minutes of the trial was new, and in no way suggested anything in the past. This man had a marked inebriate ancestry, and has drunk many years irregularly. During the trial he drank regularly, and appeared in no way different, only a little more irritable.

The second case was that of a banker in a Vermont village, who went to New York to invest some money for himself and friends, and awoke on a Liverpool steamer three days out from New York. He had important business interests at home, and expected to return on Saturday. Thursday evening before, he made some important engagements, and, although drinking moderately, went to bed that night, and not being able to sleep, drank more than usual. From this time he lost all memory of events up to Tuesday of the next week, when he awoke in mid-ocean. He had a ticket to Liverpool and all his papers and securities intact. It appeared that he had been drinking regularly for some time, but never seemed to be unconscious; also that he had transacted all his business correctly, and left the hotel to take the train home Saturday morning, when suddenly he went over to the steamer, bought a ticket for Europe under an assumed name. He went to bed and drank large quantities of spirits, but did not seem to be intoxicated. He came back on the next steamer, and could not recall the slightest circumstance or event of this trance state. This man had an inebriate ancestry, and was a moderate and only occasionally an excessive drinker.

Such facts as these warrant the statement of the *Journal of Inebriety* that the inebriate is in a worse condition than the ordinary lunatic.

SCIENCE IN HEALTH AND DISEASE.

SPECULATIONS upon the subject of health and disease are among the most common efforts of the human mind ; a consistent attempt to reduce it to something like scientific order will be a refreshing change. Science is knowledge, but it is knowledge of a much higher order than the great mass of information which men possess. All knowledge *begins* in observation ; it proceeds by speculation, and continues through experience, often undirected by theory ; but becomes scientific only through discovery. This same truth is explained by saying that our first cognitions are of effects ; what the causes of these effects are, and how they may be obviated or controlled, we blindly guess at, because we have as yet no premises from which to reason with regard to them. At length, having imagined a possible explanation, we make an experiment to learn its truth, only to find for the millionth time that we are wrong. We try again, again, and again, until in despair it may be, having possibly abandoned our efforts to learn, we some day accidentally hit upon the true explanation of all the phenomena of its class ; in other words, we make a true discovery. It is at this point that science begins—that knowledge becomes scientific. Speculation has given way to logical deduction from established premises, whose truth is now verified by application.

LOGICAL SCIENCE.

Observation is the gift of animals as well as of man ; speculation and experiment are empirical and untrustworthy ; but science is logical and certain. And *certain* because it is logically deduced from established premises. It is the discovery of the premises, therefore, from which to reason that constitutes the very essence of science. Reason is a process of deduction—a function of the mind in perfect analogy with all nature's processes, which are invariably forward and outward, "from cause to effect,

from principle to product, and logic is the science of the mind's processes. It is *the science of reasoning*, the basis of all other sciences. Upon its certainty depends the certainty of astronomy, chemistry, mathematics, and mechanics. The principles of logic being well established, correct conclusions may be arrived at with great certainty, provided we have obtained a starting point from which to reason, so that it is the discovery of this starting point—this first principle, which is required in order to the exactness of science.

WHAT IS A TRUE DISCOVERY.

Having, therefore, recognized the truth that a starting point from which to reason is a prerequisite of science, it becomes important to inquire as to the character of this starting point—this discovery. How shall we know when the correct premises have been discovered ?

The answer to these questions comes in varied forms. First, we may call up the history of science in all ages to show of what its primal truth consists. For if all past sciences agree as to the character of their primal truths, we have reason to suppose that those yet to be established will be exactly analogous.

Another suggestion as to the character of the true principle, premise or starting point, has already been hinted at, *viz.*, that it consists of the agency or cause which produces, and, therefore, governs and explains the phenomena. Nature's processes are exact and unvarying. It is impossible to conceive that her operations are governed by any principle or power other than that which produced in the beginning and continues to produce them ; and if we have learned how Nature's operations are produced and governed, we have the true explanation of all the phenomena of the department under consideration. Science is really a description of nature. It is how nature does things that the scientist studies, in order that he may take advantage of

their doing; in order that by changing or controlling conditions, he may obviate, produce, control, or, at least, explain the phenomena. To accomplish this involves a knowledge of nature's causes and processes, as well as of effects, and science describes them all, declaring the causes, illustrating the processes, and predicting the results. The effects are generally obvious, being facts of observation open to the most ignorant; the processes are also quite generally observable; it is the causes that are hidden, obscure, difficult of discovery, but having been discovered, confer the power of science. What are these causes? We refer not to individual causes, but to causes as a class. It is the business of science to generalize, to bring the infinite variety of phenomena observable in any or all departments into the classes to which they properly belong; and to this end, the principle of classification is the subject of first and all-controlling importance. What is this principle? The question but repeats the one last above made, and has been asked and answered in varied forms throughout this article. The principle of classification is the principle of production, which being discovered enables us to reduce to order all the phenomena of its class, giving to each its proper place in the science we cultivate. Not only this, it enables us to predict and produce, to obviate or change, to control or explain all the facts resulting from the principle discovered. In all ages it has been the discovery of this principle which has immediately preceded the development of an exact science.

THE HISTORY OF DISCOVERY confirms this truth. The typical discovery was attraction of gravitation by Sir Isaac Newton; that of the Lever by Archimedes was exactly similar, but dealt with a less comprehensive field of work; Dalton's laws of chemistry are in the same direction, and all of them are in sharp contrast with the discoveries of Copernicus, Galileo, Harvey, etc. These

latter were declarations of exceedingly suggestive facts, but conferred no power of deducing certain conclusions, as did those of Archimedes and Newton. The circulation of the blood is a physiological fact, established by Harvey, and worthy of the fullest consideration and confidence, but it gave no certainty to physiology, or exactness to medicine. Had Harvey been able to establish the causes and processes of the circulation, and the object secured by it, and especially the law of its operation, he would have conferred great power. So Copernicus proclaimed the revolutions of the planets, and Galileo demonstrated the fact thus proclaimed, but without Newton's discovery of the law, astronomy would have continued hardly less empirical than previously. It is not the discovery of simple facts, therefore, which confers the power of science, but of facts having a peculiar relation to the production of the phenomena sought to be controlled, or explained. In a word, reasoning may be conducted to certain conclusions, not from the fact, but *from the law of the fact*; not from anything observed, but from the principle of production. That which produces also governs, and being understood explains every part of its department. Prof. W. Stanley Jevons, of University College, London, in his "Principles of Science," shows how clearly this is true by illustrations like the following: By taking several numbers, all ending with the figure 5, as 15, 25, 35, 45, etc., he finds that each one is divisible by the figure 5. Now, this *fact* he supposes to be a premise from which conclusions may be deduced. If 5 will divide without remainder any numbers which end with 5, why will not 3 or 7 divide any set of numbers ending in 3 or 7. But upon application he finds that 13, 23, 43 are not divisible by 3, nor is 17, 27, 37 divisible by 7; so that his induction fails by application. And so upon investigation he finds that reasoning *from the fact* is untrustworthy and inconclusive—that in order

to be reliable he must first discover *the law of the fact*, which being established, he may deduce conclusions in infinite number and variety with great certainty. It was *the law* of the lever, and *not the fact* of the lever which Archimedes discovered; it was the law of astronomy which Newton set forth, and of chemistry that Dalton declared, and which, having been discovered, enables us to produce, govern, and explain the phenomena of these departments, and so confer the certainty of science.

LAW, THE EFFICIENT AGENT.

That science really begins with the discovery of its law, and especially with the law of production, and not with the observation of its phenomena is proved, if proof were required, in still other ways. Babes and beasts observe; fools as well as wise men speculate; the phenomena of nature are so abundant and obvious that knowledge of them, no matter how general, particular, or comprehensive, can never constitute science, as the facts of alchemy, astrology, of empiricism, indeed, through all ages declare.

But the empirics, past and present, have done much more than simply observe; they have learned that phenomena, no matter when or where, are the results of force. Power necessarily precedes product. Without the existence of force, the existence of phenomena can not be explained. With these facts all men are acquainted, but are all men, therefore, scientists? There is one thing still lacking, the very thing which distinguishes science from common knowledge, viz., *a comprehensive knowledge of the law which directs the operations of the force. Force without direction, power without purpose, would really be no power; it could accomplish nothing.* The very idea of a product suggests the operations of a power engaged in working out the product. Attraction of gravitation as a force could not revolve the worlds in space, unless it worked in one certain, definite direction to the accom-

plishment of a clearly defined purpose. It is the *law* and *not the force* of gravity which revolves the worlds. If it were possible for force to work haphazard, without certainty of direction, but in tumultuous disorder, its varied parts in conflict with each other, or if, as a whole, it momentarily changed its processes, *working* as contradictorily as the empiric *thinks*, what could we expect in the way of results. Surely, the very essence of power is involved in the certainty of its direction, the unvarying law of its production. It is, therefore, the law that produces; it is the same that governs, and being understood, it explains all that it produces and governs.

We learn, therefore, that while phenomena and force are both obviously existent, they can accomplish nothing without a directing law; and as science is knowledge, which gives power and accomplishes results, its law must be discovered, comprehended, and applied.

And it must be perceived with sufficient clearness to enable us to figure out results. The mere knowledge that phenomena are produced by law will not answer. We must conceive the particular law, which law being a conception, invisible and intangible, is not to be learned by rote, nor studied out by mechanical processes any more than can be poetry or art. Every true discovery is an inspiration, a truth received, a conception, rather than a production, and this is why discoveries are so few, and yet so potent for good. This is why science, so long delayed, is, nevertheless, when it comes, the very queen of knowledge—the twin sister in its methods of development of poetry and art.

THE ORIGIN OF LAW.

In the light of these truths, we inquire if it is possible that law, the efficient agent in the production of all things, is nothing more than a "mode of motion," "spontaneously generated," *the product of chance*, as agnostic science would lead us to infer. The answer comes from the depths of consciousness; no, it

is not possible. Not only can not the source and origin of things have been spontaneously generated, but even the slightest effect can not exist independently of its cause. Something can not come from nothing. Creation by law is a fact of science not more certainly than it is a fact of revelation, to dispute which is to show a marvelous ignorance of both nature and revelation. What is law but the expressed will of a law giver? And what truth does Genesis proclaim but creation through this expressed will. When God said, "Let there be light," he established by that act the great law of light, whose character has been expounded during the last century and denominated chemical affinity. When God said, "Let the firmament appear, and let the waters be gathered together," he, by that very act, established the law of attraction of gravitation, which gathers the waters together to-day as well as in the beginning, and which spreads out the firmament now as at the first. And when God said, "Let grass and herb appear," he gave expression to the great law of vital existence, which has been working out its results through all the ages since. These three great laws constitute the fundamental principles of universal existence, to discover which is to yield the basis of universal science, and render possible a consistent philosophy. All sciences are included within the chemical, mechanical, and vital; and all true philosophy expounds the principles of these sciences. This, at least, is what we infer from the statement that each day's work was separated from the succeeding day by an intervening night. There is nothing between chemical affinity and attraction of gravitation, or between attraction of gravitation and vitality but darkness, non-existence; all that *is* must be included within the three fundamental principles thus established.

But the first three days' work is repeated and elaborated in the second three days. Sun, moon, and stars, fish and birds, men and animals, result from the prac-

tical application of the principles all ready established. Then comes a day of rest, expressive of the completion of the work, and typical of a future great day of rest. The next chapter of Genesis but repeats in other phrase what the first chapter declares, and so we find in varied language the truths of all the ages expressed in such a way as to justify the Apostle Paul in declaring, "The invisible things of him from the creation of the world are clearly seen, being understood by the things that are made." Romans, i., 20. What *is*, declares what *was*, and *vice versa*. What occurred when the morning stars sang together, occurs around and about us every day; what occurs around and about us to-day, declares what occurred in the beginning, in accordance with the will of Him "who worketh all things after the counsel of his own will."

EVOLUTION.

These declarations of the Apostle teach, we believe, the doctrine of a consistent evolution—not the agnostic evolution of our day, but an evolution declared by every fact of existence and set forth in every chapter of Revelation. It is creation to-day, the outworking of creation in the past, by Him who says: "I create good and evil, light and darkness; I, the Lord, do all these things," Isaiah, 45, 7. Who says also: "They are created now, and not from the beginning," Isaiah, 48, 7.

The unchangeable character of the great law-giver also declares the truth of evolution. Being unchangeable, he can not change his processes; being all-wise, he can not make improvement in his methods; being omnipotent, present plans must work out his great designs. The facts ever before us prove that the end is not yet. New creations are being effected every day. A little while ago we were not, but by some mighty power we have come to be. "A new heaven and a new earth" are promised. The new birth, with clean hearts, all declare new creations.

The power that produced also governs; and being understood, explains what it governs and produces, which power, nature, revelation, and common sense unitedly declare to be "the law of the Lord," the only perfect thing in the universe, the Law-giver alone excepted, and, therefore, the only thing which a

perfect Creator has directly established. All other things are the outworking of unchangeable decrees, which are calculated to bring about in the end the same perfection which the beginning declares.

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CREMATION VS. BURIAL.

IN 1874 in the *Contemporary Review* Sir Henry Thompson wrote an able article in favor of cremation as a sanitary precaution against the propagation of disease. It attracted great attention and was translated into several languages. He received in six months 800 letters asking for information and showing great interest in the matter. After fourteen years of silence, though not of lessening interest, he again comes forward with another interesting article on the same subject. This time it is published in the *Nineteenth Century*.

But modern reaction in favor of cremation commenced before 1874. It started in Italy as early as 1866, and Gorini, the able engineer who constructed the best furnaces and retorts for effective cremation, commenced practical work for carrying out the ideas then being advocated. The French followed next after the Italians, and in 1874 a cremation society was formed in London, of which Sir Henry Thompson was elected president. It was founded upon this declaration: "We disapprove the present system of burying the dead, and desire to substitute some mode which shall rapidly dissolve the body into its component elements by a process which can not offend the living and shall render the remains absolutely innocuous. Until some better method is devised, we desire to adopt that usually known as cremation."

Owing, perhaps, largely to questions of its lawfulness, which seem to be absurd, a furnace and apparatus were not completed until 1878. Ridiculous offi-

cial opposition having confronted the movement in 1880, Sir Spencer Wells laid the subject before the annual meeting of the British Medical Association, and obtained its unqualified approval. Lively agitation was carried on by essays, articles in journals, and lectures. Meanwhile cremation was going on in Dresden, Milan, Lodi, Cremona, Brescia, Padua, Varese, and Rome. At Gotha, Germany, cremation has been largely employed. Cremation societies, some with numerous members, have been formed in other countries, Denmark, Belgium, Switzerland, Holland, Sweden, and Norway. Besides our own "United States Cremation Company (limited)," here in New York city, there are many in the United States. In Austria the subject has been brought before the legislature by bill. In Paris a crematory has been constructed under the direction of the Municipal Council.

This brief article is intended to be historical, so far as it goes, rather than scientific or philosophical. I have attempted this other way of treating the subject in another place, but still I would suggest that there is philosophy in history for those who are philosophically or rationally inclined, and who will take the pains to find it. History, as well as observation, furnishes us with facts or data for reasoning with, or about or upon, and "reason superadded to sense" is what makes science or philosophy.

PURIFICATION OR PUTREFACTION, WHICH?

Do we wish our bodily remains, and those of our friends, to become inmates

of those vast charnelhouse pantheons, or portions of those vaster reeking masses of corruption, our cemeteries, where the repulsive loathsomeness of their protracted putrefaction is so offensive to contemplate; or do we wish these bodies subjected to the beautiful and refining process of incineration; that is, the pure, quick, and decorous conversion of them into their original elements by heat—"refining them as by fire"—according to scriptural injunction, in a rosy glow of heat and light, after which naught remains that is repulsive to sight or touch, but only a few handfuls of a pure white ash, incorruptible, and suitable to be kept in beautiful urns, in our homes, or in memorial halls, or mausoleums as grand, or more so if we will, as the one built by the faithfully devoted Artemisia over the ashes of the remains of her husband, King Mausolus?

The voice of science answers unhesitatingly and emphatically in favor of the latter method of their disposal. Sanitary science shows that the burial of the dead is an injury to the living, an unpardonable injury and offense, a stupid blunder. Earth, water, and air are charged by our burial-grounds with poisonous gases and disease-engendering germs, by which sickness and death are strewn broadcast. There emanate from these bodies not only these general deleterious influences, but also from those having been afflicted with infectious diseases, the particular bacteria peculiar to the disease, which are specially fatal.

It is stated by high authority that "the poisons of scarlet fever, typhoid fever, small-pox, diphtheria, malignant cholera, are undoubtedly transmissible through earth from the buried body by more than one mode. And thus by the act of interment we literally sow broadcast through the land innumerable seeds of pestilence; germs which long maintain their vitality, many of them destined at some future time to fructify in premature death and ruined health for thousands." What a reproach to our civilization!

The Right Hon. Sir Lyon Playfair, K.C.B., M.P., writing of the "Disposal of the Dead," says: "In most of our churchyards the dead are harming the living by destroying the soil, fouling the air, contaminating water or springs, and spreading the seeds of disease." Sir Henry Thompson says: "No dead body is ever placed in the soil without polluting the earth, the air, and the water above and about us." That grand and remarkable man and scientist, Pasteur, has proved by experiments that "earth-worms bring to the surface myriads of bacteria from the bodies of the decomposing dead."

The Rev. J. D. Beugless says Dr. Domingo Freire, of Rio de Janeiro, while investigating the causes of a recent epidemic of yellow fever, "came upon the dreadful fact that the soil of the cemeteries in which the victims of the outbreak were buried was positively alive with microbian organisms exactly identical with those found in the vomitings and blood of those who had died in the hospitals of yellow fever." The plague of Modena in 1828 was shown by Professor Bianchi to be due to excavations made where victims of the plague were interred three hundred years before; and the terrible violence of the cholera in London, in 1854, is charged to the upturning of the soil wherein the plague-stricken of 1665 were buried. I could add pages of like testimony, but what need to multiply further?

Economic science is also as decidedly in favor of cremation. This is too evident to need demonstration. So is moral science. Good old common sense, too, indorses it. Reason indorses it. Esthetics indorse it. Cleanliness, purity, good taste, refinement, culture indorse it. Says the *Nineteenth Century*, through its editor: "Cremation gives truth and reality to the grand and solemn words, 'Ashes to ashes and dust to dust,' and the impressive service, with slight change, will be read with a fullness of meaning never conveyed before.

The last rite has purified the body ; its elements of physical evil have been annihilated by fire. Already its dispersed constituents, having escaped the long imprisonment of the tomb, pursue their eternal circuit in harmony with nature's uniform and perfect course."

Burial is suggestive of semi-civilization ; or rather it was a state of semi-civilization that suggested burial. The practice was born of the emotions unguided and unaided by reason and experience. It was, and is, therefore, unscientific. It comes from blind impulse, as does emotional charity. And as experience and reason have shown us the un wisdom and folly of such charity, and are leading us rather into rational and scientific charity, so let them help us to see the worse than foolishness—may I not say criminality?—of this blind, emotional, irrational method of the disposal of our friends and our own bodies, and lead us into this really rational and scientific, and, withal, chaste and delightful system of cremation. To refuse or neglect to be so guided is to act irrationally, to sin against ourselves and our neighbors, and to commit a crime against future generations.

To practice cremation is but to avail ourselves of one of the resources of civilization.

To believe in it and to practice it is to act wisely and righteously for ourselves, our children, and our children's children, not only "to the third and fourth generations," but to all future generations.

At a meeting of the Church of England Burial, Funeral, and Mourning Reform Association, Canon Elwyn presiding, the motion was passed : "That in the present condition of the public health it is imperative that a combined effort should be made on the part of ministers of religion, members of the medical profession, and persons of influence generally, to put a stop to the repulsive, dangerous, and utterly indefensible practice of storing up in the

neighborhood of large populations vast accumulations of human remains in every stage of arrested and prolonged decay."

Let those who are disposed to obey the scriptural injunction, "Come, let us reason together," and are, or think they are, in favor of burial, undertake to give the "reason for the faith that is in them," and see which side they will be on after the discussion. Such reflection, however, even without discussion, I believe would suffice to convince any one who will pause and take the trouble of his own error. But "the trouble is," even in most matters, but especially in a matter like this, that most people do not reflect ; they haven't the time to stop to reflect, or the disposition or the capacity to do so, but go blundering on and on, groping their way through life and death alike in the darkness of the shadows of mere instinct, generation after generation. Nevertheless,

A soul without reflection,
Like a pile without inhabitants,
To ruin runs.

And the victims of the error or blunder of burial, like all other victims of error, must suffer the consequences thereof, for it is according to natural laws that they should suffer, and these laws are immutable ; and when these consequences will have convinced them of their error and driven them to believe in and to practice cremation, they will see that these laws are, on the whole, also beneficent, and that it is alike our highest duty and best interest to work in harmony with them, and practice cremation.

W. M. BOUCHER.

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TIRED EYES.—People speak about their eyes being fatigued, meaning that the retina, or nerve portion of the brain that does the seeing, is fatigued, but such is not the case, as the retina rarely tires. The fatigue is in the inner and outer muscles attached to the eyeball, and the muscle of accommodation which surrounds the lens of the eye. When a near object is to be looked at,

this muscle relaxes and allows the lens to thicken, increasing its refractive power. The inner and outer muscles are used in covering the eye on the object to be looked at, the inner one being especially used when a near object is to be looked at. It is in these three muscles mentioned that the fatigue is felt, and relief is secured temporarily by closing the eyes or gazing at far distant objects. The usual indication of strain is a redness of the rim of the eyelid, betokening a congested state of the inner surface, which may be accompanied with some pain. When the eye tires easily, rest is not the proper remedy, but the use of glasses of sufficient power to aid in accommodating the eye to vision.

SIMPLE METHOD FOR RE-ANIMATION.

—At a meeting of the last congress of German scientists this subject was discussed, and Dr. H. Frank mentioned that there are but two ways to stimulate the heart—electricity and mechanical concussion of the heart. The first is considered dangerous by him, as it may easily destroy the last power of contraction remaining in the organ. But what is termed “pectoral concussion” is decidedly preferable. Dr. F.’s method is as follows :

He flexes the hands on the wrist to an obtuse angle, places them both near each other in the ileo-cæcal region, and makes vigorous strokes in the direction of the heart and of the diaphragm. These strokes are repeated from fifteen to twenty times, and are succeeded by a pause, during which he strikes the chest over the heart repeatedly with the palm of his hand. In favorable cases this method is early successful, and sometimes a twitching of the lids or the angles of the mouth appears with surprising rapidity as the first sign of returning life. As soon as these symptoms are noted, the simple manipulations above described must be earnestly continued and persevered in from a half to one hour, for, with their cessation, the phenomena

indicating beginning return of life also cease. Generally, the face assumes a slight reddish tint, and at the same time a faint pulsation may be felt in the carotids. By this method Dr. F. has seen life return in fourteen cases, among whom were such as had hung themselves, drowned, and asphyxiated by carbonic oxide, and in one case by croup.

BILL NYE ON BRIGHT’S DISEASE.—A useful fact, remarks *Good Health*, is shown in the following paragraph from Bill Nye; viz., that this popular humorist, though not a medical man by education, has discovered by personal observation that the wealthy, who can afford to live “high” and whose habits are sedentary, have pretty much a monopoly of Bright’s disease of the kidneys.

John Bright was born in 1811. He made a tour of the Holy Land at the age of twenty-four, but did not decide to purchase it, owing to the existence of a flaw in the title. On his return from the Orient, he discovered that what was most needed in Europe and America was a good, reliable disease for the use of the better classes. The poor and humble were well supplied; but the rich, the aristocratic and patrician statesmen, corned heads, and porkists, of the two lands, languished for a good, reliable disease that the poor could not obtain. So he began to sit up nights and perfect Bright’s disease. He gained the prize at the Paris Exposition, and honorable mention at the great celebration at Philadelphia “for a meritorious and effective disease for the better classes.” Since that time he has been gratified to notice that the very best people, both in his own land and in this, are handling Bright’s disease. It has been kept out of the reach of the poor, and to die from this ailment has been regarded as a proud distinction.

A METHOD OF ARRESTING HEMORRHAGE OF THE NOSE.—In cases of persistent hemorrhage, Prof. Chine, of

Edinburgh, advises that plugging the posterior nostrils should not be done until an attempt has been made to check the hemorrhage by firmly grasping the nose with the finger and thumb, so as to completely prevent the air passing through the cavity in the act of breathing. This simple resort will usually arrest the bleeding by allowing a clot to form at the site of the ruptured blood vessel; the finger and thumb should exercise pressure enough to prevent breathing through the nose for some time, and when removed the patient must avoid trying to blow the nose, or else the air, being driven through the nostril, may dislodge the clot; if the air is prevented passing through the nostril, the clot consolidates, and the hemorrhage is of course arrested.

BORN LAUGHING.—The following incident is reported in one of our city newspapers, and probably does not illustrate the alleged reportorial tendency to exaggerate, but a psychological fact:—

Laura Miller, a richly-dressed woman, burst into a violent fit of laughing when charged with intoxication at Essex Market yesterday.

“What excuse?” began the Judge.

“Madame, will you stop your laughing?”

“I suppose I can laugh, can't I?” she replied.

“What have you to—Now, I won't tell you again to stop your laughing,” said the Court, sternly.

“Gracious me!” exclaimed the woman, “is it a sin to laugh?”

“It is,” said the Court, “when there is no occasion for it. What are you laughing about?”

“I don't know myself,” she answered.

“You don't know what you are laughing about,” said the Judge, in astonishment.

“No. I like to laugh. I was born that way. It is impossible to break the habit now.”

She was still laughing when the officer led her away to serve a ten-day sentence.

AN ALCOHOLIC CHANGE IN ENGLAND.—The medicinal value of alcohol is slowly vanishing. Here are facts from England and Wales. There are twenty-seven workhouses where intoxicants are not at all allowed. The experience of doctors in these has proved the use of alcohol unnecessary. In 1871 the total cost of intoxicants used in workhouses and infirmaries amounted to £82,554, in 1881 amounted to £60,303, and in 1885 it was reduced to £44,820. The most marked feature of progress toward sobriety in England in this decrease of intoxicants in workhouses. There has been a reduction of more than twenty-five per cent. in four years past, and of forty-five per cent. in the last fifteen years.

THE ONE PET NAME.

NEVER had a boy so many names,
They called him Jimmy, and Jim, and
James,
Jeems, and Jamie, and well he knew
Who it was that wanted him, too.

The boys in the street ran after him,
Shouting quite loudly, “Jim! Hey, J-i-m-m!”
Until the echoes, little and big,
Seemed to be dancing a Jim Crow jig.

Grandpapa, who was dignified
And held his head with an air of pride,
Didn't believe in abridging names
And made the most that he could of
“J-a-m-e-s.”

Biddy O'Flynn could never, it seems,
Call him anything else but “Jeems,”
And when the nurse, old Mrs. McVyse,
Called him “Jamie,” it sounded nice.

But sweeter and dearer than all the rest,
Was the one pet name that he liked the best;
“Darling!”—he heard it whate'er he was at,
For none but his mother called him that.”

Child-Culture.

THE CANKER IN THE HOME.

“MY only pleasure is in my business!” exclaimed a gentleman, annoyed at the rude behavior of the group of children gathered about the well-spread tea-table.

“And in your home,” gently interposed the wife, a flush of shame and pain coloring her cheeks.

“It should be,” he rejoined hastily, “but when a man comes to his home at nightfall, worn out, and needing quiet and rest, the habit of fault-finding and quarreling into which his children have fallen is not very conducive to peace of mind.”

The lady made no reply. She appreciated the nervous tension to which her husband's business subjected him, and she well knew that his warm heart would soon repent the hasty words, which were not meant for her. The sting lay in the fact that she realized not only the truth of his complaint, but her own inability to cope with the situation. Her fast-growing boys hardly heeded her mild remonstrances; her little daughters were quick to copy the saucy speech of their brothers, especially when teased. Only the smiling baby was an unalloyed source of happiness, for as yet her naturally sweet disposition was unspoiled. Her bright, loving glance gave the weary mother-heart sweet comfort. One, at least, of the little brood was still wholly lovable.

Wherein lay the difficulty? How happened it that these children were gradually throwing off restraint, and rendering many times a forced rather than a willing obedience? The bright, handsome face of the eldest, a lad of fifteen, was too often obscured by a scowl. Fault-finding was fast becoming second nature to him. The food, wholesome and abundant, was seldom to his liking.

Hardly a meal was served at which he found everything satisfactory. This example was not without its ill effect upon the younger members of the family, who in their turn either whimsically refused to eat certain things, or jealously watched the division of the dainties, arguing and bickering among themselves meanwhile. Meals were hurried and noisy, while often the worried mother was led to wish that she had not exacted some simple requirement, as the effort to obtain obedience usually resulted in argument, or in her being obliged to send away the principal offender in disgrace.

The same selfish spirit which manifested itself so disagreeably at the table was observable everywhere in the children's behavior toward one another, spoiling even their play, and it had become a source of real misery to the parents, particularly to the mother, upon whom the home government largely devolved in the enforced absence of her husband. Not a disciplinarian by nature, she yet had managed to secure orderly conduct, until repeated sicknesses withdrew her guiding hand, and after each intermission of regular authority she found it more difficult to regain her dominion, for the little ones had not been slow to learn the extent of their own power.

A firm hand might have carried them safely through these perilous seasons, and it was most unfortunate that some days the father scarcely saw them, except to kiss them good-morning and good-night. His authority, therefore, was of necessity spasmodical, and rendered more so by the mental condition in which he happened to return to his home. Nervous by temperament, he labored under a continual mental high pressure, which could not fail to be pro-

ductive of impatience, when the balance was disturbed ever so slightly. Having the interests of his children very close at heart, and being especially eager for their moral growth, he was yet uneven in his government. His strict sense of honor advocated harsh measures, if needful, and to these the tender heart of his wife would have unquestioningly yielded, had he at all times been able to exercise his authority calmly, and with moderation, but this was frequently a physical impossibility that he himself deplored.

How to obtain more hearty obedience, to efface the growing discontent, to maintain harmony, to preserve an amicable spirit under correction, was the frequent subject of earnest discussion, the constant burden of the parental thought, and one which weighed more heavily with succeeding years. Small wonder that the father groaned in secret, the mother shed anxious tears, as each new effort proved unavailing, and they beheld their children becoming daily more exacting, selfish, unmanageable, and positively unhappy, though far more was done for their pleasure than in years gone by, when wants were fewer, and discord almost unknown.

The children, naturally, did not understand the constant struggle and self-denial required to provide the comfortable home, clothing, and food which they accepted as a matter of course, and no more than their right. Nor was it necessary that they should realize to the full the loving care which guarded and provided for their helpless age, for childhood should be exempt from worries and trials which maturer years bring soon enough. Doubtful if such knowledge would have made even the eldest more considerate, for until a boy has learned by experience how much easier it is to spend than to earn, he can form no real idea of the value of money, nor of its cost.

The constant wear and tear of mind and body, exhausted by the never-ceas-

ing struggle which the effort to live comfortably on a small income entailed; the scant supply of nervous force, taxed almost beyond endurance, offered real excuse for these devoted parents, when, as too often happened, one or the other lost self-repression, spoke hastily in a fault-finding tone, or manifested displeasure by impatient word or deed. The fact, however, remained patent that such lapse of self-restraint weakened their governing power, for its tendency was to lessen the respect, and gradually to diminish the love of the unformed minds which took their tone from that of those in authority.

Perhaps, had the head of the family been less absorbed in business, less harassed by the important question of making a living for his dear ones, the mental equilibrium of the household might have been preserved, although at the expense of some of the bodily comforts enjoyed now. Would it not have been better to have sacrificed much, that the father and mother might be able to exhibit a bright and hopeful spirit under all circumstances, a gentle, affectionate manner, which should win the respectful, docile obedience of their children?

This case is not an exceptional one. There are thousands of just such families, living to the full extent of their income, neglecting to practice the social virtue of economy except as compelled by their limited means; striving, and truly meaning to be strictly honest, yet always on the verge of financial embarrassment, and, therefore, so troubled that even the comfort which might be taken is spoiled by the thought of the uncertainty of the future. "What would my family do, were any thing to happen to me?"

So the home becomes for the father only a place in which to swallow his hurried meals, and to sleep, if his overtaxed brain will permit. He finds no time to devote to winning the affection of his children, for every moment must be spent in toiling for them. He forgets

to render to his wife those little courtesies which came so naturally when she was the blooming maiden of his choice. Not that he cares less for her. Have not years of devotion to her interests firmly established that? Is not the mother of his children dearer to him than his own life?

"How shall I govern my children so that they will not annoy their tired father?" queries the perplexed mother, appreciating to the full the affection for his family, proven by every hour of her husband's careworn existence, and longing to smooth the pathway as much as possible. So each vies with the other in loving self-denial. But it is so easy to spend more than the limited income will allow. Neighbors and friends make no allowance for shabby clothing, appetites rendered dainty by sickness demand many luxuries, doctors' fees entrench upon the little hoard for a rainy day. The church is in debt, and not to seem mean contributions must be made that are beyond one's real ability. With all this, neither husband nor wife may be extravagant or wasteful, yet peace is lost, and happiness endangered in the effort to do more than they can, or ought, upon their means. In failing to be just to themselves, tempers suffer from the continual strain. Worried persons become nervous, and easily impatient. Parents whose self-control is readily disturbed, find their tone quickly caught up, and repeated later. Nor are children slow to learn the limit to which they may stretch the parental tether. Occasionally the offender presumes too far, the rope of endurance snaps, and the boy is sent forth from the sheltered nest to shift for himself at too tender an age; at that period when he thinks himself a man, but when from a worldly point of view he has everything yet to learn. Alas for the continued purity and uprightness of the soul of a young man who has resisted the authority under which his earlier years have been spent, denying its right.

Parents, do not become so absorbed in your anxious effort to provide the good gifts of this world for your dear ones, that you endanger your own peace of mind, and thereby that of your household. How can you expect your children to acquire self-restraint, patience, and a contented spirit, except through your daily example? Give them yourself, your thoughts, time, personal interest.

Study the inherent traits of your growing sons and daughters, and foster the good in each nature. Teach them so to rely upon your affectionate counsel and ready sympathy that you may rest assured of possessing their entire confidence.

Be their friend, as well as monitor. As is often spoken from the pulpit, "Your children need *you*, if you are what you should be, more than they need your money."

The pleasure derived from an orderly, neatly appointed, home-like house, presided over by an intelligent, loving, lady-like woman, whose children are obedient and tractable, is sufficient reward.

For all a man's labor of mind and body his thoughts will turn longingly to such a home, for in it there is no corroding canker. We believe one great secret of success lies in keeping the expenses within the income, whether this be one or five thousand dollars. To be ever so little behind-hand means worryment, nervousness, impatience, and an unruly household. Self-control once lost, is not easily regained. Proper control of children slips easily away. Like the "camel's nose" in the fable, disobedience increases, until it acquires so great a hold it can not be dislodged without an effort few parents are able to make. Father, mother, you may need to cut deeply to sacrifice much, but begin at once. It is worth while. There *need* be no canker to destroy the peace of the home.

ADA E. H.

SUCCESSFUL ENTERTAINMENT OF CHILDREN.

FROM the *Boston Journal* we take this account of what is called "An object lesson in a railroad car," with certain appropriate comments in connection:—

"Some summer excursionists lately noticed a pleasant scene in a journey of a few hours, which seemed a proof of 'glad times, when fathers and mothers are more and more coming to live with the children.' A mother and bright little son occupied a seat near the rear of the car, and the clear, child's tones reached even beyond the immediate neighborhood. Like all active children, he began, soon after the car started, to make numerous inquiries, which the mother answered as clearly as possible.

Before her patience was exhausted and the other passengers had begun to be annoyed, she opened a newspaper and read aloud interesting incidents, with comments, for the child's appreciation. All questions and restless movements ceased during an account of the circus, which had opened in the city; and a lively conversation about the animals and their habits, and the games, with their allusions to the Roman chariot races, entertained the little traveler for many miles.

When the newspaper seemed to fail in its purpose of entertainment and instruction, the mother folded the sheet and directed her little son's attention to the landscape, as she explained the route and direction of the journey. Soon the travelers began to play simple games, such as 'What is my thought like?' and 'Yes, no, and I don't know,' this quiet amusement occupying the boy's mind until the end of the journey. Not a restless nor impatient movement had he passed, though the car was warm and crowded and the journey of several hours' duration. He had found his mother the jolliest traveling companion in the world, and his face was as bright and unfatigued when he was seen going

down the car, proud to carry his mother's bag and wrap, as when he had first entered the train with all the glad expectation of childhood.

"The bright little incident showed the advantage of interest and help from older people in children's amusements. A mother who has had much experience with boys and girls says that 'the majority of children, while easily interested, will not follow out their natural inclinations without help.' They need suggestions to turn their plays to the best advantage; they require encouragement and sympathy to preserve contentment and full delight. A few toys, with the mother's incentive to originality and invention are worth more to children than the contents of a toy shop without a knowledge of their best use. How many mothers are only annoyed at the child's question, 'What shall I do?' instead of being pleased at the chance of sharing the little one's amusements.

One summer, not many years ago, a beautiful summer resort lost its attraction for many visitors on account of the rudeness of a large throng of idle, undisciplined children.

It was apparently a general parental idea that, as the children were safe out of doors, they might be permitted to amuse themselves as they chose upon the beach and in the fields. The consequences were lawlessness and unrestraint in the juvenile part of the community and annoyance among the older people. Some one suggested that a vacation school was a needed charitable enterprise at that resort. The beach had many treasures of scientific knowledge for young people; and the fields, with their products of flowers, butterflies, and birds, were equally rich in material for amusement. All these stores were lost, because the parents were too indolent or careless to interest themselves in their children's plays, and the whole summer community suffered from the children's idleness."

NOTES IN SCIENCE AND INDUSTRY.

The Buffalo International Fair.—Early in September an exposition on a grand scale will be opened in Buffalo, N. Y. For several months preparations have been making by those in charge of the enterprise, and such is the scale on which it is projected that the title "International" is not a misnomer. A glance at the engraving of the main building for the assemblage of exhibits, and a cursory reading of its proportions, will interest the JOURNAL reader, and impress him that it is a big affair. This building has a frontage of 450 feet, and a depth of 200, occupying a space of 90,000 square feet. This is not all under one roof, but consists of a series of what might be regarded as independent towers, spacious in their interiors and connected by intermediate halls. These towers and connecting halls surround and inclose two immense courts under one roof, which is supported by large trusses. The courts are each 86 by 124 feet in dimensions, with overhanging galleries surrounding them. The central tower is 66 feet square and rises to a height of 160 feet. The four pavilions, or smaller towers, forming the four corners of the main building, are 112 feet high and 56 feet square. The aisles, above referred to, which connect these towers, and which furnish a large proportion of the exhibition space, are 50 feet in width, and are surmounted with a long lantern roof, which gives abundance of light.

The white limestone steps which lead up to the arched portals are 50 feet long, furnishing a dignified aspect to the main entrance. This is in the form of three graceful arches. The central one is twelve feet in width, and those on either side nine feet wide. These arched doorways are constructed of pressed brick and spring from elaborately carved capitals of Kibbe sandstone. Above this ornamental triple entrance is an arcade of fine stately windows, built of pressed brick, each five feet wide by sixteen feet high, with lights of fine plate glass. The brick-work above this arcade of windows is laid up in a mosaic pattern, which greatly adds to the artistic beauty of the entire facade.

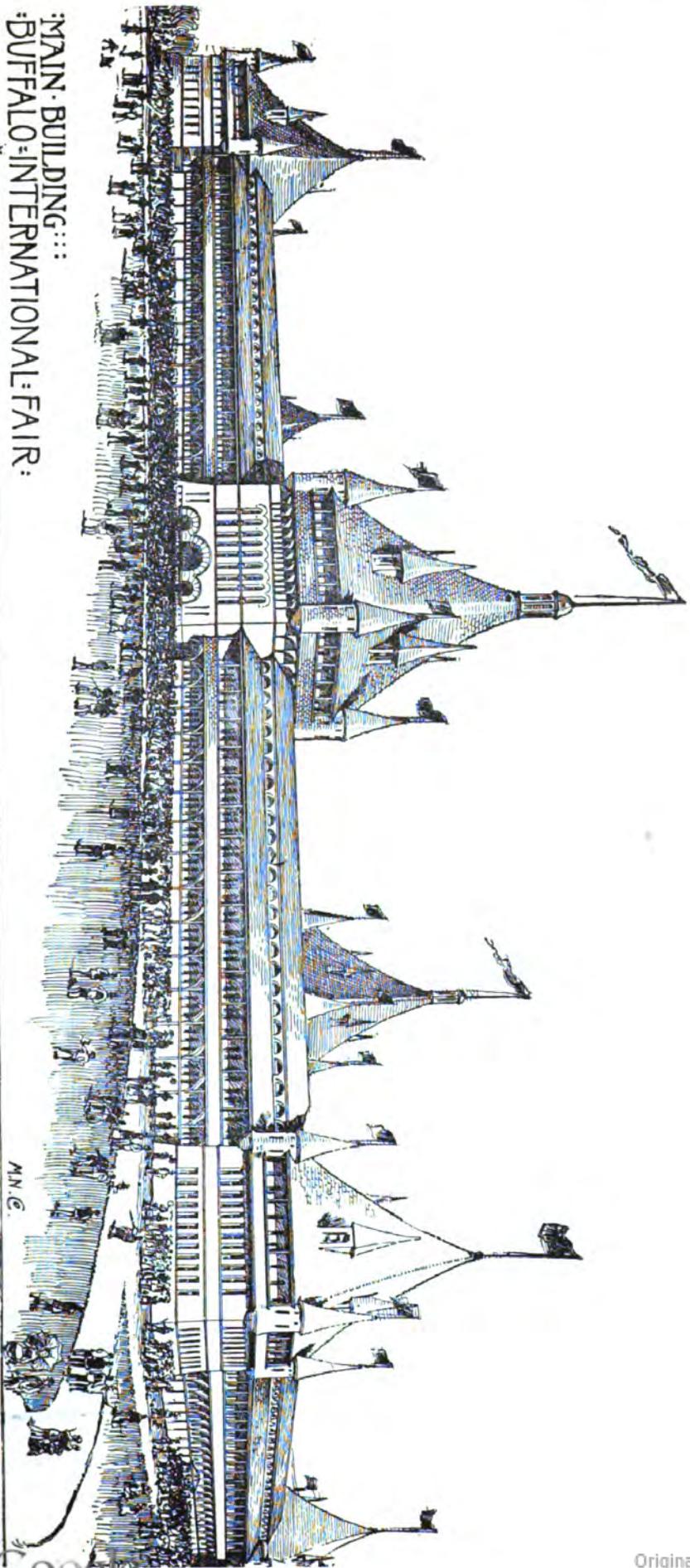
Above the mosaic brick-work rises the tower, built of hard wood, its gracefully tapering roof being covered with shingles which will be English-stained, probably in some dark red tint. At the apex of the tower is a cupola, or lantern, which will be accessible to visitors by means of a stairway, leading up from the third story. It is from this lofty lantern perch that visitors to the exposition will be able to obtain a view of the surrounding country.

Along the front, and on two sides of the entire building, extends, at the height of the second story between the towers, a spacious gallery or balcony, from which a fine view of the vast Fair grounds, with its other buildings and attractions, can be obtained. The broad meadow in front of this main building is circled by a mile race-track, the oval enclosed by the same being again belted by a half-mile track for the famous bicycle tournament which is to be held during the fair. Buildings for the live-stock exhibits almost surround this immense enclosure.

On passing through any of the arches forming the chief entrance to the main building, the visitor will find himself facing a stairway twenty feet in width, which rises to a landing, on three sides of which are arched open doorways, giving access on either side to the broad aisles which form that portion of the building, included directly between the tower, as before described, and also giving access to the galleries of the two interior courts. From this broad landing, the many-arched effect of which is peculiarly striking, arise the stairs leading to the floor above.

Having reached this landing, the visitor can turn through one of the archways either on the right or left, and inspect the accommodation for exhibitors. Here is a corridor nearly 200 feet long and fifty feet wide. Four rows of exhibits extend the length of this corridor, leaving a double promenade between.

This system in the arrangement of exhibits is continued all through the building, making a total length of four rows of exhibits with two promenades of about 1,300 feet,



MAIN BUILDING:
BUFFALO INTERNATIONAL FAIR:

M.C.

exclusive of the space for exhibits in the galleries, which are fully two-thirds additional.

A very large list of "special" attractions is advertised by the managers of the exposition. Art and industry, agriculture and science, social interests, educational, the sports of the turf, the newest developments of human inventions, and many curiosities of ancient production will be combined to render the undertaking a success.

Photography by Artificial Light.—For years it has been the dream of the photographer that some method of operation might be devised, or some kind of illumination discovered, by which it would be as easy to photograph the underground workings of a mine, the interior of a badly or unequally lighted workshop, with all the hands at work, or the family circle around the tea-table, as a single figure in a well appointed studio. That dream has at last been realized, and by the use of a pyrotechnic preparation composed of chlorate of potassium and powdered magnesium, photography may be successfully practiced as well at night as during the day, and altogether independent of any other source of light with the quick acting lens and instantaneous dry plate now in use, supplemented by this new Ademic light. Machinery in motion can be photographed as easily as by the old method; objects were taken while in the direct sunlight and at rest.

The quantity of the magnesium powder required will of course vary with the amount of surface to be illuminated and the distance of the object; usually about twenty grains is sufficient. It is exploded in various ways, and above the camera, a trifle back, so that the light will not reflect in the lens.

The powder should be placed on a metal plate or saucer, and may be exploded directly by the flame of a long taper; laid on a piece of tissue paper, with a corner sticking out far enough to act as a slow match when ignited, or better still, by percussion action. This may be conveniently effected by taking a "toy pistol" and fastening a small tin saucer to the part on which the hammer falls. A hole should be drilled in this so as to enable the head of an ordinary parlor match to be placed immediately under the hammer and the powder placed

around it with a small gun cotton wisp. The pistol thus loaded may be held in the hand, and the powder exploded by a pull of the trigger, the cap of the lens being removed immediately before, and replaced immediately after the explosion. The focus may be easily adjusted by the light of a lamp or candle placed near the object, and of course removed before exposure. Any flame or light not falling directly on the lens may remain while making the exposure with the magnesium powder.—*Power and Transmission.*

Testing the Refraction of the Eye.—Mr. A. Legge Roe describes (*The Lancet*) the following simple method of testing refraction: "A trial frame is applied in the usual way, one eye excluded with a diaphragm, and the patient instructed to look steadily at a distant object. A blackened disk, perforated in the center with a hole two millimeters in diameter, is rapidly passed across the eye to be tested in a horizontal direction by the surgeon. The patient is questioned as to the direction taken by the object; if the motion is in the same direction as that of the disk, myopia is present; if in the opposite direction, hypermetropia; if there is no apparent motion, emmetropia. The vertical meridian is then tested in the same way. If the motion is in opposite directions in the vertical and horizontal meridians, mixed astigmatism is at once diagnosed. An error of refraction having been detected, suitable lenses are gradually added and the disk used as before, until there is no apparent motion of the object. The defect will then be corrected. There is a tendency to overestimate myopia about .5 D., and to underestimate hypermetropia .75 D. A good test-object is a small picture frame, using the vertical sides for testing the horizontal meridian, and *vice versa*. The explanation of the above phenomena will be found in Scheiner's test, of which this is apparently a modification applied to refraction."

A Great Building Removed Whole.—The hotel at Brighton Beach, Coney Island, was removed a while since entire. The building weighed about 5,000 tons. It was raised by seven jacks high enough to lay twenty-four lines of railroad track beneath it, and extending in the direc-

tion of its proposed movement. Next, twenty-four trains of flat-cars were run under the hotel, on which the latter was then lowered. A number of heavy blocks and falls were then connected to the front ends of the twenty-four lines of cars. As abutment the forward blocks were attached by chain slings directly to the rails. The tackles were arranged so that there were twelve falls, the end of each of which was carried to the motors. A number of thirty-five ton locomotives were on the ground. They were placed upon two tracks, and six ropes leading from the falls were attached to the coupling at the rear of each set of engines. At a given signal the engines were started, and the building was moved about 400 feet so successfully that neither plaster nor glass was cracked, and even the crockery kept its place without harm.

Utilizing the Tin Can.—Probably no one article has been put to such a variety of uses as the tin can, and is so great a nuisance when tossed empty upon the world. A woman up in Maine tells, in the *Lewiston Journal*, how those too good to throw away were utilized in her family:

"I learned to use them for brown bread when tenting out at the seashore, where dishes were scarce and cans plenty, and I liked them so well that I kept up the practice after coming home, especially after finding out that four of them just laid in my steamer. But this is not all the uses I find for them. In a few weeks my kitchen will be decorated with old salt boxes, each filled with as many cans, minus the bottoms, as will stand up in it, each can filled with garden soil, and each of these tin pots holding a tomato, dahlia, or other plant. I find it easier to transplant without disturbing the roots when the plants are so treated, and having no bottoms, the cans do not hold water enough to spoil the roots, as might be the case were they used separately. Sometimes I have sunk in the soil in the garden, near a plant that needed a good deal of water, an old can with a hole or two punched in the bottom to help it to leak, and then filled this can with water each night or morning. I also found this a good chance to add fertilizers by putting them in the water. John likes the cans to put around the trunks of young fruit trees. He says he has saved

enough trees from the mice in this way to pay for all the canned tomatoes, corn, and peaches we have eaten. He takes off the bottom, cuts open one side, fits them around the stem, and draws the sides together again, and then pushes them down so that an inch or two is below the top of the soil. The pieces of tin straightened out have also done duty as scarecrows, dustpans, and several other things in an emergency."

"Sizes" of Common Things.— "It is astonishing to observe how few people understand the common rule of measurement in purchasing wearing apparel," said a clothing dealer. "For instance, a man will buy a coat that is a 'size' too small or too large. A 'size' smaller or a 'size' larger is what he probably needs, but he does not know what a 'size' is. Well, a 'size' in a coat is an inch, a size in underwear is two inches, a size in a sock is one-half inch, in a collar one-half inch, in a shirt one-half inch, in shoes one-sixth inch, pants one inch, gloves one-fourth inch, and in hats one-eighth inch. Very few purchasers ever understand the schedule named."

The British and Foreign Bible Society was organized in 1804. The American Bible Society came into existence in 1816. The issues of these two great Bible Societies, one in England and one in America, whose average age is seventy-eight years, have now reached the enormous amount of 166,289,142 copies, all sizes. Their moneyed receipts have been over \$75,000,000. For the last four years these two societies have averaged an issue of nearly 18,000 copies daily. The last year they have averaged over 18,000 copies each business day, calling ten hours a day's work. It is over 1,818 copies an hour, 30 copies a minute, or a copy every two seconds. Notwithstanding all the magna chartas or constitutions of men, "the earth shall be filled with the knowledge of the glory of the Lord, as the waters cover the sea." And "the word of our God shall stand forever." Hab. ii. 14, Isa. xl. 8. ; b.

Boys, Stay on the Farm.—Many of the boys seem to be anxious to get off the farm. If they would take the advice of old men who have made farming a life work,

they would find that the weight of the advice would be: Stay on the farm. Here is what Col. W. W. Ross, of Texas, says:

"I have been a farmer and watching farming for fifty years. I now see the cause of our failures; it was not the land or seasons, but the fault lay in us. If I were a young man again nothing could entice me from the farm. Sometimes the words of one who is not on a farm have more weight than one who is farming. To such we would repeat the words of Hon. Thomas Corwin. When he was Secretary of the Treasury, a young man journeyed from Ohio to Washington in search of a clerkship. When he came to Mr. Corwin, this is the advice he got:

"My young friend, go to the Northwest, buy 160 acres of government land, or if you have not the money, squat on it; get you an ax and mattock, put up a log cabin for your habitation, and raise a little corn and potatoes; keep your conscience clear, and live like a freeman, your own master, with nobody to give you orders, and without dependence upon anybody. Do that, and you will be honored, respected, influential, and rich. But accept a clerkship here, and you sink at once all independence, your energies become relaxed, and you are unfitted in a few years for any other and more independent position. I may give you a place to-day and turn you out again to-morrow; and there is another man over there at the White House who can turn me out, and so we go. But if you own an acre of land it is your kingdom, and your cabin is your castle; you are a sovereign, and you will feel it in every throbbing of your pulse, and every day of your life you will assure me of your thanks for having thus advised you."

The carriage which was made by the United States government especially for the use of Lafayette during his visit to this country in 1824 is owned in Chicago. To the eye of the present it is a quaint old ark, hung on big springs and wide straps, and from his lofty seat the old Frenchman used to descend to the ground by steps with many foldings.

Aerial Navigation.

EDITOR PHRENOLOGICAL JOURNAL:

DEAR SIR.—In the August number, 1887, you courteously accorded space to my theory of aerial navigation, and of the mechan-

ical means by which the problem can be successfully solved. Is it not within the realms of possibility that some of your subscribers may join in the formation of a stock company, to be organized with a view of giving the scheme a practical trial? Success in this direction means a fortune to those investing in it. To those who have not given the subject much thought, please allow me to unfold the legitimate results of an opening of the *upper highway*.

1. The first practical airship will be the signal for a universal disarmament, because one airship could drop destruction on a whole army with absolute precision. With the abolition of armies that of thrones will be but a logical consequence. The millions in Europe now forced to bear arms during the best years of their life would be restored to the industrial and agricultural pursuits which alone confer true greatness upon any country.

2. The "upper highway" being the only natural and truly legitimate one designed by an all-wise Providence to bless *all mankind* without exception, it is the true mission of science and philanthropy to open it for purposes of both exploration and colonization. Neither rivers, bridges, fortifications, mountains, nor even oceans will then be considered as barriers to free intercourse between all nations; and frontiers, in consequence, will become mere reminiscences of a barbarous past.

3. Any city boasting gasworks is at once converted into and elevated to the importance of a seaport.

4. Railway monopoly will receive a salutary setback when once a comfort and travel-loving public has tasted the delights of safe and speedy overhead travel.

5. Aerial navigation will usher in the millennium by preparing the untrammelled intercourse between all the nations of earth. Its advent will establish the political equality of all States, and will develop the necessary fundamental conditions for the inauguration of the Universal Republic.

6. Two-thirds of the sick and suffering population will be restored to permanent health when once the means are at hand to enable all such to breathe from the pure ocean of the upper layers.

Respectfully yours, N. HELMER,

[A practical airship will produce great political and social changes. This to the reflective mind is beyond doubt, and the editor is not disposed to protest against the claims of the zealous projector, in view of the vast changes wrought by the telegraph.]



FOWLER & WELLS COMPANY, *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

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HUMAN DEPRESSANTS.

THERE are persons so constituted by temperament and mental organism that they exercise a depressing influence upon most of their associates. They have no magnetism, but rather a negative, flabby spirit that seems to operate, speaking figuratively, much as a wet shoe does upon one who is compelled to wear it. They draw, draw, draw upon the nervous strength and exhaust the patience of those who are compelled to be much in their company. They are absorbent, never rendering any compensation for the vital energy which they exact. We do not claim to be more sensitive than the average man whose temperament is of the mental-motive type, but we have met people who seemed to draw upon our resources, mental and physical, severely, and after an hour's interview would leave us feeling more depressed and weary than we have felt after six hours' tramping among the hills on an August day. A person of this

negative, absorbent type may not say or do anything to which direct objection can be made; he may be well educated and as courteous as people we esteem, but the moment he comes into our presence we are conscious of a change of atmosphere and an uncontrollable sense of repulsion rises to the surface.

In some households we find one of the members who is like "a wet blanket" to all the rest. The charge of "a bad temper" may not be properly brought against him or her, but there is a subtle something in the manner and facial expression that is unpleasant to others, and of which the younger members of the family openly complain. "I do wish you wouldn't look at me, Aunt Hepsa." "I don't wish to sit by Uncle Jabez, he makes me so nervous." "I do wish Aunt Loisetete would go and live somewhere else," are protests that have been heard by parents from children in whose teaching has been included a goodly share of the principle of respect for their elders. The buoyancy of youth under the perpetual chill and menace of such an unhappy nature as we have described must now and then rebel and find expression. We will not say that such an association constantly maintained is hurtful to the germinating nature of children, as the fact is too obvious, but we will say that the parents who know that such an unhealthy influence exists in their homes, should endeavor to remove it, and prevent future trouble for themselves that may find maturity in estranged children and a ruined home.

It is not easy to analyze the depressing person, although temperament has evidently much more to do with

his unfortunate habit than anything else. We usually find some organic weakness or disease associated with it, especially dyspepsia in one of its protean forms. The circulation is poor in the external vessels, and the blood is wanting in that ardent stimulus that stirs up the higher organs of the brain. We think that cautiousness is one of the most active faculties, while hopefulness and the social nature are lacking in strength. The head of these "negatives" is usually found to be flat in the temples and rather narrow in the forehead, indicating want of imagination, of judgment, and little or no original discernment of the humorous side of things. They look upon life with sullen face, take everything too seriously, and have no sympathy for the gamesome and light-hearted—even in children. They have forgotten that they were children once themselves. It is the expression of unvoiced censure borne wherever they go that makes many of these people intolerable. One is reported as saying to a friend, "I don't see why everybody complains of my manner. I'm sure that I'm never irritable, and try always not to say disagreeable things." "That is true, I do not doubt," said the friend in reply, "but you always look as if displeased with what you see around you and were thinking disagreeable things."

To attempt to bring about an acceptable mental condition in these cases, if they are in middle life, is well nigh hopeless since they are accustomed to regard themselves as the injured parties, and the treatment they receive as unjust and cruel. Furthermore, they have gotten into the way of believing that their views

of the world are correct, and that the people around them are perverse and foolish, sinners against propriety, and especially wanting in respect for them. They may not set themselves up as patrons of correct conduct, but they speak and act as if they were quite free from blame. Their condition is one of mental infirmity—a mild insanity—in which the moral faculties are the seat of the primary degeneration, the manifestations of sympathy, kindness, good-will, and good cheer being warped or suppressed. We have not found them set in any particular class by the alienists, but they are nevertheless of unsound mind, and society would be relieved of much annoyance and loss were they assigned a department in an asylum.

A PRINCIPLE OF HARMONY.

SCIENCE teaches that everything in nature, be it animate or inanimate, will show a rhythmic response to some musical tune. A great edifice will be felt to vibrate when the organist strikes a certain key or produces a certain harmony. Animals are affected by sounds and show their sensations by restless movements and peculiar cries. A German musician once claimed that he could "fiddle" down a great bridge, and his assertion was not an idle one. When he had found the *dominant* chord suited to the tension of the structure the stone arch began to vibrate in response.

The man or woman who possesses power over others can strike the chord in the human heart that will vibrate in harmony to their dominant tone, and thus secure results in friendship and service that other persons can not obtain. I say *can not* obtain, if they persist in

their common way of living, which is to keep personal concerns in view constantly, and to ignore the simple obligations of kindness and charity that rest upon their human nature. Class distinctions of a most artificial character are respected in this country, and they are frequently illustrated in a fashion that is absurd enough. Wealth is the chief factor in what is called the best society, and the pretensions to superiority, that are so much affected by the majority of rich people in their relations with those dependent upon daily earnings for support, are offensive to the latter and one source of the discontent that prevails among them. The attempt to erect a fabric of society in which the people shall be partitioned off into classes or sets is not consistent with the spirit of the American Constitution, which grants privileges to no man, but establishes an equality of citizenship. The masses of the people know this, and when a rich man arrogates to himself a plane of special importance because of his plethoric bank account, they decisively protest against his presumption. Can we say that they are wrong?

A D.D. ON BRAIN FUNCTION.

A LETTER received recently from a western correspondent shows him to be much affected by an incident in certain educational quarters. He had listened to a lecture delivered by a gentleman who writes D.D. after his name, which lecture contained sundry references to the structure and functions of the brain. Among these references were intimations of skepticism with regard to the doctrine commonly ascribed to the phrenological system, so marked that our correspon-

dent at once began to tremble for the safety of his favorite theory. For instance, the learned D.D. in the strength of his assumed knowledge of the subject told "a highly intelligent audience of five or six thousand" that there is "no evidence of any relation between mind and brain;" "often there is great absence of brain where there has been no impairment of any of the faculties in the least;" "brain is always in proportion to the weight of the body, but never in proportion to the intelligence;" "the brain has nothing whatever to do with mind or thinking, no more than any other part of the nervous system," and made other statements of similar profundity. Our correspondent says that the lecturing divine declared that he had been studying the subject twenty-five years, and believed firmly in his conclusions. With a showing of this nature we can not understand why that D.D., however high his standing may be in the pulpit, should have been invited to lecture on the brain and its functions. There must have been some in that large and "highly intelligent" company who could furnish better information. Certainly if there were any experienced and well-read physicians, they could have given the D.D. pertinent suggestions.

Can our correspondent be sure about the "twenty-five years" study? If so, there must have been a great waste of time on metaphysical and subordinate branches of mental science. It may be that the D.D.'s religious prejudices led him consciously or unconsciously to neglect an examination of the physiopsychologists, whose works are replete with the history of cases of lesion in dif-

ferent parts of the encephalic substance; one very rich department that has occupied the attention of a hundred observers in Europe and this country is the Language function, and most interesting accounts of its differential phenomena as related to disease or disorder of brain centers have been published. Language certainly has something to do with human mentality, and if, for instance, the destruction of one part of the brain will destroy the power of articulate expression, or if the destruction of another part will render a person unable to understand what is said to him, although he may retain considerable power of speech, or the destruction of another part may cause a person to forget words almost immediately after hearing them, and so on, as has been demonstrated over and over again, we are forced to conclude that the brain exercises a most important office in the mental life.

But we are quite sure that the whole thing was a bit of fun. The four or five thousand people were there to amuse themselves, and the D.D. did his best to help the entertainment. This seems apparent because, according to our correspondent's report, the lecturer said in one place, "The higher animals are endowed with every faculty that man possesses except reason;" and in another, "Some animals do reason both by induction and deduction." In another place said D.D. declared that man owed his superior brain "to the development of the posterior (occipital?) lobe," and that the lower animals "have relatively the largest front brain." Evidently the lecture was for the most part humorous. The number of "scientific" humorists

is increasing from year to year, some finding brain function a very rich field for burlesque illustration, as we have had occasion to note in this department of the PHRENOLOGICAL; and if a D.D. can do a good stroke for himself in this line without indicating mental muddlement, or a confession of ignorance, why shouldn't he?

A MEDICAL OLLA PODRIDA.—Boston, New York, and Chicago are utterly discounted by the City of Mexico as concerns the variety and number of its real physicians and those who practice the various arts of quackery and deceit. There are upward of 15,000 in all, of whom not more than ten per cent. have the proper qualifications of a physician. The remainder for the most part "operate" under various names, those which have come recently into use by pretended specialists or "new discoveries" being popular. For instance there are 4,000 male and female "herbalists," 300 "dosimetricists,"—shades of Burggraevé and Ringer! 8,000 "compounders," etc. This in a city whose population does not exceed four hundred thousand certainly speaks well for the prevalence of ignorance and credulity. We should not advise an honest physician to try his luck in Mexico.

THE OCTOBER CONVENTION OF THE W. N. C. T. U.—A note from Miss Frances E. Willard, reminds us of the approaching convention of the Woman's National Christian Temperance Union, which will be held in New York, beginning on Oct. 19th, and continuing five days. The great activity that characterizes the work of this woman's movement will then be brought to the notice of the East, in a way that will impress the most indifferent. A grander effort does not exist this side of the Atlantic.

Our Mentorial Bureau.

To Our Correspondents.

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

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

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

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

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

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

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

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

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 to the Editor personally will receive his early attention if this is done.

AIDS TO MEMORY.—A. J. K.—The system taught by the person you name is a useful one, and has received the strong approval of many who have learned it.

CONTRASTED LONGEVITY.—M. D.—Statistics based on the records of life assurance

show conclusively that the temperance man, or rather the abstinent man, lives longer than the user of alcoholic beverages. One of the life insurance companies in Great Britain, which has kept separate registers for twenty years, declares that among the strictly abstaining class the real mortality has fallen short by thirty per cent. of the ordinary expectancy, while fully ninety per cent. of moderate drinkers have attained this expectancy. Mr. Caine, a member of Parliament, concludes, from a study of statistics, that the total abstainers have an average duration of life exceeding by six years that of moderate users of even the lighter alcoholic beverages, such as wine and beer. There are now insurance companies and societies for mutual aid in England designed exclusively for total abstinence men; the taking of even an occasional glass of any intoxicant vitiates their policy.

A BOSTON DIVINE'S LECTURE ON THE BRAIN.—N. N. R.—We should be pleased to receive an authenticated report of the lecture you mention. If the statements in your letter were made by the reverend gentleman, it simply illustrates the old problem, *ne sutor ultra crepidam*, in other words, that he has given expression to views that have little basis in fact. No scientific celebratist would venture such sweeping statements. The highest authorities, like Munk, Broca, Goltz, Ferrier, Mynert, Luys, Brown, etc., are certainly unfamiliar to the man who would say in public, "Brain is always in proportion to the weight of the body, never in proportion to the intelligence;" "Man's superior brain is due to the development of the posterior brain." Your quotations show him to deny reason to the higher animals, and to ascribe reason "both by induction and deduction" to them. Phrenology has nothing to fear from the unfriendliness of such a talker.

CALLING MANNERS.—C. I.—When calling at the house of a mere acquaintance it is improper to stroll around the room while you are waiting, or to tamper with any of

its appointments; and when your host or hostess comes in, you should at once rise from the chair where you have been seated, and after the exchange of salutations wait to be asked to sit.

MISSIONARY WORK—W. H. K.—We understand your embarrassments; they are experienced by all sincere workers. One of the best methods to secure the attention of the prejudiced opponent is to treat him kindly and to say nothing calculated to excite combativeness. Get at his opinions, if you can, and the grounds of his objections. There is usually some personal feeling in the attitude he shows, or it relates more to moral or religious issues than to anything scientific. The man who has a really scientific objection is ready to have it discussed, but the moral or religious objector is usually obstinate and intolerant. Get such persons to define their position; draw them out in a courteous, friendly way, and then as kindly show them their mistakes, using others for illustration. I do not advise "turning the guns" of an objector upon himself; you do not gain much by that; better make yourself an illustrative victim than employ your opponent as such. The worst objector in the course of a good natured talk, *i. e.*, where the good nature is chiefly on your side, is likely to say, "Oh, there is something in it. I'll admit." Then, if you adroitly draw out his meaning, you may get an important acknowledgment that will "turn the tables" on him, and win him over unconsciously to himself.

GRAIN EXTRACTS, "ESSENCES," ETC.—B.—We have no confidence in any so-called extract of wheat, oats, corn, etc., etc., that we have yet seen. As a rule they are disguises for alcohol or other poisonous drugs. According to recent reports that much advertised thing, "Scotch Oats Essence," has been found to contain by analysis forty per cent. of alcohol, and in every four-ounce bottle from one-third to one-half grain of morphine, which is sufficient to create the very habit it claims to cure. *Laws of Life* very properly says in this connection: "The only safety is in letting patent medicines alone, no matter how attractive their representations may be. They are devised to make money, and are seldom, if ever, harm-

less, but on the contrary are almost always dangerous compounds."



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 Indian Question," Further.—It seems to me that the writers on the "Indian Question" in the *PHRENOLOGICAL JOURNAL* have left unsaid one very important point in regard to the Indian supplies. The Indians say that the approach of the white man brings disease and death to their people, and so they are very strongly prejudiced against the whites, and if it were not for the supplies which they receive from the government, they would be very troublesome to the people living contiguous to their reservation. We can not educate the older aboriginals; we can only supply their wants, keep down hostility, and build hopes on their young and rising generation. One has only to visit the schools at their agencies to mark the progress of the young Indians. The writer is familiar with the Omaha and Winnebago Indians of eastern Nebraska; has eaten and slept under their shelter. The Omahas are making progress toward civilization. Some of them do considerable farming and have fine herds of cattle and ponies, the squaws are often neat and excellent cooks. The Winnebagoes are much behind them. I have known them to go in to the white settlements and dig up hogs that had died with the cholera and eat the flesh, seeming to relish it. The government has built for them houses of both frame and brick, but they will not live in them, but use them for dog kennels, while they themselves live in tents and huts.

I have lived four years in northwestern Nebraska, adjacent to the great Sioux reservation, and have traveled over the reservation many times. It is a fine country; the White river is the principal stream, its water being very rapid, and of a milky hue. It has but few fish.

There is little wild game in the reservation, except rabbits and wolves. The In-

dians congregate around the agencies, where most of their children go to school. One may travel between these agencies and not see an Indian. The Indians usually travel or go visiting in squads; they drive four ponies to a wagon, and when they get stuck on a hill or some bad place, the Indians get around the wagon as thick as they can, and all push and yell loud enough to be heard a couple of miles away.

After they have received their supply of clothing from an agency, they go among the white settlements and sell blankets, boots, overcoats, etc., for a trifle, usually getting from twenty-five cents to a dollar for such goods. This, however, proves a blessing to some of the poor white settlers in the region.

The Indians seldom get drunk there, for it is almost impossible for them to get any liquor; the government is so strict about it. They sometimes get their pictures taken, and are very proud of them. They are very fond of painting themselves, either red or yellow. They will always shelter you from the storm and feed you when hungry, which can not always be said of the white man.

The great Sioux reservation is a large region of beautiful undulating prairie, the soil a rich, deep loam, easily cultivated. As the Indians enjoy living where there is plenty of timber, wild game, fish, water, and rough land, and as there is plenty such land in Montana and Wyoming that is not so good for cultivation as that occupied by the Sioux, would it not be well for the government to make an exchange with the Indians, and thus open a vast amount of almost wasted territory to settlement?

L. O. FISHER.

A Pleasant Interview.—A correspondent of *Vick's Monthly*, writing from Paris, France, speaks of meeting a well-known London character in the following sprightly terms:

Calling at the office of L. N. Fowler, the American Phrenologist, Imperial Buildings, Ludgate Circus, E. C., London, as Americans interested in the subject of Phrenology are wont to do, I was ushered into a trim looking office, with every nook and corner rendered enchanting by little vases of flowers; upon the mantel was a delicate cut-glass vase containing five immense *Pensees*, signifying thought in French. As he

entered the room, I remarked, I can not read your thoughts which you have placed so openly for all to read, but you can mine. Try it.

Smilingly, said he, are you like many who fail to interpret correctly the science of Phrenology? And without waiting for my answer, commenced by telling me of my capacity to meet the requirements of life successfully in the vocation I pursue, adding words of encouragement which made sunshine enough in my life on a cloudy, foggy day in London to rush to impart it to every home-sick American; and for a relief to a doubting mind, I can only say, go to this charming little gem of an office, and as he has been away from America twenty-five years, the best compliment that can be paid him is that he loves it with true devotion, and in saying *au revoir*, not adieu, he gave me a *Pensee* with this golden thought of him, that he was (or had been) "twenty-five years in America, to leave it with ten thousand friends and not a single foe." So I venture to say, his favorite flower is a Pansy.

PERSONAL.

GENERAL PHILIP H. SHERRIDAN died of "heart failure" after several months illness, August 5th last. The remote cause of death was disease of the valves of the heart. He was under sixty years of age, having been born at Somerset, Ohio, March 6, 1831. General Sheridan's parents came from Ireland and settled in Ohio in the first quarter of the century. At twelve years of age the boy, Phil, found employment in a hardware store. Next he passed to the dry goods counter. While thus employed he heard of an opportunity to go to West Point, and at once wrote to the Congressman of his district about it, and to his surprise was nominated. Five years were spent at the National Academy, but at twenty-two he was graduated and assigned to duty on the frontier, where he was stationed at the opening of the late war. His career during the war was that of cavalry officer, a hard fighter, and a most successful one. He exemplified his organization in a most striking way, at once earnest, courageous, persistent, cautious, quick, and spirited. He gave to his men an intrepidity, confidence, and audacity like his own, which enabled him to get a great deal

more work out of ten thousand men than another commander would get from twenty thousand. His presence with a command fairly doubled its strength. Thus another of the "Old Guard" has gone.

THE REV. SAM SMALL may be, as some claim, a crank, but he is a sharp one and says things now and then that have points in them. In a recent sermon he said that he saw "in Chicago a marching body of 18 000 workmen carrying a banner inscribed: 'Our children cry for bread!' and they marched straight to a picnic ground and drank 1,400 kegs of beer." The children of agitators do cry for bread, but in most cases it is because the earnings of their fathers go not to the butcher or baker, but into the gaping till of the saloon keeper.

GOUVERNEUR MORRIS, the son of the Gouverneur Morris who was United States Minister to the court of France when Washington was President, is still living and is a man about eighty years of age, as vigorous mentally as he was fifty years ago, but who is such a sufferer from gout that he is a house-ridden invalid. He is a big, fine looking man, with the head of a patriarch, and a fund of anecdote about past generations that it would be hard to find equaled. Mr. Morris lives in a picturesque old house standing on a hill at Bartow, on the Sound, where it has a fine view of the Sound at the back, and overlooks the beauties of Westchester county from the front.

WISDOM.

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

HONESTY is the oak around which all other virtues cling.

If you be nettled with severe raillery, take care never to show that you are stung, unless you choose to provoke more.

MONEY is good; money is important, but wealth is not for the prophet or teacher who would rightly lead men up to a higher plane of thought and action.

WE are not to judge of the feelings of others by what we might feel if in their place. However dark the habitation of the

mole to our eyes, yet the animal itself finds the apartment sufficiently lighted.

THE fruits of the earth do not more obviously require labor and cultivation to prepare them for our use and subsistence than our faculties demand instruction and regulation in order to qualify us to become upright and useful.

It is as true in the religious, as in the secular life, that what you waste in trying to appear to be what you are not, will, in the end, make you a bankrupt.

MIRTH.

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

MARRIED WOMAN—"Matrimony without love is perfectly dreadful." Old Maid—"Not more dreadful than love without matrimony."

A PHILOSOPHER, who had married an ignorant girl, used to call her "brown sugar," because, he said, she was sweet but unrefined.

CUSTOMER (getting his hair cut)—Didn't you nip off a piece of the ear then?

Barber (reassuringly)—Yes, sah, a small piece, but not 'nough to affect de hearin', sah.

WOMEN do a good deal of talking in a lifetime, that's a fact, but we have observed that the men generally seem to be willing to listen to what they say.

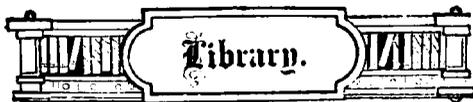
A FAN, as we learn from a juvenile source, is "a thing to brush warmth off with;" a monkey "a small boy with a tail;" salt, "what makes your potatoes taste bad when you don't put any on," and ice, "water that stayed out late in the cold and went to sleep."

BISHOP (on his semi-annual round)—"And do you remember me, Bobby?"

Bobby—"Oh, yes, sir, you are the gentleman ma scolded pa about because you smoked in the parlor and nearly ruined the curtains."

GENERAL WOLFE, overhearing a young officer say in a very familiar manner, "Wolfe and I drank a bottle of wine together," replied, "I think you might say General Wolfe." "No," replied the subal-

tern, with happy presence of mind, "did you ever hear of General Achilles, or General Cæsar?"



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 MODERN JACOB. By Hester Stuart. 16 mo, pp. 209. Price, \$1.25. Boston: D. Lathrop Company.

Without being sensational, and without mawkish effort to interest by "strong" situations and surprises, this book attracts the sensible reader at the start. The characters are realistic and well brought out as the plot progresses, and the contrast of motive and conduct is sharp and impressive.

Plain, honest farmer Balcome and his wife, and their neighbors, Mr. and Mrs. Roper, are drawn with such fidelity that we seem to have known them for years, and even such passing characters as Miss Almira Dow, the village seamstress and gossip, are skilfully sketched in with a few strong strokes.

Jacob and his brother Joel are intended, we may assume, to be the chief persons of the drama, but we think the author has drawn the minister and his friend, Dr. Grant, in tints that show the more skill and tenderness. There is a motive of a high nature in the book; it teaches charity, self-control, and self-sacrifice, and is worth a thousand novels of the Haggard or Conway stripe.

NEW ENGLAND. A handbook for travelers, a guide to the chief cities and popular resorts of New England, and to its scenery and historical attractions; with the western and southern borders from New York to Quebec. With six maps and eleven plans. Ticknor & Co. Boston. 450 pages. \$1.50.

No one who desires information relative to

any part of New England should be without this book. In the library it would be frequently referred to and to the tourist, whether he visits the Green Mountains, the White Hills, Berkshire, Cape Cod, Nantucket, or any other part of the Eastern States, it is invaluable. The information it contains is extensive and complete, the size of the type having allowed the compilers to give many words in small space. It is geographical, historical, descriptive, and statistical, and withal interesting.

GOD REIGNS. Lay sermons. By Edward Reynolds Roe, M. D. 16 mo, pp. 187. Chicago. Laird & Lee.

As the result of much thought this book asks a hearing in this day of commercial restlessness. Chicago has been represented as a city of condensed activities, exceeding even New York in its rush and excitement, yet there are some men who stop to think and dwell upon the great problems of life, and carefully to write out their convictions. Dr. Roe has been led to study the relations of matter and mind and to seek after God in the movements of the world around him, and he concludes that the evidences are abundant for the rule of a Creator. He claims that Evolution, even as taught by the late sophist, Hæckel, and by those who deny everything but matter and its changes, demonstrates the existence of God, His immanency in all phenomena, and His loving kindness over all His works, as manifested in that "power which makes for righteousness." The history of Evolutionary advancement, the rise of love among men, the genesis and growth of a trust in a future life, and the sentiment of worship in some form or degree among all men, all coincide with the idea of God and His reign within and throughout the universe.

PUBLICATIONS RECEIVED.

A STRANGE CONFLICT. By John M. Batchelor. Paper, price 50 cents. J. S. Ogilvie. New York.

MANUAL OF DOSIMETRIC MEDICINE (abridged). By Dr. Adolph Burggræve.

Translated into English. A recent and comparatively simple system of therapeutics this, with much of reason in it, and intimations of drawing from the wisdom of the two great opposing schools, if not an attempt at compromise on the basis of the Eclectic philosophy. *Dosimetric Medical Review*, New York.

JOURNAL OF THE PROCEEDINGS OF THE ONE HUNDRED AND SIXTEENTH CONVENTION OF THE PROTESTANT EPISCOPAL CHURCH IN THE DIOCESE OF NEW JERSEY.

For a copy of this well arranged pamphlet we are indebted to the Assistant Secretary, Mr. Edward B. Smith.

SALMAGUNDI. Published by the junior class of Madison University, Hamilton, N. Y.

A neat specimen of typography, with fine engravings, and the humor included of the American undergraduate.

PERIODICALS THAT PAY CONTRIBUTORS.

Compiled by Eleanor Kirk. Cloth. Published by author. Brooklyn, N. Y.

A convenient list for the reference of the large and increasing army of people who have literary ambitions.

LIQUOR TRANSPORTATION. Decision of the United States Supreme Court in the Iowa Appeals. Official copy.

Contains matter important to temperance workers. The dissenting opinion of Chief Justice Waite is included; Justices Harlan and Gray give weighty reasons and arguments against the decision of the majority. 12 mo. 64 pages. Price ten cents. J. N. Stearns, Publishing Agent. New York.

MORGAN PARK MILITARY ACADEMY.

The sixteenth annual catalogue of this institution, which is pleasantly located near Chicago, comes to us from its superintendent, Capt. E. N. Kirk Talcott. The boy who is sent to Morgan Park will receive the double training essential to harmonious development, and under experienced teachers.

CURRENT EXCHANGES.

Popular Science Monthly for August has first on the list "Octroi at Issoire.—A city Made Rich by Taxation."—an ironical sketch of the effects of high tariff. The Home of the Great Auk. The Ethics of Kant, by Herbert Spencer. Injurious Influences of City Life. Aino Houses and Their Furnishings. The Unity of Science. The Future of the Negro. A Sketch of the Late Spencer F. Baird, and other edifying matter. D. Appleton & Company. New York.

Building. An architectural weekly. A creditable publication. New York.

Medical Advance. In the front line of homoeopathic literature. Monthly. Chicago.

The Sanitarian for July is more than usually interesting, without going out of its special field. Drinking Water Germs, Yellow Fever, The Malthus Theory Applied, are among the topics. A. N. Bell, M. D. New York.

The American Bookseller. Weekly. New York.

Le Progres Medical. Weekly. Paris.

The Academe. Monthly. Devoted to higher education. New York.

The New England Magazine for August gives a good part of its space to Colby University, a well appointed institution under Baptist management. Canadian Fisheries is also a topic of special comment. Boston.

The American Magazine. August. Trinidad, Along the Caribbean. Where Burgoyne surrendered. Two Coronets, The American Arctic Savage, August, Aristocratic Paris, will furnish an idea of what this number contains. The illustrations are numerous and excellent. New York.

Archives of Dentistry. A practical monthly for the practical operator. St. Louis, Mo.

Annals of Surgery. In the August edition we find Gunshot Wounds, Rodent Ulcers, Hip Disease, Sarcoma of the Scalp, and various clinical memoranda relating to the surgery of all parts of the body. \$5 a year. J. H. Chambers & Co. St. Louis, Mo.

The Homiletic Review for August is plethoric with six reviews, several sermons and sermon themes and sketches and other matter of use to the clergyman and church worker. Dr. Crosby discusses the ethics of presenting political questions from the pulpit. Dr. Broadus is criticised by an eminent professor of Homiletics, and Evolution comes up again. Funk & Wagnalls. New York.

The Century for August opens with a portrait of George Kennan. The R. C. readers of the "Century" will probably be interested in A Home of the Silent Brotherhood, or the Trappists; Home Culture Clubs. My Meeting With the Political Exiles. Lincoln Cathedral, Abraham Lincoln. Sidereal Astronomy, Old and New. Memoranda of the Civil War, Socialism and the Trusts are topics of peculiar interest. Of course the art department is *au fait*. New York.

Harper's Bazar and *Harper's Young People*: the first a favorite with our women who practice the higher arts of the home and society, the latter welcomed by our "young ideas."

American Bookmaker. Monthly. An elegant specimen of the typographical art.

Cincinnati Medical News. As a western expression of "old school" thought it is certainly progressive. Dr. Thacker is no fossil, we're thinking. Cincinnati, O.

Albany Medical Annals. Monthly. Albany. N. Y.

THE STORY OF A LITTLE GIRL AND A GREEN PEAR.

The following picturesque story has a flavor somewhat appropriate to the season. It is respectfully dedicated to our young friends.

A LITTLE GIRL



A GREEN PEAR



COMBINATION.



ECHOES FROM THE CONSULTATION ROOM.

BY PROF. NELSON SIZER.

OCCASIONALLY a good friend steps into our office, and remarks: "Well, you are still at it; has not public sentiment begun to wane on the subject of Phrenology?" We tell such persons if they could be present for a single week, and see how many and what kind of people come for examination, and more especially if they could hear what is said to the people who thus seek our advice; if they could listen, also, to what people say to us years afterward in regard to the benefits which they have received, they would cease to wonder and ask questions.

During the month of August in the present year, we received the following letter:

RICHMOND, VA., AUG. 5, 1888.

"PROF. NELSON SIZER.

Dear Sir:—Your delineation of my character, which is just received by mail from a recent examination, is wonderful in its accuracy. If there is nothing in Phrenology, you are the best judge of character I ever saw. My employer, Mr. —, got a written examination from you in April 1887, and it seems as if you must have raised him, or have been with him all his life. You said the real-estate business would suit him, and I believe he is going to make more clear cash out of the five dollars he gave to you, than he ever before made out of a much larger sum. You described the lady I ought to marry, and I intend soon to send pictures of one for your inspection, and would like to know your opinion as to the effect of a union with a person of her temperament and organization.

Very truly yours,
* * *

A middle-aged gentleman, who has filled one of the most important and nerve-wearing positions in the city, became so broken down by exhaustion of brain and nerve, that he was led to come to us for examination and advice. He came in to-day, June 30th, to report respecting his great improvement, and presented us with the following as a tribute and thank offering:
FOWLER & WELLS Co.,

"Gentlemen:—About nine months since I was nearly broken down by over-work, anxiety, and care, and nervous prostration was the name of the condition; I could neither sleep nor eat, nor rest, nor enjoy as I ought, and I became alarmed, and, by advice of friends, entered upon a course of extra dumb-bell exercise, and a course of semi-starvation in the way of diet, thinking that that was the way to mortify the flesh and build up the constitution.

Having known of your business for twenty-five years, and having heard others speak of benefit received from your advice, I concluded to visit you and have a careful

analysis of my condition, and advice as to how to care for myself, and, if possible, get out of the trouble. You gave me a carefully written analysis of my case, advised me to lay aside my heavy weights in the way of exercise, and take what you called 'Free gymnastics' with empty hands, and to swing the arms and legs, and make my motions large and liberal but not too violent and this could be done at any time, a minute or two at a time between other duties, and more especially after I had had excessive mental labor which had invited the blood to the brain unduly, and made my ears sing with nervous excitement, and my heart palpitate with a kind of weary fever. You gave me advice as to diet also, and I have tried to carry out your suggestions, and in the nine months have gained 15 lbs. in weight, and I feel in all respects, aside from my increased weight, greatly improved in strength, in harmony of function, in coolness of brain, and in vigor and continuity of thought, without former weariness, and I feel that I can not do myself justice, to say nothing of the debt of obligation I owe to you, without making this plain statement; for you asked me at the time to be kind enough to report, and this is my report.
G. E."

KIND BUT ROUGH.

Some years ago the steamship *Central America* foundered off the Florida coast, and many passengers were saved by boats from another ship, while struggling in the sea. The day the news came to New York by the ship that picked up so many of the *Central America's* passengers, a quiet man came in for an examination, and among other things I told him, "you are generous and kind hearted; anxious to do good, but you have so much Firmness and Combative-ness, that you are rough in your mode of manifesting kindness. For instance, if you had been engaged in the work of saving the lives of the *Central America's* passengers, you would have hauled a man in by the hair of his head, if that were the most available way to rescue him."

He gave a hearty and generous, but rough chuckle, as he said: "I was engaged in that very work, and it was just as you say. I saw a man rising to the surface alongside of my boat. His hair was very long, and I grabbed him by it, and got him half way into the boat, and he cried out piteously, 'Let go, let go,' and I did let go, and he went down. In a short time he came up again, his long, soft hair parting nicely by the action of the water as he rose to the surface. I again seized him by the hair (for he had only a knit undershirt and drawers) and this time he did not say 'Let go.'"

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Good	FACES	and	Bad	FACES.

ALL KINDS OF FACES!

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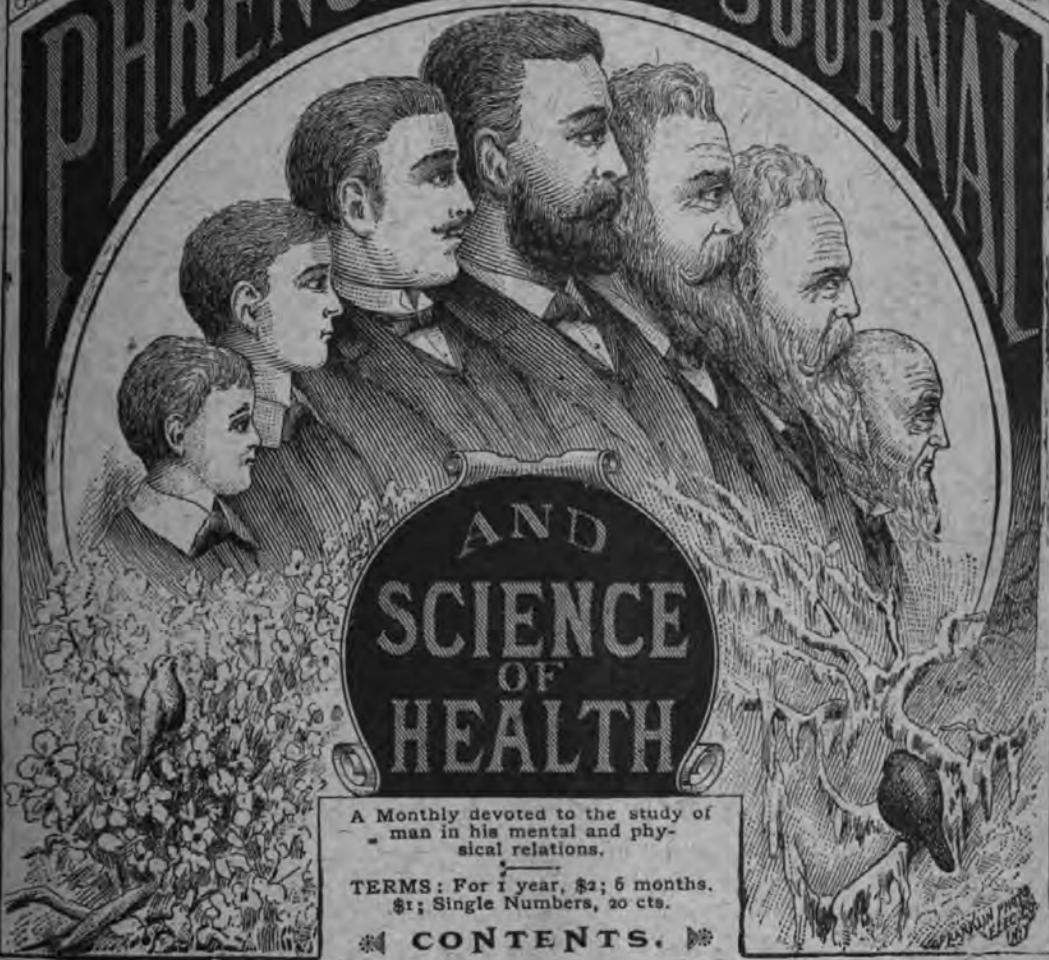
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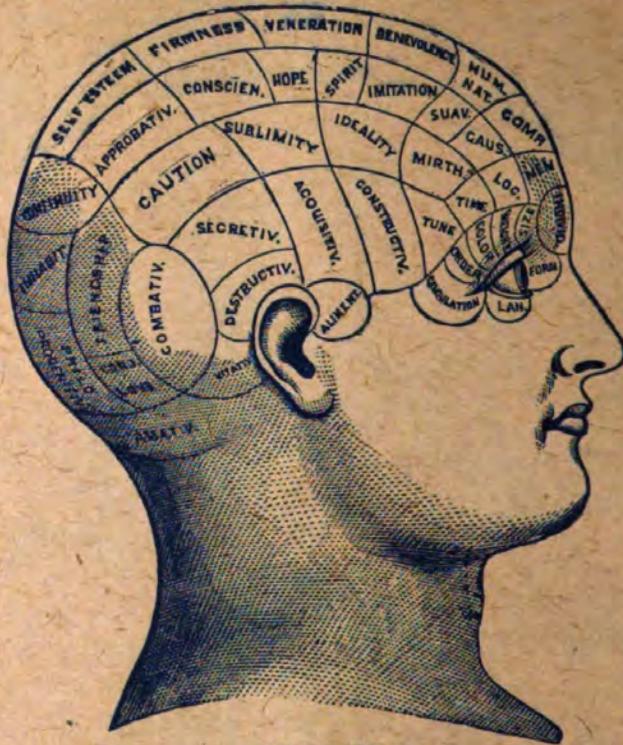
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October, 1888

[WHOLE No. 598



QUEEN NATHALIE OF SERVIA.

NOTABLE PEOPLE OF THE DAY.—No. 18.

Who has not heard of Servia, that little section of territory on the northern frontier of Turkey, just over the Danube from Hungary? Occupying an important strategic position in its relation to the ancient enmities of Turkey and Russia, and to the recent advances of the latter nation, Servia has for many years commanded the world's attention. Long ago it would have been absorbed by Russia but for the armed protest of the other great European governments. And now King Milan only keeps up the show of royalty by the sufferance of Austria, Germany, and England, who deem the quasi-autonomy of Servia a convenient check to the ambitious designs of the Czar.

Aside from the political interest that this little nation thus possesses, there have occurred certain things in the domestic life of its apparent ruler that have given occasion for a vast deal of newspaper comment in Europe. The unhappy relations subsisting between Queen Nathalie and her husband, the King of Servia, leading, as they have, to the flight of the Queen, and later, to the forced giving up of her only child, the little Prince Alexander, have awakened much sympathy for her in this country. It is difficult, perhaps, for us to obtain the truth of the matter, but we know that Milan, King of little Servia by tolerance of the Powers that lie watching each other with their hands on their swords, has a suit pending in a tribunal of the Greek Church for a divorce from Nathalie on the ground of "incompatibility of temper."

Milan Obrenovitch was elected reigning Prince of Servia in 1868, and in 1882 received the title of King. Seven years before that he had married Nathalie, the daughter of the Russian Colonel De Kechko. She was about sixteen at that time, while Milan was five years older. In August, 1876, the boy, Prince Alexander, was born. The "incompatibil-

ity" complained of seems to be of a political nature for the most part. Queen Nathalie's behavior has been above suspicion as a wife, but she entertains strong sympathies for Russia, and these, it is said, have been so frequently shown by direct expressions and correspondence as to be productive of embarrassment to the Servian government. King Milan is of irritable and haughty disposition, unwilling to play a subordinate part toward Russia, and his wife's conduct, persisted in notwithstanding his protest and command, as it is said, has led to the suit for a separation.

When this last step was taken by the King, Nathalie left Servia, taking the young Prince with her, and going to Germany, made Wiesbaden her residence for the time being. While there, King Milan requested that his son be given up to him, a demand that was approved by the Brussels government, and orders given to enforce it. At the same time Nathalie was notified to leave the empire. She made arrangements for flight, but did not get away before the officer of the police waited on her and insisted upon the surrender of the prince. The return of the young heir to the crown was made the occasion of a popular demonstration of welcome and loyalty.

In the portrait Queen Nathalie is represented as a woman of more than average physical vigor. The temperament is marked by motive, while there is an abundant degree of the vital elements to fill and round out the figure. Physiologically the character is one of much independence and spirit. She has "a mind of her own," and is not of the wary, cunning sort in its expression. With so much language, physical impulse, and social feeling, she should be a free, ready talker, and where her sympathies are enlisted she is disposed to exuberance. She has much of the artist in her organization, we think, and if a

divorce from her husband should lead her to seek retirement, in the study of art she would be likely to find much solace and success.

J. F. PORTAELS.—ARTIST.

Speaking of art has suggested a name that for the past thirty years has been prominent among the figure painters of Europe. Monsieur J. F. Portaels has his examples in the galleries of American art fanciers, and rarely attempts a picture that is not early the subject of special comment among the connoisseurs of Paris and Brussels. In some respects his head and face remind us of the late F. O. C. Darley. The latter had not so strong a development of color, however, as M. Portaels indicates, while in regard to form there is a close resemblance. This gentleman is a sensitive, careful man; one of those who puts himself very earnestly into his work. What language he has! As a teacher or lecturer he would have been known for the fulness and grace of his delivery. He should be a man with many friends, for while sensitive he is cordial and even frank toward those who appreciate him, and trust him.

Jean Frederic Portaels is Director of the Academy at Brussels, and his services entitle him to universal respect. The great majority of the distinguished artists of the present generation in Belgium, and some even in France and Holland, have come out of the *atelier* which, in 1858, he opened freely, and without aid or support from the Government. Born at Vilvorde, in Brabant, in 1818, M. Portaels was the pupil of Navez and of the great Paul Delaroche. He obtained the Prix de Rome at Paris in 1842; and, after passing some years in Italy, traveled in the East, and in Morocco, Hungary, and a part of Europe. After his return from Rome, he was nominated Director of the Academy at

Ghent. He exhibited there, in 1847, "The Shulammitte;" at Brussels, in 1848, the "Episode of the Simoom," and "The Drought in Judea" (now in the Museum at Philadelphia); at Antwerp, in 1849, "Portrait of the Marquise de l'Aubepin," "Arrival of the Holy Family in Egypt," and "The Wise Men from the East."

Among his earlier works may be mentioned "Rebecca," "Ruth," and "Fatima the Gipsy." On his return to Brussels, he decorated a chapel of the Broth-



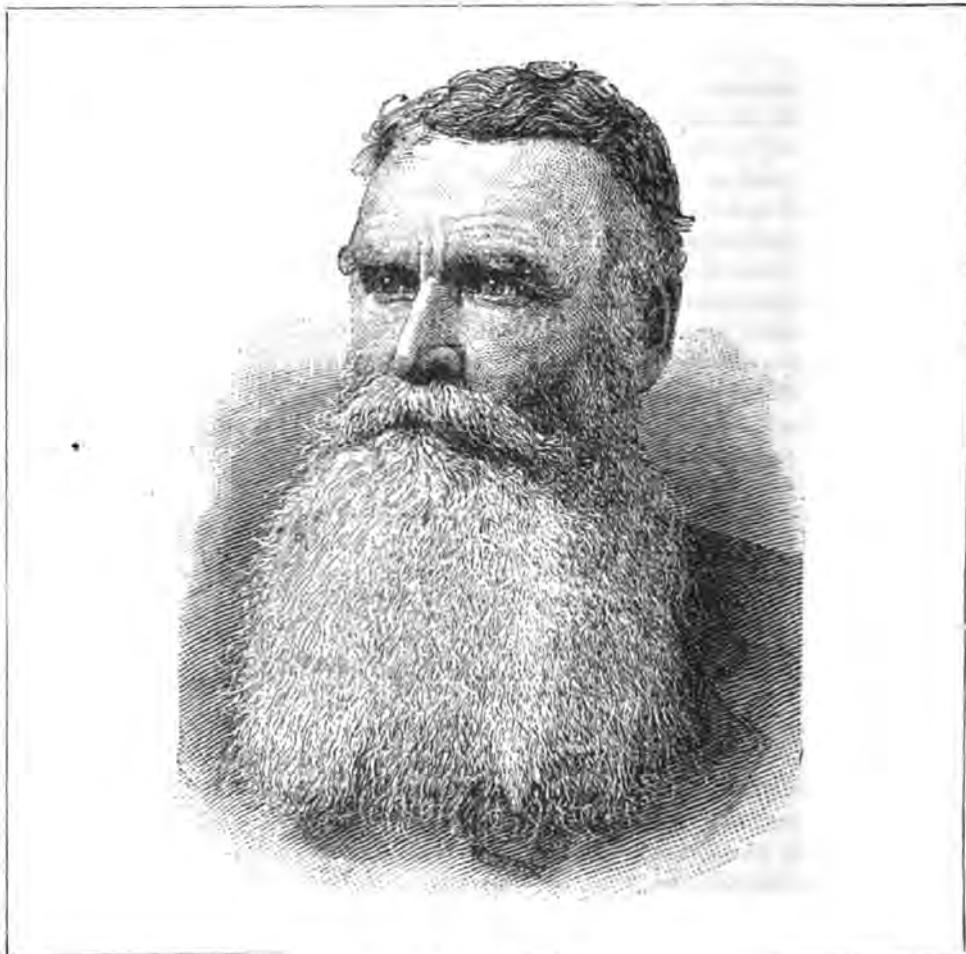
J. F. PORTAELS, ARTIST.

ers of the Christian Doctrine with frescoes, now destroyed. At the Universal Exhibition at Paris, in 1856, his pictures were:—"Funeral Procession in the Desert of Suez" (Museum of Lyons), "Greek Woman Weaving," "Young Woman of the Neighborhood of Trieste," "Young Jewess of Asia Minor," "Suicide of Judas," and "Story-teller in Cairo."

Between that year and 1869 he exhibited at Ghent a picture entitled "The Intrigue," and in the last mentioned year he painted "Box at the Pesth Theatre" (now in the Museum of Brussels). At

the Exhibition of Belgian Art, in 1880, his pictures were, "The Young Sorceress" and "The Daughter of Zion." M. Portaels has also painted some admirable portraits, one of which was exhibited at the Paris Salon in 1880. His largest picture is entitled the "Two Calvaries," and is in the church of St. Jacques-sur-Caudenberg, at Brussels. On August

missionary bishop, whose field of labor seems to have been cast in many quarters of the old and new world. He was born over sixty-seven years ago, but there are few other men who retain so happy a combination of mental freshness and elastic physical strength at sixty years. At the late Quadrennial Conference in New York City he was



BISHOP WILLIAM TAYLOR.

25, 1883, a banquet was held to celebrate the twenty-fifth anniversary of the opening of his free *atelier*.

BISHOP WILLIAM TAYLOR.

THE M. E. Church has a growing list of distinguished and worthy ministers, but there are few among them who have the prominence of William Taylor, the

one of the most conspicuous figures. He was born in Rockbridge County, Va., where, until twenty years of age, a good part of his time was spent in the tannery of his father.

Becoming interested in religious things, he determined to make the vocation of an evangelist his life's work,

and found his opportunity when he received an exhorter's license from the Baltimore Conference, and was subsequently licensed as a preacher and appointed missionary to San Francisco, Cal. His book, "California Illustrated," gives a vivid picture of his life in that State. In 1862 he went to Australia, where he labored with excellent results. Later, he visited Africa, and in Cape Colony, Natal, and Caffraria preached the gospel to foreigners and natives with remarkable acceptance.

India became the scene of his hope and earnest effort, and there, without salary, he traveled among all classes of the people. He had written one or two books, which were selling well in America, and they supplied him with funds for traveling expenses. He preached throughout Southern India, opening preaching stations everywhere, and where churches already existed doubling and trebling the number of the worshippers. He left India in 1875, to assist Mr. Moody in England.

Palestine, Ceylon, Canada, and South America have also known the ringing voice of William Taylor. The bishops' address at the General Conference at Cincinnati thus referred to his work in the last-named sphere: "The western coast of South America was visited a few years since by the Rev. William Taylor, and under his influence several young men and women have gone to that region, chiefly as teachers, *risking their support* among the people, and also endeavoring to preach the Gospel of Christ."

At the Conference, in May, 1884, Mr. Taylor was present as a delegate from Southern India, and when it was resolved to elect a bishop for the new African field just opening on the Congo river, he was chosen for the office. Since that time he has traversed that section of the country for hundreds of miles, braving its dangers and establishing nuclei of Christian truth.

His rugged face indicates the man of

pronounced convictions; at once original and thorough-going, he has a freedom and *elan* that are very taking with the masses. He is good natured, while positive enough; kind and generous, while emphatic and direct. His mental nature is of that spirited, prompt type, that is fretted by hesitation or delay. If there is work to be done—and he believes in the vastness of the work evangelical—he would be about it and accomplishing something.

JAMES REUBEN, THE OLDEST SENECA INDIAN.

OUR Indian neighbors have their old people, whose histories, if they could be obtained, would contain much that is interesting. At this time the Indian of the United States is undergoing a great transition. He is losing the peculiar aboriginal elements that constituted him a savage, and is becoming a part of modern civilization. The youthful Indian, through the schools that are maintained East and West wherever tribes are aggregated, is being taught and trained to live as the white man. Before many more years have passed the Indian aboriginal of feathers and war paint will have become a museum curiosity or a matter of anthropological history.

At the Buffalo Exposition one of the features is an Indian Department, in which the six nations of New York and Canada have many relics and exhibits, illustrating their life habits and industry. There the barbarism and civilization of the aboriginal are contrasted; the primitive wigwam with its owners, male and female, dressed in ancient costume, engaged in making bows, arrow heads, tomahawks, pounding corn, sewing moccasins, and feathered head dresses will be side by side with the products of the shop and field that the Indian of to-day can supply.

Several of the big men of the Senecas, the Tuscaroras, the Mohawks, etc., are in attendance, and many of the young men and women illustrate the arts and

industries they are pursuing by actual performance.

Henry Philips, of the Senecas, a pensioner of the War of 1812, and one of the most interesting Indians in America to-day, will be present in the primitive ex-

Brothers, and Cornplanter—all of whom he knew for years, and was associated with. He is past ninety years of age, and is a most picturesque Indian. He still wears part of the old native costume. He is tall, with a very command-



JAMES REUBEN, THE OLDEST SENECA INDIAN.

hibit. Through an interpreter he can tell many anecdotes of that war, and much interesting and unwritten history of Western New York, of Red Jacket, Tall Chief, Tom Pollard, Farmer's

ing appearance, and when, on special occasions, he dons the full dress of the white man, his costume is not complete until he has put feathers in his black silk hat.

The accompanying illustration is of Uncle James Reuben, a mighty hunter in his day, and still one of the most famous Indian hunters east of the Rocky Mountains. He is part in the primitive exhibit as representing the hunting pursuits of his ancestors. As one drives from the village of Irving, Chautauqua county, toward the Cattaraugus Indian Reservation, he passes, not far from town, a large oak tree standing on the left side of the road. There are some people in the vicinity who remember when a small bark shanty stood near it; but not every one who remembers the cabin knows that it was the birthplace of Uncle James Reuben, whom three generations have known, and who is probably the oldest living Seneca Indian. He was born in 1795; or to put it as Uncle Reuben says, "Come full moon, next October, I'm ninety-three." To him is accorded the honor of killing the last elk in Pennsylvania.

The old man's English is broken, but easily understood. His two stout canes are not particularly a matter of necessity, for he still hunts, and bags his snipe, or bigger game, with greater cer-

tainty than many younger sportsmen. At the solicitation of a friend the old man consented to have his picture taken; but at the photographer's he stoutly refused to submit to the one-eyed gaze of the camera unless he had some feathers in his hair.

"Oh, pshaw!" said the friend, "Indians don't wear feathers nowadays. We want your picture just as you are."

"Nop! No feder, me no have picture!"

But there were no feathers. Uncle Reuben espied a feather duster.

"Him good," he said. And without further ceremony he pulled out its somewhat dilapidated turkey plumage, bound the feathers upon his head with a red cotton handkerchief, and bravely submitted without further protest. The accompanying portrait is a fair reproduction of the photograph, which delighted the old Indian very much when he saw it.

The visitor at the fair has an opportunity to study the old owners of our soil under circumstances that are as convenient as they are unique.

EDITOR.

BE HAPPY.

MAKE for yourselves pleasant places in life so that in after years when memory recalls past scenes your heart may glow with many pleasant emotions; and, perchance, these happy thoughts will so impress themselves upon your countenance that your face will do one good to look upon it; for happy thoughts will make a happy face.

Make pleasant places in life for your friends, for your neighbors, for your family. Enjoy yourself in life and help others enjoy themselves; it is your duty. You will never pass the same way again; a day that is gone you can never live over again, only its memory will remain with you always, and it may be a memory of sadness, of sorrow, or of gladness. If

you are feeling cross, fretful, out of sorts in any way go to the looking glass, stand before it and take a long searching look at yourself and see if you would want always to present just such a face for everybody to look at.

Be cheerful if you can, and if you can not, why be cheerful anyhow. If your circumstances are so that you are depressed, sad, despondent, or often angry at things, change circumstances, move them upside down, do something that will enable you to live to the best of your ability and up to your highest capacity of enjoyment. Make your face to smile, even if your heart does persist in feeling sad, and after a while your heart will smile too. If a weight of gloom oppresses you, speak to every one

in light, cheery tones, and the heaviness will lighten its weight and finally roll away.

“For every evil under the sun
There is a remedy, or there is none;
If there be one, try and find it;
If there be none, never mind it.”

But don't grumble and growl and frown and scold, making every one feel that this is a most wretched world to live in. If you want to kill love, just scold, and it will be like a hot wind blasting a beautiful, delicate flower, scorching, searing, withering, killing it. You may have good reason to scold; perhaps the hot wind has good reason to blow, the effect is the same, the life of the plant, the life of love is the price you pay.

Observe holidays and merry makings; go to Fourth of July celebrations, make merry on Christmas and New Year days; have something pleasant to remember and think about all the year long; laugh and be happy, and you will live the longer for it.

Be careful not to do any more suffering in this world than appears to be really necessary, and don't make others any more miserable than you can help. Stand up for your own rights, of course; don't yield too much to keep the peace. Perhaps the Irishman was not all in the wrong when he was determined to have peace in his family, even if he had to fight for it seven times in a week. We may not enforce our ideas of harmony with so much vigor as that, but we are less wise than was that Irishman when we yield our sense of what is right and best, then afterward waste our time in doleful complaints about the consequences.

Respecting ourselves, doing whatever we know to be right and best, granting the same right to think and act unto others, like the Apostle Paul being all things to all men, yielding a preference but never sacrificing a principle. Abounding in gentle dignity and kindly courtesy, letting no man despise us in our way of showing to the world that

we can love our neighbor as ourself. There may be such persons as the woman who was never so happy as when she was miserable, but not many, we think, are born with this buzzard-like enjoyment of misery. And where people are not born constitutionally wretched there is no reason under the sun why their lives should not be filled with brightness and sweetness and joy. God meant that his creatures should be happy, and it is a sin if they are not.

If there is something in the way of your happiness remove it; if you are sure it is the people about you, leave them or make them over, or do something else as effectual. If your circumstances won't let you be happy, knock them all to pieces and make some new circumstances; make the very best of every thing you can get hold of, but don't fuss about it, only *go* about it and do something whatever in your own wisdom under God's guidance appears to be the very best thing to be done, and be prayerfully happy while doing it.

But if you are obstinate and determined you won't be really and truly happy; be persuaded just for once in your life to try making one whole, happy day for some one else; then I shall want to inquire of you, as my German friend does of me when we meet, “How goes it with you?”

Aged people live mostly in memory of the past; so let all who have any prospect of being old some day be making for themselves many pleasant places in their every-day lives; be happy now if you would be happy in the years to come.

LISSA B.

A BOY at school had a large patch on his trousers. A schoolmate made fun of him and called him “Old Patch.” “Why don't you fight him?” cried one of the boys; “I'd give it to him.” “Oh,” said the boy, “you don't suppose I'm ashamed of my patch. I'm thankful for a good mother to keep me out of rags. I'm proud of my patch for her sake.”

PUTTING ON AIRS.

REFUSE the civil "Yes" or "No,"
Decline to see me when you go
Along the street with "bulls" and "bears;"
Whatever else you choose to do,
Abstain from patronizing airs.

Cut me direct upon the street;
Look down upon me when we meet;
Let others see who proudly stares.
Discrown me not, while suave and sweet,
With soft and patronizing airs.

There may be times when all may need
The friendship of the friends indeed,
To help us lift life's load of cares;
But hearts had better break and bleed,
Than pulse with patronizing airs.

He does not act the role of friend
Who thinks that he must condescend,
And stoop to aid in my affairs;

He mocks me with the bow and bend
That come of patronizing airs.

The social status one attains,
With well-earned or ill-gotten gains
Of gold, and lands, and bonds, and shares,
Will be defiled with vulgar stains—
When he shows patronizing airs.

There have been those who helped the poor,
Who brought a light about the door;
They aided angels unawares.
God blessed their basket and their store—
They had no patronizing airs.

Are we not all on earth akin?
The best and whitest touched with sin?
For with the wheat will grow the tares,
Oh proud and vain, just look within,
And cease all patronizing airs.

GEORGE W. BUNGAY.

SOME NOTES ON A ROGUES' GALLERY.

I SUPPOSE every large police department has such a collection of pictures of criminals as I saw yesterday in a New England city. This collection is open to the public, or to such as have the curiosity to ask to see it. It contains, I should guess, nearly or quite two hundred ordinary cabinet pictures (photos), which are set in a series of framework and so adjusted, by being hung in a book form (a large number in a leaf), as to be easily accessible.

I was curious to know whether I, with a meager scientific knowledge of faces, could distinguish any particular type among those which might stand for a criminal type. Unfortunately, either from a lack of what to look for, or of knowing how to distinguish faces and heads, I could not do more than select one of a single class—that of a successful burglar—to compare with others on the list. Unfortunately again, most of the pictures were so disposed as to conceal the inscription on the back of them, though the detective who obligingly showed them to me pointed, at my request, to several eminent personages among the ranks—perhaps a dozen or twenty were noted.

In the belief that what I observe will be worth reading, I transcribe the field-notes I made immediately after my observation was finished.

The ear alone was critically observed in the type selected—a burglar—and by



ANTON PROBST.

comparison it was discovered of as many specimens of this class as could be seen that this organ appeared rather low down and very long in its long axis, which was diagonal to a perpendicular, so that the top of the ear seemed very far

back. The rim all round the ear was rather broad, and as I now remember it, had a decidedly sharp and well-defined crimp all round the margin. The general contour is rounded, not, by any means, pointed at top. The ear is, withal, very large. It has considerable space between the inner helix and the outer edge on the upper backward region.

The indications generally are, therefore, according to my own reading, freedom from finicality, he overlooks minor faults, quickness of apprehension, desire to get, and to learn and know, to be taught and handled, independence of character, intrepidity and push. Comically enough, the detective with whom I was closeted had precisely the same qualities as indicated by the ears, as I remarked aloud enough, but detectives are generally invulnerable to quizzical sayings. The only exception in his case was in a little more delicate conformation of the organ examined. Why a detective should possess these very qualities may readily be seen. Precisely what is needed to make a burglar would be required to catch one—fearlessness, push, intelligence, activity, persistence, in fact, all the qualities named. I saw the picture of a detective who had served a considerable period as an officer, and was afterward detected and arrested for crime. The man I conversed with is a veteran. I noted, as carefully as I could, other features of the physiognomy of the burglar and highwayman class. The eyes are generally large, that is, the eyelids are retracted so as to expose much of the eyeball; the chin somewhat pointed, except when the jaw is very square at its lower margin. The general expression is quiet, intelligent, serious.

As to complexion, I could not get my informant to say that there is any peculiarity. Indeed, he insisted that these people are classed together, are of every variety as to complexion, proportion, aspect. He claims, however, that from an experience of forty years, he is able

to discover at once some peculiarity in a criminal which is noticeable and characteristic; he can not tell what. It is the same sense an experienced bank teller has in detecting a counterfeit bill. He can not tell how, but believes that he knows a criminal at sight.

One portrait of a successful horse thief indicated strength and tenacity of makeup, good judgment, and quickness of apprehension. A few types of the miserable class were well marked—the hopeless look, the careless, rude, and boorish aspect. A counterfeiter, notorious for numerous successful counterfeits, who has great skill in imitating handwriting, might have been judged by a good phre-



JOHNSON, MURDERER.

uologist to be skilled in lines and forms. Interesting also was a family of four brothers, all noted criminals, with an associate nearly related by consanguinity.

Altogether, the exhibition is an interesting one. I noted in the later specimens an apparent attempt of the detective authorities to give a few statistical particulars—color of eyes, complexion, stature, weight, condition, education, peculiarity. But I was informed that no regular measurement is taken for identification, as is said to be made in France. Many of the ages, conformably to known statistics, were twenty-six

years. There were a few females, and a few blacks, and boys among the number.

HENRY CLARK.

NOTE on the measurement of criminals for identification.—From *Pall Mall Budget* of September 29, 1887, p. 26: "One of the most important practical means for the repression of crime consists in the identification of habitual offenders in spite of their numerous and crafty disguises. Of late years much progress has been made, especially in France, in this direction. At the prison congress, held at Rome in 1885, much interest was elicited by a detailed description given by M. Bertillon of what is termed the anthropometric system of

taking measurements and observations of offenders when once in custody. This takes cognizance chiefly of the following measurements: the length and width of the head, the length of the left foot, the left forearm, and of the little and middle finger of the left hand; the length of the right ear, and also that of the trunk and body, taken when seated; the full stretch of the arms, and the total height of the body. On the Continent, M. Bertillon's system is now adopted by the police and prison authorities of France, Germany, Spain, Italy, and Denmark, and it will probably become the chief and recognized measures for criminal identification throughout the world."

A BUDGET OF PAPERS ON PHRENOLOGY.—No. 5.

THOROUGHLY TESTING THE SCIENCE.—IN THE WEST.—IT STANDS ALL TESTS.

"Prove all things; hold fast that which is good."

THIS I was determined to do. The first lecture I attended in the Institute course had convinced me that there was a science of Human Nature. My practical studies while pursuing the course confirmed my faith in its teachings, for I had met with no defeats, no problems of human character which I could not solve, no men that I did not know. With unhesitating zeal I had pursued this knowledge, spurred on by the one end and aim of my life, to glorify God in the winning of souls. The wisdom required to win souls is of two kinds. "He that winneth souls is wise," and must be. First he must know God and His Holy Word; then himself and his fellow men. He that would catch trout must study their habits, their haunts, and their characteristics. He that would win men must know himself and them. I had no hesitation in believing the Word of God: and that the whole of it is the Inspired, Revealed Word of a Holy God who loves man and hates sin with a holy hatred, and that it is the natural law in the spiritual world that the soul which is not redeemed and made holy in this world is eternally lost.

I needed a greater knowledge of myself and of my fellow men. The Institute course had given me that knowledge. I had but just finished the course when I stood with the diploma in one hand and a commission in the other to go out into one of the great regions of the West as a superintendent and "general missionary" of a field several hundred miles in diameter, for one of the great Missionary Boards that have fourteen hundred laborers in the West. My work was to organize churches, supply churches with men, and to do the work of an Evangelist. Young in years, small in frame and in stature, could the Lord use such slight means to accomplish so great a work?

I remember when a "Middler" in the Seminary and the late Timothy Hill was asking for recruits for the West, I was speaking to a western classmate of my longings to be used in the Master's service, he said to me: "Never go West. I've lived there all my life. You will make just one good meal for the average western man. Take my advice!" It was not Horace Greeley's wise advice to young men, but a higher call, which came and bade me accept the com-

mission and go. That call was sufficient. I put my faith not "in the wisdom of men, but in the power of God (I. Cor., ii. 5.), but it was pleasing to me, and will be of phrenological interest to you (as promised in the May article, p. 225) to know what Prof. Sizer thought of my going West. In reply to a brother clergyman's inquiry. "Do you think Mr. D. will succeed in the West?" "Yes, I know he will;" my friend said that the professor replied, "for he believes in himself." (I am not ashamed to say it, for every man ought to, and by the Lord's grace ought to live so that he can; "God working in him to will and to do of His own good pleasure.") And second, he has an **INDOMITABLE FAITH IN THE ALMIGHTY.** I put in small capitals the words of special phrenological interest as revealing the effect of "that steadfast resolve, or how the spirit can rise above the weakness of the flesh even though it be cerebral. See the above mentioned paragraph in the second paper of this budget.

This I was enabled to do, and to this "indomitable faith" in the Almighty I attribute all the marvelous results of the Holy Spirit's work through His servant during those fourteen months—months of most glorious memories. I now regret that they were not more, but I felt impelled by what seemed to me then to be my duty to my widowed mother, and resigned my work and returned East.

In the great West—Dakota, the Black Hills, Deadwood, Leadville, Central City, Sturges, Spearfish, Rapid City, Custer, Fort Mead, and Fort Laramie, Cheyenne, and Denver, and among the intelligent miners and the kind-hearted cowboys—I had ample opportunities to test the theories of the Institute. I can conscientiously say they stood all tests. I have never once had to retract a statement, or change an opinion, based on the development and quality of the brain as influenced by the body and temperament to which it was adjoined. These tests were thousands in numbers.

Every one I met was a new experiment. I shall attempt to describe such varied tests that you may have a true and honoring idea of the Western people. I saw but one small head after crossing the Missouri. Brainy men they were as a rule, with wide heads, executive force, and skill; their children also, wide-awake, smart and intelligent, polite and manly. I honor and love the typical Western boy and girl. They have few peers in the East. I shall expect some of our future Presidents and Ladies of the White House to come from them.

The first time I saw Mr. —, I said to myself, I am glad the church at D— has such an able executive member as Mr. —. I was not afterward so glad, for I soon found that that wide head and motive temperament had not been consecrated to the Master, and that God was not working in him to do His will. "But the executive power and force were there, as correctly seen by my phrenological eye at the first glance fifty feet away. He is a man of two "R's" It is Rule or Ruin with him. His high head helped him in this course. Men's "weak points" are really their strong powers; by these they are shipwrecked. Power must be controlled, not trifled with. Thank God for it, if you have it and use it to His honor and glory.

It was the second or third day that I met the typical hard case, or Western sinner. I was passing his log-cabin. "Come in, stranger, won't yer?" he said; and though not quite at my ease, I said to myself, I must test my success in the West with just such a case, and went in. As he crawled and twisted on his rather uninviting bed, I saw that he was afflicted by some baneful malady, and so sympathetically inquired about his troubles. In response he held nothing back, and soon filled the room with terrible oaths, and told how he was watching for the three physicians to pass his door who had operated upon him; and, as he said, had defamed his character in stating the cause of his ills. He would

“shoot every — — —, — — — — —, and drop him right down in his tracks,” if he dared to pass his door. “And just as soon I am able, I shall go out and shoot them down in their tracks. I am a Southerner, and that is the only way to retrieve yer honor.” He was so sincere and excited that I feared he might commence to practice upon me, as his revolver was near at hand. I felt decidedly uncomfortable; but with a few kind words offering to build his fire—it was in December—and cook him some food, for he was alone, I was then about to depart. I had made a correct phrenological observation of the man. A fine grained brain, a high head behind, but so narrow as to be lacking in either caution or shrewdness—once refined, now polluted. As I was leaving, he begged leave to inquire my name; he had enjoyed my visit, he said, and wanted me to promise to come again. I said I would, and that my name was Mr. D—. “Dill, Dill,” he repeated several times, and said, “Why, you must be the new clergyman that has just come to the Hills.” I replied I was. “Oh!” he exclaimed, and his face was tortured with agony, and the blood rushed into his face and then away. His breath came thick and fast. “Why! —why didn’t you tell me that you were a clergyman? Oh! oh! I never treated a gentleman so in all my life. Go anywhere and ask ‘the boys’ (he was a man of forty-five or fifty) if ever they heard C. X. H— swear in the presence of a gentleman. I hope you will forgive me. Why *didn’t* you tell me?” I had to interrupt him and tell him why I had not rebuked him in his blasphemy. Impressing upon him the awful sin of taking God’s holy name in vain, I left him promising to return. The next time I called his room was clean and neat; he removed the cigar which he always held in his mouth but never smoked.

He was glad to see me, told me the history of his past life, his home in the South, his service in the Southern army,

then in the West traveling with a circus exhibiting “a fat woman and a lean man,” his good deeds and his sins. He leaned over and from an almost empty drawer took a large gold nugget of heavy weight, worth many dollars, and said he had only two left, that he wanted me to have one and keep it to remember him. I proudly wear it near my heart. I had won the man. He reformed, but I can not feel assured that his heart was changed by the regenerating act of the Holy Ghost, although he soon got out his mother’s Bible, put into his trunk by her years ago. I had interested others in his behalf, and in a few weeks “the boys” raised several hundred dollars and sent him to an Eastern hospital. I wrote him, but have never heard from him since. Phrenology aided me very much in winning him.

I at once prayed, planned for, and expected a revival of God’s people in the city of D—. Intelligent men, practical men, successful business men who had done a business of \$30,000 a month in Helena, Mont., said to me: “Mr. D— you talk foolishly, you are a young man, you have never been west of the Missouri before, you never heard of a revival in a great gold region and a mining-camp. Don’t talk about it.” But I did. I had an “indomitable faith in God,” not in men, and the revival came immediately. It reached the most intelligent minds—two ex-Judges and an influential class of young people. It shook the whole Hills.

A few special character sketches you may expect in my next paper. And then a paper on “Judge Church and his Court,” which will open the eyes of the Eastern world to the noble men of high worth and lofty conscientiousness who occupy the bench and the bar of our Western courts.

ARTHUR CUSHING DILL.

THE tree will not only lie as it falls, but will fall as it leans.—*Gurney*.

IN THE YOSEMITE VALLEY.

IN the year 1864, the Congress of the United States granted to the State of California all that tract of land in Mariposa County at the head waters of the Merced River, known now as the Yosemite Valley, to be held and used as a public resort and recreation. Soon thereafter the Governor of California, F. F. Low, issued his proclamation accepting, and taking possession of the land in the name of the State of California. Commissioners were appointed, and surveys made for the purpose of carrying out the project of making this favored section the most popular of national resorts on the continent. The Legislature of the State, during the following session, passed a law in harmony with the purpose of the original promoters of the enterprise. The valley was first discovered in May, 1851, by Major James D. Savage, who was in command of some soldiers in pursuit of Indians, and in 1857, for the first time, a settlement was made there. The name means large grizzly bear, and doubtless before the invasion of the pale face it must have been a great retreat for those native monsters of the Sierras.

The valley proper is seven miles long and from a mile and a quarter to three miles wide; it is a grand chasm or gorge (what the Spanish-Americans would term a canon) of marvelous depth, with vertical walls of solid granite from three to five thousand feet high. There are 8,480 acres of open meadow and woodland, 3,109 of which are suitable for cultivation, and through the valley flows one of the most beautiful mountain streams that can be found in America.

MOONLIGHT IN THE VALLEY.

One of the grandest scenes that it has been my pleasure to behold is at midnight in the valley, when the blue canopy of the heavens above is spangled with the radiant gems of night, each one as it were vying with the others in brilliancy, while the silvery moon reflects

her beams against the solid granite wall^s as if jealous of the stars. The majestic mountains fringed with graceful and stately pines seem to whisper, "Shine out, ye vigils of the night; we, too, are eternal;" while old "El Capitan," "South Dome," and "Glacier Peak" loom up against the skies as mighty rivals for the *nom de plume*, "Rock of Ages." With the solemn stillness that prevails in the valley, the scene is most magnificent and sublime, and must be experienced to be appreciated. Perhaps no quarter of the globe is more highly favored in the wondrous handy work of the Creator in all its natural fastness than this famous valley.

HOW IT IMPRESSED HORACE GREELEY

In March, 1860, this great editor made a visit to the valley, and published his impressions in the *New York Independent*, as follows:

"Of the grandest sights I have ever enjoyed—Rome, from the dome of St. Peters; the Alps, from the valley of Lake Como; Mount Blanc and the Glaciers, from Chamounix; Niagara and the Yosemite, I judge the last named the most unequaled and stupendous. It is a partly wooded gorge, 10 to 300 rods wide, and 3,000 to 4,000 feet deep, between almost perpendicular walls of gray granite. * * * The isolation of the Yosemite, the absolute wilderness of its silvery solitudes, many miles from human settlement or cultivation, its cascade 2,000 feet high, through which the stream that makes this leap has worn a channel in the hard bed of the rock to a depth of 100 feet, render it the grandest marvel that ever met my gaze." Doubtless this article from the pen of such an eminent author gave rise in part to the National and State legislation which has made this valley the property of the State and Nation at large.

Standing upon Glacier Peak on a bright morning or evening, one can behold the indescribable magnificence and

grandeur of the Sierras. Geologists and scientists have not yet been able to determine definitely the wondrous process by which our mother earth has made these glorious demonstrations. There are indications of glacier, earthquake, and volcanic efforts, but everything is of such a grand and imposing nature that the most profound minds can hardly comprehend the forces which brought about such marvelous results. The insignificance of man and his achievements in the world's progress are forcibly impressed upon the mind while in contemplation of these unrivaled freaks of nature. While in the valley a thunderstorm and a cloud-burst occurred as if especially arranged to impress me with the magnificence of Nature *supreme*. I have stood upon Pike's Peak, 14,200 feet above the level of the sea, where the perpetual snows mantled lofty peaks in crystals of azure purity, landscaping the scene, as it were, with spires of a gothic beauty. I have been in the craters of some of the most noted of the extinct volcanoes of Mexico, but never before witnessed such a tableau of earthly beauty and grandeur as may be seen from Glacier Point. The people of the State of California should see to it, and

take particular pride in making the Yosemite Valley the most popular resort for the refined and cultured from all quarters of the globe. I noticed upon the register of the hotel more names of European tourists than visitors from the State of California, and it occurred to me that the people of the Pacific Coast do not appreciate the glories of this rock-ribbed and star-canopied beauty of the world. Since Nature has done so much, and the Congress of the United States, and Legislature of this State have made proper legislation to secure to the people at large every facility and advantage for visiting and beholding its sublime wonders, it is to be hoped that in the years to come the Yosemite Valley will become not only the most delightful resort of the Californians, but of the civilized world.

New England has her White and Green Mountains, New York her Adirondacks and Catskills, Pennsylvania her Alleghanies, Virginia and Tennessee their Blue Ridge and Cumberland, and the Continent the bold Rockies; California has the Sierras, and more than all, and as if a consummation of all, she has her Yosemite Valley.

W. H. H. RUSSELL.

SELF-ESTEEM AND APPROBATIVENESS.—ILLUSTRATED RACIALLY.

THE brief article of L. A. R. in the PHRENOLOGICAL JOURNAL for September is excellent. Its illustrations are admirable. But I am impressed to add a single one. The Indian has large self-esteem and small approbateness. He is noted for self-respect, dignity, independence, and conservatism. An Indian rarely shows embarrassment. He never bows his head in deference to others, for the reason that he believes himself the equal of the best. He can not be enslaved. "Liberty or death," is his favorite motto. He is loth to abandon the customs or creed of his own race and accept those of another. His intellectual faculties may recognize the superiority

of the white man's modes of life, but his self-esteem resents the comparison as offensive. The missionary, school teacher, or government official who approaches an Indian with the manners of a superior or words of authority will fail to influence him, but on the contrary will arouse his prejudice and resentment.

The Indian has large adhesiveness, veneration, and spirituality, hence those who are to transfer them successfully from his civilization to ours must approach him as an equal, a friend, a brother. There is no truer friend, as there is no more implacable foe, than the Indian.

The negro has large approbateness, and small self-esteem. He is noted for want of self-respect, dignity, independence, and conservatism. He is easily embarrassed. He bows low the head in deference to the white man. He admits his inferiority by actions more eloquent than words, yet he earnestly covets respect from others, therefore not possessing the quality of dignity or pride of character. He seeks to cover his defects by outward show of dress, jewelry, display of vulgar pomposity in presence of his own race, etc., etc.

In the old slavery days the negro slave driver was far more despotic and cruel than the white overseer. And immediately after they were enfranchised, the negroes rushed into politics with all the ardor of the newly arrived Irish immigrant. During what is called the reconstruction period, the legislatures

of some of the Southern States were full of African statesmen of American birth, most of whom had, without protest, bowed their backs to the lash of the slave driver but a few years before. Some of these ex-slaves aspired to gubernatorial chairs and seats in Congress. All phrenological observers know that approbateness is a dominant faculty in office seekers. Love of conspicuousness is a ruling motive in the mind of the ambitious and selfish politician. Knowing that he is not an honorable man, he wants to prefix Honorable to his name and thereby deceive the public and cause it to believe that he is honorable. To the man of large self-esteem and well developed intellectual and moral faculties, the professional politician is an object of contempt. His ambitions are unworthy a man of true dignity.

Washington, D. C. T. A. BLAND.

HUMANITY'S FIRST LAW.—All efforts for the regulation of society in every relation, that have not due regard to the law of liberty, are injurious. Societies and organizations that have not for their object the universal good of all are not truly human. Labor organizations that do not include all workers are unjust; and so are all strikes and boycotts. What can be more cruel than to forbid brother laborers to work where and as they please, and thus keeping them out of employment, without giving anything toward their support? And what human right is there for a class of people to combine in a boycott against any person's goods or store?

The law of compulsion is a personal law that can only be justly exercised by an individual upon himself, so as to keep within the bounds of true liberty. Upon persons who will not apply this law to themselves, restraint is necessary for the good of society, and for their own good; but never to injure or compel; only to restrain from doing injury, and if possible to restore them to the true human liberty of neighborly love.

The propensity to use compulsion or violence belongs to the brute nature in man, and it can only avail anything against that nature. Humanity is of a far higher order; it deals with the will, and can not endure compulsion. The triumphs of compulsion are themselves disastrous, for their conquests are destructive; but to convince and win is to bring the opposing power into service.—*Mt. Joy Herald.*

PATIENCE.

EVERY wise observer knows,
 Every watchful gazer sees,
 Nothing grand or beautiful grows,
 Save by gradual, slow degrees.
 Ye who toil with a purpose high,
 And fondly the proud result await,
 Murmur not, as the hours go by,
 That the season is long, the harvest late.
 Remember that brotherhood, strong and true,
 Builders, and artists, and bards sublime,
 Who lived in the past, and worked like you,
 Worked and waited a wearisome time.
 Dark and cheerless and long *their* night,
 Yet they patiently toiled at their task begun;
 Till lo! thro' the clouds broke that morning
 light,
 Which shines on the soul when success is
 won!

A CASE OF CLAIRVOYANCY—OR WHAT YOU WILL.

BEFORE relating the curious occurrence which came under my observation a short time ago, and which appears to me one of the most inexplicable of mental phenomena, I wish it to be clearly understood that I am a most thorough skeptic in the so-called clairvoyancy, supernatural dreams, and spiritualism of the day. We see so many remarkable co-incidences happening among our friends that we almost cease to be surprised at them ; but even when considered only as co-incidences, these remarkable happenings are worthy of a place in the list of unexplained mysteries.

While visiting Pasadena, Cal., a few months ago, I made the acquaintance of an intelligent young girl who, partly because of a peculiar affliction, and partly from force of circumstance, lived a very secluded life. She and her mother had come from the East a short time before, and were then living about two miles from the town, on a lonely, rented estate. When I first made their acquaintance I found that they had not a single friend in the place, and were, of course, very lonely. We soon became fast friends, and as I had nothing else to do but to enjoy myself, it came to pass that I spent all my afternoons with my young friend. As she was unable to leave her home, the visiting was entirely on my side. One evening as I was about to say good night to her she said : "I had a dream about you that troubled me a little last night. I dreamed that you staid away for a whole week, and as we had no means of sending for you, and you did not send to us, we were very much worried, and feared you were ill."

I laughed and remarked that I had never been ill in my life, and had no idea of becoming so ; nevertheless my young friend seemed troubled, and replied : "Of course I don't believe in dreams, but if you should feel yourself getting ill, won't you come and stay with us until you recover ? You would be so uncomfortable

at the boarding house, and mamma and I would be so lonely without you."

This was such a genuinely kind invitation that I responded to it in the spirit in which it was given, and replied that I would do as she wished. I was suffering from a slight cough at that time, and as the doctor had given me a counter-irritant to use, I applied it that night for the first time. I used my irritant so generously that the next morning saw me converted into an enormous blister, and for five days I was confined to the house. The seventh day I secured a driver and went to see my young friend. The words she greeted me with, as she looked anxiously into my pale face, were :

"I dreamed you would be sick for a week."

A few days afterward I drove to her door and invited her to go with me to Sierra Madra, a few miles distant. Imagine my surprise when she exclaimed, in a disappointed tone :

"Sierra Madra ? I thought it was to be Los Angeles !"

Upon inquiry I found that she had dreamed that I had come to take her for a drive, though she had not dreamed that our destination was to be Los Angeles. Something had given her the impression that it was so. Another time when I was anxiously awaiting a telegram from Philadelphia, I remarked to her that I was going to town to see whether it had arrived, when she said, quickly :

"You need not go, it isn't there."

"Why," I asked, "did you dream about it ?"

She flushed, hesitated, and then replied that what she called *dreams* were not really dreams, that is, they did not come to her in her sleeping hours, but while she was awake ; she merely called them dreams because she had no better name for them. In the meantime she had had a number of these "dreams," all quite as remarkable, though more tri-

fling than those here related, and as I was becoming interested in these phenomenal visions, I pushed my inquiries, and found that these dreams came only in relation to myself. She never had such visions in connection with anyone else. She seemed very much surprised at her sudden ability to foretell events, and very innocently said that "the dreams just come to me like a thought." Several times I tried to bring on one of these prophetic states by asking her questions, but it was evidently a matter of inspiration with her—she could not answer a question relating to the future, and laughingly declared: "I don't know," in answer to all such queries. But about that telegram.

We drove to the telegraph office, and found, as she had said, that it had not come. When I told her so, she remarked, in the quick way in which she always told the "dreams," as though a thought had just struck her:

"It won't come before the latter part of next week." And she was right—indeed the *telegram* did not come at all, but the following Thursday brought me a letter instead.

There were, as I have stated before, a number of similar incidents, all of which are too trifling to relate, but all quite as remarkable, in a psychological sense, as the ones I have described. About this time it became necessary for me to make a change in my residence, and as the question of "where" was one of great importance, though, at the same time, entirely one of choice, I was for several weeks quite uncertain and a little troubled about making a decision. Thinking that my little clairvoyant, as I had begun to call her, might help me, I put the question to her a number of times:

"Where shall I go? Is Beaumont or Denver the place for me?" to which she invariably replied: "I can't tell."

"I wish you would try and find out," I urged. "See whether you can't 'dream' about it."

"I have tried, but it does no good. I never can 'dream' when I try," she answered.

A short time after this I decided to go to Denver. When I told her so, she answered, in her quick way:

"Denver isn't the place for you. You won't do well there."

However, I went there, and circumstances proved her to be right. Financially, Denver was a failure. While there I kept up a brisk correspondence with my young friend, and in nearly every letter she gave me some proof of her clairvoyancy, or whatever her strange power was. For instance, a week before Christmas she wrote: "Something important is going to happen to you about Christmas time;" and a few days after the important thing happened, she wrote me in detail a lengthy "dream," describing, in a sort of allegorical way, the very thing that had occurred, and which was of great moment to me. All the time of my absence I had represented myself as in the best of health, and yet in one of her letters she said:

"Don't you think you had better leave Denver as soon as possible? I am afraid you will have a return of your old lung trouble, or are you suffering from it already?" To which I replied that I *was* suffering from it, and contemplated a speedy change.

I know that the young lady could not have ascertained these things of which she professed to "dream." She had no acquaintances in Denver, and none at all who were acquainted with me. Indeed, many of her revelations were of such a nature that no one could possibly have known that such things were about to take place—that is, no one in the ordinary run of affairs could have foreseen them. What appears most strange to me is that her clairvoyance, or what you will—I call it that for want of a better name—extended to no one but myself, and was as great a mystery to her as to me.

It is now several months since I have

seen her, and though we still exchange letters, her prophetic dreams are not so numerous as before. She explains this by saying that, as we are so widely separated by time and space, our interest in each other is not so intense, and that

naturally her mind is not so occupied with thoughts of me. Nevertheless, she still treats me occasionally to some of her "dreams," which are always as true as those of which I have spoken.

KATHIE MOORE.

SCENES FROM MY WINDOWS AND OBSERVATIONS THEREON.

"HUCKLEBERRIES, ten cents a quart!" cries a man from a wagon as he passes from house to house through the village in search of customers. I like his ways. He announces what he has for sale and states the price in a stentorian voice.

There is no mistaking him. He will hear to no dickering; he knows the value of what he has to sell, asks no more and will take no less; buy or not, as you choose, but do not attempt to take his time in negotiation in hopes of getting a bargain, it will be of no use. Ten cents a quart. That seems cheap enough when we remember how many backaches there are to a bushel, but years ago five or six cents a quart was the ruling price here in Connecticut, and I have bought them for three.

I am glad he does not twist his mouth in saying *whortle* berries. Perhaps in some earlier age our Dutch brethren in Holland called them by some such name, but since the days of the Mayflower they have been *huckle*, and as such good botanical authorities as Gray, Thurber, and others warrant that spelling, let us stick to it.

Here is a critical customer next door. "You said huckleberries, but these are blue berries." "All right," replies our friend, "huckle or blue, as you please, they all belong to the same family, and the blue are the best, because they are larger and sweeter, and have smaller and softer seeds." He evidently was a man of more than average intelligence, well posted on this question, and from his remarks we learn that the black huckleberry, most common in our markets, is botanically *Gaylussacia*, named

for the French chemist, Gay Lussac, and thus distinguished from the several varieties of *vaccinium* that includes the dwarf or sugar, a very sweet variety, especially abundant in Maine, and there preferred for home consumption, but too soft to transport long distances. Curiously this species sometimes produces berries that are white and nearly transparent. The low blue berry and the high bush berry that is probably the best of all the tribe, are also classed as *vaccinium*.

Perhaps it is because these berries are so common in the swamps, fields, and pastures of many parts of the country that their cultivation has been neglected. The demand for them is enormous, and they are usually found to agree with persons whose digestion is impaired to such extent that they can not eat other berries without injurious effects. Their keeping qualities are better than those of any other berry, and the fact that they can be eaten in their natural state, or made into puddings, pies, or other pastry, and preserved for winter use, either by drying or canning, renders them general favorites with the thrifty housewife. It may be confidently expected that by cultivation their size and flavor will be materially improved, as has been the case with many other of our native berries, and their culture is in no way difficult. Small plants can readily be transplanted from the fields, care being taken to give them soils and situations approaching as near as may be that of their native habitat, or they may be readily raised from seed, and it is from seedlings that we may hope for improved varieties. If transplanted, which may be done either

in the fall or spring, care should be taken to retain as much of the root as possible, which should not be exposed to the action of sun or wind, while the top should be well cut in, leaving not more than one-half of the plant.

If seedlings are desired, the berries should be mashed and the skins and pulp washed away, the seed mixed with dry sand and kept in a cool place through the winter, a place not too dry, but not sufficiently moist to encourage germination. A good plan is to put the seed and

sand in a box and bury them in the ground out of the way of the frost. Plant in drills in the spring in seed beds prepared the same as for strawberries, currants, or any other small fruits, not too thickly, and transplant when one or two years old.

Who will be the first to give us an improved huckleberry, half an inch in diameter with a flavor superior to wild ones? He who does will not have lived in vain.

Bloomfield, Ct.

L. A. ROBERTS.

TO EDINBURGH.

A REMINISCENCE.

AULD Reekie—ah, I love thee well!
And royal Holyrood;
Thy castle, and thy bridges, too,
That cover o'er no flood!

Thy bristling crags, and Arthur's seat,
Where I in childhood played,
Unconscious of the wond'rous ground
Whereon my footsteps strayed.

And many long-forgotten scenes
Now rise before my eye;
Though but a child when there I roamed,
I turn away and sigh!

I see the sturdy old Tron Kirk,
With centuries dark and gray,
Stand cold and grimly looking down
On works of man to-day.

I see again the monument
Which stands on Calton Hill;
My heart now heaves with tenderness,
My eyes with tear-drops fill.

The Meadows, Links, and Leith walk, too,
Familiar, once, to view.

They rise before me, all to-night—
The Auld Toun and the New!

The Auld Toun, venerable and quaint—
The New with beauty teems!
And with its glittering, freestone homes,
A modern Athens seems!

And Leith—that gude, auld sea-port toun,
Both North and South, I knew;
Its dockyards and its bulwarks strong
How clearly now I view!

Thy watery roads, a brave expanse,
Where ships may safely ride—
I've gazed upon them many a time
While plunging in thy tide.

I love thy children, too, full well;
Their Northern voices' sound,
Though not so smooth as Southern tones,
Has made my heart rebound!

GRACE H. HOKR.

THE ABSURDITIES OF THE ENGLISH LANGUAGE.

ONE of the greatest of these absurdities is the utter uselessness of the great number of silent letters. And they are worse than useless, for in many cases they are misleading. Take, for example, such words as *phthisic*; according to the analogy of other words the ph should sound like f, and t-h-i-s like *this*, but in fact the ph and h are silent, and t-h-i-s has the sound of t-i-z, the full word being *tiz-ik*, if spelled phonetically. In such words as *though*, the u-g-h are entirely useless, for they are

silent. What a foolish way it is to spell a word of only *two* sounds, as e-i-g-h-t, with *five* letters; or one of *three* sounds, as w-r-o-u-g-h-t, with *seven* letters. In phonography these words are written with *two* motions of the pen each. There are thousands of such cases in our language.

The letter E is used more than any other in the alphabet, yet it is silent more than half the time. In such words as *philosophy*, how much better it would be to spell it thus, *filosofy*, with f rather

than ph. Observe the different ways of spelling the sound of f; as u-g-h in such words as *cough*, *rough*, etc.; as ph in *physic*, etc.; as ff in *off*; lieutenant (leftenant), etc. I believe there are a dozen different ways of representing the sound of f. How much better it would be to use the one letter f in all cases.

Take the practice of doubling letters; like double l, as *full*, *fullness*, *selling*, *fuller*, *fulfill*; *dullness*, *carefulness*; *fill*, *filter*, *filling*, *filial*. There seems to be no rule to guide us in doubling letters; nor even any common sense displayed in this matter. Take the letter C; in the first place it is perfectly useless, for the sound of *soft C* is the same as S, and *hard C* the same as K; so it would be much better to dispense with C altogether, as is done in phonography, for S and K can be used to greater advantage in its place. To some extent it is the same with the letter G. If we find words we never saw before with the letter C, or G in them, we do not know whether these letters should have the hard or soft sound, for there is no sure guide to their pronunciation.

Again, take the letter A. It is said that the sound of long a is represented in over thirty different ways; as in *aye*, *eh*, *ate*, *eight*, *rail*, *veil*, *bey*, *bay*, *straight*, *break*, etc. Notice the different sounds of a in the following words, *all*, *al-ways*, *al-ien*, *al-to*, etc. See the different sounds of u-g-h in the following words: *hough* (hock), *hough* (ho), *tough* (tuf), *bough*, *dough*, etc. Observe the various ways of spelling the same sounds in the following words: *rite*, *write*, *right*, *wright*; *sent*, *cent*, *scent*; *so*, *sow*, *sew*; *vane*, *vain*, *vein*; *told*, *toled*, *tolled*, etc. One would think that in the spelling of very many words, somebody had taken up a handful of letters at random and said, "Let us call these a word." In phonography, all these objections are obviated.

But some will say that "we must spell some words differently that sound alike, else we should not know their meaning

when we saw them written or printed," as, for instance, *ate*, *eight*, etc. There would be no trouble with the written word any more than with the spoken word, for the *connection* would surely indicate the meaning. Even now we have words that are always spelled the *same* way, but that have several *different* meanings; for example, the words *post*, *till*, *fast*, etc., are always spelled the same way, but they have several different meanings, which we never mistake when we hear them spoken or see them printed, for the connection in which they are used always indicates their meaning.

We have here but just glanced at a few of the very great number of absurdities in the spelling of the English language. Let us now turn our attention to the great saving of time in teaching children to read, spell, and write if these absurd, useless, and misleading things were expurgated from the language. At the least calculation, from one to two years of time would be saved in the education of every child if he were taught to read and write phonetically, or as is done in phonography, and it could be easily learned at an early age, beside saving much time and trouble to teachers. It would also be of great value in after-life, for the rules and principles that had been developed could not fail in future use. There would then be no need of referring to the dictionary to find out how a word was spelled, for the *sound* would certainly indicate the spelling, as is done in phonography.

Let us next consider the great saving of expense in the printing of newspapers, magazines, books, etc. An estimate, made a short time ago, of the number of useless letters in an ordinary sized eight-page newspaper amounted to about 20,000 for each edition. To the cost of composition of these extra letters should be added the extra cost for type, paper, and press work, and we can easily believe the statement published a few months ago, that the extra cost of use-

less letters in one of the large daily papers amounted to about \$2,500 per year. Now estimate the enormous extra cost these useless letters cause for all the books, magazines, papers, etc., that are printed, and it would amount to many millions of dollars every year.

Next estimate the time consumed in writing this useless lumber of the language by all who write, viz., scholars and teachers in schools, business men and clerks, newspaper men, clergymen, authors and literary persons, and all who write more or less daily, and it would foot up to an enormous amount of time per year. Very many persons have learned to write phonography for these very reasons. Even if all the useless letters were expunged, writing in phonography would be another great advantage, for then at least two thirds of the time could be saved over the ordinary long-hand writing. Thus, all who learn and use phonography will help to bring about this great reform.

When we look at this subject in this

light, it is a matter of the greatest wonder that leading educators, writers, and publishers in this country and England do not rise up almost *en masse* and say, "We will throw out this worse than useless lumber from our language, and thus secure a great and lasting gain, not only to ourselves, but to posterity."

Of course these ideas are not new, for many persons have been at work along this line for years, but very little in a practical way has been accomplished. All it needs now is an earnest, united, and persevering effort, for the times are ripe for it, and the reform could be brought into practicable shape in a short time.

It appears there is a movement on foot to have Congress take up and examine the subject. There could be no better way to spend a million or two of money, if needed, than for this Government and that of England to take hold of the matter and push it to a final accomplishment.

ALFRED ANDREWS.

INTELLECT AND HONESTY.—What the world most needs to day is trained intellectual power and sterling honesty. It is reason that makes the difference between man and the brute; and yet none of us need be told that men are all the time acting unreasonably. There is a right and a wrong to every question, and may we not say that there is a well defined right and wrong to every question of importance? Yet men come in conflict and serious misunderstanding upon almost every question. Selfish interests, prejudice, and even senseless stubbornness are permitted to dethrone reason on the slightest provocation, and man with reason to guide, and will and conscience to restrain, becomes an unreasonable being pretty nearly as irresponsible as the lower orders of creation. Education, that of the schools, tends to remedy this defect, but it is not an absolutely certain remedy.

We have seen the most highly educated men and women who were about as unreasonable as a living creature could be. It is not enough to fill the mind with what we understand to be intelligence. It is not enough to become a polished scholar. That is good, but knowledge of the earth and skies, though never so full, will not make reason the sole sovereign of human action.

With such knowledge must go a training of the intellect in the direction of enabling the mind to closely analyze the heart's motives and the minutest details of any question that is presented for consideration. This is not done now by one man in a thousand. We jump to conclusions upon a hasty canvass of questions.

We do not consider sufficiently the moral bearings and broader relations of thought and conduct in common life.



SANITARY REFORM.

CHAPTER III.—DRESS FOLLIES.

MONTAIGNE, the French Emerson, shrewdly remarks that savages suffer chiefly from evils of defect, civilized men from evils of excess. A Hottentot hunter pinched by a week's fast, and a British alderman choked by repeated surfeits, would well represent the extremes of the contrasting types, but the gratuitous martyrdom of civilization is perhaps still more strikingly illustrated in the follies of our dress customs. A few years ago, a Vienna chemist patented a portable refrigeration machine, contrived in a way to pump out a constant stream of ice-cold air and furnished with a set of rotary fans, as easy of manipulation as the mechanism of a common barrel organ. If machines of that sort should become fashionable among the natives of the Arctic circle, and a party of Esquimaux were to squat down shivering in the blasts of a polar winter storm, but at the same time grinding out whirls of artificial ice air, the spectacle could not strike a person of common sense as more extravagantly absurd than the common practice of our city exquisites, who, in the bake-oven heat of an East-American summer, persist in aggravating their misery by sweltering under loads of superfluous broad-cloth.

Deference to the idiocies of fashion

could, indeed, not go much further, and till we muster up courage enough to break the yoke of that ludicrous despotism, the complaints of our midsummer martyrs hardly deserve commiseration. The Russian humorist, Pushkin, tells a good story of two bibulous rustics who called upon their *I'opatz*, or village priest, and after describing the grievance of a protracted drought, ventured to remonstrate against his neglect in offering up prayers for the blessing of a refreshing shower. "Refreshing cocktail!" sneered the priest, "where would be the use? If I were to get you that shower and make your rye grow, you know blamed well that you would turn it into brandy anyhow." In a similar way our fashion-idiots would be sure to abuse a mitigation of their dog-day sufferings. If by some miracle of art or nature the temperature of a pleasant May day should be protracted to the end of summer, fashion would load us with a double supply of fripperies and make us as miserable as ever.

If, on the other hand, our burden of summer garments could be reduced to a rational minimum, there is little doubt that July and August would seem the happiest months in the year. Conformity to conventional idiocies makes millions suffer the anguish of Gehenna, at

the very time when the children of Nature celebrate life as a festival. A perpetual summer-land was the Pagan ideal of paradise. Our next relatives, the thin-haired apes and lemurs, luxuriate in a climate resembling that of our northern dog-days. Under present circumstances the nature-abiding natives of the tropics actually suffer less from summer heat than the fashion-abiding inhabitants of our northern cities. A curious illustration of that fact was the experience of the city police of Puebla, Mexico, where, three years ago, the complaints of foreign residents induced the municipal authorities to issue a special ordinance requiring the *Chinacos*, or half-naked Indians of the Tierra Caliente, to don garments of a prescribed length and pattern before entering the city with their cargo of country produce. The *Chinacos* at first tried to evade that regulation by slipping in during the early morning hours or under cover of darkness, but after a few arrests and fines, began to lengthen the intervals of their visits, and at last stayed away altogether, to the serious inconvenience of housekeepers and produce dealers. In stress of a fruit famine, the green-grocers at last delegated a mediator to interview the absentees in their own homes, and offer them free suits of regulation clothes if they would only consent to resume their tri-weekly trips. In case of need the agent was even instructed to offer an added bribe of free smoking tobacco; but to his surprise the children of the wilderness declined the compromise. It was not the expense of the dry goods that deterred them, they said, nor their experience in the city jail, but the intolerable discomfort of the prescribed swelter-sacks. They would renounce their custom, or go ten miles further to Vera Cruz, rather than sweat like soap-boilers to humor the prejudices of those impertinent foreigners. Before the end of the year the obnoxious ordinance was tacitly withdrawn, but in the meantime the vege-

table markets of Puebla were actually obliged to import a large percentage of their supplies from Vera Cruz, where the Indians found it less afflictive to endure a temperature of 110 degrees in the shade than to swelter in Mrs. Grundy's uniform in a tableland atmosphere of less than ninety degrees.

In this world of compromises the privileges of the Nereids are, of course, out of the questions, but even after satisfying all the demands enforced by the prevalence of gnats and prudery, man, in the way of summer dry goods, really "wants but little here below, nor wants that little long"—a suit of light alpaca and a gossamer silk neckerchief, light cloth shoes and cambric shirt, for office hours, perhaps; for indoor wear, a wide, loose suit of lightest linen. For anything beyond, helpless children are, after all, chiefly to be pitied, or children and sensible ladies in a world that permits men, but forbids women, to defy the tyranny of fashion. "You are right, clearly and indisputably right," a frippery hating young lady writes to the dress-reform editress of a sanitary monthly, "but for all that, your advice is like a panegyric on liberty sent to the prisoners of a well-guarded jail. The doors, of course, are open now and then, and the jailers may be caught napping, but a dash for freedom is almost sure to result in a hue and cry and speedy recapture." In such cases, too, discretion, however, suggests manifold compromises, and the chief martyrs are still our poor youngsters, fretting for freedom like caged birds, but well aware that an attempt at escape would be followed by something worse than recapture. In cities of mixed races their martyrdom is often aggravated by the tantalizing sight of privileged Pariah children, as in the harbor town of Trieste, where the fashionably attired youngsters of wealthy merchants may be seen sweltering on the promenades of the city park, plying their little fans with feverish energy and casting wistful glances toward the Capo

Liddo, a sandy headland where hundreds of half-wild boys are sporting in the surf or running races on the sunny beach, shouting like Indians, in the unmistakable enjoyment of a temperature which the insanities of fashion turn into the fever-heat of an earthly Hades. Oliver Twist, in his boy-pen, never suffered more from "evils of defect" than the victims of many charitable institutions have to suffer from an excess of mistaken kindness. In the suburbs of a populous city of the Ohio valley a society of charitable ladies have founded a summer home for poor children, a hill-top resort combining the fresh air of the open country with all the conveniences of a commercial metropolis, but unfortunately also with an abundance of "substantial clothing," which the philanthropic managers collect from hundreds of sympathizers, and which their wards are forced to wear and parade for the delectation of benevolent visitors.

Even in our Spanish American sister republics fashion victimizes her votaries, and at the *tertullias*, or evening reunions, of Vera Cruz and La Guayra gentlemen may be seen strutting about in garments more fit for the winters of the North-Spanish highlands than for the summer temperature of a tropical seaport town; but Spanish-American powers of endurance have their climatic limits, and the natives have drawn the line at that *ne plus ultra* of insane self-torture—our flannel undergarments. The idea that conflagrations increase the population of a city because the sound of a fire alarm fills the streets with a surging mob, would not be a more ludicrous sophism than the favorite argument of our anti-naturalists that flannel "promotes cutaneous excretions" because it *visibly* increases perspiration. The truth is that flannel underwear tends to condense and retain the humid exhalations, which under normal conditions would be got rid of in a less *visible*, but not less effectual and much more beneficial way. It is in vain to

point out the fact that Orientals have for ages managed to combine health and longevity with a decided preference for smooth, comfortable linen—the very circumstance of its discomfort seems to confirm the prejudice of the flannel martyrs. "Whatever is pleasant is wrong," was for centuries the shibboleth of orthodoxy, and still decides our belief in the dangers of fresh air and fresh spring water, tree fruits, watermelons, etc., and clinches the logical converse of a devout reliance on the miraculous virtues of nauseous sulphur springs, bitter medicines, and uncomfortable garments. The ascetics of the Middle Ages often persuaded their disciples to wear a *cilica*, or shirt of hair cloth, for the benefit of their souls, and with a slight modification of purpose, but under the sway of an exactly similar fallacy; thousands of our European fellow men are now wearing hair cloth undergarments for the benefit of their bodies, for the "Jaeger hypothesis"—the theory that the itch-like irritation of such garments must have a beneficial influence on the functions of the human skin—has actually made the fortune of several wholesale (German, Austrian, and Swiss) manufacturers of camel hair undershirts and drawers. Nay, the Jaeger craze has evolved a special periodical, published for the exclusive purpose of puffing the invention of the new hygienic Messiah as a sovereign specific for gout, rheumatism, and all sorts of gastric and pulmonary disorders! The spiritual task-masters of mediæval Europe often induced penitents to undertake a long journey in a pair of shoes filled with buckshot or peas, and it is by no means impossible that an advertiser of hygienic buckshot-boots could make converts enough to remunerate his invention.

Boots of that sort could, indeed, not be much more afflictive than the handiwork of our fashionable Crispins. North America abounds with good-sized towns where it is absolutely impossible to find

a pair of ready-made shoes not at least one-fourth too tight in proportion to their length. A line drawn around the imprint of a naked human foot forms nearly an oval. The outline of a stylish shoe sole would more nearly resemble an olive leaf. A pair of shoes of the conventional jack-screw pattern do not begin to "wear easy" till after weeks of torture and grim perseverance, the resistance of the tough leather has at last yielded to the pressure of the living tissue, in other words, till the shoe is entirely worn out and ready to be replaced by a new contrivance of torment. Yet the evil consequences of that gratuitous martyrdom are not limited to the momentary feeling of pain and constraint. Under the protracted influence of the unnatural dislocation of joints and sinews incident to the wearing of tight and high-heeled shoes the efficiency of the abused organs of locomotion may become permanently impaired. A foot twisted out of shape by twenty years of abnormal compression is apt to become disqualified even for the performance of its normal functions, and rough pedestrian exercise is, indeed, a crucial test of endurance for the so-called athletes of our modern cities, who may surprise a rustic visitor by the variety of their evolutions on a swinging trapeze or their perseverance in trotting the rounds of a smooth race track, but who on rugged mountain roads would fail to keep up with a barefoot peasant boy in the baby-half of his teens.

In winter the fur moccasins of the Canadian redskins are decidedly more sensible than our winter boots. The winter dress of our children and fashionable young ladies is in many ways insufficient, though perhaps not in respect to its aggregate weight. Anatomists distinguish between monsters of redundancy (two headed chickens, etc.), monsters of defect (armless children, etc.), and monsters of perverted location—such as children with hair on their faces and hearts on the wrong side of their

bodies. The monstrosities of fashionable winter dress might be included in the last named class. With an absolute quantum of wearing appare', more than sufficient to keep us comfortably warm, we shiver like Patagonian savages rather than risk an innovation on the conventional absurd distribution of our drapery. The extremities of the human body—feet, hands, and ears—are most apt to suffer from the chilling effect of a northern winter storm, and, as usual, are most neglected by our conventional indifference to the lessons of instinct. We supplement the warm cover of our head-hair by a warm fur cap, but leave our naked ears to the mercy of the frost. We protect our shoulders with plaids and shawls, long enough to add their warmth to that of a warm waistcoat, but too short to cover our frost-numbered hands. Hands and feet are forced to shift with a tegument of thin leather, while the trunk of the body, where cold would naturally be least felt, comes in for a triple or quadruple stratum of warm covers.

! The best head wear for winter would be some modification of a "Mackinaw hood," a bag shaped sort of cowl, buttoned to the collar of the overcoat, and wool-padded about the neck and ears. For midsummer the lightest sort of a straw hat would be the best compromise between the inanities of the fashion journal and the custom of our hardy forefathers, who went bareheaded in all sorts of weather, covering their ears and neck with their thick locks of natural hair—a plan which still enables the natives of Washington Territory to brave the winters of their northern homes in the coiffure of pagan Britain. In treeless countries the glare of the summer sun may affect the nerves of unprotected eyes, though only under specially unfavorable circumstances (limestone, dust, insufficient food, etc.), for the keen-eyed Arabs wear only turbans, and in the coast hills of western Mexico the broad *sombre* *ro* of the Spanish colonist is seen only

in the larger haciendas, while the Indian fishers and hunters use only a *cintura*, or braided ribbon, running across the forehead and fastened to a thick knot of hair behind the ears. In East America it can do no harm to let boys enjoy their summer sports in the costume of merry old England where "hats were reserved for bald heads," for the causes of sun

stroke can nearly always be traced to dietetic abuses, especially the sadly prevalent costume of bolting a smoking hot dinner of greasy viands (too calorific even for a country of temperate summers) and hastening back into the glare of the noonday sun or the stifling atmosphere of an ill-ventilated workshop.

FELIX L. OSWALD.

CATARRH: CAUSES AND TREATMENT.—No. 1.

CATARRH in itself is a general term having reference to an inflammatory state of the mucous coat or lining of the internal passages or organs of the body. It has become common, however, to associate the term with *rhinitis*, a local inflammation affecting the cavities of the nose and throat, because of the wide-spread prevalence of that disorder. So prevalent in fact is nasal catarrh that of a hundred people casually met we could safely affirm that one-quarter of them were troubled with it in one form or another. Probably of our entire American population over ten millions suffer from it, and consequently the medical profession, and its large following of quacks, pretenders, and charlatans, have found in the treatment of catarrhal cases a rich and extending field. A disease perfectly democratic in its nature, no class in the community is free from it; if anything, the "better class," those who wear soft clothing, live in high-ceiled houses, and fare sumptuously every day, are more annoyed by the stuffy nose and irritating exudation of catarrh than the plain working class that dress roughly, live frugally, and are out in "all weathers."

Every type of disease has its peculiarities that bear relation to the person affected, but none exhibits so many phases and humors as this trouble with our noses. It reflects, one may say, the mental or nervous characteristics of the sufferer, and he who would undertake its treatment can not expect any satisfactory degree of success unless he

takes into account those personal characteristics. Temperament, therefore, has much to do with one's susceptibility to the disease; the delicate, highly organized, fair skinned person is more liable to contract a cold, and subsequently becomes the victim of a chronic nasal catarrh, than the strong, coarse, dark-skinned person, yet the latter from severe exposures and the indiscretions that are common in the life of the masses, may contract the disease and carry it to the end of his days.

Thousands regard it as a constitutional disorder, an element in their "heredity," and so school themselves to its toleration, but the delicate and sensitive always find it a source of trial, and whenever a little *accés* of cold has been sustained, they may be forced to place themselves on the sick list for a time, and obtain the doctor's assistance for relief from the distress that may supervene.

In some cases catarrh appears to operate beneficently, relieving the system of organic congestions or the accumulated debris of some tenacious "diathesis." Scrofulous, rheumatoidal constitutions may find relief by such an annoying outlet. Dr. Beard has said: "When it attacks the weakly and scrofulous, it is apt to improve with the bettering of the general condition. Therefore, children who suffer from rhinitis in early years often 'outgrow' it, as the grandmothers say, and as they advance to maturity the enemy may never again disturb them. Cases, however, that ensue after

measles and scarlatina are more likely to run a protracted course, and being always associated with pharyngitis (sore throat), are sometimes difficult to treat, and the results are not as certain or as speedy. But though the heirs of scrofulous parentage are particularly liable to this form of inflammation in all its stages, it has yet to be proved that there is any direct connection between rhinitis, or pharyngitis even, and tuberculosis of the lungs. The plausible idea that the disease will 'work down' is a favorite theme with quacks, and is quite universally dreaded by the masses; but it is, I think, untenable. Pulmonary tuberculosis is very often associated with rhinitis just as it is with conjunctivitis (inflamed eyes), but it is no more a consequence in one case than in the other."

A case of special interest to the writer, and one that is in point here as illustrating the error held by many that the disease, when of long standing, is likely to "work down," was that of a woman sixty years of age. She had been troubled with nasal catarrh and irritability of the throat for thirty years.

Owing to poor teeth and carelessness in diet, her stomach became exhausted to the degree almost of entire failure in function. With the increase of her dyspepsia, the catarrh became aggravated and a frequent cough set in, the nature of which, however, I was assured from an examination was more nervous than due to bronchial or pulmonary disease. She grew thin and feeble, and was pronounced to be in the last stages of phthisis by two or three physicians, and by her friends generally. The latter frequently said that they *knew* "she would die of consumption." Rest, a very carefully ordered diet, and the lightest of artificial stimulant finally overcame the atony of the stomach. She began to eat with relish and nutritive result, and in the course of five months rose from the state of almost a skeleton to her condition of useful activity of two years before. The catarrh still remains, but is not so annoying as in former years.

In the next article I shall describe the different forms of catarrh and their causes.

H. S. D.

COMMON FLAVORS.

EVERYBODY knows that the most of the "flavoring extracts" sold are chemical preparations, and do not contain a particle of what they represent in name. Of vegetables and fruits, a writer in *Popular Science News* says:

In most cases, this flavoring principle is so small in quantity, and so complex in its nature, that the chemist is unable to determine satisfactorily its composition; and it is probable that few of the natural flavors are simple chemical substances, but rather mixtures of different organic salts, ethers, and alcohols. The flavoring principle of the majority of fruits can be directly extracted and preserved by simple means, forming extracts for flavoring food which are as unobjectionable as they are agreeable. Unfortunately it happens, however, that

many of these flavors can be imitated by various chemicals, which, while they are much cheaper than the natural product, are unwholesome and even dangerous. As a general thing, the artificial flavors are much coarser and ranker than the natural ones, and lack entirely the peculiar fruity taste distinctive of the latter. The greater part of the artificial essences belong to the class of compounds known as *ethers*, or, more strictly speaking, salts of an organic acid and base. The artificial essence pineapple, for instance, is composed of *ethyl butyrate*, or a combination of butyric acid (the acid of rancid butter) and a radical known as *ethyl* (of which the chemical symbol is C-2 H-6), which is also present in common alcohol. Another radical, *amyl* (C-5 H-12), is also the base of several artifi-

cial flavors. Amyl alcohol (C-5 H-11-O H) is the poisonous fusel oil found in the poorer grades of whiskey. *Amyl acetate* forms the well known essence of Jargonelle pear, while *amyl valerianate* is a very good imitation of the flavoring matter of the apple. *Amyl caprate* is found in Hungarian wine.

The natural flavors of the peach, plum, almond, etc., are due to nitrogenous bodies containing cyanogen, the base of the poisonous prussic acid. With the exception of the almond, these flavors are not often imitated; but a substance made from coal tar, known as *nitrobenzole*, has an intensely strong taste and odor of bitter almonds, and under the name of oil of mirbane, is employed to a considerable extent as a perfume and flavoring extract. It is, however, a powerful poison, and should never be added to food. Vanilla, as is well known, is the product of a Mexican plant. When pure it is perfectly wholesome, but it has been said to sometimes undergo a spontaneous decomposition, which renders it dangerous. This, however, is not fully confirmed, and the bad effects observed may have been due to other causes. It contains a substance commonly known as *vanilline*, but chemists distinguish it by the brief appellation methylprotocatechuic aldehyde. This is now made artificially, in large quantities from the gum of the spruce and other coniferous trees. There are many

other organic bodies which possess very characteristic odors, although not commonly used for flavoring purposes. *Formate of ethyl* is sometimes used to give an agreeable taste to rum. *Acetic ether*, or acetate of ethyl, has the fragrance of cider, while *acetacetic ether*, C-2H(C-2H-3O)HO.O C-2 H-5, has the odor of new mown hay. *Ethyl nitrite* has a pleasant apple-like smell; while *amyl nitrite* has an odor peculiar to itself, which produces remarkable physiological effects. *Salicylate of methyl* occurs in the oil of wintergreen (checkerberry), and was one of the first vegetable products prepared artificially. With the exception of nitrobenzole, all the artificial flavors mentioned above are composed of three elements only, carbon, hydrogen, and oxygen. All the wide differences in odor, taste, and chemical behavior, are due to slight variations in the proportions of these elements, and probably, also, to the position in which their atoms are arranged in the molecule. Although many of the above flavors are so strong that only a very small quantity is necessary to flavor a large amount of food, yet their use can not be recommended. They are unwholesome, to say the least, and some are actually poisonous. Only natural fruit flavors should ever be allowed in the kitchen; and the cheap artificial essences should be left in their proper place, on the shelves of the chemist's laboratory.

HINTS FOR THE TREATMENT OF THE UNCONSCIOUS.

THE following brief directions for resuscitating persons who, from the causes indicated, have fallen into insensibility, are worth remembering, as one can not tell when a life may depend upon it:

One of the most frequent things found in connection with cases requiring immediate action is insensibility. It is caused by injuries to, or diseases of, the brain, blood poisoning, or poisoning by narcotics, and is oftentimes mistaken,

especially by the police, for drunkenness. In these cases note the position of the body. Place the body on the back, incline the head to one side, extend the legs, and place the arms at the side. Compare two sides of body. Note condition of the pulse, whether strong or weak, and the state of the ribs and collar bones. Examine the head for wounds, bruises, swellings, or depressions. Open the eyes and see if the eyeballs are sensitive to the touch, and if the pupils become

small when exposed to the light, whether they are large or small and of the same size. Observe whether the breathing is difficult or easy, the presence or absence of stertor, and the odor of the breath. Drunkenness can be detected by odor of the breath. Insensibility is usually incomplete. Both sides of the body are equally helpless. There is no stertorous breathing. The pupils of the eyes are usually dilated and equal in size, and the eyeballs are sensitive to touch. For this trouble cold water is the best remedy, and, if you can get it, a little hartshorn, which must be put to the patient's nostrils, and a few drops in water to drink.

In apoplexy, the patient becomes suddenly insensible. The face is either flushed or very pale. The pupils of the eyes are fixed and dilated. The pulse is slow and labored, and stertorous breathing is noticeable. Convulsions also occur. In such cases place the body in a reclining position, and raise the head. Undo the clothing around the neck, and apply cold water or ice to the head.

Epilepsy differs from apoplexy in that the patient foams at the mouth, is only partially insensible, bites the tongue, and the breathing and pulse are normal. All that can be done by most persons in these cases is to keep the patient from injuring himself.

Hemorrhage from the ear, mouth, nose, or eyes indicates a fracture of base of skull. Treat these cases as those of apoplexy.

Blows or falls on the head produce concussion of the brain, and are detected by external bruises, a confusion of ideas, sickness, fainting, and stupor. In such cases place the patient on his back in a dark place, slightly raise his

head, and apply warmth to his extremities and surface of the body.

Shock or collapse follows injuries to nervous system, fright, grief, and lightning. The patient's breathing is very feeble, pulse almost imperceptible, eyes dull, face pinched and pale. Apply warmth to the surface of the body and extremities, give stimulants in very small quantities, remove all tightly fitting clothing, and aid the restoration of circulation after placing the patient in a horizontal position.

Stupor, contracted pupils, progressive insensibility, indicate poisoning by narcotics. Treatment for these cases is cold water to the head and chest, emetics, strong coffee, and exercise to arouse reaction.

You can always tell sunstroke, or heatstroke, for one need not be exposed to the sun's rays to cause this malady. Being in a heated atmosphere is enough. As a rule, these cases are preceded by headache, sickness at stomach, and weakness of the knees. The face and head are hot, the pulse full but weak, and the breathing slow and labored. The face is red, and sometimes purple. Put the patient in a cool place, apply ice or ice water to the spine, head, and the back of the neck.

If the case is rather one of exhaustion, which can be told by a face not much flushed or pale, pulse frequent and feeble, and no difficulty in breathing, give stimulants gradually, and be sparing of the ice.

In cases of hanging and suffocation by gas, undo the patient's clothing, clear out his mouth and nostrils, dash cold water on his neck and chest, and induce respiration as in drowning cases.

HEALTH PAPERS No. 9.

“A CLASSIFICATION of medicines founded on a similarity of action on the animal economy is more desirable and useful, and various arrangements of the *Materia Medica* have

been attempted on this basis. They are all, to some extent, necessarily imperfect, owing partly to the diversified effects of medicines and partly to our ignorance of the real nature of many of

the modifications which they produce upon the tissues." (Prof. John B. Bid-
dle, "Materia Medica and Therapeu-
tics," 10th Edition, page 52.)

"In relation to the process of altera-
tion, it is highly probable that in many
instances it is purely the result of chem-
ical reaction set on foot by the remedy
in the interest of the system; but we
have little positive knowledge of the
subject, and theoretical speculations can
lead to little practical good, except so
far as they may serve as a basis
for curative methods until the chemical
relations have been experimentally
traced out and demonstrated beyond
reasonable doubt." (Prof. George B.
Wood, "Therapeutics and Pharmacy,"
Vol. I., page 53. Third Edition.)

"Various arrangements of the *Materia
Medica* have been attempted on this
basis." "*Attempted!*" Is that all?
No. "They are all, to some extent,
necessarily imperfect." Not very flat-
tering, surely, to a profession which
plumes itself as the embodiment of the
accumulated wisdom of the ages. "Im-
perfect!" Why imperfect after so much
study and experimentation? If anything
good and reliable is ever to be found in
it, is it not high time that some one
should be able to lay his hand upon it?
"Partly owing to the diversified effects
of medicines." Medical men call their
drugs "remedies." But they well know
they can not rely upon them. Are they
remedies? What is a remedy? "An
agent used in palliating or curing dis-
eases."—*Hoblyn*. "That which cures a
disease. That which counteracts an evil
of any kind."—*Webster*. If used to
cure disease which it fails to cure, is it
a remedy? Were the stimulants used
to cure General Sheridan remedies? No,
surely no, if the definitions above quoted
are correct. Remedies cure. If drugs
sometimes cure—a doubtful hypothesis
—none will deny that they sometimes
fail to cure. If they get credit for the
result in the one case, why not in the
other? Fail! They habitually fail.

Examine the death registry. Visit the
undertaker. Consult the sexton. Most
people die prematurely. They take all
sorts of specifics of so-called remedies.
This is a clear case of prohibition that
does not prohibit. If the recuperative
resources of nature are nothing, and
drugs everything in favorable cases,
why not in unfavorable ones also?
What more? "Partly to our ignor-
ance." Ignorance freely confessed, not
for the benefit of patrons, but of the
doctors. Others are to be impressed with
the idea that their professional advisers
are well nigh perfect in all things relat-
ing to their calling. These confessions
of ignorance imply more than was ever
intended for them to signify.

"In relation to the process of altera-
tion, it is highly probable that, in many
instances, it is the result of chemical re-
action set on foot by the remedy in the
interior of the system." Highly proba-
ble! It may be, or it may not be so.
Vitality alone can control the normal
actions and reactions of vital chemistry.
We want no chemical reaction set on
foot by drugs. "Chemical reaction set
on foot!" The reagents of the labora-
tory and those of the living organs differ
widely. In living bodies the one is nor-
mal, while the other is abnormal. The
one antagonizes, the other favors life
processes.

When drug medicines so often fail to
meet the expectation of benefit to be de-
rived from them; when they so often
prove hurtful instead of helpful; when
disastrous consequences are liable to re-
sult, and not unfrequently do result,
from their use; when, by the admission
of medical authorities of the highest
rank, they may entail on patients a life
of suffering and a premature death, is
it not time to call a halt and take our
bearings before we proceed further in
this direction?

Arkwright and Whitney, Stevenson,
Morse, Goodyear, Howe, McCormick,
Bell, Edison, and a host of others date
back their valuable inventions less than

a century, and many of them less than half so far. Men and women are yet living who were moving about when the first steamboat began to float, and before railways and locomotives were fully matured in the fertile brain of the elder Stephenson. Yet these inventors have revolutionized the world, and no doubt is left as to the value of their inventions. If there is yet room for improvements, it is not because they are in any sense a failure. With far greater numbers, with equal talent and better mental training, why should twenty five centuries of progress leave the healing art so near where it began, that even its devoted advocates are impelled to express their want of confidence in it in terms so decided. Surely progress here should be as great as the same talents, the same learning, and the same time could make elsewhere. Can any good reason why it is not so be given except that a wrong the-

ory, which originated far back in times of ignorance and superstition, has been, and yet is, the basis on which the whole fabric is built. Changes are being rapidly made. But poisons are abandoned only to substitute more deadly toxic agents for them. Is this progress? Why not recognize natural laws and learn to obey them? When these laws are unobstructed, health is sure. Poisons disturb vital action. In full doses they first disturb and then suspend it. In other and plainer words, they kill. Does not reason say avoid them? Can safe and reliable progress be made in any other way? If this had been done in the days of Pythagoras, and since then adhered to as a basis, and the only basis, of progress in the profession, we might now stand on higher ground. Is this presumption? Think of it, and decide according to the evidence:

J. S. GALLOWAY.

HEREDITARY DISEASES.

IN a series of essays under the "catching" title, "From Generation to Generation," Dr. Lithgow, in *The Provincial Medical Journal*, enlarges on the importance of the hereditary factor in the etiology of disease. He says it should be distinctly understood, however, that such predisposing causes of disease as temperaments and idiosyncrasies—also those typical proclivities called diatheses—however influential as factors in modifying morbid processes in individuals, receive their force and character from heredity, and may thus be said to be merely effects of hereditary predisposition specialized in certain sets of individuals; but hereditary predisposition means far more than the temperaments, idiosyncrasies and diatheses, for it not only includes all these, but also implies that a morbid predisposition which has arisen in some individual, whether ancestral or parental, has, by heredity, been transmitted to his offspring, and either intensified by descent,

or modified by age, sex, or accessory circumstances. In speaking of diseases as hereditary, we do not mean that the diseases themselves occurring either in ancestors or parents are actually transmitted to their offspring (who, under those circumstances, would be born with them), but what is really meant is that a certain organic constitution is inherited by the children, which, being likely to undergo that pathological development in the ordinary circumstances of life, is therefore described as a constitutional predisposition or tendency to disease. We do not in the least know what is the intimate nature of the predisposition, but we know that it may be greater or less in different persons, and that it is thought to be so great in the cases of such diseases as epilepsy.

He admits that we are as yet unacquainted with all the phenomena of disease that are transmitted by heredity. But those maladies, or general morbid conditions generally

considered to be hereditary, may be tabulated as follows :

- | | | | |
|---|---|--|--|
| 1. Blood disease—viz. | Gout, rheumatism, diabetes, scrofula, tuberculosis, cancer, rickets and syphilis. | 4. Early degenerations: local or general. | Degeneration of vessels: fatty changes in organs, loss of elasticity in the skin. Premature greyness or baldness, loss of teeth, and other signs of decay. |
| 2. Nervous diseases. | Epilepsy, chorea, insanity, hypochondriasis, neuralgia, apoplexy, paralysis. | | |
| 3. Physical deformities and deficiencies of special senses. | e.g., Blindness, deafness, etc. | | |
| | | 5. Some skin diseases, especially lepra and psoriasis. | |
| | | 6. Emphysema and asthma. | |
| | | 7. Gravel and urinary calculus. | |
| | | 8. Hæmorrhoids. | |
| | | 9. Cretinism and albinism. | |
| | | 10. Hernia. | |
| | | 11. Icterus. | |
| | | 12. Dropsy. | |

RHEUMATISM.

THE surroundings of a patient suffering from rheumatism are a matter of no little importance. The *Boston Journal of Health* says what experience warrants the intelligent physician in saying, that free ventilation should be secured, but without draughts, and the temperature kept between 68 and 70 degrees Fahrenheit. The patient should be clothed in flannel and lie between woolen blankets. His covering should be light. An excess of bedclothing will add to the pain in the inflamed joints, and unnecessarily increase the sweating. It should be a studied effort to spare him any painful movements possible, and every ministration should be gentleness itself. Milk, with seltzer water or lime water, pre-eminently meets the requirements as the principal article of diet during the active period of the disease. If this proves insufficient, or is not well borne, then other light and concentrated food can be administered. Some authorities insist that animal food and alcohol are contra-indicated during the height of the fever. The latter should certainly be prohibited, as a rule, but the patient's

diet need not be so much restricted as in other highly febrile disorders. Those who are habituated to the use of stimulants should not be entirely deprived of them.

THE CARE OF THE NAILS.—Very few people know how to properly care for the nails. In cleaning them, a sharp knife ought never to be employed, but between the ends of the nails and the fingers the space should be filled with soap and then removed by brushing with the so-called nail-brush. Many improperly cut away that part of the flesh which grows over the nail from the bottom; but it should be simply pressed backward, and sufficiently to show the white part, considered by some to be a mark of beauty. [If the flesh is adherent to the nail the operation may be facilitated by passing the sharp point of a knife underneath the fold of flesh and separating it from its attachments. With this done it can be pushed back more readily. Scissors should never be used to cut the nails; that should be done only with a sharp penknife.

Child-Culture.

A COMMON ERROR.

I DROPPED one evening a short time ago into the sitting room of a neighbor, and the coziness of the apartment and the sociability in the smiling faces before me soon enrolled me a member *pro tem* of this little domestic circle. What a picture these family rooms are of the life of the household! During the day their varied tasks separate parents and children, often giving them entirely different trains of thought, and raise the numerous barriers of the world between their mutual confidence and affection; but when the labors of the day have been completed, they are again drawn together by the ties of true affection, and unite in constituting one of the strongest bonds of human society. The prominent feature in this family picture was, of course, none other than the kind-faced mother, and it requires but a few moments to perceive that her joy and hope were alike centered in two small boys who sat at her feet. One of them, the elder by almost two years, had first attracted our attention by the slight noise which he made in the construction of some rough toys that boys alone know how to appreciate, notwithstanding all their crudeness.

This child was a type of healthful boyhood, robust in body, and carried the undeniable flush of health upon his face.

Merriment sparkled in his eye, and mirth played about his slightly compressed lips. His brother had scarcely allowed us a glimpse of his pale face, so close was the attention he had given to a volume which he held. His slender figure and well-developed head indicated the predominance of the intellectual over the physical in his constitution. The mother, with ill-concealed pride, told me that Robert, the younger, was greatly attached to his books, and she intended

that he should be rewarded for his faithfulness to them in receiving a thorough education. Then with a sigh she looked upon her other son, saying she did not expect Charles to compete with his brother in their studies, that his lessons seemed to require so little of his time, although he apparently kept a good standing in his class, but she feared it was by some artifice that he knew so well how to practice. Yet she assured me that Charles was really the life of the house, and relieved her of many a sad thought.

Thus brought to a study of the two boys, I recalled my crude knowledge of Phrenology, and discovered that Charles was unlike his brother mainly in having a mind and body well balancing each other in strength, each able to give mutual support to the other. I mentally decided in favor of the elder, especially with reference to intellectual attainments.

The first consideration was in agreement with the old adage, "sound mind in sound body." Here was a firm physical foundation that, like the good ground, would cause the seeds of knowledge planted in the mind to spring up and bear a hundred fold. Some may say that many a person of talent or genius has suffered throughout existence from a weak and diseased physical condition. Aye, but have they not in nine-tenths of these cases died in the very prime of their proud career? A sound body is doubtless as necessary to the mind as the sunbeam to the plant. Again, there was more of cheerfulness, hope, and vitality about the elder, and these are surely excellent safeguards to indifference, despondency, or melancholy, teaching us rather "to bear the ills we have, than fly to others we know not of," and helping us to surmount many

obstacles that appear to impede the even flow of life. The strength of the elder gave him an opportunity to take part in all boyish sports and games, in many of which the younger found himself unable to indulge, and of course would seek some other employment. Any labor was much more easily accomplished by the elder, but there was probably more perseverance and of the "I will" spirit about the younger. Although the elder was far more competent to bear the fatigue attendant upon gaining a liberal education, yet this mother intended that he should manually accomplish his life work, while that vigorous, all-grasping mind should seize upon whatever presented itself. This seemed to me the most successful plan to make a thoroughly corrupt man, robbing him of mental food, and making the active brain but a

slave to the equally active body, instead of giving both their requisite work.

In the case of the younger the plan was dangerous as well; here was improper taxation to the mind wearing upon the feeble frame that should have been relieved and brought under the influence of sunshine and exercise.

How many parents are committing this error, urging on the weak and sickly, and stunting and discouraging the healthy and impulsive child, refusing to see the inevitable results until they are brought face to face with the sad reality of death or destruction. While these thoughts, that have taken so much longer to pen, were passing through my mind, my neighbor and I were pleasantly chatting, and lest I tire you, as I probably did her, I shall say *au revoir*.

GENE ATKINSON.

THE GOOD NURSE.

THE nurse suggests a kind, patient, affectionate nature, with enough of physical strength to perform all the offices of the chamber, nursery, and street that may be required, without becoming much fatigued. She should be of rather plump habit, with a good proportion of the vital temperament. Children "take more readily to the sunny-haired, round-cheeked woman who offers to care for them than to the dark, spare-fleshed, sharp-jawed person. They know instinctively that there is more warmth and vital spirit and sympathy in the former. Yet a raw-boned woman may be very fond of children and possess a good stock of intelligence concerning their care, but as a rule she is more inclined to be the teacher than the nurse; she directs and orders, while the true nurse leads, guides, and wins by gentle persuasion.

I saw a young woman on the avenue near my house the other day with two little chubby girls, one of them in a hand-carriage. She wore the customary nurse's cap and seemed proud of her

charges. She was dark-haired, large in bone and muscle, and walked along in the emphatic way that indicated self-reliance and strength. "A pretty staunch



THE NURSE.

protector of the little ones, but not the nurse," I thought, while I scanned her features and manner. As I passed the group on my way, the "nurse" prodded

the little thing that was walking quietly by the side of the carriage with her knuckles, saying: "Go on quicker; you're awful slow, Lena."

The little one forced thus into a quicker pace, cried out: "Oh, don't—ain't I walkin' fas' enough?" and looked up into my face with an expression at once angry and hurt. I could easily see how that "nurse" jerked and shook those babies while dressing them, not because



THE COMPANION.

she was impatient or reckless, but because her muscular energy and positive nature rendered her unconsciously rude and harsh. In her tender moments she was, no doubt, demonstrative, but her caresses could scarcely be otherwise than heavy-handed, and often unpleasant to the children. The better place for her would be the ironing table, where, smoothing the wash from the drying room or out-of-door line, her maternal

instinct would find pleasure in shaping the garments of babies and children.

Fig. 1 represents an organization that is fitted for the duties of the nurse, while Fig. 2 has little claim for skill in that direction. The well-rounded chin and plump mouth show large social development in Fig 1, and the head in other respects intimates a generous, sympathetic nature, while the temperament has enough of the vital to supply buoyancy and cheerfulness to the disposition. Fig. 2 would be fond of romping with children, but rather inclined to forget the attentions they require; and in attempts at discipline she would lack patience. Her face shows strong will and a quick temper. The good nurse wins the sunny, open-hearted confidence and challenges the effusive naturalness that makes childhood so delightful.

When I see a sunny haired girl whose face beams with smiles as she gazes at her infant charge, and whose manner, as she carries the little one or adjusts its dress, is so tender and careful that it suggests the thought of a worshipful respect, I feel that she is a true nurse, and the family that employs her gets more than the worth of the money they pay her monthly. Fig. 2 has intelligence and vivacity; she would be competent to perform the part of a maid or companion, assist a lady in her marketing and shopping, in a word, perform the business matters of the household much better than meet the requirements of a nurse for little children. I think that she would disappoint the solicitous mother in that respect.—*The Servant Question.*

HYGIENE IN THE CHILDREN'S SLEEPING ROOMS.

"BE sure and shut the closet doors before you stir the beds," was the charge our mother called after us when she heard the warped back stairs creaking under our loitering steps as we were sent to put in order the chambers of the wide old farm-house that was our childhood's home. A full quarter of a

century has swung past since then, and we are now trying to teach our own little girls the wise counsels we sometimes so unwillingly heard from our mother. If every housekeeper would insist that the occupants of her sleeping apartments—children, help, boarders, and visitors—should air their beds and throw open

windows each morning before leaving their room, unless beating storms made this impracticable, we should have less ailments of lungs and liver and nerves in our midst. To breathe, night after night, unclean, vitiated air is enough to poison and disease the soundest lungs and undermine the strongest constitution created.

Children, unless weakened and undone by unwise cosseting, love pure, bracing air, and we find it easy to teach them to toss back blankets and quilts after rising and to remember to throw open the windows of their chamber; but it is not so easy for an adult, who has lived and slept in a heated atmosphere heavy with impurities till he shrinks and shivers in currents of fresh, breezy air waves, to adopt the rules or requests of the house.

When a housewife has a crew of farmhands or workpeople to board, to make sure of well ventilated chambers, it is generally necessary to go through the sleeping rooms each morning as soon as the help is out, airing beds, closets, and opening windows.

But teach your girls to close all closet and chamber doors before commencing to make beds and to put rooms in order, else dust and lint will puff and settle over garments in closets and needless litter in hallways and landings. Maybe half their wardrobe is not neatly hanging in smooth, well shaken folds on their hooks, but is lying in tumbled heaps on the closet floor, or scattered about the chamber, rumped, dusty, creased, hopelessly injured with their slovenly negligence.

We have seen dainty suits, the work of painstaking, loving mother hands

grimed with dust and crumpled with wear and their last toss and flop on to chair-back or foot-board, their pretty ruffles and plaits spoiled with crushing. We have seen elegant wraps and velvet and lace-trimmed garments swinging, "right side out," on a closet hook or on a jagged headed nail in the chamber wall, caught at some point of the rich drapery when heedlessly flung hookward, a muddy gossamer brushing their clinging folds and carefully laid plaits, and delicate ruchings ruined with their deep creasings and gray siftings of dust and lint. Nowhere does slovenliness so quickly tell of itself as in the shabby wrinkles and crumpled folds of a lady's wardrobe. Our little girls and boys should early be taught habits of neatness and method, that they may not be left to form such undesirable traits of character. It is easier for a child of seven than one of seventeen to learn to take proper care of her clothing. Our little daughters of six and seven years can readily learn to keep their corner of mamma's closet in the nicest order.

With careful and constant example, and now and then a warm word of approval, these little home makers of the next generation soon take healthy pride in keeping their dainty dresses and wraps neatly shaken out, turned on their linings and carefully hung or folded away from clinging lint and sifting dust. Give them pretty boxes for their prized lace, trimmed aprons and dainty collars and bonnets; an elaborately embroidered shoe bag for the smart little button boots and leggings, and these little folks soon learn to delight in keeping their corner of mamma's wardrobe in neatest order.

BOYS AND TOBACCO.

IT is a universal belief that great and good men owe what is worthy in their lives and characters chiefly to the teachings of wise mothers. The converse would not be credited for a mo-

ment; it would indeed seem like sacrilege to attribute the folly and evil of ignoble or bad men to the teachings of mothers, however bad or unwise. Yet it is not uncommon for the world to find, in their

early training, an excuse for the faults of good, as well as of bad men. And in the words, "he knew no better," so frequently on the lips of the charitable, there is usually a strong though unintentional arraignment of parents, especially the mother.

Women as a rule, no matter how old they are, readily adopt new customs and habits which the world tells them are good. Men, on the other hand, seem to cling tenaciously to the customs and habits of their youth. This difference in their natures makes the special care believed to be so necessary in the bringing up of girls, infinitely more necessary in the bringing up of boys. This is peculiarly the case where pernicious habits are concerned. One of these, the use of tobacco by boys, is an evil now so common, that mothers can not give it too much attention, nor can their efforts to check it be too constant.

A cigar seems to have a peculiar fascination for a boy. When he has one between his lips he feels so important, or, as many people interpret it, so like a man. It is this false idea of manliness which makes it possible for respectable families to contemplate that pitiable object, a boy who smokes. Since the days of Raleigh the use of tobacco has been the subject of repeated and severe censure. But the censure, as a rule, has been directed against those who are under the strong and seemingly unescapable dominion of the habit. In this, therefore, as in other things, an ounce of prevention is worth many pounds of cure. But it is not only to prevent the early formation of a bad habit, but chiefly because the habit is so peculiarly injurious to them that the selling or giving of tobacco to boys should be prevented in the only effective way, by severe laws. The preliminary work, the creating of a public opinion that will demand such laws must, however, be done by women. It must be done by that special teaching which so often proves the surest safeguard against temp-

tation and the influence of a bad example.

The best physicians long ago decided that the use of tobacco, even the least amount, is injurious to the human system before its full maturity is attained. Many fatal diseases are now known to result from the use of tobacco. Smoking is the most dangerous as well as the most common form of the habit. Cigarette smoking is said to be for many reasons much worse than either cigar or pipe smoking. Young people are naturally the chief consumers of cigarettes, and the harm they receive thereby is almost daily brought before the eye of the public by facts and incidents related in the newspapers. One pertinent item will bear many repetitions—it is that "out of several hundred young cigarette smokers examined by a Washington physician, one-fifth had heart disease." The term "tobacco heart" is the name now technically given to the deadly disease produced by an excessive use of cigarettes: and repeated testimony seems to prove that cigarette smoking is usually excessive. It is by no means difficult to understand that a sensitive human frame, not yet fully developed, must almost inevitably be seriously affected by what is acknowledged to be a strong poison. It may be said without reservation that a boy who smokes or chews can not be perfectly healthy. Not infrequently he gives pertinent evidence of a diseased body; his face assumes a peculiar pallor, his eyes are weak, and his digestion impaired. Probably his growth also in many instances is retarded, if not wholly stunted. And if he does not, through his early use of tobacco, sow the seed of future physical troubles, it is reasonable to suppose he will be less able to meet and resist diseases which may attack him during his life. Reading, observation, and experience have, however, furnished almost every one with abundant means of confirming the facts and suggestions offered here in regard to the physical injuries to boys resulting from

their use of tobacco. Who is responsible for these injuries? How can the responsibility be met? Mothers so ready to burden themselves, even overburden themselves with responsibility, are apt to feel hopeless in this matter, and naturally so if they have the influence of a tobacco-using husband to counteract. But even in such a case they can at least teach their boys that tobacco is poisonous, to boys especially, and that its use is therefore wrong. Just here it may be said that the positive sin in doing things injurious to health is not often enough insisted upon, either in the education of children, or in the instructions given, by accepted moral teachers, to children of a larger growth.

From the standpoint of the boy's manners and morals the subject is no less serious. A boy who uses tobacco is necessarily less of a gentleman than he would be otherwise. He is not only offensive to the sight and smell, but in doing that which he knows to be disagreeable and even painful to others, he becomes in a degree callous to the feelings of other people, and his gentlemanly instincts are weakened. His conception of true manliness is distorted also by the idea that the opinion of women, even of those he loves best—his mother and sisters—may be ignored in some things.

No one can dispute a mother's right in this point, for upon her it depends almost exclusively whether or

not her son as a boy, and as a man, is gentlemanly. Of much greater importance is the inseparable connection which manners, and health also, have with morals. A boy whose nervous system is overwrought, as it always is by the use of tobacco, loses to some extent his power of self-control, and is thereby less able to resist temptation of every kind. Moreover, the unmannerliness which leads to an unnecessary disregard of others' feelings, in any one thing, is doubtless often the first decided step in the downward path to real criminality, a path invariably paved with a greater or less degree of arrant selfishness, rudeness, and brutality.

Again, a boy's first cigar is generally smoked in secret, and, until he becomes a little hardened by the habit, he naturally indulges in it without the knowledge of his friends. What more effective lesson could he have in underhand acts and deceitfulness? Last, and worst of all, it is said that the use of tobacco creates a thirst which, in innumerable instances, leads its victim to seek relief in intoxicating drinks.

These evils have been dwelt upon by others many times before, and are realized almost daily in many households. They are referred to here simply to make impressive the fact that there is a remedy for them, or what is better, a prevention of them, in the exhaustless moral power of women.

MARY E. CARDWILL.

AN AMERICAN IN FRANCE.

O H, the flags of France wave high!
 The flags of France wave free;
 The boulevards, so broad and wide,
 Are shaded perfectly;
 The Arc de Triomp spans the way,
 And the streets laugh out in glee,
 The buildings white, in wreaths of green,
 Are fair as brides to see.

The flags of France o'er memories float;
 Ah, many and grave are they!
 The flags stoop over palace walls,
 Caressing them in their play.

A wreath of beauty and art has France,
 Her years seem as a day;
 She lays aside whatever is past
 And wears but blithe and gay.
 The flags of France forget perhaps
 The battles they've fought and won,
 While regal monuments Paris holds,
 Glitter and mock the sun.
 France is fair with her graceful flags,
 She never can be outdone.
 We greet her flag—but the Stars and Stripes
 Forever, the many in one.
 Paris, Aug. 1888. MRS. S. L. OBERHOLTZER.

"THE FOUNDLINGS."

ONE of the most interesting institutions in London is the "Foundling Hospital," or "The Foundlings," as it is called, situated on Guildford street. It is a refuge for the poor little human waifs that are destined never to know parental care. This munificent charity was founded in 1739 by a generous, warm-hearted sailor, Captain Thomas Coram, in imitation of similar Continental institutions, in "compassion for the number of poor infants who were liable to be exposed to perish in the streets or be murdered by their indigent and unhuman parents."

A basket was hung at the gate of the hospital in which children were deposited, and the ringing of a bell notified the attendants. At first the children were received indiscriminately, so that the number far exceeded the accommodations, and the consequences were disastrous. On June 2d, 1756, 117 children were received, and before the year closed 1,783 more were added, and in the next three years 3,727 were admitted. Of the 14,934 children admitted during the three years and ten months, 10,389 perished in early infancy.

Frauds were practiced on the charity. Officers of distant parishes sent illegitimate children to avoid the cost of maintaining them. Parents brought children in a dying state to have them buried at the expense of the hospital.

The present system of admission was gradually introduced, and now children are admitted only upon the personal application of the mothers, and the petition must set forth the true state of the mother's case. The governors then satisfy themselves that the woman is of "previous good character," that she is at present in a necessitous condition, that the father of the child has deserted both mother and child, and that the reception of the child will in all probability be the means of restoring the mother to a course of virtue and the pursuit of an honest livelihood. The children of

married women and widows are not admitted. The education given them is limited to the three R's. At fourteen years of age the boys are apprenticed to trades for seven years, and the girls at fifteen to domestic service for five years. Some of the boys learn to play musical instruments, and are enlisted in regimental bands.

This institution stands on beautiful grounds, comprising eleven acres, which constitute also the play grounds. It owns twenty-four acres adjoining, which are built upon and afford a large rental. Private donations are munificent, and tablets in the buildings record the more important with the donors' names for one hundred and fifty years past, many of them being aristocratic and some royal.

There are now in the hospital 380 children, the number of each sex being about equal. One hundred and twenty babes are boarded out with cottagers in the country. Great care is taken to find suitable nurses in healthful localities. The cost is about \$70 a year each. When of suitable age, they are brought to the hospital.

The chapel of "The Foundlings," with its beautiful stained glass windows and sittings for 1500 or 1600 persons, is crowded every Sunday by a fashionable audience to hear the music and the sermon of the Rev. Dr. Momerie, a broad churchman of ripe scholarship and independent thinking. The organ gallery seats all the children, who, being well trained in singing, form a fine choir to the quartet of admirable voices. The music is a great attraction to the services. Handel presented the organ, and here gave in aid of the hospital the first performance of his sublime oratorio, as "The Messiah," from which are taken many of the anthems of the Sunday services.

Among the numerous objects of interest in the suite of parlors and offices is the original score of the oratorio. In the glass cases are also many tokens brought

with children by which they might be identified. Here are also autographs of distinguished persons—of Lord Nelson, Pitt, Fox, Joshua Reynolds, and most of the modern English sovereigns. The bold autograph of Henry VIII. is as impudent in appearance as was his character; the dissipated calligraphy of Charles II. seems to indicate the man.

The paintings are by the great masters, and appropriate to the place. Among them are Raphael's "Slaughter of the Innocents," Hogarth's "March of the Guards to Finchley," valued at \$30,000. The large picture of Christ rebuking his disciples, and saying, "Let little children come unto me," etc., embodies in the presentation of our Savior marvelous dignity and sweetness.

After the services on Sunday the children file into their dining rooms, which the public is permitted to visit at meal time. They feed as unconcernedly in the presence of a crowd as do the animals at the "Zoo." The boys' brass band intones grace before the meal. The

food is ample and wholesome, and the children present very healthful appearance.

The discipline is strict, but how much better seems the lot of these children than that of the multitude who roam the streets of this mighty city! Yet, it is a fact that not one of the many thousands who have been reared here has ever especially distinguished himself. This seems singular, since some of them presumably have very good blood. Why then is it? Does the strict discipline necessarily kill spontaneity? They are religiously taught to be content in the lot to which God has called them: is it hence that they do not aspire? If strict discipline thus kills spontaneity and aspiration, what should be said of any public social system that dulls aspiration and prevents its realization? Many of the distinguished men of America have risen from obscure origin, but they breathed the air of freedom. Liberty is, indeed, a condition of progress.

J. O. W.

NATURE'S TEACHINGS.

"MY little daughter thinks she could do very well with her compositions, if I would allow her to write something from imagination."

"And you will not?"

"O, no! There is a great deal too much fictitious trash in the hands of young people, and I try to discourage her from reading it, much more, allow her to write that which is untrue. I tell her it is wrong to give rein to her imagination."

"Oh!" and a look both of surprise and displeasure crossed the listener's face, as she gave vent to her feelings by this exclamation.

"I think I have something here for you," she said, opening the book which she held in her hand. "This is Froebel's Education of Man, translated by W. N. Hailmann, and it certainly contains some very good things, among the rest,

this: 'O man, who roamest through garden and field, through meadow and grove, why dost thou close thy mind to the teachings of nature? Behold even the weed which, grown up amid hindrances and constraint, scarcely yields an indication of inner law; behold it in nature, in field or garden, and see how perfectly it conforms to law—what a pure inner life it shows, harmonious in all parts and features; a beautiful sun, a radiant star, it has burst from the earth! Thus, O parents, could your children, on whom you force in tender years, forms and aims against their nature, and who therefore walk with you in morbid and unnatural deformity—thus could your children, too, unfold in beauty and develop in all-sided harmony!'"

"That is most too bad," apologized the reader, noting the effect upon her friend's face.

"No, it is not," the lady replied, and hastened to add, "I am always ready to hear and accept any new, helpful thought. I must think of this," she added. "You see, my little girl is so much given to reading fictitious stories that I feel obliged to curb her inclination in this respect, for fear that the liking may crowd out all really useful study."

"Well," taking up the book again, "here is another thought, evidently the translator's own :

"This should in no way be interpreted as a pretext for letting the child alone, giving him wholly to his own so-called self-direction, allowing him possibly to drift into vicious lawlessness instead of training him upward into free obedience to law. Froebel, indeed, sees in the child a fresh tender bud of progressive humanity, and it is with reference to the divinity that to him lies in the child thus viewed, that he calls for passive following and vigilant protection. He would have the educator study the child as a struggling expression of an inner divine law, and it is this he would have us obey and follow, guard and protect, in our educational work. It is evident that this involves constant activity in a judicious adjustment of surroundings, so that the child may be free from temptation and from growth of unhealthy whims and pernicious tendencies; while on the other hand, he may be supplied with ample incentives and opportunities to unfold aright."

"And so you believe in cultivating the imagination, with proper guidance, of course?"

"I do."

"Will you tell me *why* you do?"

"Well, I have often wished that I possessed a lively imagination. It would be an immense advantage to me in my kindergarten work. My friend, Miss B—, has this faculty, and makes a profitable use of it in many ways. For instance, if any subject comes up which she wishes to make plain to her little

ones, this power of imagery leads her to a happy illustration which pleases and instructs at the same time. You yourself are a passionate lover of poetry. What gives the poet an advantage over the more prosaic portion of humanity. Is it not this gift of imagination which enables him to etherialize and beautify the common things by which he is surrounded? It is a wonderful gift, my friend, a wonderful gift, and I hope you will excuse me if I say that I think you are making a great mistake in not allowing your little daughter its free use. Think well before you deny her the enjoyment she craves, for you may be doing her an irreparable injury. But, on the other hand, do not lose sight of your duty and privilege to direct and assist her in the use of this precious gift.

SUSIE E. KENNEDY.

THE CHILDREN.

THEY are such tiny feet!
They have gone so short way to meet
The years which are required to break
Their steps to evenness, and make
Them go
More sure and slow.
They are such little hands!
Be kind; things are so new, and life but stands
A step beyond the doorway. All around
New day has found
Such tempting things to shine upon; and so
The hands are tempted oft, you know.
They are such fond, clear eyes,
That widen to surprise
At every turn! They are so often held
To sun or showers; showers soon dispelled
By looking in our face.
Love asks, for such, much grace.
They are such fair, frail gifts!
Uncertain as the rifts
Of light that lie along the sky;
They may not be here by and by
Give them not love, but more, above
And harder, patience with the love.

IN THE ALBUM OF A PHRENOLOGIST.

You through your speech, I through my pen
Address ourselves to many men;
Have we most thought of winning fame?
Seek we the goal—"a deathless name?"
Look we in part to planting seeds—
For a harvest—'gainst human needs?—A. E.

NOTES IN SCIENCE AND INDUSTRY.

Prehistoric Food.—Some curious evidences of the diet of our prehistoric ancestors of the "stone age" were recently brought before the Odontological Society of Great Britain by Mr. Charters White. Mr. White was struck with the thought that, as particles of food become imprisoned in the dental tartar, sealed up in a calcareous cement, and can be made to reveal themselves on solution of this material, it would be an interesting revelation if the tartar found on these teeth of the stone age could be made to give up its secrets in a similar manner. He accordingly decalcified some with dilute hydrochloric acid, and examined the sediment. It consisted of masses composed of epithelial scales mixed with the contents of starch cells. Besides these, Mr. White was able to identify portions of husks of corn, hairs from the outside of the husks, spiral vessels from vegetables, husks of starch, the point of a fish's tooth, a conglomeration of oval cells, probably of fruit, barblets of feathers, portions of wool, and some fragments of cartilage, together with some other organic remains which he failed to recognize. The fact that vegetable tissue should be found in such a state as to be easily recognizable, after the lapse of probably not less than three thousand years, is certainly remarkable.

The Greek Canal.—A letter from Corinth, Greece, gives a detailed account of the progress of the ship canal being constructed through the Isthmus at that point by a French company, who have received liberal concessions of land from the Government, accompanied with a proviso that there shall never be any claim for a subsidy in behalf of the constructors. The canal will measure 6,300 metres from sea to sea, with a width of 40 m., and will be excavated to the depth of 8 m. below the sea level, mostly through solid rock, and the expenditure will be \$6,000,000. The depth of the water will be the same as in the Suez Canal. Rapid progress is making in the work, which is prosecuted by 2,800 men, and is expected to take three years for its completion. The appliances include 15 engines, each drawing

from 60 to 70 trucks. At the western end of the canal, on the Gulf of Corinth, are situated all the large depots and offices of the canal company. Here a new town is growing up called Isthmia. The depth of water a short distance from the shore is 30 fathoms. The sides of the canal will be solid granite, and there will be no washing away or necessity of dredging. The largest docks will be at the eastern end. The tariff of the canal will be put down to a low figure, so as to catch all the coasting trade, and it is fully expected that, in spite of the great expense of the work, it will pay well in the end.

Curiosities of Magnetism.—Most well informed people are doubtless aware, remarks a contemporary, that the globe on which they live is a great ball of magnetism, but comparatively few have an adequate idea of the influence this property is continually exerting on all sides; that many common but inexplicable phenomena can be traced directly to this source. Statistics go to show that in the matter of steel rails, as many as thirteen will become crystalized and break where they go to make up a railroad track running east and west, before one of those on a north and south track is similarly affected. This is entirely due to the magnetism generated by friction, and the fact that the polarity of the magnetic current is in the former instance resisted in the headlong rush of the train, whereas in the latter case it is undisturbed. Another strange effect of this peculiar and occult force is that exerted on the watches of trainmen. A timepiece carried by the conductor running a train twenty miles an hour, however accurate it may be, will, if the speed of the train is increased to say fifty miles, become useless until regulated. The magnetism generated by the flight of a train may be said to be in proportion to the speed with which it is propelled, and the delicate parts of a watch, numbering all the way from 400 to 1,000 pieces, and peculiarly susceptible to this influence by reason of the hammering and polishing they have received, are not slow to feel the effect.—*Boston Journal of Commerce.*

Some Useful "Chestnuts,"— as Tabulated by the *Universal Tinker*:
Never work with a dull tool.

Take time to sharpen and put your tools in good order; it saves time in the end.

Above all, never use a dull or badly "set" saw. It will ruin your work, sour your temper, and make you disgusted with the whole world.

If you are varnishing or polishing a piece of work, have the room or shop warm, exclude draught and dust, and don't be in too big a hurry.

If you are polishing in the lathe see to it that all dust and dirt are removed from the lathe bed before you commence work.

It is better, when possible, to polish all turned work in the lathe. It always has a better appearance for it.

White pine or mahogany makes the best work for patterns. Lead, brass, copper, and sometimes plaster of Paris are used for making patterns; especially is this so for small, fine castings.

Shellac varnish is the best material for coating patterns.

Beeswax may be used for stopping up holes or to cover defects in patterns if it is coated with shellac varnish afterward. The beeswax will "take" the varnish readily, and will not cling to the "sand," like ordinary putty.

Shellac varnish may be mixed with a little lampblack to give it body and make a black pattern.

Sometimes pattern-makers use stove polish or "black lead," as it is called, to finish their patterns. It is applied nearly dry, then polished with a brush.

Wood used for patterns must be of the very best finish, straight grained, free from knots or shakes, and well seasoned.

A clean pattern gives a clean casting, and much labor may be saved by making the pattern the right size, and smooth and clean.

After patterns have been used they should be kept in a dry place, as damp will distort and otherwise injure them.

Always make a drawing of patterns before making. Much time and labor will be saved.

Where patterns part in the center they should be made to separate easily.

Put in your best workmanship when pattern making.

Can Electric Lighting Wires be Safely Used?—It has become an almost daily item in our newspapers that a man has been killed in this or that city by means of the wires used in the electric lighting system. The public is getting uneasy about this continued fatality, and the inquiry is being pushed, not only on merely benevolent, but on business and legal grounds, whether this killing is to be allowed to go on, or whether some expedients can not be devised to prevent the slaughter. It will not be regarded as a valid excuse to allege that the existing state of things are simply accidents, and that these are always the results of individual carelessness. The public will demand that the cause be removed, that is, that the liability of the accident be removed if possible, or reduced to its absolute minimum. No doubt the burial of the wires, so far as this is practicable, will help very much to lessen the damage. But this will not afford all the desired relief; other means and expedients must be devised and employed to still further reduce the possibility of these dreadful occurrences.—*American Inventor*.

Apparatus for Cooling Air.—An apparatus has been introduced in the Standard theater of New York city, which in a very simple way is designed to solve the problem of securing a cool auditorium in summer. A fan is placed in the basement which draws air from outside the building and delivers it through the furnace pipes and registers to various parts of the auditorium. The air before it reaches the fan is drawn over ice arranged on shelves. This cools it so that a temperature of 70 degrees is easily attainable. While the fan situated in the basement is delivering cool air, a second fan on the roof exhausts air from the interior, thus maintaining a constant change of atmosphere. The arrangement in utilizing the furnace connections and in general detail is remarkably simple, and could be readily applied to many places, such as hospitals, where coolness is all important. For a single evening's work about two tons of ice are expended.—*Scientific American*.

Science Solved the Puzzle.—A Meriden clothing dealer recently offered a spring overcoat to any person solving the "anti-rattle box" puzzle. This consisted of a short cylindrical wooden box, securely sealed. The point was to shake the box without rattling the contents. On the box was printed: "You can't do it; but it can be done." Those who get hold of the boxes, after shaking them in different ways, cut them open and find the contents to consist of pieces of tin of different shapes. As no method of doing the trick could be thought of, it was generally supposed that the puzzle could not be solved. Charles M. Fairchild, assistant to Superintendent Fitzgerald, of the Meriden Electric Light Company, came into possession of one of the boxes. He dissected it, noticed the bits of tin, thought a moment, and then, taking a piece of magnetized iron, replaced the cover on the box and applied the magnet to one end. It was strong enough to attract all the small pieces of tin and hold them fast to the end of the box, however violently it was shaken. He got the overcoat.—*Exchange.*
(But he broke the seals!)

Force of Sea Waves.—Some idea of the tremendous force possessed or exerted by sea waves may be formed by the fact that an iron column, twenty-three feet long and weighing some 6,000 pounds—part of a new lighthouse being built—was, in the course of operations, landed at Bishop Rock, England, and, a storm coming up, was left lashed by a half-inch chain at each end to strong eyebolts. Three days afterward it was found, on examination, that the great column had been tossed up by the waves a distance of some twenty feet to the top of the rock, where it was swaying about like a piece of timber. Two days afterward, when the workmen were able to land, it was found that a blacksmith's anvil weighing 150 pounds, which had been left in a hole three and one-half feet deep and two and one-half feet in diameter, had also been washed by the waves completely out.

Farmland in England.—Mr. Edward Atkinson said lately in an address: "During my trip to England, Germany, and France last summer, I had a little time to give to the effect of the competition of this

country upon the farming industry and upon agriculture in Europe. I found that good land in excellent condition, thoroughly drained, well fitted with good buildings, less than fifty miles from London, could be bought readily at \$100 an acre or less. Average land not drained, but somewhat well wooded and capable of being made use of, if it were here within fifty miles of Boston, one of my friends lately bought from the University of Oxford at £7 an acre or \$35. On the chalk and sand in Dorking you could buy land at your own price almost, if you chose to take it. It appeared as if the old methods of farming, to which the English have been tied for generations, largely due to their four course system of agriculture, had become obsolete. Wheat will not pay cost, and the farmers have not yet been able to find out how to change their methods so as to produce the enormous quantities of hens, chickens, and vegetables, and other articles of food which London derives from the Continent."

Peculiarity of American Eyes.

—The efforts of the War Department to secure a field glass of greater power than the one now in use, has disclosed the fact that the eyes of the average American are closer together than those of men in foreign countries. The double glass, known as the field glass, now used, is weaker than that used in the armies of Europe. The only glass they can get of sufficient power is a single spy-glass, which is defective in that it does not take in a broad enough field. This is a very serious defect in the equipment of the American army, but there seems to be no immediate prospect of its correction, because our eyes are too close together. Some of the colored troops may be able to use a different glass, but the white soldier can not overcome this national peculiarity.

Sign Nothing for a Stranger.

The latest swindle on farmers in Pennsylvania is said to be this: The farmer objects to giving his note and having it discounted for cash. The sharper thereupon says, "O, we'll keep the note," and writes across the face, "Not transferable." In a short time it is found in the hands of another party with an "e" added to the "not," which makes it read, "Note transferable."



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**OUR "PRACTICAL" ERA—ONE
PHASE OF IT.**

THIS age is called a "practical" one; by some it is lamented that it is "too practical," and negligent of interests that belong to the domain of the spiritual and ideal. Is this fairly so? Can a really practical system of thinking and working be indifferent to, or neglectful of, those interests that are essential to harmony of life? We think not. The age is earnest. Whether men give themselves to business affairs, or to science, or to art, or to industry, there is more of devotion in the manner of their application than ever before. Hence, the unexampled progress of the day in material affairs. It can not be that they whose thought and study evolve the multiform instrumentalities by which this progress is secured are indifferent to the moral relations of their work. As they contemplate the inner causes of human activity, and the strange interplay of faculty, is it possible for these men, soberly and obstinately, to avoid the moral influences that are ever present in deep and earnest reflection? No. The greater the results of an invention or a discovery in practical affairs, the more of moral power it contains, and

steadily, though perhaps without striking effects, that power operates.

The age is distinguished by its scientific development. How many realize the extent to which attention is given to the study of man himself! Could we give the number of persons in the old world and the new who have devoted themselves to long and careful investigations that concern man, the intelligent reader would be surprised. Known by different names—biologist, ethnologist, archæologist, physiologist, philologist, neurologist, anthropologist, psychologist, etc., according to the branch of study that each has taken up—they are all delving with one purpose, to learn of the origin, nature, growth, capacity of man. Year by year this great phalanx of students increases in multitude, and year after year they wrest from the domain of the mysterious facts of great value, each adding to the vast sum of human wisdom.

There is a fascination in the study of human nature that no other department of science exerts upon its student, and that fascination is largely due to the deep moral tone that pervades it. The true worker is conscious of it. If "the undevout astronomer is mad," certainly the student of man must feel that his field of labor—

"Gives ten thousand motives to adore."

Whoever will cast his eye backward in review of this subject and note its gradual development, will perceive that the appearance of Gall and Spurzheim marked an area in human science. The few medical students and others who gathered in that small room in Vienna ninety years ago to listen to the courageous German doctor's discourse on the

"Brain and Skull," thought little of the impetus his deductions from long study would give to modern physiological thought. His views were "too practical" for most of the moralists and dogmatists of that day, but the thinkers who looked beneath the surface of mental life rejoiced for the light that was given them. From that time the mental side of human being has grown in importance, and to-day it seems likely to overshadow the physical side in the consideration of all classes of the intelligent.

The phrenologist has good reason to regard this condition of modern thought with hearty acceptance. He feels himself an active coparcener in it, and looks with hopeful eye to grander developments in the future. His field of action has widened year by year, and with his personal understanding only of its duties in relation to the welfare of society is his usefulness limited. The mission of the phrenologist is well defined; standing between the teacher and the physician, his services need not clash with either. But the intelligent performance of that service involves a competent understanding of many things in physiology, psychology, and economics, and unless he who would respond to the popular demand possesses such understanding, his failure can be predicted in advance. There are those who in this decade have reflected honor upon the science they represented and practiced; there have been those who reflected disgrace upon its white and gleaming shield. The difference between these two types of men is clearly read. It is the difference between knowledge and ignorance, capacity and pretension.

The age is a practical one; it demands

the best things. The phrenologist must recognize the fact that he deals with one of the most practical of scientific subjects, and the age knows it.

WHAT TO DO WITH THE FOREIGN TRAMP.

THE continued influx of foreigners from Europe and Asia presses upon the economist and legislator the problem of their disposal. It were enough for the American people to receive and place in relations of usefulness a half-million of healthy, industrious, order-loving immigrants with their multifarious languages and national customs; but when among those poured in upon us are thousands of criminal or vicious habits, besides a multitude of ignorant, destitute, and diseased men and women, who are actually sent to America as to an asylum or hospital where they will be provided for, and their own people and government relieved of the burden of their maintenance, a most serious moral emergency confronts us. The attempts on the part of New York city to deal with "assisted emigrants" and imported laborers, and on the part of the United States to adjust the Chinese immigrant trouble have not been successful, and these difficulties but add to the complications of the great labor movement and to the social unrest of the day.

We would suggest that Alaska offers itself as a region at once extensive enough, and with resources undeveloped and exhaustless, to which the States and the nation may turn for relief. A section of the continental division of that territory devoted to settlement by the undesirable slops of Europe would prove of service toward abating the evil of

their immigration. With such a place for their accommodation the United States could avoid the vexatious international jangles constantly occurring at our ports. At the same time the foreign vagabond, learning that on reaching American soil he would be sent to a far northwest territory, where, surrounded with "birds" of kindred feathers, life would be of that (to him) most objectionable sort that compels one to work or starve, would prefer to remain at home and risk his chances for maintenance in the manner common to his class.

The editor has urged the use of parts of Alaska for the transportation of criminals in an occasional article that has appeared in these columns. The developments of criminal intelligence from day to day but strengthen his conviction that moral reform and civil progress among the masses of our people would be greatly promoted by the establishment of penal settlements in that remote region under such police supervision as should be deemed appropriate. England has reaped incalculable advantages from her penal colonies, and France has greatly profited by such settlements; the criminal has been made a useful instrumentality in civilization, instead of a pernicious and burdensome dependence.

Our method of fostering crime, vice, and vagrancy by the liberal subsidies of partizan legislation, by the largesses of private and organized charity, by the ubiquitous drinking saloon and indecent amusements, seems likely to persist so long as the criminal classes, in jail or out (those in jail being estimated at but one-fifth of the whole number of offenders against law and order), remain in the midst of our population.

Let the criminal, the pauper, and the tramp—the home product and the foreign—be accommodated with a place of residence by themselves, with simple means of industry and "ground enough for a garden." In this way can we solve some of the most perplexing questions of our time, and realize in the future results of great national importance.

SCIENTIFIC STARVATION.—It would appear that one of the most important subjects claiming the attention of scientific men of the day is the problem as to how long life may be sustained without food, or, in other words, the discovery of the best methods by which a man may starve himself to death more slowly than has hitherto been possible. In a paper recently read by a prominent physician before the French Academy of Medicine some new theories were advanced as to the surest and most satisfactory way of performing feats of abstinence from food. If the address could be translated and circulated in pamphlet form among those who from necessity are forced to economize in gastronomical excesses, there can be but little doubt that it would be perused with an absorbing interest. Experimentors would then be better prepared to institute a regular course of starvation in accordance with plans and specifications, and in the mean time they would have the unspeakable pleasure of watching the gradual, but satisfactory, decrease in the amount of their butcher's and grocer's bills, to say nothing of the relief from the annoying necessity of eating so many times a day, as prescribed by convention. The science of practical and total abstinence from

food is assuredly an interesting one. Any person who ever expects to be compelled to starve himself systematically, should watch the development of these theories, and discover the method to accomplish the desired end in the most befitting and expedient manner. We hear now and then of the possible extension of human life indefinitely, provided all the biological conditions are respected --perhaps one of the conditions is a well defined system of abstinence from eating.



HOW PHRENOLOGICAL COUNSEL HELPED A CHURCH.—The recent celebration by the Fifth Avenue Baptist Church, New York City, of the Fiftieth anniversary of the settlement of its pastor, the Rev. Dr. Thomas Armitage, was an occasion on which that distinguished divine gave an amusing recountal of one of the past experiences in his pastorate, causing many good-natured smiles, and evidencing the very practical use which he had made of the incident. A lady

correspondent who was present at the anniversary says, that when Dr. Armitage urged his congregation to move to its present location on Forty-eighth street, most of his people were of the opinion that the idea was absurd, on the ground that the site was too far uptown, "beyond the bounds of civilization," as one put it. One of his brethren, perhaps mildly anxious as to his entire sanity, said to him: "Doctor, will you oblige me by going down to Fowler & Wells and have your head examined?" "Certainly," said the Doctor, "anything to oblige you." "So," related the venerable pastor, "they went over all my bumps, and when my good brother saw that Fowler & Wells were willing to indorse me as one of the grandest fellows that ever lived, and gave me a big chart to prove it (here it is), they said to me 'go on.' That portion of the city which was then considered "beyond the bounds of civilization" is now closely built upon and the center of the fashionable residence locality of New York



To Our Correspondents.

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

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

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compos-

itors, and this can not be done when both sides are written upon.

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

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

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

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

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

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 to the Editor in his professional capacity will receive his early attention if this is done.

FOOD AND BATHING.—W. J. M.—We think it would be well for you to adopt for the most part the hygienic routine. The drain upon the lymphatic and circulatory systems is considerable in such an employment as yours, but hygienic food supplies all the elements in abundance that are required. And if one is successful in preserving the functional balance, he is not likely to suffer loss, unless the work is excessive. Your temperament, "Nervo-sanguine," is favorable for the business, but if you have much of the rubbing to do, the muscular effort, in addition to the other service, we would advise you to make some change, so that there would be relief. If you can get some outside work to alternate your indoor duties, do so.

THE NECESSITY OF SALT.—J. A. S.—We suppose that you have in mind common salt, or sodium chloride. This is an important inorganic substance in the human economy. It is found in nearly all the tissues; it has an important office in the integrity of the blood. Thus it follows, that salt is an indispensable constituent in human function. We are not of opinion that it is necessary to eat the chemical salt as a part of food, because salt exists in natural food. Vegetables and fruits generally contain it. Our quarrel is with the methods in vogue of preparing food for the table; for by them a considerable part of the saline elements are extracted or thrown out, so that the stomach does not get its normal quantity. When food, however, is properly prepared, all the substances required for the reconstruction of animal tissue is obtained, and there is no need for a resort to the chemical form.

CROMWELL'S APPEARANCE.—J. N.—Carlyle supplies a picture of the great Protector, which, knowing as we do Carlyle's disposition, is doubtless closely drawn. He

was less than six feet tall, large and strongly made, fond of exercise, a good rider, and a lover of horses. His eyebrows were black, with deep wrinkles between them, and there was the large wart over the right eye, which he wanted shown in his picture, when he replied to the artist: "Paint me as I am." The color of his eyes was light gray, and he had a very sharp penetrating glance. In the expression of the mouth and chin there was secrecy, strength of will, and impatience of control. His complexion was of a reddish cast, coarse, infiltrated, with a scrofulous tendency. "The nose was large and red, and was a source of endless satisfaction to his enemies, as they gave him nicknames based upon it, as 'Ruby Nose,' 'Copper Nose,' and 'Nose Almighty.'"

GEORGE LAW.—E. H. H.—This man possessed a great deal of natural force and mental power. His intellect was of unusual breadth and capacity. He was a natural reader of men, and employed large numbers of them with success. He was not remarkable for ease, mellowness, and courtesy in his relations to his employees, yet he knew what men could do and what they were, and they respected him for his abilities. He was a commander rather than a leader; he gave orders, not invitations.

LAME BACK.—F. H. M.—From your brief description we can scarcely conclude as to the nature of your malady. It may arise from long prosecution of your employment as a carpenter, standing so much at the bench. It may be due to indigestion or a form of rheumatism, and not be a spinal or cerebral trouble. We should advise you to try rubbings with hot or cold water, whichever you find better. Perhaps bathing the spinal column daily with warm or hot salted water would afford relief.



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

Excitability.—If there is any one particular characteristic marking the phrenologist, it is the ability to distinguish at a glance some of the nicest physiological con-

ditions. Before any noting of faculty, or combination of faculties, must come a careful analysis of condition of organization. One characteristic, Excitability, is wonderful in its effects, a power for good or evil; yet if there is an unsurveyed field in the world of human nature, it is this one, for the student has very few lines laid down for his guidance. He must, nevertheless, go boldly forward, be a real pioneer, and outline the path in great part.

The term Excitability is apt to be misleading to one not well grounded in phrenological truths, and to be understood as a reference to the peculiar activity of one or more faculties, rather than a condition common to the greater number, if not all. The common meaning of the word leads many to imagine it relates to the active, if not large, development of Combativeness; whereas, it is a condition apart from Quality and Activity, and working on or through the faculties most fully developed gives the impression of a much stronger development than observation would allow for. If the eyes are to be relied upon as indicative of character, apart from Language, I should look there for indications of Excitability, and base my conclusions on the color and brightness of those organs, being fully convinced that dark-eyed people are more apt to show this condition than those with light-colored eyes. The condition depends, I think, largely upon a peculiar blending of the Mental and Vital temperaments, yet it may be found where the latter is in a measure lacking, and the motive temperament is strong, and in that case likely to be hereditary, owing to activity of faculty in the parent transmitting the strongest resemblance—a not unlikely circumstance where the motive temperament is strong and of fine quality. The distinguishing characteristic of Excitability is *quickness* of action, where we see *ease* of action in Activity.

Dynamite is a good illustration of Activity—the electric sparks firing the mine of Excitability. Who can help noticing how much more quickly mental action is shown in some than in others? It is usually found associated with fine quality, very seldom without it, and among cultivated people, who usually have this fine quality, expression of feeling, as evinced by action is very guarded,

it being considered “good form” to put the brakes on the organs of expression. How quickly appreciated by a cultivated audience is the witty saying or the eloquently delivered passage of the orator; or the tuneful rendering of the musician; or the elocution and action of the player on the stage! The applause is instantaneous, but never boisterous. There is an immediate expression of this condition, yet how different from what is understood as the ordinary meaning of the word, Excitability. I make no notes on the morbid phases of this condition. In fact, it is hard to imagine how the whole organization, or even the greater number of faculties, could be in a morbid state of Excitability; for, unless the condition be so extended, it is impressed upon the activity of faculty, and not a condition of organization. There is no question of its effect on a faculty unduly active, and of its producing a morbid phase of such a faculty.

There is no field where the phrenologist and hygienist can be of more use to his fellow man than in directing to a right course of living a person with this physiological condition dominant. Cultivation or refinement, checking expression, holds it in line and prevents it becoming master. But all will need to be directed to a proper course of diet; yes, and of living as a whole. Plain and wholesome food, care in the use of stimulants extended to the use of butcher's meat, plenty of out door exercise, and sleeping in well ventilated rooms, are requisites in a course of living that tends to check expression and waste. Without having its strong current directed to one or more particular faculties, this force acts as nature intended it should act, to call the greater number of faculties into instantaneous use

JOHN B. SULLIVAN.

Comparative Poverty as a Condition of Man.—In considering the conditions of men, we must bear in mind that any state which is the result of an abnormal or unbalanced mental or moral activity can not in any wise be a blessing, and that any state resulting from normal or balanced activity must be a blessing. That men may rightfully acquire and possess property, is self-evident when we consider that they are endowed with a propensity whose virtual

activity is such acquisition. But the existence of the faculty of benevolence or universal love, and the necessity of its activity, require that no acquisition shall be made which shall in any wise abridge the rights of fellow-man. These two faculties, being in harmony, require that man be in moderate circumstances, yet possessing sufficient to supply all his wants, not only physical, but also mental and moral. This condition could exist only where men were free from improvidence, pernicious and costly habits, and from all selfishness.

But the improvidence of some, and the selfish grasping of others, have, for the present, thwarted the design of creation and divided men into castes and ranks with regard to possessions. In considering the castes, we must, as in treating other things, treat them both as effects and as causes. Riches can be gained only through that peculiar method of stealing which our statutes never touch and which infects, in some degree, all our commercial and moneyed interests, the grasping of heavy profits, at the expense of the labor of others. This is the result of dominant propensities—an unbalanced mental state. The advantages of wealth seem so great when we view all the great improvements which have been made through its instrumentality—the introduction of railroads, telegraphs, cables, and steamships; the building of manufactories, the endowment of institutions of learning—that we would scarcely banish it; but morality being given, a number of individuals in comparative poverty might equally as well, or better, have introduced the same improvements and endowed the same institutions.

Wealth leads to luxury in food and drink, inducing disease; it leads to an extravagance in dress and equipage, which induces the poor to rob themselves of necessaries, and even to sin for mere emulation; it raises its possessor above manual or other labor, inducing sluggishness or an evil expenditure of the energies which should be expended in vigorous exercise; and, worse than all, it excites and cultivates the propensities and selfish sentiments in opposition to moral feeling.

Extreme poverty, as the opposite of riches, is the result of several causes. Lack of energy and application, and undue expendi-

ture of their small earnings, bring many people to poverty. Striving to imitate and equal the rich requires the sacrifice of personal good, and often in cities is the prime cause of various prostitutions or vices, making the poor still poorer, and to poverty adding sin. The common use of tobacco for chewing and smoking, and of stimulants and intoxicants as beverages, ruins health and destroys wealth, sinking the unfortunate victim in weakness and misery.

As a cause, extreme poverty, however it may be produced, is generally evil; for it deprives its victims of the wholesome food necessary to true physical development, weakening body and brain together, and, consequently, lessening refinement, intellectuality, and even morality. It diminishes the desire for education, and makes it well nigh impossible to obtain where the desire exists. Often where there is an unduly great regard for appearance, coupled with improvidence, the poor are ashamed to appear in society, and shut themselves up in the little hovel which they call home, dwelling always in the atmosphere of their own low feelings, and never seeking the refining influences of good social intercourse. Both riches and extreme poverty, originating in abnormality or imperfection of mental organization, and each bringing its peculiar train of evils, are greatly to be depreciated.

Comparative poverty, which can exist with no improvidence or selfishness in regard to possession, and which furnishes wholesome food, gives leisure for mental culture, and still allows to every man a similar happy state. This is the condition wherein true manhood may flourish.

The realization of such a state may be difficult, yet we ought to expect it, and not only expect it, but labor for it, striving to banish from the world the great train of evil and pernicious habits which are now the cause of most human poverty and sorrow, and to develop and perfect the mind, making it balanced or harmonious in activity. Thus may be secured, instead of selfishness, a status of morality and universal love.

JOHN W. SHULL.

PERSONAL.

VALNER HURT dropped in at the post-office in Camming, Ga., the other day, and bought

ten cents worth of postage stamps. He told the postmaster that it was the first purchase of the sort he had ever made, and that in all his life—he is over 76 now—he had never written or received a letter.

MR. LESLIE STEPHEN, Thackeray's son-in-law, in a recent lecture in London, gives his opinion of novels as follows: "My own taste, when I retire into the world of novels, is to find myself in a pleasant atmosphere, and to feel that I am conversing in a higher sense of the word with courteous-minded people, who do not drop their good manners, even in their day dreams, with people who are not too anxious to preach to me, and who know a scoundrel when they see one. I like my author to see life truly, and, therefore, kindly—to see it truly, for I can not be really interested in a fiction purposing to deal with realities, unless it shows me a clear insight into men and women, unless I can feel that the observer of manners is grasping realities firmly, and that he knows what are the passions and ideas, the fears and hopes, by which human beings are really stirred." Evidently Mr. Stephen would have the novelist view human nature phrenologically.

HELEN B. SMITH, author of "A Modern Jacob," is to be congratulated for the production of a pure and suggestive book. Her studies of character are much above the average range of the novelist, and it is not so remarkable, as she said once herself that she was "brought up" on the principles of Phrenology.

WISDOM.

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

OBEDIENCE and prosperity are linked together in God's plan.

THERE is a big difference between getting on well in life, and getting well on in life.

THE best teachers are those who learn something new themselves every day, and are not ashamed to own it.

BY one compromising act, your hold upon another's confidence may be forever lost. Be truthful and consistent.

OPPORTUNITIES are sensitive things. If

you slight them on their first visit, they seldom come again.

THE man who sits down and waits to be appreciated will find himself among the un-called-for baggage, after the limited express has gone by.

MAN knows partly but conceives besides,
Creeps ever on from fancies to the facts,
And in this striving, this converted air
Into a solid he may grasp and use.

CARRY yourself respectfully toward your superiors, friendly toward your equals, condescending toward your inferiors, generous toward your enemies, and lovingly toward all.

MIRTH.

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

"WHAT are the last teeth that come?" asked a teacher of her class in physiology. "False teeth, mum," replied a boy who had just waked up on the back seat.

DRIVING a street car is not a very high calling, but it can scarcely be classed as among the lower walks of life.

A GEORGIA farmer made \$100 off an acre planted in watermelons, and a physician in the neighborhood made \$200 off the same acre.—Was it the watermelons, now?

A DUDE who was visiting friends in the country complained of the eggs. "They seem," said he, "lacking in flavaw, compared with our city eggs, they are rathaw insipid, aw!"

"You never find me hiding my light under a bushel," remarked Mr. McSwilligen, in the course of a discussion with his wife. "You do not need to," was the somewhat acrid reply; "a quart measure is quite large enough."

A YOUNG preacher picked up Bishop Pierce's hat and put in on his own head, and it was exactly a fit. "Why, Bishop," said he, "your head and mine are exactly the same size." "Yes," replied the Bishop, "on the outside."

By long thinkin' abo't a mattah yo' may lose oppahtunity. A many ob us jine in at de tail ob de percesshun an' club ou'selves 'case we didn't make up ouah min' quick 'nuiff toe get neahah de ban'.



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

PRACTICAL ELECTRO-THERAPEUTICS.—By W. F. Hutchinson, M. D., 12 mo, cloth. Records, McMullin & Co., Philadelphia.

This is, by no means, a pretentious work as regards size and style, yet a careful reading convinces us that it is one of the most useful that we have met in its field for the purpose of the physician, and especially for one who gives attention to nervous diseases. Dr. Hutchinson shows himself to be a busy man in his practice, for the reason that he condenses the results of his experience, often too much, apparently taking it for granted that all practitioners of medicine have a sufficient knowledge of physics for the understanding of his advice. For this reason he accords very little space to the discussion of batteries, most of the textbooks on the subject of medical electricity being largely occupied by such matter. His aim is to furnish just such information as is desirable, and the making of a big book is evidently regarded by him as quite unnecessary, when the facts are fairly presented and the positive results of observation are placed in their proper order. The field of cases suitable for electrical applications as commonly met with is well covered.

THE VIRTUES AND THEIR REASONS.—A System of Ethics for Society and Schools. By Austin Bierbower, author of "The Morals of Christ." Chicago: George Sherwood & Co.

The contents of this book are a series of short essays treating of the higher humanities of life. The author takes up, one after another, the common virtues and analyzes them carefully and shows their uses. The book is evidently not intended as a system of moral philosophy, but for the purpose of

pointing out the need of practical kindness, truth, duty, and so on, to the improvement of the individual and the State.

In the discussion of Truth, he treats of veracity, candor, prejudice, bigotry, hypocrisy, perjury, and bribery. Then in his observations on Honesty he looks at it from different points of view, discussing theft, cheating, promises, gambling—the minor and more pronounced forms of this, blackmail and reparation.

He considers also public duties as well as those that belong to the individual and his private relations. He has evidently been a close student of psychology, not burying himself in speculation, but observing the habits of people in common life. Therefore his mode of treating his topic is essentially a practical one, and is not made by any means complex.

The book is well suited to the reading of young people. The necessity for moral instruction in schools is met, to a degree, by a book of this kind, and we think were it employed as a reader, the teacher's business in the way of ethical instruction would be very much helped. The author thinks that he has prepared a book that will not give offence to any, on account of there being no special comment or notice with regard to the religious differences of people.

CURRENT EXCHANGES.

The Treasury, for Pastor and People. September contains a sermon by William R. Huntington, D.D., and also numerous lectures, illustrations, notes, and comments on scriptural subjects. E. B. Treat, New York.

The American Inventor. Devoted to Industrial Interests, Art, Science, and Manufactures. Monthly. Cincinnati, Ohio.

The Toledo Medical and Surgical Reporter. Reviews Medical Science in the West. Monthly. Toledo, Ohio.

American Art Journal. Music, Art, and the Music Trades are represented. William M. Thoms, New York.

Popular Science Monthly. The September issue presents two illustrated articles. "The Growth of Jelly-Fishes," by Prof. W. K. Brooks, and "Writing Machines for the Blind," by Arthur Good. Interesting papers on "Some Chinese Mortuary Customs," and "Mental Traits in the Poultry Yard," may be classed as the popular features for the month. A note of alarm is sounded in no uncertain tone in a paper, "How the Opium Habit is

- acquired." Darwinism and Manual Training are topics of editorial discussion. New York.
- Medical News.* Monthly. Clinical articles and Sanitary News. Cincinnati, Ohio.
- Ave Maria.* Weekly. A Roman Catholic magazine, literary and educational in character. Notre Dame, Ind.
- Dietetic Gazette.* Quarterly. A journal of Physiological Medicine. The name suggests its contents. New York.
- The Theosophist.* A monthly that has become conspicuous in the dissemination of facts and opinions connected with the Asiatic religions, philosophies, and occult sciences. Madras and London.
- Wallace's Monthly.* Devoted to domesticated animal nature, and specially of interest to the horse breeder and sportsman. New York.
- Equity.* A new candidate for public favor, of neat typographical appearance. Its aim, not very clearly expressed, appears to be opposition to monopolies. Chicago.
- Century Magazine.* September. An unusually good number of this popular monthly. More than the usual space is devoted to educational matters, the articles on "Uppingham, an ancient School worked on modern Ideas," and one on "College Fraternities," being the more notable. "Women who go to College," "The Industrial Idea in Education," and the "University and the Bible" will also attract attention. Topics of the Time, and Bric-a-Brac offer an agreeable post prandial melange. New York.
- National Temperance Advocate.* September. The bright and forceful organ of the National Temperance Society. New York.
- The Builder and Woodworker.* September. Practical trade journal for Architects, Cabinet Makers, Stair Builders, and Carpenters. Illustrated. New York.
- The Illustrated Buffalo Journal.* Very creditable organ of the International Industrial Fair now in progress in Buffalo, N. Y.
- Canadian Pharmaceutical Journal.* September. A monthly journal of Chemistry, Pharmacy, and Materia Medica. Toronto.
- Harper's Bazar.* Among the most popular of American publications which record the doings, sayings, and dress of the fashionable world. Weekly. Harper Bros., New York.
- The Prairie Farmer.* Exponent of the Western Agricultural "Idea." Weekly. Chicago.
- Massachusetts Ploughman.* Old and favorably known New England Agricultural Journal. Weekly. Boston.
- Harper's Monthly* for September has for the first paper, "Our Journey to the Hebrides," a pleasantly written account of an overland tour in Scotland, opens the number. "Old Satsuma" will be interesting reading for collectors of that favorite Japanese ware. For the sportsman is an interesting article on the "Woodland Caribou." "Two Montana Cities," gives an illustrated description of Helena and Butte. "The New Gallery of Tapestries at Florence," a continuation of "A Midsummer Trip to the West Indies," and a short story, "At Byram's," are other readable selections from its title page. New York.
- Texas Siftings.* Weekly, whose specialty is depicting the humorous side of life. New York and London.
- Mother's Magazine.* Devoted to motherhood and to the home. Monthly. New York.
- Annals of Surgery.* September. Leading American Monthly review of surgical science and practice. J. H. Chambers & Co., St. Louis.
- Hahnemannian Monthly.* September. A record of progress in Homœopathic medical treatment. Philadelphia.
- Homiletic Review.* September. An international monthly magazine of religious thought, sermonic literature, and discussion of practical issues. Funk & Wagnalls, New York.
- The Brooklyn Medical Journal.* August. A vigorous publication. Its typographical appearance is especially worthy of notice. Brooklyn, N. Y.
- Eclectic Magazine,* September, opens with a thoughtful article, "The Future of Religion," from the pen of Emile De Lavelle, and is followed by one of Henri Rochefort's timely and vigorous papers on the "Boulangist Movement," "The Scientific Spirit of the Age," "England's Real Peril," and a very tender and sympathetic series of quotations from hitherto unpublished letters of Charles Lamb, by William Summers, make up the number. E. R. Pelton, New York.
- Lippincott's Monthly Magazine.* September number contains: Herod and Mariamne, a Tragedy; The Faded Pansy, a Poem. With Gauge and Swallow, Part VII; Some Famous Hoaxes; The Temperance Reform Movement, as its leading elements. Philadelphia, Pa.



ECHOES FROM THE CONSULTATION ROOM.

BY PROF. NELSON SIZER.

A CHILD TO ADOPT.

IN a single day we had three applications to pass judgment on children in regard to the propriety of adopting them. One applicant was an invalid literary lady, who wanted a girl to be a companion, an amanuensis and a helper in domestic matters. We found the girl nervous, selfish, proud, headstrong; desiring to be "ministered to, not to minister;" to be the center of attention, service, and courtesy, and by nature was averse to make herself helpful, and smoothe the pathway of the patron. We said that by the time she were fifteen, she would be more interested in beaux than business; would want to play the lady, and practically forget the one who had educated, reared, and shielded her during the years of childhood.

This settled the case, eliciting the thanks of one party and the sadness of those interested in the other, who nevertheless said the truth had been told so far as they could judge.

Another case was respecting a boy six years old, who was as bright as possible, but cunning and disposed to falsify, and whose word could not be trusted. His only failing seemed to be falsehood. I told the lady who desired to adopt him, that if his mother was not kept in fear of telling the truth by a tyrannical husband; or, it was not a case of motherhood without marriage (in which case her whole life for the year was a lie), the boy would be likely to outgrow the tendency to falsehood, since he had many developments which would tend to cure him of that defect. But the lady sadly shook her head and said my second supposition was the correct one. There was no husband to tyrannize. The censorious world that blasts the misled mother, while it fails to blame the misleading father, had made the lie lived or spoken her only, though a poor and shortlived, defence.

Will the boy outgrow such an inheritance?—Jeremiah xxxi., 29.

The third case was this: A lady wanted to adopt a boy to educate, and to assist her in matters domestic and literary—to care for

a garden and horse, and accompany her in her drives, receive her company, which would be of a religious and literary type, and thus make himself as a loving son; and finally be educated for one of the professions.

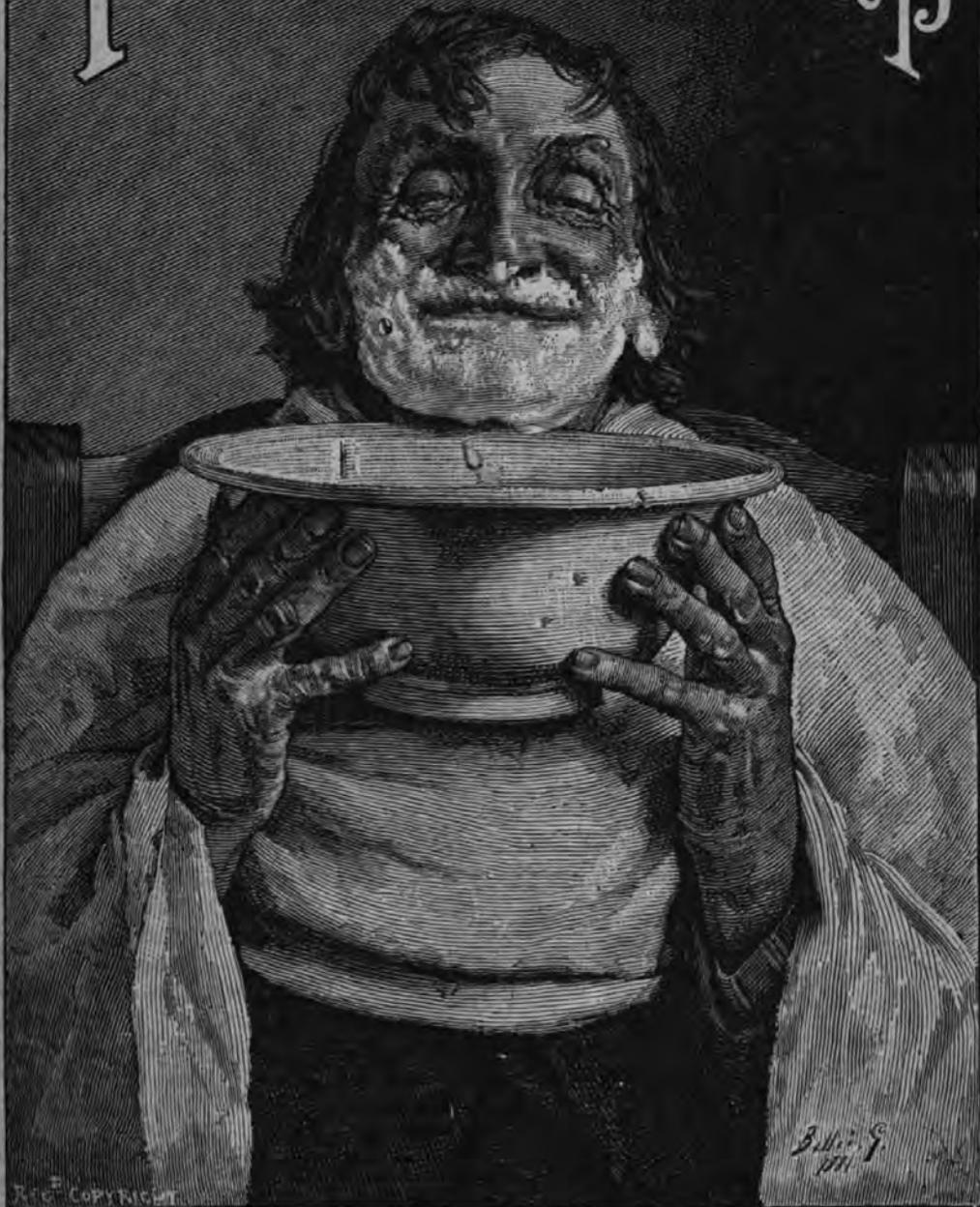
She had found a boy and brought him to me for examination. He had a sensitive, irritable, fault-finding nature, with a slim, stooping form, narrow and rather low forehead, and, of course, a cramped, contracted intellect. His face was weak at the lower part, and his vitality deficient. He had a head high in Firmness, Self-esteem, Approbativeness, Conscientious, Cautiousness and Combativeness, which, with his nervous system and lack of vitality, would make him hard, unbinding, positive, contrary, headstrong, and unwilling to be molded and guided. Hence he would show a negative spirit; would be unmellow; would be more like a trellis with vines after an ice storm, than like a similar vine in August, laden with leaves and luscious fruit. While the boy was not bad or wicked, he would be petulant, unhappy, and very disagreeable, desiring all to serve and minister to him and make smooth and sunny paths for him, while he would seek the best seat, and the first and best of everything, and take no pains to help or smoothe the way for others. He might never do anything really bad, but would never create happiness for anybody, or be happy himself. He looked for service and assistance, without rendering an equivalent.

The boy's mother, who was present, said I had described the boy correctly. Of course, the lady saw that such a boy would not only be a drag upon her life, but could never pay, by adequate results, the care and culture she could give him in return for loving companionship and fraternal and sympathetic services. She will look further.

RIGHT PLACE AT LAST.

What he said: "I had my head examined and written out in full by you eight years ago and you told me I could do many things well enough, but the very best place for me would be in a large sugar refinery as the chemist, doing the scientific part of the work. I was in the dry goods then, and for years had a good laugh at your expense, every time I read over, or talked about the description. Strange as it may seem, I have incidentally become an owner in a large glucose or corn syrup factory, and I am its chemist, and like it better than any business I was ever before engaged in. I am now happily fixed, I think for life, and the laugh has turned in your favor."

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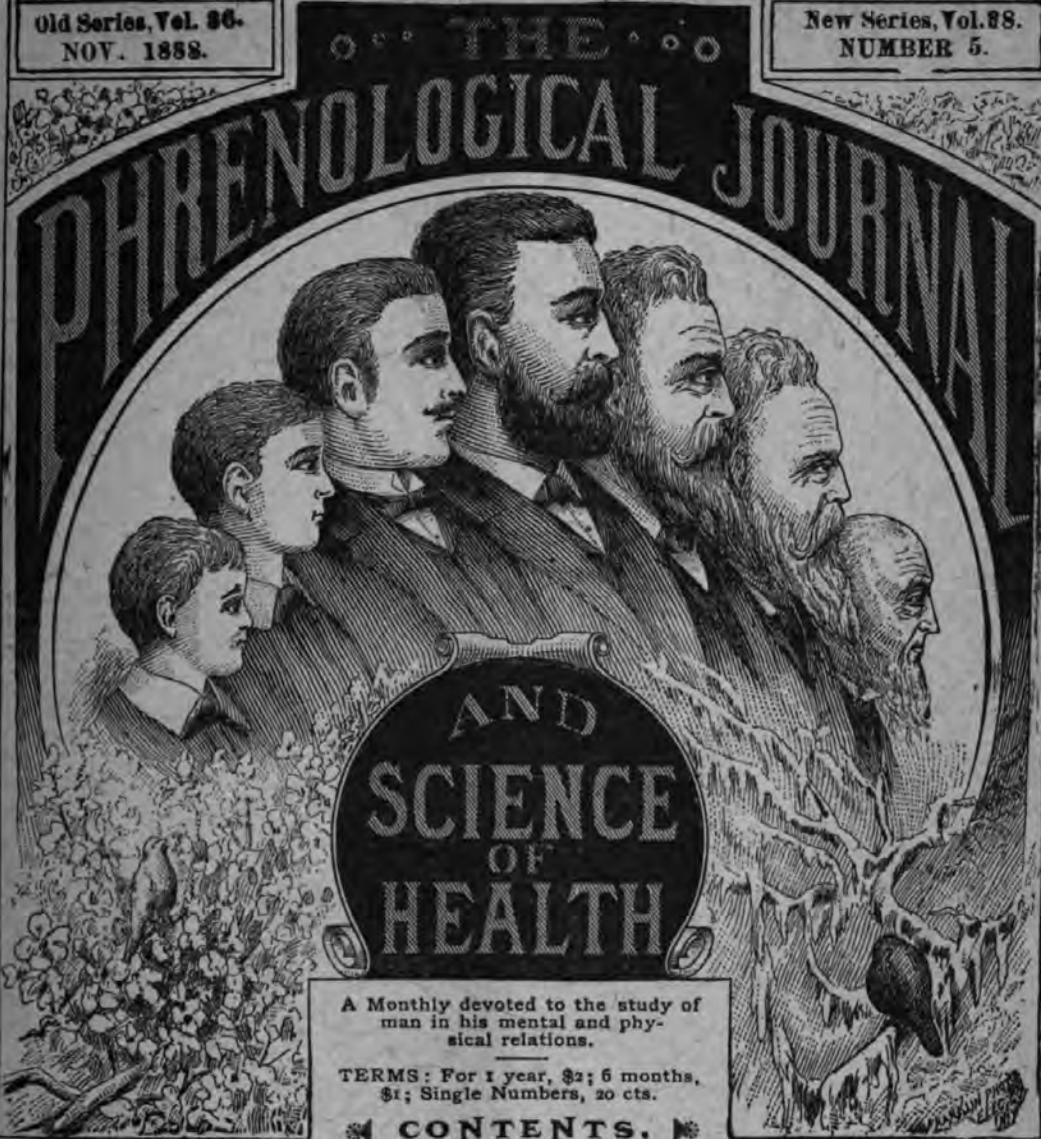
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[WHOLE NO. 599



NOTABLE PEOPLE OF THE DAY.—NO. 14.

GEORGE F. BARKER.

* BACK of to-day's progress are the men who think and study in the laboratories of home, the factory, and the college. So complex has everything become, even in our work-a-day life, that improvements of a practical nature rarely occur to the accidental observer, but are resultant from close and protracted study in special lines. The inventor and discoverer to-day is no adventurer, not the outcome

of a freak, but a man of scientific acquirements, and of quiet, steady pursuit. That rare quality called genius must be sustained by learning and industry, if it would help the world in the way of progress. Our best scientists are known for their diligence as students and workers, and their achievements in any line seem to bear a certain proportion to their industry.

Professor Barker is an illustration in point here. His reputation is not an accident or the result of fortunate circumstances, but the reward of laborious effort. He was born in Charlestown, Mass., July 14, 1835, the son of a sea captain, who commanded one of the packet ships then sailing between Boston and Liverpool. His early education was received in the public schools of his native town, but in 1849 his parents moved to South Berwick, Me., where he continued his studies in the classical academy of that town, and later at similar institutions in Groton, Mass., and Yarmouth, Me. While a student he showed a great fondness for the physical sciences, and even at that time he was given charge of the chemical and physical apparatus.

In 1851 his father took him to Europe, and he visited the great world's fair held at the Crystal Palace in London—the first of the international exhibitions, on the juries of which, in later years, he has served.

On his return, then sixteen years of age, with a fair education, he was apprenticed to J. M. Wrightman, of Boston, a well-known maker of philosophical apparatus. For five years he was employed in this manner, acquiring not only a knowledge of the principles of mechanical construction with the use of tools, but also learning the scientific principles which the apparatus embodied and illustrated.

His apprenticeship ceased when he became of age, and he determined to supplement his practical knowledge with two years' study. Accordingly, he

entered the Yale, now Sheffield, Scientific School, and was graduated in 1858 with the degree of Bachelor of Philosophy.

In 1858-59 and in 1860-61, he assisted Professor John Bacon in his lectures on chemistry, at the Harvard Medical School, and in 1861 was called to the chair of physical sciences at Wheaton College, Ill.

He was invited, in the autumn of 1862, to fill, temporarily, the professorship of chemistry in the Albany Medical College, where he remained until 1864, having meanwhile pursued a course in medicine, and in 1863 he received the degree of M. D. from that institution.

After delivering his third course of lectures, he was, in 1864, chosen professor of natural sciences in the Western University of Pennsylvania in Pittsburg, where he remained a year. In 1865 the younger Silliman urged his return to New Haven, as demonstrator of chemistry in the Yale Medical School. This appointment he accepted, and in 1867 he became the professor of physiological chemistry and toxicology in that department, also having charge of the entire instruction of the academical department of Yale during the absence of Professor Silliman in California, during the college year of 1866-67; he likewise delivered the lectures on chemistry at Williams College in the years 1868 and 1869. In 1873, when the University of Pennsylvania remodeled its scientific department and erected new buildings at West Philadelphia, Professor Barker was invited to fill the chair of physics, an appointment which he accepted and has since filled.

Aside from his college duties, he has done a large amount of work as an expert for private or public purposes, and in connection with the later developments in electricity. He has taken, in fact, a leading part in this last matter, and for some years has been the retained consultant of Mr. Edison, the inventor.

In 1881 he was appointed one of the U.S. Commissioners to the International Electrical Exhibition, held during that year in Paris, and also was a delegate to the International Congress of Electricians convening at the same time. He was made one of the vice-presidents of the jury of award, and was decorated by the French Government with the cross of Commander of the Legion of Honor.

He was appointed, in 1884, by President Arthur, a member of the United States Electrical Commission, which was formed for the purpose of determining the standard of the electric light. Among the municipal appointments which Professor Barker has held in Philadelphia, are special studies of the local water supply, the quality of the illuminating gas, and means for protecting the public buildings from lightning.

As a lecturer, Professor Barker is fluent and forcible, with a perfect command of his subject. For the elucidation of his topic, he finds no experiment too troublesome, and tedious formulas acquire under his discussion new and vivid significance.

From the portrait of this gentleman, as given us by the photographer and engraver, it would be inferred that he is of the individual type by organization, an original.

He has that strength of character that prompts one to take a place for himself, and not to play a second part. He has the disposition to investigate subjects of interest from the foundation. Appreciating principles in their theoretical relations, he would go further than the manipulation of chemicals, or instruments, and test the merits of analogy and the suggestions of imagination. The side head shows very marked constructive talent, and he is far from wanting in the ideal sense. He must enjoy research in departments where there is obscurity, or even mystery; hence we should expect him to devote some of his time to biolog-

ical experiment. Yet he is best pleased with the solid facts of material nature, and does not care to linger over matters of speculation. That which may not be traced step by step to its focal center of origin or cause he is generally indifferent to. But he, nevertheless, is likely to have pretty decided views on matters that are usually regarded as undemonstrable.

There is kindness and urbanity in the expression of the face; he is an impressive man, and likes the affiliations of friendship and of the domestic circle, probably much more than people who meet him in the ordinary exchanges of every-day life think. A busy, methodical, energetic spirit may be outermost, but he has warmth of feeling and delicacy enough for those who understand him.

JOHN H. BROOKS,

CANDIDATE OF THE PROHIBITION PARTY
FOR VICE-PRESIDENT.

IN the candidate whom our Temperance friends have named for Vice-President on the ticket with Clinton B. Fisk, we note characteristics of strength and emphasis. The entire face is that of a man of force and originality; not necessarily a crank, but so constituted mentally that whatever has secured his interest finds in him an advocate whose action is definite and unmistakable. The data of Dr. Brooks's life, now lying before us, tell us that he is, or has been, a clergyman, but do not say of what denomination, but the face and head show two phases of religious character that would adapt him to either the Methodist or the Baptist ministry. He has the feeling and generous susceptibility that distinguishes the Methodist type, and the sturdy positiveness and conviction of the Baptist. A man with such a constitution is not to be driven from the position he has once taken on a subject that relates to the moral economies, and to be called "cranky" by those who differ in opinion would not affect him in the least.

He should be a genial, hearty, open-spirited man; one who makes little effort to conceal his plans and purposes, and at the same time expects to receive a just measure of respect and consideration from others. He has the energy and hardihood of the worker who believes in the virtue of personal effort, and will labor as hard as any one when

the undertaking that he had been chosen to manage.

The indications of vital strength and endurance are marked in the features. Those cheek bones and that arched nose declare the motive temperament and the inheritance of an unusually tenacious constitution. He can work long and earnestly with much less fatigue than



DR. JOHN A. BROOKS.

he has taken an enterprise in hand. The region of the temples does not appear to be full in proportion to the frontal development, and this showing, if the portrait be a true representation, would give Dr. Brooks a tendency to think less of personal interests—less of Number One—than of carrying to a successful result

the majority of men over forty years of age, and he enjoys hard work best, mental or manual.

John A. Brooks is a Kentuckian by birth, having first seen the light in Mason County, Ky., June 3, 1836. His ancestors, however, came from old Virginia. His father was a preacher of

some distinction, and also conducted a farm, on which John was brought up. To this fact may be attributed in great part his fine physical development, and his capacity for so much mental and physical labor. He was graduated with honors from Bethany College in 1856, and has since received at the hands of his Alma Mater the degree of A.M., and is now one of the board of curators. He was afterward chosen President of Flemingsburg College, in Kentucky, and presided over that institution with great ability for two years, when he resigned to devote his life to the ministry. As a minister, he has been one of the most distinguished of his church, both as evangelist and pastor. The various churches, both in Kentucky and Missouri, over which he has presided, hold him in high esteem; especially is this true of the cities of St. Louis and Kansas City. He has frequently been chosen to preside over the State association of his church in Missouri.

While Dr. Brooks has been eminently successful in the ministry, it is in the temperance work that he has been most assiduous and best known to the general public. From the commencement of the Prohibition movement in Missouri, Dr. Brooks took a leading part, and may be regarded as the chief actor. Calm, cool, and deliberate, he has stood at the helm. Without the least spirit of dictation, he has, unconsciously to himself and the public, made that public to accept his judgment on almost every phase of the question.

In 1882 the brewers employed Mr. Vest, of the U. S. Senate, to canvass the State in their interests. The friends of Dr. Brooks invited Senator Vest's friends to a joint discussion, but the Senator "had already made a list of appointments and could not change them." In spite of Senator Vest's eloquence, another legislature was elected pledged to submission. Again the question failed before that body by the downright betrayal of the most solemn pledges of individual

members. Disgusted with his party, Dr. Brooks now began to waver in his political allegiance, and when the canvass of 1884 opened declared himself a member of the new party.

As a boy he was a temperance evangelist, taking part in the effort made forty years ago to introduce some measures of reform in Kentucky.

The Prohibition Alliance of Missouri was organized in 1880, Dr. Brooks and thirty-five others of similar purpose meeting at Sedalia for the purpose. He was chosen President, and, without compensation and at his own risk, he canvassed one hundred counties in behalf of measures introduced into the State Legislature to control the liquor trade. Out of the contests between parties and the varying influence of demagogues and machine leaders has grown the improvement in Missouri legislation with regard to the sale of liquor and the development of the high license idea. Not what Dr. Brooks desired, to be sure, but results that are due mostly to his self-sacrificing efforts.

In 1884 the Prohibition Alliance and the Prohibition party each met in convention in Sedalia, and both conventions unanimously nominated him as their candidate for Governor. It was hoped by these conventions that the Republican party would make no nominations that year and leave the field to Dr. Brooks and General Marmaduke, the nominee of the Democratic party. Had such been the case, it was generally admitted upon all sides that Mr. Brooks would have been elected. That party, however, nominated a pro-liquor man, and was defeated, but only after a most exciting and brilliant campaign. The result may be seen when it is stated that while Mr. Cleveland's majority was over 30,000, that of Mr. Marmaduke was 420.

Since the canvass of 1884, Dr. Brooks has been actively in the lecture field. His voice has been heard from Maine to Texas, and from Wisconsin to Alabama.

The Prohibitionists have certainly

made no mistake in their choice of leaders. General Fisk and Dr. Brooks will most probably draw a vote this autumn that will have a most powerful effect upon the action of the two great parties in the future.

ARTHUR J. BALFOUR,
SECRETARY FOR IRELAND.

ONE of the most active of English officials is the man whose name heads this paragraph. His place in the government is no sinecure, but one of the most responsible and embarrassing in the present crisis of affairs. He evidently means to do his duty as marked out by Act of Parliament and by the counsel of the Ministry, and as that duty has chief relation to affairs in Ireland, particularly as regards the Home Rule agitation, he is at once the "best hated" and best respected man on the ministerial benches. In the eyes of all who support the National League, Mr. Balfour is the embodiment of all that is abominable in British rule.

Arthur James Balfour is of mixed Scottish and English parentage, and was born in 1848. His father was James Maitland Balfour, of Whittinghame, and his mother Lady Blanche Cecil, second daughter of the late Marquis of Salisbury and sister of the present possessor of the title. On the father's side he comes of a family that has supplied many characters to Scottish history. In Ireland, where there is a firm belief in the transmission of hereditary qualities, this is quoted to his disadvantage, as might be expected at this time.

For instance, one of his ancestors, Sir Alexander Balfour, who figured in the troublous days of Mary, Queen of Scots, was called by John Knox "Blasphemous Balfour," it being said that he changed sides and changed his religion every time he thought the change would be profitable. He was present at the murder of Rizzio; was accused of complicity in the death of Darnley, and gave up to the confederate lords the letters in-

trusted to him by Bothwell, by which it was attempted to prove Mary's guilt.

Mr. Balfour was educated at Eton and at Trinity College, Cambridge. His college career was unmarked by special brilliancy, but he was regarded, nevertheless, as a young man of much promise. He was elected to Parliament for Hertford in 1874 as a Tory, and continued to represent that constituency until 1885.

In 1878, Lord Salisbury, then Secretary for Foreign Affairs in the Beaconsfield administration, appointed him pri-



ARTHUR J. BALFOUR.

vate secretary, and he continued in this position up to 1880. He accompanied his uncle to the Berlin Congress, and thus gained a knowledge of the inner workings of politics, which contributed much to his subsequent advancement. In March, 1885, he was elected for East Manchester, and again returned in 1886.

In Lord Salisbury's first administration, Mr. Balfour was President of the Local Government Board. In 1886 he became Secretary for Scotland, and last year, on the resignation of Sir Michael Hicks-Beach, he undertook the onerous

and sometimes dangerous duties of Chief Secretary for Ireland. Since then, although the Lord Lieutenant is nominally responsible for the government of Ireland, Mr. Balfour has in great part held the reins of power. He introduced the Coercion bill in Parliament, and piloted it through to the end; and therefore, in the discharge of his office as Chief Secretary, he is held by his party to a rather strict performance of the provisions of that bill.

The current portraits of Mr. Balfour represent him as he is pictured in our engraving. He has a quiet, sedate, studious expression, and we see little of the harsh, tyrannical overseer that he is described in certain circles to be. His head is lofty in the crown, indicating aspiration and decision. It appears to be full in the forehead, and fairly rounded above, giving one the impression of mildness and urbanity. We should regard him, if the engraving be correct, as one who is fond of looking into the philosophical relations of subjects, not especially practical in judgment, yet disposed to give room to doubts and suggestions of error. Therefore, he should not be headstrong or obstinate naturally, but disposed rather to temporize and adapt himself to others. We do not see evidences of masterful ability; there is not force enough for leadership, while he may possess capacity enough to suggest and plan measures. Yet the sense of responsibility is apparently well marked, giving him the disposition to carry out whatever he may have undertaken, although exposed meanwhile to rancorous criticism and the dangerous animosity of bitter opponents. While his official position probably has the most to do with the sentiment which the Irish people feel toward him, the fact of his relationship to the Premier contributes much toward their bitterness.

WARNER MILLER.

THIS gentleman, who stands before the people as the new Republican candidate for Governor of the State of New

York, was born in 1838. His father then lived on a farm in Oswego County. The family had come, however, from White Plains, in Westchester County, where his grandfather, a Colonel in the Revolutionary Army, once entertained General Washington at his house, and where his Uncle, Abraham Miller, had made a long record of official services.

The farmer's boy had in his blood, therefore, something of both the warrior and the politician. He attended the district school and academy, and by the time he was eighteen years of age, was ready for college. His father, however, was not a wealthy man, and if it had not been for the boy's own pluck and persistence, he would never have had a collegiate education. He went to Schenectady, entered Union College, and graduated in 1860, contributing toward his own maintenance while in college by teaching.

Almost immediately upon graduation he was offered the place of Professorship of Greek and Latin in the Fort Edward Collegiate Institute, and gladly accepted it. Before a year was passed, however, his academic career was cut short by the breaking out of the war. The martial spirit was stirred within him, and leaving Fort Edward, he went to Northville, Fulton County, where his parents were then living, and set about raising a company. His efforts were not entirely successful, for the number of his company was not filled up. He, and those whom he had induced to enlist, therefore, joined the Fifth New York Cavalry, as private soldiers, and went with it to join General Banks in the Shenandoah Valley. There Private Miller was promoted to a Lieutenantcy for meritorious conduct. At one of the battles near Winchester, he was taken prisoner by "Stonewall" Jackson, and soon after, upon Jackson's retreat before Fremont, he was paroled. No opportunity for exchange being offered, he and his companions on parole were ordered to their homes, and Mr. Miller went to Fort

Edward where he accepted a position in a paper mill, and later became its superintendent.

While at Fort Edward Mr. Miller studied paper making thoroughly, and when at last he was sent to Belgium to introduce in a mill there an American method of manufacture, he was an expert. On his return, having invented a

Finally, however, his perseverance triumphed, his method was generally adopted, and he became financially independent. When he began making paper, its price was fifteen cents a pound. By the use of his machines the price, for the quality used in newspapers, has been reduced to four and a half cents.

Mr. Miller began his political career



WARNER MILLER.

process of paper manufacture out of wood pulp, he organized a company, and began trying to sell machines for making paper out of wood. It was a hard struggle; the paper makers were conservative, and did not readily take his machine, and the young inventor had all he could do to pull through.

in 1867, when he was made chairman of the County Committee. In 1873 and 1874 he was chosen to represent his district in the Assembly. In 1878 he received the nomination of his Congressional district for its representative, and was elected. He was re-elected in 1880. In 1881 came the "Stalwart half-breed"

fight in the New York Legislature, which followed the resignations of Senators Conkling and Platt, and after a stubborn contest, Warner Miller was chosen as Senator Platt's successor.

As a senator of the United States, Mr. Miller was of the useful, rather than the ornamental kind. He was the principal champion of the anti-oleomargarine bill, and it was mainly due to his unremitting efforts that that bill became a law. He also introduced the bill levying a head money tax upon immigrants, and that act which forbids the landing of paupers or criminals upon our shores. He brought in a bill authorizing an appropriation of \$750,000 as a subsidy for a line of steamers to South America, which, however, did not become a law. He supported the Republican protective tariff policy, and in 1883 secured a duty of five cents a ton on iron ore, and a heavy duty on imported cigars. The history of his struggle for re election is too recent to need recapitulation. One of his competitors is now Senator, and the other is the Republican candidate for Vice-President. His own nomination to the Governorship has been a foregone conclusion ever since the triangular Senatorial contest was ended.

Of Mr. Miller's private life there is no occasion to speak, further than to say that he is married and has four children, aged respectively twenty, eighteen, six-

teen, and thirteen, and that he is an influential member of the Methodist Episcopal Church.

Mr. Miller, as he appears in the portrait, is a man possessed of good perceptive talent; his judgment is prompt as to the bearing of details, as he can organize them in such form that their effect becomes manifest. He is a man of affairs therefore, business-like, and enterprising, and reluctant to give attention to a matter that is likely to drag in its development and consume much time. His tastes are refined, and his motives, partaking of such refinement, have also the stimulus of ambition. He is what the old country people call an "up headed man"; and it seems to us that he is not to be spoiled easily by his political environment, but would strive to manage and control his constituency rather than have it manage him. He likes preferment, position, and success, and would strive earnestly for their attainment, but has so much reserve, pride, and self-regard that it must be a very extraordinary inducement that would lead him to consent to any measure that has a mean or unworthy object in view.

He is not so open and demonstrative as most men, but can exhibit tact and shrewdness on occasions, being greatly aided in his relations with the world by a superior judgment of human nature.

EDITOR.

QUIET WAYS ARE BEST.

WHAT'S the use in worrying,
Of hurrying
And scurrying,
Everybody flurrying

And breaking up their rest,
When everyone is teaching us,
Preaching and beseeching us
To settle down and end the fuss,

For quiet ways are best?

The rain that trickles down in showers
A blessing brings to thirsty flowers;
And gentle zephyrs gather up
Sweet fragrance from each brimming cup.

There's ruin in the tempest's path,
There's ruin in a voice of wrath,
And they alone are blest,
Who early learn to dominate
Themselves, their violence abate,
And prove by their serene estate
That quiet ways are best.

Nothing's gained by worrying,
By hurrying,
And scurrying;
With fretting and with flurrying

The temper's often lost;
 And in pursuit of some small prize
 We rush ahead, and are not wise,
 And find the unwonted exercise
 A fearful price has cost.
 'Tis better far to join the throng
 That do their duty right along;
 Reluctant they to raise a fuss,

Or make themselves ridiculous;
 Calm and serene in heart and nerve,
 Their strength is always in reserve,
 And nobly stands each test;
 And every day and all about
 By scenes within, and scenes without,
 We can discern, with ne'er a doubt.
 That quiet ways are best.

IMPORTANCE OF EDUCATING PUBLIC OPINION ON PHRENOLOGY.*

Science demonstrates the truth and power
 Of that great law which proves the brain
 The source of mental force, and gives each
 faculty

Its separate organ, varying forms
 Of size and quality, each with its own
 Just means of satisfaction; thus the brain
 Becomes as readable as other forms
 Throughout the visible wide universe.

THE British Phrenological Association is founded on the solid rock of truth and facts, proving the intimate relations between organization, tendency, capacity, and character. The members may now safely assume the great principles and doctrines of Phrenology to be true:—Mind is unknown to us except as manifested through the brain; that for every passion, mental emotion, and thought, there is a corresponding state of brain or of particular portions of it; and that the propensities, sentiments, and intellectual faculties are located in particular parts of the brain indicated in standard phrenological works.

Some of the deepest problems of life are involved in the conviction that the principles of Phrenology are consistent with facts, and are at the foundation of man's future progress and happiness. We must not only make believers in Phrenology, but avowed phrenologists, so that public opinion may be created in the establishment of the metaphysics of a true science of mind to displace the old, absurd, and obsolete metaphysics of the schools and universities which still govern legislation to-day in relation to

motives, character, conduct, and belief.

Crime is the result of two powerful causes, one, and sometimes both, beyond the control of the criminal; first, in the hereditary laws, and second in the power of surrounding conditions to impel the lower impulses of defective organization. Here we see the profound significance of a sound philosophy as to the nature of man. There are schoolmen at our colleges and universities, who contend that mind or spirit is independent of organization! But we have no evidence of mind independent of the brain and nervous system, while we know that the form, size, and quality of the brain convey the true indices of mind and character.

It is, therefore, imperative on the part of phrenologists to teach the true doctrines and principles of the science to the intelligent portion of the community around them, for the influence of custom over opinion and its expression is largely sustained by motives of expediency.

In the whole range of the sciences there is none so deeply interesting as that of psychology, or mind in connection with the brain. Astronomy, for instance, affords the most extensive example of the connection of the physical sciences. In it are combined the sciences of number and quantity, of rest and motion. In it we perceive the operation of a force which is mixed up with everything that exists in the heavens or on earth: which pervades every atom, rules the motions of animate and inanimate beings, and is as sensible in the descent of a raindrop as in the mighty falls of Niag-

* From an address before the British Phrenological Association, May 5, 1888, by Mr. E. T. Craig.

ara, in the weight of the air as in the periods of the moon. Astronomy affords the most sublime subject of study which can be derived from science. But a complete knowledge of physical astronomy can only be attained by an intimate acquaintance with the higher branches of mathematics and mechanical science, and they alone can appreciate the extreme beauty of the results, and of the means by which these results are obtained.

The study of Phrenology is not only more available, but it is more immediately practical and beneficial. As in other sciences, they must proceed to apply them, and by application to test its truth and utility. To do this the students must learn the science as taught by their professors. Phrenology has the advantage of all other studies. How uninteresting would other sciences appear if the student stopped short at the mere technical knowledge of their principles and facts. It is when he applies the facts and principles to promote human happiness, and discover the laws impressed on all nature, that his soul glows with emotion and his intellect expands with power. It is the same with Phrenology. It ceases to interest when the student rests satisfied with the knowledge of the local situations and functions of the organs. In itself it is the philosophy of the human mind based on physiology and biology, and their bearings on the well-being, the interests, and the duties of man, personally, politically, and socially, is direct and boundless.

There is an overwhelming amount of evidence in books and phrenological museums in support of the science, and testimony can be obtained to any extent by observations in nature. There is no disproof of the evidence, or refutation of Phrenology recognized by the world as satisfactory. It is true we had, some two years ago, the editor of a London daily paper presuming, in a leading article, to say that "Phrenology to-day is an effete branch of thought."

As the editor made this dogmatic statement on the authority of others, and exposed his utter ignorance of the science, a prompt answer was published. In a few weeks after the small pompous editor vacated the hypercritical chair. The *sanctum* knows him no more, and his place is occupied by one who, by way of compensation, published an article confirming the truth of the science as taught by Gall, Spurzheim, Combe, Vimont, Caldwell, and others.

The necessity of teaching Phrenology becomes a question of immense importance when we know that there can be no sound, systematic, and consistent education while the faculties to be educated are unascertained and, therefore, unknown. The teacher that punishes a pupil because he fails, does not understand the materials upon which he expends his energies. Nature has adapted the perceptive and observing faculties to seek and enjoy their proper objects. The organ of tune will enjoy harmony; form will relish art; eventuality, history. These and other faculties will seek their exercise, but the boy that has "no music in his soul" will be indifferent to musical skill. Where there is no faculty for mathematics, corporeal punishment will fail to implant it.

Phrenology only, by embracing the organs through which the mind acts, can afford us solid information concerning the physiological condition of the brain, or their powers of action as distinct primitive faculties. The basis of morals can not be understood without a true philosophy of mind; and Phrenology, when thoroughly understood, enables us to found moral science on nature, and to test moral actions by nature's standard. Hence the importance of teaching the science thoroughly to the rising generation around us. If mental differences in intellectual power depend on cerebral development, the variations in the feelings and capabilities of different races of men will find their explanation in differences of brain; and this

will be a guide to render the entangled events recorded in the pages of history intelligible.

The applications of Phrenology are, as before said, boundless in extent ; and if our associates and students will first learn Phrenology in its full dimensions as taught by its founders, as the physiology of the brain and the philosophy of mind, and then apply it to expand their own intellectual powers, improve their moral sentiments, and promote human welfare, everyone in his own personal sphere, and in accordance with his opportunities, they will find the study of Phrenology will prove a great source of gratification, as it has been to me through a long and active life in vari-

ous positions as a journalist, an educator, and pioneer in several departments in social progress.

Apply these suggestions, and you will find the day far distant when you will cease to take an interest in your own progress.

I am now in my 84th year, have added ten years to the lease of life by the study of nature's laws, and at this moment, when I see the possibility of a true philosophy of mind combining with a sound system of social science, the dawn of a glorious day of human progress when men shall be as brethren, and the earth a paradise of peace and plenty for all !—*London Phrenological Magazine.*

HOW TO LOOK AT A PAINTING ; OR, THE MARVELS OF LIGHT AND SHADE.

WHEN a lady dots her fair face with black court plaster, adding by contrast to the brilliancy of her complexion, and subduing any small blemishes, she makes use of one of those very principles of light and shade which were discovered by the old masters and made them models and standards for generations of painters. Nothing so little understood has been so generally discussed as these old paintings of the "old masters," dimmed and sullied by time, and liable, as they are, to be misrepresented by frauds and unintelligent copies ; yet they embody eternal truths and remain as monuments of the development of mind and imagination. They are great teachers of principles, from which future art must radiate and departure from which will surely mark decline.

I do not purpose to say much of the great branches of composition, color, and drawing, in all of which modern art has made progress, but chiefly to touch on that least understood, that magical element called *chiaroscuro*, or the disposing of light and shade. In this there are three great purposes, viz. : Relief, Harmony, and Breadth. Relief is the

distinctness and solidity of nature ; Harmony, the union or consent of one part with another ; Breadth, an effect of extent and magnitude. Too much Relief may result in hardness. It is most necessary in large pictures seen at a distance ; it softens and gives clearness when the picture would otherwise look heavy. The strongest effects of Relief are given in strong and stirring pictures by the opposition of contrasting shades and colors, a perfect parallel to the sharp contrasts in powerful and exciting tunes. Harmony in painting may be likened to the notes of music, linking together of similar shades and colors. Just as in music, the softer passions are translated by the melting together of extremes through gradations, carried too far, it results in an insipid, tame effect. Breadth is only obtained by associating a large extent of light or shade and subduing outlines and details, whence follows indefiniteness and play of fancy. In this is the secret charm of dawn and twilight, and the suggestions of infinite grandeur in space, as of the sky, and ocean, and of vast solitudes ; or it impresses the feeling of awe and

terror as derived from unbroken depths of gloomy woods. Connected with this is our love of stretches of meadow and water, of freedom, of vision, and distaste for the

est possible breadth, and if balanced by some light object on the dark side, and a dark object on the light, great interest is added and strong effect. Fig. 3. A

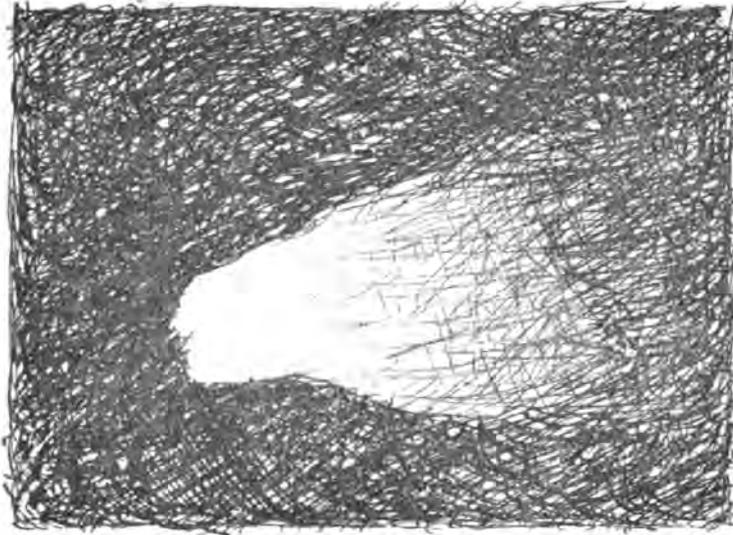


FIG. 1.

restrictions of city streets. From neglect of this principle, the landscape gardener errs in cutting up the soothing sweep of lawn into stars, anchors, and triangles

Fig. 1. As in every light there is a focus with infinite gradations, so, for the same reason, there is a focus of shadow that is most intense. If two extremes of light and dark are brought together, they assist each other, one appearing brighter, the other darker. When these are on opposite sides of a picture, there follows great balance of pictorial effect and breadth.

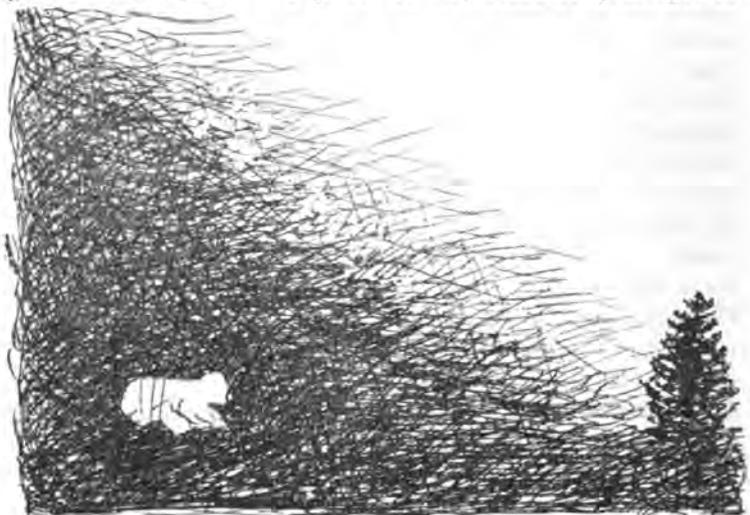


FIG. 2.

Fig. 2. When the light and shade is so disposed that a diagonal line through a picture would leave the light mostly on one side, and the shade on the other, we have the arrangement for the great-

est possible breadth, and if balanced by some light object on the dark side, and a dark object on the light, great interest is added and strong effect. Fig. 3. A brilliant effect, often found in the old masters, was to leave the light in the center, with dark borders grading up to it. The brilliancy is added to, if some small dark is brought in contact. A very common illustration is that of the moon, with dark tree tops crossing it.

Fig. 4. The reverse of Fig. 3. The mass of shade in the center accentuates the surrounding brightness of day, and is intensified by it, while the arrangement still retains breadth.

Fig. 5. A very common principle in

historical paintings was to leave the figures of interest in light against a dark background, and to place in agreeable arrangement three or more lights, one of which predominates, the secondary

lights being of nearly equal brightness, but of less size.

It is a self-evident principle that a flat surface receding from the light be



FIG. 3.

comes darker, and as the outline is more or less defined, advances or recedes. In natural landscape, the advancing parts are emphasized by sharp and strong contrasts of color, and of light and shade.

Fig. 6. When in a picture one part is balanced and harmonized by repetition of light, in another part the light is repeated in the same color, as shown in old portraits where the hands or sky repeat the light of the face. Small lights in a mass of deep shade take away an appearance of heaviness and add greater depth. So also does the focussing, as it were, of a tint or shade into a point of strong color, or a strong dark add depth and harmony, subduing lesser contrasts, and as it appears to advance on account of strength of tone, the rest naturally recedes. For this purpose rustic figures and animals in strong colors were made use of in landscape, depth especially resulting when the strongest tone or color was placed in the near foreground in opposition to the paleness of the greatest distance. Brilliance of color, or of light, is great in

proportion as its extent is limited. But color and form in nature show strongest in moderate light. Objects in motion, because of the stronger impression conveyed,

are somewhat emphasized. Where form is beautiful, the outlines are made more distinct, where otherwise they are artfully sunk in the background. But in compositions where much is hidden, that part shown which suggests the

whole, should be excellent in character; and where the direction of lines or shadows naturally leads to some point, it is supplied with interest in some way.



FIG. 4.

Small paintings do not give sufficient room for gradations, so lack breadth, and generally suffer from the relative bluntness of outline. Finally,

the greatest masters have always held as opposed to modern tendency that a grand simplicity is above the picturesque.

“Nature's first step” is the highest of art.

RALPH B. GODDARD.

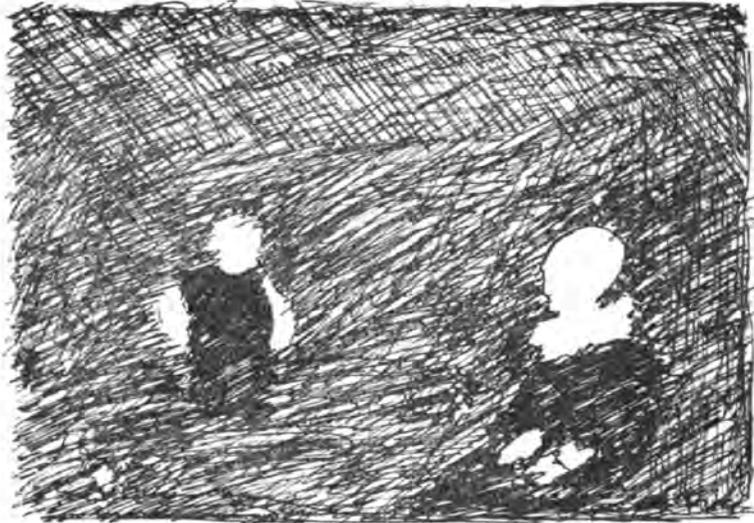


FIG. 5.

HOW AN OLD MAID CAME TO A RESOLUTION.

“YOU will not live with me, and you divest yourself of all but yourself!”

“Well,” said Ruth, “I rise in value

to myself, as nothing else is left me. Somehow, I feel like one of the old Greek goddesses who has drifted out of place. I leave you all my little person-



FIG. 6.

alties, reserving only what can not be transferred—the eye, the step, the sylvan bow—the soul in the soul of nature.”

“What can you do? How will you live?”

“Let me descend from the heights of the Olympian. I give away all Yankee vestments—bib, tucker, and wrap; bonnet and slippers, petticoat and shawl, parchment and deed.”

“You must be out of your head! What does it all mean?”

“It means that I am all disencumbered, and can wander where I will at my own sweet way. I shall have no thought for the morrow—where I shall live, where I shall die, or where I shall be buried. Something, it may be that from the first has simmered in my veins, is going to break out. I shall be under the special eye of the great Father, like the antelope of the desert, the birds of the air.”

“How; what?” uttered Ruth, breathlessly.

“*I am going to turn tramp!*”

I was not surprised at the expression, amounting to horror, that spread over the pretty face of Ruth; but a woman who would retrieve her entire emancipation, must adopt what physicians call heroic measures, for somehow, in some way she is always in bondage.

We are so hemmed in and narrowed by our social fabric, that anything outside of the four walls of a house, anything irrespective of the droppings of the sanctuary the or size of visiting card, must, to the thoroughly conventional mind, seem little less than madness. How can man or woman exist if devoid of carpets, gas, and sewing machines? The very idea of regarding the tramp as a man, to be cared for, or imitated, is monstrous. He has given up the struggle for existence; let him die. He has made himself a Pariah or outcast; turn upon him all the force of law and the bullets of the military. He refuses to work; let him starve.

All this sounds proper enough within conventional views. Once, at a debat-

ing society, in which the great Benjamin Franklin took a part, a member proposed the question:

“How is it that a barrel may be filled to the brim with beans, and you may then pour in a full barrel of water, and it will not run over?”

Various reasons were suggested: “the spaces between the beans owing to their form,” etc., till the debate was brought to a sudden close by Franklin’s pithy question, “How is the fact?” So this question of masses of men taking to a peripatetic life will have to be eventually settled as to the fact of the relation of capital to labor, and the relation of both to moral humanitarian principles. The beans have filled up the social barrel, and the scanty accession of water, so far from being equal to another full barrel, in the shape of wages, has only the effect to swell the beans and split the barrel.

But I am anticipating. I must tell something about myself, that the reader may be able to know something about the woman who thus claims to be heard.

In spite of what Ruth had said, at twenty-five I am not uncomely. I have little of that startling animal beauty that sets animal passion aflame, at once dangerous to the possessor and the observer. I do not go in for what passes for beauty, which would be in my way, an obstruction, and a snare. I am wholesome to look upon, clear eyes and skin, and perfect health. I am naturally peaceful in character, never could, and never did quarrel. I do not fidget, either. Am not easily daunted, nor readily flattered. I am very steadfast, reliable, and from the depth and strength of my convictions am rarely at a loss for a significant answer when required. I am not what is called brilliant, nor am I particularly magnetic, that is apt to go with a fibre coarser than mine. My eyes are deep set under an unwrinkled forehead, and gray in color.

The world is exceedingly beautiful and satisfying to me; by no means a vale of

tears, nor a thoroughfare to be scurried over in the hope of something better. I am well content in it, believing that what seems evil is under-grooved by such a substratum of good that there is no evil in fact, only needful discipline for such a creation as man. My optimism is unailing, in the small as in the great.

I find nothing mean or contemptible in the order of earthly relations, nothing common or unclean. On the contrary, infinite possibilities are daily developed around us; hopes from what has been creating prophesies of the future. Dante has lived and found a Beatrice; Milton could sing of the white soul of his "espoused wife;" and Shakespeare takes the great beating common heart into his own, despite of Ann Hathaway endowed with his "second best bed."

Ah, me! It is well to live, even shaped as woman, because Cleopatra turned her coarse clod into Orient pearl, and Margaret Roper sanctified a daughter's life, and Rachel Russel's wifely heart beat on for years, wisely, truly, greatly, after having manfully helped a weaker than herself.

None of these great opportunities are in my destiny, though I have greatly longed for a career, which comes now in the humblest guise. I will be a tramp!

Let me consider. Do I wrong any one when I turn my back upon organized society? My half-sister, Jane, older by several years than myself, will be right glad to have my silk quilt and fine blankets, to say nothing of my room at her own disposal. When we come down to the facts of our relation to each other in this life, how inadequate to our conceptions, what a mean character every thing assumes. "My second best bed" of Shakespeare has such a world-wide significance.

Jane is no better nor worse than the majority of women. She is by nature envious and jealous. Not jealous of me in the ordinary meaning of the word.

She does not fear that I may sneak behind doors and wood-piles to steal a kiss from her poor hen-pecked Sam. Oh, no! She only fears he may, through me, be refreshed with some clear, vigorous thought to send him on his way rejoicing. She owns Sam, body and soul, and her whole life is that of a detective, lest some poacher may trespass on her domain.

I own I may have tried to interest Sam in evolution, when she would rivet his attention to a neighbor's mishap, or the grave suspicion that Laura Brown laced in her naturally slender waist, or painted her blooming cheeks.

Well, Jane will be well rid of me. Sam will have some weak fears that I may perish in some way, and nobody to take my last breath; but, as an act of any kind requiring helpful forecast is quite beyond him, nothing within the range of an Eden would ever come of it.

Farmer Brace will miss me, and I shall miss his cheery, "Good morning, Miss Hannah. I always stick to it you are not an atheist, but what your creed is I can't make out. No matter, you're the most religious person I ever knew, and that's enough. Up there you won't be asked about creeds, I'm thinking, but about that cup of cold water and that bread to the hungry, and visit to the prisoners"—he points upward at this.

Then there is the Rev. Mr. Screamer. He will not have a soul on whom to fix his bulging-out eyes when he emphasizes his best paragraphs and aims his pithiest hits at infidels, if one could know the meaning of the word.

Vixenish Dolly Carter will miss an ever-abiding cause of spiteful malevolence; and Mary Clay will open in vain her baby blue eyes expecting to hear some supposed sceptical utterance. These will all miss a daily whetstone for their dull wits, and be none the worse for the privation.

No, I wrong no one. The world will jog on just the same, though I slip my neck out of the social yoke. It has sur-

vived Harriet Martineau, who honestly believed herself essential thereto, and it will survive sweet, beautiful Florence Nightingale, condemned to bear a name illustrative of high art, but low idea, in Westminster Abbey, a libel upon the smiling angel Death who lifts for us the veil of the Unseen.

No, no! I have no misgivings. I own myself, unshackled, and I impinge upon the personality of no other being. The inventory of my possessions is easily made out. Imprimis, a pair of serviceable legs, terminated by sound, shapely feet; two hands, not over small nor white, from having hoed and grubbed in Sam's neglected garden; a head well set upon neck and shoulders; gray, deep-set eyes, and a mouth somewhat wide, all kept in healthful trim by excellent digestion and a perfectly sound organization, thanks to my "forbears."

I must honestly admit, that I am not what is termed a lovely woman. I am, perhaps, inclined to be critical, but not to be sneering. That devilish quality is entirely foreign to me. I believe in the line of beauty, but live in the honest, uncompromising square.

I have a weak hankering for sympathy, underlying this my grim, square old maidenhood. I might have had a tendency to flirt, as most of women have, had not my lines of character been too sharply drawn, and it is besides this, a waste of capacity. I think I can understand how grand old Queen Bess struggled against this womanly propensity, and that largeness, fulness, and soundness of mental fiber that induced her to devote herself to her *children*, as she called her people.

"Why do you not adopt children, and do some good, instead of turning tramp?" the reader asks.

Well, the supposition is that this chapter would not have been written had I done otherwise. As to adopting children, those that beget are in duty bound to take care of children. I am not clever as nursery maid. I do

not take to blowing noses, and picking ears, and paring nails, and scrubbing down white heights.

I am not, as before intimated, lovely, but inclined to be exacting to others as well as myself. Still children love me, and even cats, which I detest, will rub their treacherous sides against me and purr and spring into my lap. I think children have an instinct for just, reliable characters, rather than for the caressing kind, and so have cats.

Most of women have a vocation for the family, which is but partially developed in me. They are useful and praiseworthy, just in proportion as they bring wholesome children into the world, but ought to be by the law proscribed from mothering sickly, scrofulous numbers to the body politic. I observe the least intelligent women aid best the common census.

Look at the sturdy Irish dame, with her frowsy brood! She has no theories about breeding or training, or anything else, but goes in a straightforward way to fill her seven by nine shanty with olive branches, who take their cuffs and spankings, and kisses and cajolings all with equal zest. They grow up endowed with a natural *pushing* faculty, and grow to outvote and push to the wall the flaccid children of the original stock.

No, I will not adopt the sickly children of ailing mothers, the accursed children of diseased fathers. I will not convert the blessed air around me into hospital malaria. Consumption is disgusting; fever madness; ulcers plague-breeding. I am selfish, if you will, but I can not abide disease and imbecility, household meanness and bickerings; women's eternal dawdling and complaining; and the wailing of poor, dear, distressed children.

Every day I take heart-joy that a Bergh has been evolved out of the ameliorating elements of our civilization. I study out his onwardness, and already land him where Swedenborg says the

oldest angel, but the youngest looking of all the angels, stands, even Love, nearest to the throne of the Infinite. He is not now waiting the call, "Friend, come up higher."

I will turn tramp, and see what comes of it. I will no more of these old ways that help in no growth, and scarcely leave us human. Besides all this there is no man and no woman made exactly alike. Men will carry out their own ideas in spite of all obstacles. They will be Alexanders, and Cæsars, and Napoleons; preachers, scientists, inventors, discoverers, artists, or what not, as best inclined, or best endowed, and they never ask, by your leave; while we women are all the time tucked up behind them, and made to pull their chestnuts out of the fire. It is a grand, beautiful thing to own one's self; to stand up in the light of heaven, and feel a divine chrism sanctifying the head.

After all, one house can not well hold several women unless some of them are natural subordinates. I am not one of these; or, if I must be subordinate, let a man, not a woman, be the boss. There's where the rub will come in when women get the ballot.

I talked on in this way, and Ruth heard with round, open eyes. At length she exclaimed:

"I don't see what you want, Hannah Jane, and why you are not contented. If you were only pious-minded, you would see that it takes all kinds of people to make up a world, and that the bad people in it are needed in God's way to try the hearts and purify the good."

"I dare say; bad people are needed to be whippers-in of the good. You may believe in a God who keeps that kind of police force. I do not; and I want a "lodge in some vast wilderness," just as men have longed for it, where I can escape cant, fraud, and wrong of all kinds. I am reverting to some anterior state—the blood of some old reprobate, perhaps, is breaking out in me."

"Why not get married, Hannah Jane, and settle down like other women?"

"That's it, exactly—settle down! Why are there so many wrecks of wretched women in the world? Because women hate work, and are afraid of enterprise. Why do not women join estates together, join property and business, instead of running after men?"

"I'm sure you could make a man stand round," this from Ruth.

"That's a kind of meanness I do not covet. I want to go outside of the woman's view of life as accepted in our day. I am tired of bullies, whether on the platform or by the hearth-stone. Men, somehow, seem to be in demand socially, and in the body politic, and I should be glad of peaceful relations between the sexes. I do not wonder at war and battle-fields, for every little dirty community is fighting ground; even children emerge from the nursery well practiced in arms. I go in for peace—a truce, at least—and if I can not have that, give me a desolate island or a broad thoroughfare. I go in for work, and old maid independence."

"But you might get married, Hannah Jane, and have a man to comfort you."

"Comfort me! Men have outgrown all that. They care no more for a woman's tears than the cat cares for the squeak of the mouse under his paw;" and I am afraid that I laughed in an unpleasant way, for I had no need of doing so, being so situated that no man, and no woman, had any right to say, "Why do you so?" And thus I am bent on going out and seeing how it will seem to have neither house nor home, and nobody to find fault with me.

Find fault! that's the great perpetual under-current that, like the *undertow* of the sea, drags people under, and wrecks and drowns them. Everybody that ever I knew has tried their hand in making me over, and yet, here I am, the same square, unflinching old maid, and I will go to the end of the world,

but I will see it in my own way. Everybody tries to hitch his team to the team of somebody else, and hence perpetual collisions. I never saw but one fully equipped old maid, and that was Sallie Holly, of Virginia, and she has built up her Eden, minus an Adam, and surrounded it with a palisade sixteen feet high, made of the strongest oak. I envy her regality.

Ruth had been furtively reading my face as this monologue went on, and she suddenly asked me :

"Do tell me, Hannah Jane, what became of your father? I've heard tell he was a mighty handsome man."

"Oh, bother fathers and mothers. I'm from the stock of old Melchisedek, King of Salem, so blessedly disencumbered; and so, this is the last of me, kept in a straight-jacket by society, where every one is strictured on the bedstead of Procrustes, all made of the same length by pulling out or lopping off. Let me rather go out into eclipse total.

ELIZABETH OAKES SMITH.

THE STORM ON THE PRAIRIE.

FROM out the West the wrathful clouds,
Wind-driven, onward sweep,
Till all the plain is wrapt in shrouds,
As though for endless sleep.
Through all the blackness flashing bright
The swift electric force
Smites the quivering earth with might,
And runs its mystic course.
Our speed gains nought, so crouch we here
And watch the torrents pour,
Our hearts o'erfilled with wilding fear
Until the storm is o'er.
Then, in the East the gray mist falls,
The blue again unveils;

While His trained hosts the Thunder calls,
The cowed wind hiding wails.

On gathered ranks of cloudlets white
Far to the North we look,
And near, the Sun, in glory bright,
Smiles on the swelling brook.

Now, in the South the broad fields smile,
The trembling, bearded grain
Lifts up the heads that bowed erewhile
And craved, "Oh, give us rain!"

And where the streamlet careless strays,
The rushes, beaten down,
Have lost their dainty rustling way,
They're bruised from root to crown.

A. ELMORE.

A BUDGET OF PAPERS ON PHRENOLOGY.—No. 6.

A FEW CHARACTER SKETCHES.

*"O wad some power the giftie gie us,
To see oursel's as ithers see us!
It wad frae monie a blunder free us,
An' foolish notion."*

THE joyous freedom of the novelist is not mine. I must be true to nature, and photograph even the shadows. The trained eye of a good phrenologist—where the qualifying adjective has a moral as well as an intellectual reference—is an accurate lens; revealing all that is mortal, and much that is spiritual, but the heart which is spiritual and immaterial, is accurately known only by the superhuman and the Divine. Then, too, these sketches must be instantaneous, taken in the quickness of a thought, before an acquaintance or companionship gives one

the ordinary and common knowledge of their fellowmen.

Should these pages in their wide and almost universal circulation fall under the eye of the ones thus instantaneously sketched, I can not plead the advice followed by ministers of the Gospel, "Preach to others your own experiences, and they will say to you at the close of the discourse: 'I know who you were trying to hit this morning, Dominie,' and take it to themselves." No, this is your own portrait; if you think it another's, so much the better. If you recognize the correctness of the likeness, I trust you will feel honored by its honorable position and rejoice that your life can thus be made helpful to others. By

these sketches I intend to help thousands and to prove convincingly and conclusively the accuracy, the advantage, and the practical application of Phrenology.

The Hon. Mr. —, recently elected to the Legislature, had traveled far and had just completed his lecture which was generously given to the church as a means of raising necessary funds toward its completion, and we were seated in the large office room of the hotel where we had provided for his accommodation. The room was filled with men of the Western type, large heads and generous pockets, when the honored lecturer said, somewhat to my surprise, "I hear you are a great phrenologist. I have always wanted my head examined. I will pay you well." Immediately another arose to his feet and took out a roll of bills with the statement: "I'll stand for his examination." "Gentlemen," I said, "so long as I am a minister of the Gospel I am quite unwilling to come out as a professional phrenologist. I studied the science to aid me in winning souls. I am always willing to help my fellow men in this way, but you must excuse me from public professional work. I will answer any questions you may ask me." Immediately the lecturer asked, "Would I have made a physician? My friends all wanted me to; but I couldn't remember the long jaw-breaking names." I then for the first time cast a searching glance at him, turning my little "detective" phrenological eye upon him and he was photographed. I did not need to put my hands on his head to answer his question. He was some ten feet away.

"Yes, you would," I immediately replied, "have made a very successful physician. Your diagnosis and prognosis would have been correct, quick, decisive and short. It would have been almost intuitive. But your memory of technical names is very poor. It would not have affected your success as a physician at all, for if you should ever see

the Zygomatic Arch or the Afferent and Efferent nerves as they lie side by side in their sheaths, you would never forget them."

"That is so, gentlemen. I never could if I should once see them," abruptly interrupting me, he exclaimed.

"But," I continued, "it would have affected you financially. At the top of the stairs you would greet one of the young ladies as 'Miss Mary' when it was Miss Alice. You would forget that the babe was a little boy and 'not a girl.' These little forgettings would cost you some patronage." It is easy to see that as his patients lost patience he would likely lose his own patience too.

"Would he have made a good surgeon?" asked the proprietor of the hotel. "Yes," was the prompt reply. "He would have enjoyed a hard and difficult case."

"I guess he is right," the gentleman remarked, "for down on my ranch I do a good deal of surgical work and rather enjoy it."

The unanimous assent of all acknowledged that I was right. The Honorable Representative was sorry that I would not give him a full examination. He said the science of Phrenology and Anthropology ought to be taught in our public schools and that he would try to push it through the Legislature if I would furnish suitable text-books.

NO. 2.

The next day, I think it was, I was sitting alone in the public room of the hotel where I was making it my home, when a young man came in. I recognized him, as having seen him once before in the same hotel where I saw him last night,—in the barroom. I had been attracted by a fine elocutionary voice declaiming something, I could not tell what, so I stepped to the door, looked in, and then turned away. He was that young man. He addressed me as if I were a well known phrenologist and then made some complimentary remarks about my successful character-

reading the evening before. I am human and enjoyed it, but interrupted him, for I felt as Moody does, and as St. Paul did:—"We must win them and save them if we can"—nationality, color of the skin, race or rank in life, have nothing to do with it. God help me! here goes. This was my thought: a lost, fallen soul to save!

"Let me tell you," I said, "you will stand all the mathematics, history, science and literature that you can get hold of. You have a fine forehead, an intellectual brain."

"Do you know that is what I always thirsted for," he said. As a true character sketch notice, let me call your attention to the fact that appetite means organ, a strong hungering for knowledge, a healthy working intellectual brain. I added with a smile as a queer suggestion from a minister, for I had seen size and weight largely developed, "You would make a good tight-rope-walker." He seemed puzzled a moment by my statement, and then with pleasurable surprise said to me, "I used to walk a wire, when nine years old, in a Bowery Theater in New York city. I traveled West with that company and learned to play the part I was reciting when you looked into the barroom. Do you remember looking in?" My spiritual influence over that talented young man, so far as I could see, was deep, and would be lasting. He left me with noble purposes and plans for his future life. An entire change of mind intellectually had come over him, but "conversion" is a change of heart wrought by God, man earnestly seeking for it. If this sketch reaches the young man's eye, I trust it will spur him on.

NO. 3.

Not even my love for Phrenology would tempt me to portray the characters in this sketch, so deep and sincere is my personal respect and love for those described therein, lest the refinement of their fine grained natures may be offended at a public exposure of even their

attainments. But for the good that it will do, and for the sake of the cause of Christ, I yield and feel assured that for His sake they, too, will pray with me that this sketch may win many to the truth.

The Judge had been very fortunate in his selection of a partner for life. Mrs. Judge — was a lady of rare intellectual vigor, ambitious for her children and family, proud, high-spirited, smart, sharp as a sword and quick as a spring-trap. Of the mental—motive temperament, dark hair and black eyes which sparkle with fire whether you rub them the wrong way or not; but she was an invalid. All this I photographed instantaneously in my first interview, a pastor's call, which I am now about to describe.

She received me courteously and entertained me delightfully. I avoided conversing on certain lines of literature because of never having read them. The ice had been broken, we were now friends, so I spoke of what was uppermost in my thoughts, the eternal things of God. Her eyes flashed; her words came thick and fast: "Pardon me," she said, "Mr. D—, but I will be frank with you. I hate your God and the doctrine you preach. I hate a God who would bring thousands into this world just to damn them eternally for a few sins here on earth."

I almost interrupted her, if not quite, and said, "Mrs. — the trouble is not with your brain for you have ample powers of laying hold on spiritual things [veneration and spirituality were large]; neither is the trouble with the doctrines which I preach, but, if you will pardon me, the trouble is *with your liver*. Get that in a healthy normal working condition and you can easily grasp these glorious truths of God's Holy Word.

For a moment the horizon clouded and a cyclone apparently was gathering up its forces. Her dark eyes grew smaller and darker. Her brunette complexion became tinged with blood. I

knew I was running the risk of her lasting enmity or eternal friendship in saying what I did. But my duty to God, to her, and to the truth demanded the pointed, plainly spoken statement of phrenological truth. But the light bursting through the gathering storm dispelled it. Bursting out with a laugh, leaning painfully over to the right side, and putting her hand directly over the liver, she said: "Can you tell me, Mr. D—, anything that will help me? You have no idea how much I suffer. I have done everything. The Judge has taken me to — and to —, but I seem to get no permanent relief."

"Yes, I think I can, but a clergyman is careful not to interfere with the physician's practice. But ask your physician if he would not advise you to take — —. Then if you can go off and have an entire change in your surroundings, get that important organ in a good healthy condition, then come back and I shall enjoy talking with you on these important truths." She bade me good-bye with a cordial welcome to come again, adding, "There are only —(mentioning an exceedingly small number) of families which I desire to call upon me. I was brought up in the South where the trades have no relations with the professions. The Judge will soon retire and then we will take our daughter to — to complete her musical education."

In a few weeks my prescription was followed and a change of air and climate sought for one or two months. On their return I greeted them as they were about to enter their home. "Oh! Mr. D—, I think the Judge and I will join your church—I can't say positively, but we want to talk with you. There was a revival going on where we were and we became very much interested. It was such a strange thing for the Judge and I to do: we rose for prayers. The pastor called on us, and we promised him to talk with you on our return, about joining the church. I don't know as we

will, but we would like to talk with you." They did talk with me and I earnestly with them, and they both joined the church on confession of their faith. Mrs. — had been brought up, I found, in the Catholic convent at Washington, D.C., with the daughters of foreign ambassadors. The Judge became a strong pillar on which the pastor leaned, often filling the church with an overcrowding audience to listen to his lecture on some biblical character in the necessitated absence of the pastor.

Mrs. — became a generous, kindly-souled christian worker in the church. Her heart as well as her head had been changed, as my closing incident will prove. There was in that city an organized opposition to Christianity. Their headquarters was a third-class hotel. Uncleanly men went in and out. I passed it every day, but never had occasion to enter its doors. On returning from an extended missionary tour I called upon Mrs. Judge —. She greeted me cordially without rising from her lounge. A lady caller was at her side. "Oh, Mr. D—, did you know while you have been away, a poor man died at the — — hotel, without even the presence of a woman at his side. If I had been well enough, I would have gone alone."

"What! you, Mrs. —!! You, have gone there *alone* to that awful place!" exclaimed the lady at her side.

"Yes, I would have gone alone. Think of his dying all alone unprepared for death!" What a glorious change had come over the Southern born, aristocratically reared, daughter of pride and ambition. Her heart and her home had been opened not only to the three privileged families she had mentioned, but to the world for whom Christ died.

A. CUSHING DILL.

CHARACTER in a preacher is the very force in the bow that launches the arrow. It is the latent heat behind the words that gives them direction.

VALUE OF KNOWLEDGE.

THE consequences of ignorance are the same as those that follow the neglect of the use of the knowledge we possess. Individual experience and history, which is a record of the experience of mankind in the past, are "philosophy teaching by examples," and instead of experimenting from time to time with the problems of life we should retrospect the past and profit by the conclusions that experience has furnished us. The wisest man of the world gave a great many admonitions concerning the snares and pitfalls of life, but in the end he neglected to practice the counsels he had given, and suffered the consequences of such folly.

The thing that makes the difference between success and failure in the main is a proper knowledge of the conditions upon which success depends, and the proper use of that knowledge. The famous Galen, who was a distinguished physician, once, when dangerously ill, overheard two of his friends in attendance upon him, recount his symptoms; he cried out to them to adopt every necessary measure forthwith, as he was threatened with delirium tremens. His knowledge enabled him to translate those symptoms into signs and dictate the proper remedy.

It is said that an ounce of prevention is worth a pound of cure, and we see this demonstrated when we see the thousands of women who are paying the penalty of tight lacing and superfluous headgear, and other irregularities in the many forms of pulmonary and heart troubles and nervous diseases that meet the observer's eye wherever they may appear in society.

One could do good missionary work by lecturing to the young, and in fact to people of all ages, on the evils of fashion and of bad habits, and save many from perishing on life's dangerous pathway where passion and pride hold a steady conflict with reason and conscience. A little knowledge of the right kind at the

right time, and in the right place might prevent years of suffering and place many on the highway to success and happiness.

Nature is retributive and can not be violated with impunity. She goes on with the operation of her forces as if all men were, or should be, intelligent. See how the yearly occurrence of epidemics and malignant diseases warns men of the danger of insufficient sewerage, and of the accumulation of filthiness. A proper knowledge of the conditions of their prevalence would teach us that necessary sanitary and hygienic precautions would banish them forever.

Not only does ignorance cost very much, but knowledge brings in abundant reward. One of the rich men of England was in Australia when the first discoveries of gold were made. The miners brought in their nuggets and took them to the local banks. The bankers were ignorant of the quality of the gold and waited to see its character established. This man had a knowledge of the natural sciences and knew something about metallurgy. He bought as much of the gold as his means would allow, and derived a profit of thousands of pounds in a few days. His knowledge properly invested brought him a handsome return. Knowledge prepares for observation, and enables men to see where investments will pay; it enables people to go through the world with their eyes open and look out upon the beauties and grandeurs of nature, and to take pleasure in the innumerable gifts that a beneficent hand has made abundant all around us. It is man's prerogative to understand nature while she addresses herself to him, and elicits his profound attention and admiration. She is ever ready to minister to his wants, and under the guidance of art she moves on the advances of civilization with the never-ceasing tide of human industries. The steam engine, the telegraph, the electric light and all that this

great civilization has evolved, are footprints of this intellectual march that has so agitated the world, and are premises that point to the conclusion of what shall be as the result of mind over matter. Many things that were before performed with difficulty are now made easy by the wonderful mechanism of this civilization, and the barriers to human progress and happiness have been torn down. The fields of animated nature have given a wonderful response to man's inquisitive researches, and the explorations made have revealed the fact that there is more beyond.

Not only have human industries been facilitated, but the sufferings of humanity have been mitigated by the advance in knowledge that characterizes the nineteenth century. We point with admiration to the researches made by Pasteur and Koch in the realm of disease germs, and especially the investigations that have been made in hydrophobia. A remedy for this horrible malady, if determined, will prove a blessing of inestimable value to the world, and will be a monument of fame that will outlast the laurels of honor won upon battle fields. Insanity, that dread monster, can be understood and its horrors alleviated in the light of modern research.

And thus we see that the most deadly foes to life can be met and chained and subjugated. It has been ascertained that many things that were considered by some to be puzzles wholly beyond the realm of law and order are capable of being understood and treated in the light of science.

D. N. CURTIS.

OLD AGE AND USEFULNESS.—It is a great mistake to suppose that the usefulness of life ceases with the power of active service. When the tired hands are folded in the repose which their toil has rightly earned for them, when the weary brain is relieved from the burden of cares and perplexities which it has nobly borne, there should be a season rich in blessings and in influence. Then

should come the leisure longed for in past years, and the opportunity to attend to many things and to enjoy much that was before impossible. If the busy life has been an honorable one, there are sweet memories, cherished friendships, the devotion of children, the respect of society, the power of helping others through the accumulated experience and intelligence of many years. The very presence of a venerable and beloved face is a blessing to those who look upon it, calling up emotions of tender reverence in the eager and buoyant youth.

THE FOOL'S PRAYER.

The royal feast was done; the king
Sought some new sport to banish care,
And to his jester cried, "Sir Fool,
Kneel now and make for us a prayer."

The jester doffed his cap and bells,
And stood the mocking court before;
They could not see the bitter smile
Behind the painted grin he wore.

He bowed his head and bent his knee
Upon the monarch's silken stool;
His pleading voice arose, "O Lord,
Be merciful to me, a fool!

"No pity, Lord, could change the heart
From red with wrong to white as wool;
The rod must heal the sin; but, Lord,
Be merciful to me, a fool!

"'Tis not by guilt the onward sweep
Of truth and right, O Lord, we stay;
'Tis by our follies that so long
We hold the earth from heaven away.

"These clumsy feet, still in the mire,
Go crushing blossoms without end;
These hard, well-meaning hands we thrust
Among the heart-strings of a friend.

"The ill-timed truth we might have kept,
Who knows how sharp it pierced and stung;
The word we had not sense to say,
Who knows how grandly it had rung?

"Our faults no tenderness should ask,
The chastening stripes must cleanse them all;
But for our blunders: oh, in shame
Before the eyes of heaven we fall!

"Earth bears no balsam for mistakes;
Men crown the knave and scourge the tool
That did his will; but thou, O Lord,
Be merciful to me, a fool!"

The room was hushed; in silence rose
The king, and sought his gardens cool,
And walked apart, and murmured low,
"Be merciful to me, a fool!" E. R. SILL.



CATARRH.—No. 2.

CAUSES.

THE term *catarrh* in itself furnishes a clue to the physiological disturbance that characterizes it as a disease. Derived from two Greek roots that signify a flowing down, the over-action of the mucous membrane in discharging its secretions, is literally described, and in tracing this over-action to its origin we are simply performing the part of the pathologist. Whatever, then, tends to disturb the normal function of the glands and membranes of the throat and nasal passages, and to set up congestion and its accompanying inflammation, will lead to this excessive down-flow of the secretions, which is nature's resource to relieve, if possible, swollen vessels of their abnormal blood supply. So long as the cause or causes of the congestion persist, so long will the catarrhal secretion continue, and the longer its continuance the more difficult and slow becomes the process of cure.

The two general forms of catarrh, *acute* and *chronic*, have much similarity of origin, yet the former but rarely runs into the latter. The inflammatory condition of acute catarrh may be easily set up, and run a rapid course, but chronic catarrh is slow in development, and much dependant upon constitutional, and it may be anatomical, causes. "Taking cold" is the common intro-

duction of the troublesome coryza or snuffles that shows the extent of the mucous inflammation. One becomes over-heated in a close room or by energetic muscular exertion and then exposes himself to a current of air, by which he is too rapidly cooled; the action of the sudiparous, or sweat glands is checked, and the skin's functions are therefore interrupted. This interfering with the normal course of the excretory duty of the skin, immediately throws an excess of work upon the inner channels of the body, and the mucous membrane is called upon to aid in discharging the waste products of the cuticular circulation. The extent of the membranous congestion is correspondent with the extent of the skin obstruction. If the skin is slow in recovering its function the catarrh is obstinate and protracted.

Exposure to severe winds may set up the trouble, but this presupposes some unusual sensitiveness of the nasal passages. So it is in the case of those who cannot inhale certain odors, such as ipecachuana, or violets, or be abroad in harvest time, or where there is much dust in the streets.

What is called "Hay Fever," or "Autumnal Catarrh," or "Rose cold" and other names, has doubtless a nervous origin, is a *neurosis*, but is related

to the common catarrh of the nasal passages in many respects.

People are often indiscreet with regard to changing their underclothing before the warm weather of summer is fairly established, and so render themselves subject to an attack of catarrh. Another common cause is getting the feet wet and not using means promptly afterward to prevent any bad effects that may result from such an accident. In our busy American life people are likely to become negligent of themselves. In the Eastern States especially, changes of weather are so frequent and sudden that it is difficult for the business man or business woman to be always prepared for them, and escapes from colds and sore throats after repeated exposures render many careless.

A person in average health may "take cold" half a dozen times in the course of the season of wet and cold that may be said to commence with November and end with April, and suffer little more than the inconvenience of using a few extra handkerchiefs for a week or two, but one can not expect always to incur such risks without finally discerning that his nose has become affected by an obstinate disorder that will baffle his best efforts to cure it and keep him in a state of more or less discomfort for years.

When one cold after another occurs and the mucous membrane has not time between the attacks to recover its tone and function, it becomes weakened, and the sub-acute form of the affection is developed. The subsidence of a severe attack of coryza or rhinitis is quite sure to leave the nasal passages in a condition of susceptibility to a renewal of the trouble on occasion of exposure.

Dr. Beard says in his definite way, "The chief predisposing causes are confinement in overheated rooms and the eating and drinking of hot substances. The nervous system is by these subjected to a double source of relaxation, that puts the excretory vessels and absorbents

into the best state for sustaining that shock which follows sudden exposure to changes of temperature and of humidity. Those who labor or idle over registers or near hot stoves are of necessity more susceptible to rhinitis, as well as to pharyngitis and laryngitis, than those who are more active, and more uniformly exposed to outdoor temperature. Hot air continually breathed in against the delicate mucous membrane of the nasal passages renders it susceptible to acute inflammation whenever the system remains chilled for any length of time."

There may be anatomical reasons for the development of the disease, in the formation of the bones, that enter into the structure of the nasal passages. The *vomer* or septum that divides the channel may be distorted and bent so as to reduce greatly the passage on one or both sides; the lower turbinated bones may bend inward and form a decided obstruction to respiration. I have frequently seen cases of chronic catarrh that were due, for the most part, to deformity of one or other of the sorts mentioned. The majority of such cases, I think, are due to deformity of the lower turbinated bone of one side. This is a thin, spongy bone, curled upon itself like a scroll, hence its name "turbinated," and extends horizontally along the outer wall at the lower part of each nasal cavity. This bone is covered with the nasal membrane, which is richly supplied with blood. Chronic cases of catarrh show a hypertrophied or thickened state of this membrane, the consequence of long existing inflammation.

The writer already quoted has treated this disease with more thoroughness and freedom than any other that I have examined, and his views with regard to other causes may be detailed with much appropriateness in an article that is intended for the general reader.

"Exposure to night air is perhaps the most frequent as well as the most powerful exciting cause of rhinitis, and one also that interferes with treatment more

than almost anything else. Those whose occupation compels them to travel much by night, and particularly the habitués of late evening amusements, are very liable to suffer from rhinitis, and are very rebellious to any method of treatment, so long as they remain unchanged in manner of life.

"*Smoking* has long been a stone of stumbling and rock of offence to those afflicted with inflammation of the lining membrane of the air-passages. Hot smoke has a far more locally relaxing tendency than hot air, and when the two are combined, as always in the act of smoking, the pernicious effects are very marked. A perfectly healthy nose and pharynx in an adult is quite hard to find, and in habitual and excessive smokers there is always evidence of more or less chronic inflammation of these parts. Tobold is of the

opinion that sitting in a room where much smoking is going on is more injurious to chronic laryngitis than the act of smoking. If this be true (and it is hard to prove or disprove the assertion), then it would seem that fumes of the tobacco smoke were chemically weakening to the tissues. Besides these common habits there are others that should not be overlooked, because of their relation to the disorder. Hot drinks, including tea and coffee, the hasty gulp of hot toddy on a frosty day, taken under the false notion that it will fortify one against the cold, and the pleasantly sweetened hot lemonade that a generous host offers his guest on the eve of the latter's departure, all predispose to catarrh because of their relaxing effect upon the mucous membrane of the throat."

H. S. D.

(*To be continued.*)

NOTES ON THE PHYSICAL PROPORTIONS OF MAN.

LEONARDO DA VINCI, when writing his inimitable notes, after giving a few figures which he deems correct, says further, "if you tell me I may be mistaken, and judge a man to be well-proportioned who does not conform to this division, I answer that you must look at many men of *three braccia* and out of the larger number who are alike in their limbs, choose one of those who are most graceful and take your measurements." (Da Vinci's Literary Works.)

Rimmer says, "Make your men deep-chested and narrow-waisted, like a lion, for we live in this world not by let, but by opposition. ("Art Anatomy.")

On the contrary, we are led to hope of finding in a vast series of measurements, a normal or representative man. This, by Gould's well-known tables, is rather more surprising than satisfactory, since we discover the mean statures of a very large number of able-bodied soldiers to be about five feet seven and one-half inches; not by any means so great as one might be led to suppose from casu-

ally looking at the men we meet.—*Three braccia*, according to Da Vinci's proportions, is about seventy-two inches or six feet, a very tall man, in our own time and region.

So much for general proportions. I have in my possession several measurements of athletic and handsome men, whose acquaintance I have for several years enjoyed—I say enjoyed; for athletes are generally agreeable—and among them one or two who are specially symmetrical. Yet neither of those whom I like the best to see is of the figure Rimmer, an artist, or Da Vinci, a master, would choose. One of the best judges I ever knew inclines to a round shouldered, sloping shouldered man.

Whatever may be the opinions of artists or the deductions of measurements, or the study of antiques, one thing is pretty well established: Aristotle's dictum that the strongest man is he who is able to handle his opponent, and that there is some constant relation between symmetry and good health; since

what is symmetrical is best calculated to adapt itself to its environment. *

HENRY CLARK.

* The writer, an original and careful observer, confirms in his brief paper the statements made

in the article published in the July number on "A Standard." The results of exhaustive research in this important branch of anthropology will sustain the proposition, that not one but several standards must be defined to correspond with the several types of organization that find their bases in temperament. EDITOR

THE EFFECTS OF OVEREATING.

THROUGHOUT both the vegetable and animal kingdom we always perceive the beautiful law of limitation in constant operation. This beautiful law prevents a horse from growing as large as a bonded warehouse; and it prevents a man from attaining a stature equal to a tall tree. Observing men who rear and fatten domestic animals, understand very well that, in some instances, hogs become so fat that they have to be slaughtered, to save them from an untimely death, and consequent loss of the carcasses. There comes a time when the formation of flesh, muscle, and bones, and the secretion of fat ceases, in obedience to the law of limitation. Many farmers have been heard to say, in regard to hogs: "My hogs must be slaughtered at once, or I shall lose them." Why? Simply because the animals are literally crammed full of fat, and they have laid so much fat upon their backs and sides, that the process of secretion has actually stopped. Many men have fed large bullocks, year after year, for the purpose of developing a mammoth animal. But they have learned that it was an utter impracticability to make an animal secrete a single pound more of fat or flesh, or to grow even a fraction of an inch taller, or larger. I have in mind a friend who fed a large steer until the animal was six years old, with a view of producing a very heavy bullock. But he told me that many times during the fifth and sixth years, the steer would "get off his feed" so frequently, that it was impossible to make him grow any larger or fatter. "He had so many hard spells of breathing that I had to sell him to a butcher, for fear he would die and thus be a loss to me."

Humans, in one respect, are like animals. There comes a time when men and women have stopped growing and are fat and plump, and they are as full of fat, internally, as they can be. If digestion is sharp, and fat persons have enough bodily exercise to use up a good deal of energy every day, they seldom will be in danger of suffering an inconvenience from gluttony. When oxen or horses are required to perform hard service daily, they may be fed all the grain and meal they will eat, and they will keep fat and well. But if kept in the stable without exercise, they will soon "get off their feed," get sick and die from being too fat and from gluttony. It is exactly so with men and women, who eat much more than enough to supply the actual waste of the body. The law of limitation prevents secreting any more fat. Then, as they do not use up any material at hard labor, there will be no demand for food to repair the waste of any part of the body. Consequently, the energies of the body must be expended by way of efforts to throw off, and heave out what has been eaten, as no part of the body was in need of any repairs. Hence, people who do almost nothing, will always be in danger of overeating, especially if they partake of heavy or very nutritious food. Many people force down an enormous meal of heavy food, simply because it is meal time, and others are eating, and *they* have a morbid desire to eat. So as every article of food *tastes* good, they play the gourmand until they are literally full.

Well, what is the result? Why, simply the energies of the stomach can not digest such a large quantity at one

time ; and before one-fourth part of the contents of the stomach can be digested, the larger portion expands and begins to ferment, instead of digesting ; and congestion is superinduced, and death relieves the sufferer in a few minutes.

A young lady friend ate more than a quart of cherries, then drank as much milk as she could swallow. She was well and in perfect health. But in less than a half hour she was stone dead, simply from over-eating. A *post-mortem* examination revealed the fact that the milk had spread between and among the cherries, and had curdled quickly, thus forming a large lump of solid food that filled the stomach so completely, that the digestive powers could not manage such a solid mass. If she had eaten cherries and milk together, the probability is, that the contents of the stomach would not have assumed such a solid mass. Hence, congestion would not have been superinduced.

A highly esteemed clerical friend, who was much fatigued by many hours of severe mental labor, partook of a hearty meal of heavy food (roast beef and clams with other "good" things) and he put more into his tired stomach than could be digested. His system did not need half a pound of beef and a bowl of clams and many other articles of food and drink, to repair the wasted energies of the brain. Consequently, there was a rebellion in the stomach ; and congestion and death followed in quick succession. If my friend had taken some good bread and butter and an egg or two, or a dish of cooked wheat, or oat meal, and then have taken rest, he might have been alive to-day. His untimely death was

the natural result of inexcusable gluttony. Most people eat more than is required to repair the natural waste of the body. Multitudes eat a hearty meal when they do not need one mouthful of food. In many instances, after a course of soup, and roast beef, and oysters and other things have been forced down, an extra effort is made to compel the overburdened stomach to receive a piece of pie and a dish of pudding. The truth is, most people eat entirely too much for their health and comfort. The palate is tempted many times with too many luxuries at one time.

But on the contrary, many estimable citizens do not eat half enough to give them good health and comfort.

A person may die from the effect of gluttony, as well as from delirium tremens. And one may live entirely too poorly by trying to subsist on poor food. My neighbor's horse got access to the box of dry oats, and ate so greedily, that the grain swelled his stomach and caused his death. The horse of another neighbor has just died, because the poor beast could not get oats enough. Many good people fear starvation, or injury to their health, if they fail to take three hearty meals every day. Animals sometimes live entirely on the fat that they have stored up in their bodies ; and they are kept in good health by such means for some time.

If many excessively fat humans would take two light meals per day, and allow their digestive energies to draw on the fat, for a deficiency of needed food, they would enjoy perfect health and avoid an immense amount of illness incident to overeating.

S. E. T.

HYGIENE IN TYPHOID (ENTERIC) FEVER.

THE ordinary treatment for typhoid fever (and the same may be said of scarlet fever, diphtheria, pneumonia, etc.), whether in private practice with old school physicians, or in the practice of some hospitals under the same, or

with the best of the "quacks" (whose treatment is really on the same general plan, being what I term the *drug slugging method*), a routine medical treatment that as I wish to say, for the above named sicknesses, hinders, rather than

helps nature, and is actually calculated to prevent recovery.

For example : a medical journal, that with several others finds its way to my desk regularly, has in the December, 1887, copy the following on typhoid fever, under the head of "Hospital Notes : " "Treatment of typhoid fever in the hospitals of New York, Boston, and Montreal." The first paragraph relating to the treatment at the New York hospitals, reads as follows :

"During the early part of this summer the routine treatment of typhoid fever in Dr. —'s wards, if the patient entered during the first ten days of the disease, was *calomel purge, immediately followed by naphthaline in doses of ten grains every three hours.* " *The first seven cases died.*" (The italics are my own.)

It is proper to say that according to the report that two of the seven entered the hospital moribund; but what of the other five ?

Finding that this routine treatment proved so disastrous, it was modified, but still, both in hospitals and private practice, as at first remarked, the calomel, naphthaline, whiskey, morphine, bromide, etc., etc., treatment is followed to an extent to make all well-informed men and women, in or out of the profession, shudder, and ask, "Is this according to the medical science of the present day ?"

A letter written by a New York banker, giving a history of a case in his own family, which I am permitted to use, will help, I think, to show that what I said in the article published in the September number, on pneumonia and typhoid fever is worthy the serious attention of all those who pursue the old methods.

(The case was treated by telegraph. Dispatches were exchanged every few hours during the first few days, then for a week less frequently.)

NEW YORK, Aug. 31, 1887.

MY DEAR DR. PAGE :

My boy, Donald, was taken sick Tues-

day, Aug. 16th. He had been previously well and not even complaining, except on the day previous, and then only of weariness after a walk in the fields. We have reason to believe that he was really upset for two weeks antedating his attack, as it seemed impossible for him to get to sleep after going to bed at night. He would lie awake for two or three hours after the other children were sleeping, playing and talking to himself, but, apparently, unable to quiet down to sleeping.

His appetite failed a little for three days before the attack, and on the Tuesday mentioned he gave up completely—vomited his breakfast, had slight diarrœha and was feverish. We thought it biliousness from wrong or over-eating, and for several days nothing was done for him but to lighten and to simplify his food and let him rest, which he did absolutely—not being at any time willing to stand on his feet. This ran along until Sunday, when Dr. —, a homeopathic physician of Brooklyn, saw him, guessed he had some temporary gastric trouble, and prescribed, I believe, mild solutions of soda and mercurius to act as a settler and clearer of the intestinal canal. On Monday he was no better. Dr. — had gone. Dr. —, an English allopath, from Bermuda, resident physician at the hotel, came at my request, took his temperature, found it 101 1-2, and, after some deliberation, said the boy had some malarial fever, possibly typhoid, and prescribed quinine in one-grain doses to be given three times a day.

His mentioning of typhoid filled me with horror and I sent for an old friend of mine, a physician of the regular school, who himself had had typhoid fever last autumn. He took charge of the case Wednesday, August 24, about a week after the attack. He began to feed the boy all the milk he would take, and aconite in solution of one drop to a teaspoonful of water every half hour. When I arrived home on Wednesday

night I found his temperature had opened at 102 in the morning and was then at 6 p. m., 104 1-2. I slept scarcely any, watched the boy all night. He was excited and slightly incoherent, and wandering in his talk, and evidently very sick.

On Thursday, the 25th, I wired you all I thought necessary, and was cheered by your vigorous and rational advice, especially that part which promised convalescence in four days. The other physicians said it would be a three weeks' battle, which handicapped by a temperature of 104 at the start, I thought were odds too much against the boy to suit me.

When I reached home and showed your two telegrams to the two doctors, they at once scouted your views, said you evidently did not understand the disease; that the dashing of cold water and the fasting would both weaken the body, especially the nervous system; might cause heart failure, and advised me strongly against it, and said they would wash their hands of the whole case if I intended resorting to any such measures, and did all they could to frighten me away from heeding any of your "so-called treatment." They said the very estimate of the result of your treatment, ending in convalescence in four to six days, proved you ignorant of the disease, which was a germ disease, self limited, and bound to run about twenty-one days at best. I was also surrounded by well meaning friends who backed up the physicians, and advised me for their sakes not to risk the life of my child by any rash experiments, especially when professional knowledge was so overwhelmingly against the benefit of that treatment. Luckily I was deaf to all of their arguments, and you may imagine that my position was not a pleasant one to be the only one at the wheel who was bearing the responsibility, following the advice of a physician two hundred miles away, conscious that complications might arise that would require very delicate handling, while my knowledge was

only half sufficient to do justice to the situation. For days I endured this, blessed by improving conditions all the while, using your treatment, only modified by my intimate knowledge of the boy's temperament and the easy yielding of the symptoms to the treatment used.

The boy is now practically without fever. His highest degree yesterday was 99, at 6 P. M. He sleeps well, has an eager appetite all the time, and apparently has no disturbance of the stomach or intestines. No swelling or pain. Dr. Page may not know whereof he speaks. I would be glad to hear of his experience of the life of the typhoid germ and the heart failures that follow his treatment in private practice. I say to him, however, blessed be his name and may he live long to give to others the happiness that he has given us by lifting up the sick bodies of little children from beds of suffering, to the arms of their rejoicing parents. I believe the danger line is passed, and I believe that the two days of "starvation" relieved the stomach and intestines of the work that they were incapacitated from doing by disease, and that this prevented the glandular swellings, or Peyer's ulcerations that are called the necessary adjuncts to the disease, and impossible to avert, and said to be not due to anything but the presence of the germ. The physicians would now deprive you of the glory due to your wise advice, by saying that the attack was only a *light* one, and was not probably typhoid; but the parents of the boy know to whom honor is due, and will always hold you in grateful remembrance. With affectionate regards,

Very sincerely yours,
_____."

AN INVESTIGATING COMMITTEE ON DEATHS FROM INTEMPERANCE. The committee of the British Medical Association have recently published a report giving the results of an inquiry into the connection of disease with habits of intemperance. Printed inquiries were sent out, and two

hundred and fifty answers were returned, giving the statistics of four thousand two hundred and thirty-four cases of deaths. These cases were divided into classes, then studied to ascertain the occupation, ages at death, causes of death, prevalence of gout, renal disease, phthisis, and other maladies. The following are some of the leading conclusions :

1. That habitual indulgence in spirits beyond a moderate amount has a distinct tendency to shorten life.

2. That men who have passed the age of twenty-five temperate live at least ten

years longer than those who are intemperate.

3. That alcoholic excess more often produces cirrhosis and gout than other diseases. Beyond these diseases, its tendency is to general pathological changes.

4. That alcohol excess does not especially lead to the development of malignant disease or to tubercle, but rather tends to check and retard these diseases.

5. That apoplexy is not especially induced by such excess, nor the mortality of pneumonia or typhoid fever increased.

THE SITZ BATH.

ONE reason why our water treatment is not more frequently employed by the general medical practitioner is, undoubtedly, the lack of conveniences in most private residences for giving hydropathic baths. Even in modern city houses provided with bath rooms containing full-length tubs, a systematic course of full-baths is usually found impracticable for lack of adequate quantities of hot water. After supplying the demands of the laundry, providing for ordinary household uses and the customary baths of other members of the family, the usual range-boiler is hardly competent to meet the requirements of an invalid for whom a course of full baths has been prescribed. For a number of other water cure expedients an expert attendant is essential, and for "pails," "douches," and the like, special conveniences must be provided.

But the *sitz bath* is practicable for most housekeepers, the majority of whom are provided with a tub which can be made to answer every purpose, and as its range of usefulness is considerable, it will be well to understand the principles governing its application.

In order to administer a medicinal *sitz bath* there must be available, first, a room in which the patient can be quiet and comfortable for an hour, with the aid of little or no clothing. There must

be a wooden tub, unpainted on the inside, large enough to contain the patient comfortably in a sitting posture with feet and legs outside the tub, and as deep as possible without having the edge of the tub higher than will allow the knees to bend over it with comfort while the patient's feet rest upon the floor or a low footstool. The tub should be provided with a back, either by having some of the staves extra long, or by attaching something to them, or moving the tub against some firm object which will afford a comfortable support for the shoulders and head—an air pillow inclined against the wall of the room will often serve the purpose. A common wash tub thirteen inches high and twenty inches in diameter at the top, can be made to answer if unpainted within, although a tub especially designed for the purpose is better. A tub of metal will not answer as its magnetic relations to the human body tend to prevent suitable reactions from water cooler than blood heat. A good thermometer ranging upward to 212 degrees Fahrenheit, facilities for mixing hot and cold water and emptying the tub, and a thick and dry sheet large enough to envelop the tub and the patient up to his neck, complete the list of essentials.

The effects of a *sitz bath* depend upon the temperature of the water and the time

the patient remains in the tub. There are three reactions obtained from a bath below blood heat if not too cold, and these three occur sooner or later and are more or less pronounced as the temperature of the water varies. If the bath is made 70 degrees Fahrenheit, a *tonic* reaction will be established during the first ten minutes. That is to say, if the bath continue not more than ten minutes, its effect will be shown by a reaction after leaving the water, which will fill the vessels with blood, especially the superficial vessels, and will induce a firm, solid yet elastic condition in the tissues which is called a healthy tone. If the bath be continued from ten to twenty minutes, it will occasion a *derivative* reaction. That is to say, such a bath will occasion a mass of blood to move from the extremities, especially the head, and locate itself in the lower abdomen. But if the bath be continued from twenty to thirty minutes it will occasion a *sedative* reaction. That is to say, such a bath will allay causes of irritation within the abdomen, will relieve congestions and facilitate excretion. Such a bath continued for a longer time will have no other effect, but if well borne the reaction will be more marked and enduring.

If the temperature of the bath be raised, say, to 90 degrees or 95 degrees Fahrenheit, the same succession of reactions will occur, but the first and second will be brief and evanescent while the third will be attained in much shorter time, and can be better established, as the bath can be pleasantly continued for a long time. At these temperatures the tonic reaction will have been accomplished in two minutes and will be insignificant in its permanent value; the derivative effect will be more noticeable, but will be quickly superseded by the sedative action, for which such a bath would chiefly be prescribed. On the other hand a bath colder than 70 degrees Fahrenheit, would delay the derivative and sedative effects and reduce

their value, while it would emphasize the tonic reaction.

Baths above blood heat lose the tonic quality entirely and give us instead a primary stimulating effect from which the system reacts in the way of relaxation. With these as with the sitz baths below blood heat, the only consideration of permanent value is the reaction, but although in overcoming intestinal spasm, and inducing a flow upon the mucous surfaces, they are of great service, still such cases as call for that plan of treatment often fail to respond to the highest temperature at which a sitz bath can be borne, and other methods have to be introduced by which higher degrees can be applied to the body. The serviceable range of the sitz bath is from 68 to 115 degrees Fahrenheit. We rarely need lower temperatures, but hotter treatment is frequently demanded.

But to consider only the temperature and duration of the bath will not enable us to make cures. The patient also must be taken into the account, and the bath in every case adapted to his powers as well as to his needs. For it is upon reactions that we depend for results, and reactions imply a certain amount of nerve force and of vigor in the circulation. Many a patient will not be able to react from a bath at 80 degrees Fahrenheit, and will only be injured by being placed in such a bath or in any temperature lower than that. Inability to react is especially likely to be present in the case of those who have deadened their skins by the long-continued, habitual wearing of flannel underclothing. That material worn next to the skin by those in their youth or prime, only tends to hinder that organ in the performance of its natural duty, and to weaken it, thus making it less capable of withstanding attacks from without, including those of curative baths intended to stimulate the reactive powers of the system.

Our bath, then, must be adapted to the powers of the system, and even if we have to seek the tonic effect at 90 de-

degrees Fahrenheit, we must never over-tax our patient. Beginning at this point we must lower the temperature, say, about two degrees a week, gradually increasing the duration of the bath until we reach the point of best and most permanent results. If, however, we are using the bath for its sedative effect (which can hardly be properly called a reaction) the temperature having been well selected, it would hardly be possible to continue the bath long enough to do any injury. Of course some arrangement would have to be made to maintain the temperature of the water, but that done, the patient might continue his bath two hours, or two months, for that matter, without injury. In fact a process of transfer from the tissues, even the deepest of them, to the water by osmosis, is set up, which will actually attack a stone in the bladder or the marrow of the spine, and which would cease to benefit the patient only when he was cured, were it practicable to comfortably maintain him in such a bath for so long a time.

The sedative effects of a sitz bath come in play in cases of diarrhoea, dysentery, cholera, catarrh of the bladder, gonorrhoea, urethritis and the like. For these troubles, and especially for diarrhoeas, no remedy can equal the sitz bath in value where it is practicable. Its action is mild, soothing and harmless, but very speedy and effective. Hot and cold water are to be mixed *in the tub* so that after thorough stirring with the thermometer the mercury will stand at 95 degrees Fahrenheit, while the bulb is still immersed. It is better to pour hot water into the tub first as there is less danger of a false reading owing to the gradual cooling power of a tub that has not been previously somewhat heated. The proper quantity of water must be determined by experiment. When the patient sits easily in the bath the water should be within two inches of the brim of the tub. If water has to be dipped out of the tub in order to get the

right quantity, be sure that the vessel used as a dipper is well warmed outside and inside—it is better to have the tub fitted with an outflow plug. When all is arranged the patient simply sits down gently into the tub. The clothing may remain on shoulders and arms and below the knees, being simply rolled up and down out of the way of wetting. Once seated, the patient should be at once covered by a sheet drawn about his neck and completely covering his person and the tub down to the floor, to shut out draughts and to maintain as far as possible the temperature of the bath.

The bath should continue for from thirty to sixty minutes, but, if it is a patient's first experience, in case of nervousness and weariness the time may be reduced to twenty minutes as a concession for the first or second bath. During the bath, reading, exciting conversation, and all thoughts, and employments should be laid aside. Above all, no smoking should even be desired. The best time for the bath will be before meals or at bed-time—at least two-and-a-half hours after eating, although the warmer the bath the less the importance of that point. As a rule two baths a day with, perhaps, the omission of one bath a week, will be best, but if the baths are taken for diarrhoea or dysentery, four of them, each of an hour's duration, may be taken during the day if so many are needed. In general, one bath of an hour's duration, is better than two of thirty minutes each, unless the patient is so weak as to be tired by the effort of sitting for so long a time.

The derivative action of the sitz bath is indicated when we have to combat congestions of the head, apoplectic tendencies, frequent nosebleed, vicarious menstruation and, in general, those conditions marked by an excessive tendency of the blood upward and an imperfect performance of the cleansing functions of the kidneys and bowels. The tech-

nique of the bath is precisely the same as that already described, the difference lying wholly in the temperature and duration, but in beginning a course of treatment, it is better to use first the sedative bath for a few weeks and until all acute symptoms in the head have subsided.

In treating the conditions already mentioned two sitz baths a day will be most useful, and the commencing prescription should be 100 degrees Fahrenheit thirty minutes. After the acute symptoms of headache, vertigo, and dizziness have disappeared, the temperature should be reduced to 95 degrees Fahrenheit, and the thirty minute baths continued thereat from ten days to two weeks. Then 92 degrees Fahrenheit may be used for a week and then 90 degrees Fahrenheit, for the same time. With the temperature below 90 degrees Fahrenheit, the duration of the baths should be reduced to twenty minutes, and once in two weeks is often enough to lower the temperature, which should be made two degrees colder at each change until 84 degrees Fahrenheit or 82 degrees Fahrenheit is reached. Colder water than this will hardly be needed for derivative work, and it should be remembered that whenever a bath is uncomfortably cold or is followed by aggravations or by a failure on the part of the system to react well, the water is too cold and the temperature of future baths must be raised to a point *warmer* than the last well-borne figure (not above 100 degrees Fahrenheit), and must be reduced more carefully and slowly than before. Discomfort in or just after the bath invariably contra-indicates its use.

The tonic sitz bath is wanted to meet relaxed conditions of the lower abdomen, such as follow badly managed labors, in the treatment of hemorrhoids, and to permanently establish the results obtained by a course of sedative or derivative baths. The treatment in any case had better begin with a mild and rather long bath of, say, 88 degrees Fahrenheit,

twenty minutes. At weekly intervals the bath may be reduced two degrees in temperature and shortened gradually so that at 80 degrees Fahrenheit, it continues fifteen minutes, at 76 degrees Fahrenheit, twelve minutes, at 72 degrees Fahrenheit, ten minutes, and at 68 degrees Fahrenheit, eight minutes. It is rarely necessary to go to a lower temperature than 68 degrees Fahrenheit, although two minute baths at 49 degrees Fahrenheit, have been used with good effect, and it is well known that Priessnitz and some of the older hydro-pathists thought it a mistake to attempt any modification of the natural temperature of the water, whatever that might be.

Constipation due to chronic inflammation of the intestines, to spasm, or to lack of mucus; flatulence similarly induced, strangulated hernias, difficult menstruation due to spasms, retention of urine and strictures depending upon the same, indicate the hot sitz bath. This is administered precisely as the cold bath is, but requires more care in maintaining the temperature, and with many patients, more deliberation in increasing the heat. Begin at 102 degrees Fahrenheit, thirty minutes, and increase the temperature two degrees weekly, gradually reducing the duration of the bath. Few persons can bear a bath hotter than 115 degrees Fahrenheit, although 120 degrees Fahrenheit has been given. But far higher temperatures can be reached by fomentations and in the Russian and Turkish baths, and these are agents more frequently used for hot treatments.

Thorough drying of the skin is far from essential after any bath. A better plan is to sop off enough of the water that adheres to the body to protect the clothing from a wetting and then dress or retire to bed while the skin is soft and moist. This is, of course, a point of minor importance, but certainly friction in drying ought not to extend to the point of removing the outer layer of skin.

H. G. HANCHETT, M. D.

Child-Culture.

HOW HE WORSTED THE SCHOOL BULLY.

PROBABLY no other science under the sun ever did more for the advancement of human nature than Phrenology, wherever it has been intelligently applied. I first became interested in it at the age of six years, when my mother, who was a good phrenologist, began to point out to me the difference in peoples' heads. I seized the facts presented to my mind and began to look for myself. And the habit thus awakened has grown until it is impossible for me to keep from using my eyes on every occasion. But what I intended to write was about a case which came under my observation in a school some years ago. There was one boy in the district who was a terror to all teachers; in fact, he held the balance of power there, having headed several revolts which resulted in the resignation of the teacher. This boy, whom I will call John Smith, was a superb animal, nearly six feet high, and powerfully built, a strong countenance, and eyes which showed signs of superior intellectual power. When quite young he had lost both his parents and had been "put out" in a family where gold was the only thought, and it mattered little what the means of obtaining it were, if it were only obtained. While John's mother lived he had been allowed to go among the flowers and into the woods as much as he chose. He called it listening to the fairies' voices, and his mother cared little if he was only happy. He was thus cultivating fancies which should have been useful to himself and to the world when they had become fully developed.

When he went to his new home he was grieved at the loss of his mother and wished more than ever to be in his favorite resorts, but no time could be allowed him from his daily grind of

labor to indulge in any of his accustomed habits. He was sent to school to a teacher who could not appreciate his nature, and who was so harsh with him because he could not learn the multiplication table as easily as he would Tennyson's Charge of the Light Brigade, that John soon became distrustful of all who tried to aid him in any way. At school he was a trial to his teachers, until he became old enough to lead in the revolts among the boys, and being so much larger and stronger than most of the others he was naturally looked up to as a daring executive of mischievous plots, indeed, the worshipful delight of most other boys. Matters went on like this until John was nineteen years old. A teacher had been hired who proved to be a slight fellow of less than one hundred and twenty pounds weight, but one who thoroughly understood human nature, and applied Phrenology in his teaching. The first day passed pleasantly enough, as did also the second, but the third day John's surliness began to manifest itself in a variety of ways. The teacher said nothing, but at night walked home with him, and asked him casually if he had all the reading he wanted. This was John's weak point, and he became more surly than before, but by questioning him the teacher found what his life at home was, and how devoid of anything to feed the imagination were his every day surroundings. John was loaned books that gradually led him out from himself into the broad field of earnest endeavor. His head was examined and a course of reading laid out for him, which fitted him for the work he was able to perform successfully. To day he is distinguished as a journalist, and is doing good. So much for Phrenology and a teacher who understood it.

B. H. ALLBET.

AWAKENING ATTENTION.

A TEACHER in Ohio writes that she had occasion not long since to visit a primary school, where most of the pupils could spell in two or three syllables. The teacher began at once, as some often do, to apologize for the disorder of her room, and to mention her trouble in interesting her pupils. She was young and inexperienced, and the visitor thought it her duty to give a specimen of her experience in waking up an interest and training the faculty of observation. Being invited to speak a little, a thing that she was not qualified to do, she began by asking, "How many in this room can spell?" Nearly every hand was up. She began giving common words, feeling her way at every step, rising higher in point of difficulty, intending to stop on some suitable word. The word "grocery" soon occurred. Here she paused, and asked, "What's a grocery?" The answer was, "A place where things to eat are kept."

"Next tell what they are." One boy exhausted his stock of knowledge, another added to it, and so on the excitement ran until the wakening up became very interesting. After a short pause, one little fellow says, "Hominy." "Ah, yes! What's hominy?" "Corn pounded in a mortar." "And what's a mortar? Not what plasterers use?" "It's a hollowed out thing. You can see one at the drug store." "Yes, I know now. But what do they pound the corn for?" "To take the hulls off." Thus she could have gone on indefinitely but the exercise is only to break the monotony and cultivate the habits of observation and memory. As she was leaving the village, she saw squads of children inspecting grocery stores, and each one endeavoring to find something the others had not seen. The teacher practiced her pupils in this way, and never more complained of her pupils being dull. They learned to look at things, and spell their names.

SUMMER DAYS AT WILDEMAR.—3.

MR. CARLISLE was walking along the edge of the wood, in the footpath which led from Wildemar to the post-office in the country store. He had the morning mail in his hand, and a large, shaggy Newfoundland dog was following at his heels. The animal had a large stick in his mouth which he had secured by a plunge in the brook, to which his dripping coat bore evidence. Mr. Carlisle was reading a letter as he walked, and almost came upon his daughter and nephew before he saw them.

The dog bounded forward, and tried to thrust his wet nose into Fanny's hands. She was fond of him, and often petted him; but, as she was a little dainty in her dress and manner, she pushed him away, as a hint to him that she did not consider him presentable just then.

"Bad news in the letter, papa?" she asked.

"Oh, no," he answered.

"You look vexed," Tommy rejoined.

"I am disappointed," he simply said. "Nothing like time to try one's friends. There's no letter for you, Tommy," and he glanced at the letters in his hand. "One for you, though, Percy."

"Thank you," Percy said, rising to receive the letter.

He glanced at the address, colored, then put the letter into his pocket. Fanny was covertly watching him, and wondered why he did not read it at once. Carlo, the dog, dashed off into the woods with a welcoming bark, for he had heard the voices of Bessie and Fred. *They* would romp with him, however wet and dirty his coat.

"Uncle," Percy said, "Fanny asked

me a question a minute ago. Not being able to answer it, I refer it to you."

"I'll oblige you if I can," replied Mr. Carlisle. There was a gnarled, projecting root covered with moss near by and he seated himself upon it.

"Fanny wants to know why the aspen keeps up such a tremulous motion," stated Percy.

"That is simply owing to the construction of the foliage, which is particularly adapted to motion," was Mr. Carlisle's reply. "A broad leaf is placed upon a large foot stalk, the latter so flexible as scarcely to be able to keep the leaf in an upright position. Then, too, the leaf is placed at right angles with the stalk, which renders it peculiarly susceptible to every impulse of the wind"

"I'll examine the first aspen I meet with," declared Fanny. Then she told her father of the superstitious explanation which Michael had given.

"Such superstitions are numberless," observed Mr. Carlisle. "The ignorant and credulous mind is prone to accept such explanations."

"Has not religious reverence something to do with it?" asked Tommy.

"Yes," assented Mr. Carlisle. "Especially in the dark ages, and in the heathen churches. Remember, however, that religion is not necessarily piety. There are numerous false religions."

"The Turks gave to Mahomet a liberal share of miraculous power," remarked Percy. "They believe that the geranium was originally a swallow, and that its existence was changed by a touch from the robe of Mahomet."

"Then there is the rose of Jericho," added Mr. Carlisle. "The old monks called it 'Mary's Flower,' from the belief that it expanded each year on the very day and hour on which Christ was born. The Passion Flower may be quoted as another instance. They claim that in it can be noted the emblems of His sufferings."

"Many of these things have come to

us in the shape of legends," remarked Fanny. "And some of them are so pleasing and touching that they take strong hold upon us, even when our minds are properly enlightened. Some thing in our natures responds to them." Fanny paused, and a soft, tender look crept into her face. "When Jesus was hanging on the cross, a robin, it is said, attempted to extract one of the cruel thorns which was pressed into his brow. In the endeavor it wounded its breast with the thorn, so that it bled. Its breast had been brown before that; but, in commemoration of the bird's tender pity, its descendants all have red breasts."

"A mere fable," commented Percy.

"Oh, I know," admitted Fauny; "still I can not censure Michael for his belief in the story about the aspen."

"Talking about birds reminds me of a funny tradition I read the other day," Mr. Carlisle said. "It was in a German work. On one occasion the birds all met at a certain place to select a king from among their number. After much discussion it was decided that the bird which could fly the highest, should be considered king. The contest came off, and—"

"Of course, the eagle won," interrupted Fanny.

"Not without a protest," rejoined Mr. Carlisle, with a broad smile. "The eagle alighted upon a rock which pierced the clouds. 'I am king,' he said. It happened, however, that a little wren had secreted herself on the eagle's back. 'May be not?'" she exultantly said, and she soared still higher. Another meeting was held; the imposition was denounced; the wren was imprisoned in the hole of a tree and the owl was set to guard it. During the deliberation as to what punishment to mete out to the tricky wren, the sentinel owl fell asleep, and the wren flew away. The owl was very much ashamed about its sleepy negligence, and is shy about showing itself in the daytime for that reason."

Mr. Carlisle's hearers laughed heartily at the story.

"You will find much gratification in studying other leaves besides those of the aspen." "Bonnet, the naturalist, spent a large portion of his life in examining and experimenting upon the sensibilities of plants." As he spoke, he broke a leaf from a brush which grew beside him.

"Look at it," he said, tossing the leaf into his daughter's lap.

"I do not see anything peculiar about it," was her reply, as she turned it around in her hand.

"Are both sides alike?" asked her father.

"Why, of course not," exclaimed she. "But it is very much like all other leaves. I mean its general appearance. The upper surface is slippery, and as glossy as if it had been varnished."

"Just so, Fanny while the under side is not glossy, but contains a multitude of little mouths to catch and retain the moisture which nourishes the bush. Were you to varnish the under side, it would fail to perform its functions."

"Then the upper surface is simply the roof?" asked Fanny.

Her father nodded.

"You might," he said, turn all the leaves of this bush with the under side uppermost. In a few hours afterward you would find them in their natural position, as if intelligent enough to resent the outrage.

"Leaves absorb a good deal of moisture," suggested Fanny.

"And freely yield it," added her father. "Place a freshly plucked cluster of leaves under a tumbler, and in a little while you will notice drops of moisture on the inside of the glass. Under the same law of appropriating and yielding, leaves are kept fresh by placing them in a saucer of water. The water diminishes because the leaves have absorbed it."

"Does the pitcher plant distill its water

on the inside?" asked Percy eagerly.

"Most assuredly," replied Mr. Carlisle. "The moisture is shut in; the air can not dissipate it; it keeps on distilling until the pitcher is filled. In ordinary leaves the moisture escapes into the air through the pores. The moisture breathed out from the leaves makes the air soft, while the fragrance of the flowers makes it balmy."

"Is moisture necessary to every plant?" was Percy's next question.

The look which Fanny gave him was equivalent to saying: "What a foolish question!"

"To some extent," replied Mr. Carlisle, evidently speaking with caution.

"I recall one plant which might be considered an exception; at least it is a remarkable evidence of adaptation in nature. There is a sort of tree called *brosinum alicastrum*, which grows in Jamaica, where the grass dies, and the soil cracks into chasms and hardens under the fierceness of the unclouded sun. Its leaves have the power to thrive and multiply under the hot fires of the sky, as others have to grow in the dew. The more burning the sun and the more parched the earth, the more vigorously its leaves unfold, affording healthy and abundant food for flocks."

"How wonderful!" exclaimed Fanny. "Papa, I am very much interested in all this." A sparkle of enthusiasm came into her face.

"The Travelers' tree of Madagascar is a remarkable tree," suggested Percy. "Just adapted for arid climates. It contains large quantities of pure, fresh water, which can be tapped by a mere thrust from a spear. Rev. Mr. Ellis says that from a single puncture, made where a leaf-stalk joined the trunk, he caught about a quart of water in a pitcher. It gushed forth in a stream, and was clear, cold, and perfectly sweet. The water is so abundant in it that the natives do not go to a spring or well."

"Another wonderful tree is the cow tree," added Mr. Carlisle, "It is found

in South America, and furnishes *milk* instead of water."

"Oh, papa!" exclaimed Fanny, with widening eyes. You are exaggerating."

"Not a particle, dear," replied her father. "We can rely on what Humboldt and other travelers have said. The sap flows freely when the bark is wounded. It has the color, taste and nutriment of milk. The negroes drink abundantly of it."

"And make butter of it, I suppose,"

Fanny said, a faint, incredulous smile coming to her lips.

"Possibly," rejoined her father, laughing. "I do not know that the experiment was ever made. You seem surprised, Fanny, at learning about the cow-tree. What would you think if I told you about oysters growing on trees?"

And, as if that wasn't enough, he added:

"Or shirts?"

FRANK H. STAUFFER.

TRAINING THE COLOR SENSE.

JEAN INGELow describes, in the odd dialect of the North of England, the process of teaching boys and girls at a village school to match colors. It appears that about four per cent. of the children were unable to distinguish colors, even the most unlike.

There was a class-room in which was a table covered with skeins of German wool, bits of stained glass and silks of all colors. The master said, "Now, bairns, back end a'last week I tell'd ye I'd gie ye an ould farrant lesson to day. You, Josey, ye see this?" holding up a red rose.

Josey, a small child of six years, "Ay master."

"What be it, bairn?"

"Why, a rose, master, for shure."

"Ay, but what kin' o' rose!"

"A red un, sir."

"Well, now you go into the class-room, and fetch me out a skein o' wool the nighest like this rose ever ye can."

Josey takes the rose, and fetches back the skein of just the same hue. After this about twenty of the children were sent on the same errand, and matched the color perfectly. At last, a little white-faced fellow went into the class-room, stayed some time, and finally came out with two skeins in his hand. Shouts of surprise and derision filled the room.

"Surely, what be ye thinking on?"

"One on 'em's as green as grass, an' t'other as gray as a ratten (rat.)"

The little boy looks frightened.

"Thou's done as well as thou knew how," says the master, rather gently. "Don't thou be scared; thou's nobbut tried once. Here, take and match me this." He gives him the glossy leaf of a laurel.

The child goes out again, and, with a much more cheerful and confident air, comes back and puts into his hand a skein of the brightest scarlet. The other children, too surprised to laugh, whisper together, "He beant a fondy, neither."

Fondy here has the old sense of foolish.

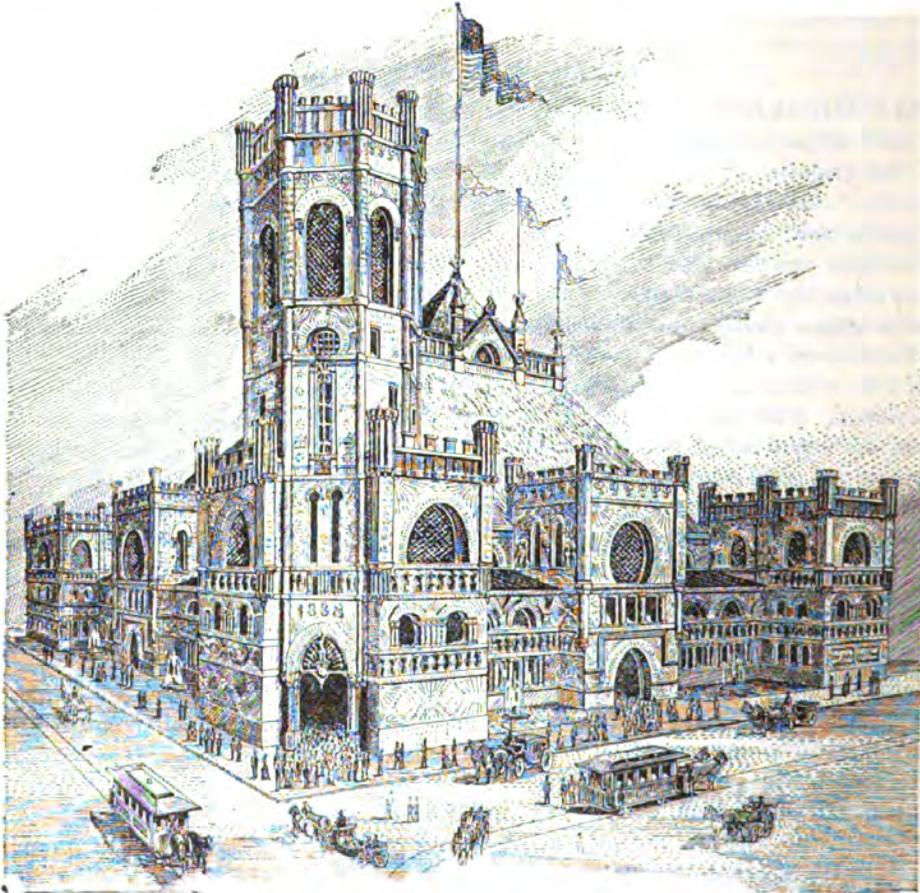
BEHAVIOR TO PARENTS.—No more beautiful spectacle can be seen than a son proud of his mother and glad to obey her; not ashamed of the taunts of "apron strings" because they unite him to his most loving friend. And no more sure prophecy of evil is there than a child's unkindness to her whose love never fails. It is not always boys who are ungrateful. It is sometimes the daughter's unkindness that is sharper than a serpent's tooth. A pretty miss on the train pettishly said to her mother: "Come on; you are always behind." A venerable gentleman passing stooped and said: "Never behind when you were sick, was she?"

 NOTES IN SCIENCE AND INDUSTRY.

The Sioux City Corn Palace.— The region lying to the west and northwest of the Mississippi is one specially adapted for, and is wisely utilized as, a field to agricultural enterprises. The world looks to the States in that region for its enormous supplies of glutinous food products, and the grain magnates of the nearer West may ap-

with the topmost principles of fame, wealth and happiness.

Where an industry, such as corn-raising, monopolizes the interests and labors of a community, generations are apt to come and go with an inborn and resolute allegiance to this staple product, and with a spirit similar to that shown in the South



VIEW OF "CORN PALACE," SIOUX CITY. (COPYRIGHTED.)

propriately be termed the controlling power of their supply. With the steady increase of immigration, and the crowding of our Eastern districts, comes the invitation from the youthful West, open to all who dare risk chances of livelihood in a new neighborhood where competition rules, and where the "survival of the fittest" holds its place

years ago, and at the present time, when "King Cotton" forced the bold and reckless subject to bend the knee and pay homage. A little more than a year ago, in a region where steady purpose to succeed exists cohabitant with its people, a number of the stalwarts of a Western town met and discussed, with common interest, the feasibil-

ity of introducing a custom, or rather, developing a dormant idea, which would characterize the community in its future. The town we speak of is Sioux City, Iowa, whose leading trade-product is corn.

After thorough consideration, an organization was formed, under whose auspices public meetings were held, material and funds collected, so that in the course of a few months, and at the appropriate season, its first exhibition was held, which demonstrated at once the worth and influence of such enterprise. This result, in general terms, was a representation in artistic and ornamental design of the uses to which corn and its accessories could be put, and with the addition of celebrations of various kinds—receptions, banqueting, and the other institutions of recreation and entertainment—the whole experiment proved a grand success.

And so originated that institution known as the Corn Festival of Sioux City, which has recently again come into notice by a repetition on a larger and grander scale. The "Corn Palace" is a frame building, 150 x 150 feet, set in a large area. The architecture seems to partake of ancient and modern styles, as shown by the illustration; the pavilion-like structure suggests the castellated towers of Moorish antiquity, while the roof is early English, the whole built with the strict purpose to display natural products with the association of æsthetic effects.

The predominating decorative material of the exterior is corn, which is arranged in every possible shape and design, the different hues of the ears being presented to every advantage in their geometrical arrangement. The general effect of this exterior upon the eye of the beholder is an extravagant and prodigious massing of rich colors blended together in pursuance of some fixed design.

The inner arrangements have been designed chiefly by a corps of lady enthusiasts, and such has been their persistent efforts that the entire interior presents to all intents and purposes a fairyland of wonder and delight. The method is a diversion into booths, most sumptuously arrayed with grain stalks and grasses, beside the ever present and valuable agent of ornamentation—corn.

The "Corn Palace," as a work of art and skillful decoration, gives one the impression that, with simple material at the command of skillful hands, anything in the way of beautiful and elegant effects may be produced. At the same time it presents to the world in a most striking manner the interest which the people of Sioux City take in their home productions, and thus expresses a precept in patriotism which offers a good example for other communities everywhere. With the experiment tried and the result obtained, there is no reason why the future should not see such a corn festival every year in Sioux City, and thus the perpetuation of a local feature without a counterpart in the world.

Vicious Horses.—Much has been said of late of the innate viciousness of the mustang, or of wild horses in general. I have had wild horses off the Pampas of South America, from the Isthmus, from Texas, from the Plains of the West, and have yet to see the one that I could not manage successfully, or that a lady could not by gentleness and firmness. Horses may be made treacherous and wicked by cowardly masters, but they soon learn whom to love and whom to hate. Wild horses fear man, because in all their dealings with him they have been hurt, and they have a spirit of self-defence, given by a kind Creator to ward off treachery, which, if cultivated with clubs, whips, harsh bits, and silly blinds, may grow enormously and be disposed to try titles for the mastery with any with whom they may come in contact. I should consider a parent or teacher that would whip or punish a nervous child for its timidity, a cruel brute, yet some people will let some "horse-tamer," as he is called, take their high-strung, nervous, sensitive animals and expect that, in one or two lessons, with war-bridles, ropes, straps, whips, pistols, tin pans, etc., they will be changed into models of trust and obedience. "Can the Ethiopian change his skin, or the leopard his spots?" A thorough knowledge of Phrenology helps a man to understand the different dispositions and temperaments of horses, and gives him a "light" for guidance. I have had horses that little girls could manage, but some men could not. Why? If we look toward the dawn of the

millennium, which begins to "fringe the Orient meadows," and "catch that sweet, though far-off, hymn that hails a new creation," "when the lion and lamb shall lie down together, and a little child shall lead them," then we may understand why the gentle, loving, and fearless spirit can rule where force will not. When an animal has been made vicious by vicious treatment, he has to be redeemed back to that normal condition in which he was created. When Jesus rode the colt, "whereon never man sat," he did not have to use him harshly first, and the colt did not shy or buck when the people threw rushes, or their coats, down before him. Love is the great leveler, the great antidote, the panacea for all the ills of life. Love is everywhere where Sin is not.

J. M. BRINLEY.

The Significance of Left-Handedness.—An editorial writer in *La Normandie Medicale* has taken the trouble to summarize and compare certain observations on this subject, and he thinks that it is not wholly elucidated by M. Galippe's generalization that we are right-handed by atavism and left-handed by morbid heredity. He implies also that it is not altogether to faulty education that left-handedness is to be attributed, and suggests that it might be useful to seek for a solution of the problem in comparative anatomy and pathology, by endeavoring to ascertain if the lower animals do not show a predominance of one side over the other. The writer first considers M. Debierre's investigations by comparative measurements of the bones of the right and left limbs in infants. These measurements show a slight excess in the average length of the left os brachii, but, curiously enough, in that of the right radius and femur; and there are persons, it seems, who, being right-handed, have the left lower limb somewhat more developed than the right, and those also who, being left-handed, have the right lower limb predominating over the left. But all these differences in the length of the bones are inconsiderable, and in M. Debierre's opinion they are not original, but created by habit, so that our primordial type was that of ambidexterity, and it is only by education that we become right-handed or left-handed.

M. Galippe considers left-handed persons

as in a certain sense degenerate, and he seems to regard left-handedness, as well as squinting, mother's marks, supplementary fingers, hare-lip, prognathism, and other like blemishes, as implying a disposition to physical, moral, or intellectual deficiency. It is stated that many epileptics are left-handed, and figures are given showing that 4.13 per cent. of insane men and 4.27 per cent. of insane women are left-handed, but these percentages do not seem to vary strikingly from those found among healthy persons. Among criminals, however, according to Marro, the proportion of the left-handed is much greater—13.9 per cent. in men, and 22.7 per cent. in women. Anomalies in general are said to affect the left half of the body more frequently than the right, and the experience of dentists is brought forward by M. Galippe as showing a very common exemplification of the fact, dental caries being declared to be oftener met with on the left side than on the right, as well as the non-appearance of the wisdom teeth or the occurrence of derangement of the health at the time of their appearance. Moreover, it is alleged that the teeth of the right side are generally somewhat larger and harder than those of the left side. On the other hand, irregularity of the canines is set down as more common on the right side. The left half of the jaw itself is said to be somewhat less developed than its fellow, as a rule.

The Consumption of Fruit and Vegetables in Paris and London.

—Some curious statistics of the comparative consumption of fruit and vegetables in London and Paris have recently been published. The annual average consumption a head of population is stated to be as follows, the greater quantity in each case being credited to the Parisian: Apples, 65 lb. 6 oz., 145 lb.; pears, 39 lb. 5 oz., 170 lb. 13 oz.; peas, 3 lb. 8 oz., 6 lb. 15 oz.; carrots, 7 lb. 3 oz., 37 lb.; celery, 11 oz., 6 lb. 13 oz.; cherries, 2 lb. 13 oz., 20 lb. 14 oz.; plums and damsons, 17 lb. 12 oz., 183 lb. 4 oz.; raspberries, 4 oz., 2 lb.; strawberries, 3 lb. 10 oz., 13 lb. 12 oz.; asparagus, 1 lb. 3 oz., 5 lb. 4 oz. On the other hand, while the Londoner eats 173 lb. 4 oz. of potatoes, the Parisian eats only 49 lb. 4 oz. The average consumption of onions, tomatoes, cabbages, cucumbers, and turnips is also greater in London than in

Paris, but with these exceptions the French are by far the largest consumers of fruit and vegetables. The figures afford additional evidence that, even allowing for climatic differences, the vegetarian diet of the average Englishman is neither so varied nor so extensive as it ought to be.

Deaf Mutes and Marriage.—It is evident that the loss of the sense of hearing has an effect on character, moral and intellectual. Whatever may be the education of the deaf mute, he will remain, in some essential respects, different from other people. It is exceedingly hard to cultivate in him a spirit of self-dependence or eradicate the notion that society owes him perpetual care and support. The education of deaf mutes and the teaching of them trades, so that they become intelligent and productive members of society, of course, induces marriages among them. Is not this calculated to increase the number of deaf mutes? Dr. Gillette, who has looked into the subject extensively, thinks not. The vital statistics show that consanguinous marriages are a large factor in deaf-mutism; about 10 per cent., it is estimated, of the deaf mutes are the offspring of parents related by blood. Ancestral defects are not always perpetuated in kind; they may descend in physical deformity, in deafness, in imbecility. Deafness is more apt to descend in collateral branches than in a straight line. It is a striking fact in a table of relationship prepared by Dr. Gillette that while 450 deaf mutes had 770 relationships to other deaf mutes, making a total of 1,220, only twelve of them had deaf-mute parents, and only two of them one deaf-mute parent, the mother of these having been able to hear, and that in no case was the mother alone a deaf-mute. Of 251 who married deaf-mutes, their marriages have been as fruitful as the average, and among them all only 16 have deaf-mute children; in some of the families having a deaf child there are other children who hear. These facts clearly indicate that the probability of deaf offspring from deaf parentage is remote, while other facts may clearly indicate that a deaf person probably has, or will have, a deaf relation other than a child.—*Harper's Magazine.*

The Argand Burner.—Argand, a poor Swiss, invented a lamp with a wick

fitted into a hollow cylinder, up which a current of air was permitted to pass, thus giving a supply of oxygen to the interior as well as the exterior of the circular frame. At first Argand used the lamp without a glass chimney. One day he was busy in his work-room and sitting before the burning lamp. His little brother was amusing himself by placing a bottomless oil flask over different articles. Suddenly he placed it upon the flame of the lamp, which instantly shot up the long, circular neck of the flask with increased brilliancy. It did more, for it flashed into Argand's mind the idea of the lamp chimney, by which his invention was perfected.



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THE CONGRESS OF PHYSICIANS AND SURGEONS.

THE late congress of American Physicians and Surgeons proved a marked success, so far as real work in the several departments of medicine and surgery is concerned. The published reports all indicate that the discussions related chiefly to topics of practical use, and they who took part in them had something more in view than mere social entertainment. Much valuable experience, therefore, was contributed to medical literature, and physicians throughout the country will derive benefit from reading the published reports.

It is noticeable that a good deal of attention was given to the brain, especi-

ally as regards its motive and sensory functions, and specialists and general practitioners agreed that the facts of localization are beyond peradventure. In the interesting discussions of the Neurological Association there were indicated differences of opinion with regard to the centers of sensation, but the weight of authority was toward their location in the convolutions. Dr. Starr and two or three other gentlemen very properly laid stress upon the necessary care and delicacy involved in the observation of cases bearing upon the matter. The establishment of centers for vision, smell, touch, temperature, hearing, and taste appears to be at no great distance in the future, as most of these may be said to be approximately known already, and the research they command is in itself an expression of the progress of scientific thought with respect to brain function.

FALSE EDUCATION.

AN editorial paragraph in a late number of the *Christian at Work* pithily and wisely comments on a recent attempt to educate a girl at one of our colleges, who had no aptitude for the higher branches of mental training, as follows :

“Where there is evidently neither a desire nor an aptitude for study, it is simply time and money lost for a young man or woman to spend four years in college or seminary. No teacher, however brilliant, has yet devised a method for cramming a quart measure of knowledge into a pint measure of brains. Where a youth shows a positive and prolonged aversion to school duties, and at the same time as positive and prolonged inclination for some mechanical trade or business pursuit, it is far better to let him have his way. He will have more self-respect and more manhood in

doing well as a carpenter or blacksmith than in doing ill as a student. Besides he becomes useful in the one sphere, while in the other he is somewhat worse than useless—a vexation of spirit and a weariness of flesh to his teacher. Nor is it essential to happiness that every boy and lassie should have a diploma. Orestes A. Brownson, one of the most versatile and vigorous writers of his day, used often to say that he was happier—much happier when he was a laborer earning good wages by the day and going home tired but contented at night, than in after years when as an educated man he toiled with his brain, and knew what nervous prostration and disorders meant. As all students can't be hod-carriers, so all hod-carriers can't be students.”

The notion appears to be growing in the public mind that every young man and young woman should have a collegiate education, and that no distinction should be made between classes. Institutions of learning are multiplying through the interest wealthy men take in the matter, and the older colleges are competing sharply in their inducements to increase their student list. The President of Princeton demands a thousand students, and says that he will not be satisfied with less ; and Vassar and Smith colleges want more students. This ambition for large student rolls we deprecate, for we think that professors can do better service to small classes than to large. Besides, where hundreds of young men are aggregated, there we find an absorbing interest in athletic sports. Boating, baseball, football, the gymnasium, cards, occupy far too much of the time of the majority of students at Harvard, Yale, Princeton, and other places. A well-known professor of athletics employed at one of these universi-

ties said, not long ago, that fully one-half of the students in his college came on account of the facilities for athletic training and diversion.

Accepting this as but half true, we may infer that twenty-five per cent. of the young men in that institution are doing little better than wasting their time, and should be in some business or mechanical pursuit where the exercise of their muscles would have some practical and useful result.

Hundreds of young men and women are sent to college by their parents because they are home burdens; they are "out of the way" at school, and some faint hope is indulged, we may suppose, that in the academic atmosphere they will pick up some useful knowledge, and be better fitted for the future.

The proportion of imitators is large, also, in this "higher education" matter. Many boys and girls go to college because an intimate friend is going, and "it will be so nice to be together."

From these, and the points of view marked by the writer we have quoted, it is seen how much false education there is permitted and prescribed, the results of which are felt in every walk of life. Young men well constituted for mechanical pursuits, for business, for agriculture, or other active industries; young women, whose level is that of an employment chiefly of a manual nature, or domestic, blunder along in their attempts to acquire some of the mental and polite development assumed to be derived from pursuing a curriculum of study in the higher branches of language, mathematics, physics, etc., and at the end of a four years' course enter upon real life with artificial notions of

its purpose and thoroughly warped views of their own capacity and fitness. Plain, honest vocations they dislike, and for the "professions," already crowded with neutrals like themselves, they certainly have no adaptation, nevertheless they "yearn" to show the world that "a pint of brains" can fill "a quart measure;" and if the attempt be made, because of having been to college they are expected to be something above the ordinary, the inevitable failure demonstrates the falsity of their education.

CEREBRAL GEOGRAPHY.

THE extent to which the mapping of the brain has been carried in late years is a feature of modern physiology that none can appreciate more than the scientific phrenologist. The latest works in practical surgery point out the more salient boundaries of the lobes and the alignments of the convolutions, and the relation of these to certain divisions of the skull so that the surgeon shall be guided in his operation with scalpel and trephine. It is of the highest importance that "land-marks" and guiding lines should be anatomically determined, and accurately applied, if a trustworthy estimate is to be made of the location and development of any cerebral part.

Prof. Benedikt and Mr. Galton prescribe a multitude of measurements with paper and calipers that render the procedure of estimate rather complex, more so, we think, than is necessary when the adjustments of brain and skull are understood, and quite too complex for the observer who would make a rapid scrutiny of a wide field in craniology.

The purpose of this paper is to furnish such observer with anatomical markings

that are deemed essential to an approximate determination of the structure and relations of the brain from the contours of the head and face.

The primary development of the cranium arises from the primitive disks of the vertebral or spinal column, and is first indicated by the formation of a membranous case or capsule that "molds itself on the cerebral vesicles." As the growth of the head advances this membranous capsule becomes replaced by cartilage in the base, and bone forms on the exterior. The primitive membranous envelope becomes the dura-mater, and the bony divisions arising from this are adapted to the outlines of the brain masses that develop from the vesicles. Hence it is that in the modern geography of the brain, to which the scientific phrenologists have contributed so many most valuable facts, we are enabled to designate the lobes, convolutions, and fissures, with sufficient exactness. The dimensions of the great cerebral masses are fairly indicated by the exterior of the cranium. For instance, the prominence of the frontal bone, the eminences of the parietal, of the occipital, and the rounded fullness of the temporal bone show the development in general of the lobes that lie contiguously to them; and to ascertain the relative proportions of these regions, the breadth of the head between the opening of the ear on both sides, and the length of a line drawn from one ear opening to the other and across the frontal, parietal and occipital eminences respectively well furnish necessary data (Holden.)

"The level of the anterior lobes in front corresponds with a straight line drawn across the forehead, just above

the eyebrows. The lower level of the anterior and 'middle' lobes of the cerebrum corresponds with a line drawn from the external angular process of the frontal bone to the upper part of the auditory meatus. Another line drawn from the meatus to the occipital protuberance corresponds with the lower level of the posterior lobe. The lower level of the cerebellum can not be defined by external examination.

"It depends upon the extent to which the occipital fossæ bulge into the nape of the neck; and this bulge varies with different skulls," of course in accordance with the development of the cerebellum. These guiding lines are of great assistance to the examiner of a head, but more precise results may be obtained in the following manner, which is modified slightly from the method of Topinard, Turner, and Horsley, the latter eminent for many successes in surgery, and is the result of our personal examination of many crania.

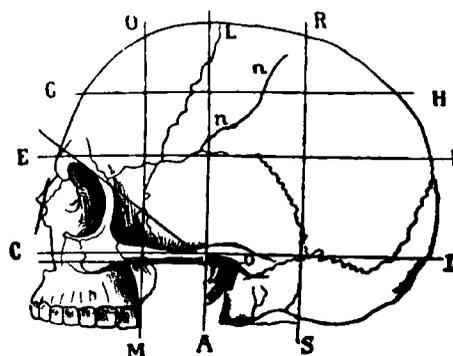


FIG. 1.

Set a skull of average size without its lower jaw upon a horizontal surface, the plane of the face will then be in normal line (see Figure 1.) From the center of the ear opening draw a vertical line A-L upward; it will usually pass through or near the *bregma* or junction of the

sagittal fissure with the coronal fissure. A line drawn parallel to this line about thirty millimeters or one and a quarter inches in front of it (M-O) will cross the anterior margin of the temporal bone on or close to the junction of the sphenoid. Another parallel line S-R, about forty millimeters or one and three-fifths inches backward from the first or central line, will pass a little to the rear of the parietal eminences, and across the temporal bone near its junction with the occipital.

The anatomical significance of these lines is briefly stated thus :

The anterior line passing through the middle fold of the third frontal convolution, indicates the anterior limit of the central ganglia or the head of the *caudate nucleus* of the *corpus striatum*, and the anterior border of the temporal or "middle" lobe of the brain.

The posterior line indicates the situation of the upper extremity of the fissure of Rolando *n-n*, and therefore the division between those two important convolutions the *ascending frontal* and the *ascending parietal*, the posterior border of the optic thalamus, and the temporal lobe.

Now by describing certain horizontal lines we shall obtain other anatomical data of value (see Fig. 1). First a line C-D, drawn immediately over the opening of the ear from the occipital spinous process, will pass across the junction of the occipital and temporal sutures and along the zygomatic process of the temporal bone, indicating the inferior border of the occipital and temporal lobes.

A second line E-F, drawn from the external ridge of the frontal bone over

the external angle of the eye socket horizontally around the skull to the apex of the lambdoidal fissure, will pass over the superior margin of the temporal bone, on or near the squamous suture, indicating at once the situation of the horizontal branch of the fissure of Sylvius, the division between the temporal and parietal lobes, the lower border laterally of the frontal, and the upper border of the occipital lobe.

A third horizontal line G-H, drawn higher up and passing over the centers of the frontal and parietal eminences, has an importance because of its crossing the fissure of Rolando about centrally and the middle folds of the convolutions that lie contiguously to that fissure.

Having obtained these data with reference to the skull, we can determine to a great extent their relations to the living head. Placing the subject of inspection in the posture that has been described as normal, the vertical lines are drawn or

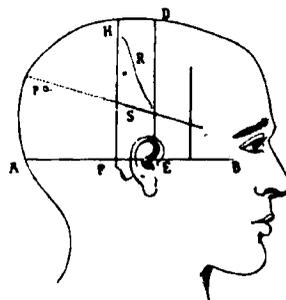


FIG. 2.

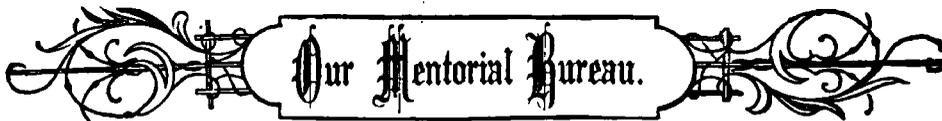
marked off in the most convenient manner—with an instrument that fits to the head, or a tape line. The lower extremity of the anterior line will be found to correspond quite or very closely with the notch that can be felt in the under surface of the zygomatic process of the temporal bone, and the lower ex-

tremity of the posterior line, F-H, can be approximately located by the situation of the tubercle-like prominences that border the postero-inferior angle of the parietal bone, or by the posterior border of the mastoid process.

The horizontal lines are described on the head as follows: The upper line, as we have seen, extends from front to rear, crossing the frontal and parietal eminences centrally—these are easily found. The middle line may be drawn from the position of the supra-orbital notch at about the center of the eye-brow along the surface to the apex of the lambdoidal suture which can usually be felt, as we have said, on the back part of the head, on the middle line.

The base or lower line, A-B, to indicate

the inferior margin of the temporal and occipital lobes with sufficient accuracy for our purposes and adopted by Reed and others, is drawn from the inferior margin of the orbit just above the prominence of the cheek bone across the upper margin of the meatus auditorius, which corresponds nearly with the junction of the tragus with the inner extremity of the helix. Extending backward, this line terminates on or near the occipital spine. Having obtained in this way our boundaries, we can proceed to the determination of the relative place and extent of the leading convolutions, and be able to note the chief variations of development in comparing one head with another, with that certainty of estimate that is desirable to the careful and thorough observer.



To Our Correspondents.

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

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

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

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

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

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

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

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

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 to the Editor in his professional capacity will receive his early attention if this is done.

CATARRH, ETC.—R. S.—You will have noticed that a series of articles on this subject was begun in the October number. We hope to continue the series until the subject has been pretty well covered. There are so many inquiries coming in all the time in regard to Catarrh that we know the subject to be of very general interest. Hay fever has a nervous relation which makes it a little out of the domain of catarrh proper in the opinion of many. We do not know of any sure cures for it that are to be had of the druggists. It is change of climate which will be productive of the best results.

Nervous conditions have much to do with one's sensitiveness to changes of temperature. Usually most sensitive people are depressed in vital condition and anaemic, or wanting in blood. Such people should not adopt a low diet, but eat good, nutritious, though plain food, and get an abundance of rest.

MOUTHS OF GREAT SPEAKERS.—G. C.—It is true that, as a rule, those who have been all their lives in vocations that required much speaking have large mouths. Lawyers, for instance, who do a good deal of talking in the courts, have full lips, the underlip being specially protuberant. It is but reasonable to assume that the constant exercise of the muscles that relate to speech, especially the obicularis oris and levators, would develop them gradually to a marked size and fullness.

SLEEPINESS.—G. W. A.—You are probably very active during the day and tire the muscles, so that when you sit down at night after supper further draft upon the organs of circulation, as well as the activity of the stomach, deprives the brain of blood, and it is rendered somewhat torpid, and hence you incline to drowse and nap. General fatigue of the body prevents normal exercise of the organic cerebral centers. Try to arrange so that you can read or study some during the day. A half hour or so before breakfast would be of more value than an hour later, when the mind has become interested in the business of the day. There may be some organic trouble, like liver congestion or enlargement of the spleen, which contributes toward the dullness which you experience at night.

THE BRAINS OF MEN AND WOMEN.—PRO-

FESSOR H.—It probably is, as claimed, that the comparison made between the brains of men and women is unfair; that very few women of distinction come under the examination of the anatomist, so that the correct size and weight of their brains are procured, while it is a very common thing to have a measurement of the brain of a distinguished man to be taken. In the hospitals, most of the women who come under inspection in this respect are of an inferior type, and therefore, any inference drawn from such a source is deficient. It is said that one of the heaviest brains known to science is that of a woman, which weighed several grammes more than the brain of Cuvier, in other words, over sixty-four ounces. The brain of George Eliot must have been of remarkable size and weight, as her head was of extraordinary size. The following passage occurs in her life: Mr. Bray, the enthusiastic believer in Phrenology, was so much struck by the proportion of her head that he took Marlon Evans up to London to have a cast taken. He thinks that, after that of Napoleon, her head showed the largest development from brow to ear of any persons recorded.

DERIVATION OF THE NAME OF AMERICA.—F. I.—A French scholar, Dr. Marcou, has been laboring to establish the point that the name of America was not derived from Amerigo or Americus Vespucius, but that the Florentine navigator was himself called Americus because of his explorations in the new world where a tribe of Indians dwelt, and still live, known as the Ameriques. The theory is that the geographers came to use the name to distinguish the continent rather than the islands.

DRINKS AND THE SKIN.—A. C.—It must be said that beverages in common use have a marked effect upon the skin, and in some eruptions it would be well to have a care as to what liquids we take into the stomach. A very prevalent disease—eczema, is much aggravated by the use of beer. Alcohol exercises a contractile influence upon the capillaries, and so interferes with the reparative action of the blood. Dr. Fox, a very prominent authority, claims that in all cutaneous diseases, not only alcohol, but also tea, tobacco, and coffee are injurious. A great many liniments, compositions that are used

for skin troubles, contain alcohol. It is well, therefore, to understand the action of alcohol as a preventive of cure rather than a help.



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

Insanity in Australia.—Mr. J. R. Major, a correspondent, writing from New South Wales, says: "In a pamphlet by the Rev. S. H. Platt, I notice the following: 'The number of insane in South Australia is said to have been in 1861 one to 750 inhabitants, and in 1871 one to every 524, showing how terribly the convict heredity was telling upon the perpetuity of the race.' While not denying that there exists a large amount of insanity in the Australian colonies, not excluding South Australia, I consider myself perfectly qualified from a residence of nearly two years in that region to refute the statement that insanity in South Australia has been the outcome of convict heredity. If reference had been made to either this colony (New South Wales) or Western Australia, I should have been prepared to coincide with Mr. Platt's views. South Australia has never been a convict settlement. It was originally colonized under a company known as the South Australian Co., somewhat similar in its character to the East India Co. Most of the original settlers were Scotch. A greater part of the population now consists of the Scotch, while there are English, Irish, and Germans. The tone of the inhabitants of South Australia in general, that is, socially, morally, and intellectually, is much above that of either New South Wales or Victoria, and I have a strong impression that it is upon South Australia that the future of Australasia must depend for its leaders in literature, science, and art."

PERSONAL.

Mrs. MARY E. TYLER, the original Mary whose little lamb followed her to school one day, is still living in Summerville, Massachusetts, a vigorous old lady of eighty-two years. To the *Boston Globe* she recently

gave the true version of the world famous verses. The lamb was raised by her from the day of its birth, its mother having deserted it. It followed Mary everywhere she went, and died in her arms, having been gored by a cow while following Mary about the barn. The three original verses were written by one John Roulstone, a young man in the neighborhood, then sitting for college, but two more verses were added afterward by a Mrs. Townsend. From the fleece of her lamb Mary knit two pairs of stockings. These were ravelled out and sold in small bits tied to a card with Mary's autograph written on it, and sold for the fund collected to save the Old Plymouth Church, Boston. Two hundred dollars were raised in this way. There are some who interpret the old rhyme as a folk-lore myth.

DR. TANNER, the once famous faster, lives in New Mexico, where he has a 1,500-acre ranch. He is connected with a foundling association, which is intended to show that the baser passions are aroused principally by the use of animal food. He thinks that he can make children all good and long-lived by feeding them one meal a day of a light vegetarian diet. The doctor himself lives on one meal a day.

WISDOM.

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

LIFE is the opportunity of the soul.

This is one of the best mottoes ever followed: Never trouble trouble until trouble troubles you.

The power of concentration is one of the most valuable of intellectual attainments.—*Mann.*

No matter what his rank or position may be, the lover of good books is the richest and happiest of the children of men.—*Langford.*

BETTER have a plain, unsubstantial building with no extravagance about it, but without debt, than the most splendid specimen of architecture that is overlaid by a mortgage.

It is worth realizing that there is no such thing as commonplace life or uninteresting circumstances. They are so only because

we do not see into them, do not know them.

- To the young man who says, "This world is a farce, and life is a failure," we would say: adjust your glasses, you have not yet found the true focus. Let the light of Heaven come into your soul and you will find no cause for such expressions.

♦ ♦ ♦

MIRTH.

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

DAR'S NO measurin' foolishness. Some men ud get los' trabblin' a straight road.

NURSE: "Doctor! doctor! By mistake I gave the patient a spoonful of ink instead of medicine." Doctor: "Well, make him eat blotting paper right away."

THE worst case of selfishness on record is that of a youth that complained because his mother put a larger mustard plaster on his younger brother than she did on him.

"WHAT is Sniggles running for?" "I didn't know he was running for anything." "Oh, but he is, then. I saw him going to church last Sunday."

A SCIENTIST has discovered that the older a man grows the smaller his brain becomes. This explains why the young men know everything, and the old men know nothing.

"PAUL," said his mamma, "will you go softly into the parlor and see if grandpa is asleep?" "Yes, mamma," whispered Paul on his return, "he is all asleep but his nose."
—*N. Y. Sun.*

A YOUNG miss who had recently began the study of geography in a private school was asked by her father what she knew about New York Bay. "Oh, I don't know any thing about that," was the reply, "but I can tell you all about Asia."

"WHY, Pat, for heaven's sake, what's the matter?" "Well, sorr, I swallied a pertater bug, and although, sorr, I took some parrus green widin five minutes after ter kill th' baste, shtill he's just raisin' th' divil inside o' me, sorr.—*Life.*



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

TWO LUNATICS.—A story written by one of them. Paper, price 50 cents. Theo. Berendsohn, publisher. New York.

This is certainly a unique book, and may fairly be said to belong to the class of eccentric publications that from time to time disturb the equilibrium of routine thought by questioning the generally received canons of morality and "conscience." Whether the author is a lunatic or not, he guardedly leaves the reader to conjecture. If he is mad, there is certainly much method in his madness, and his argument, when it is sifted of its irony, presents many indisputable facts and suggests ideas that, sooner or later, will be likely to bear fruit in the minds of thoughtful people. The lunatic who figures as the hero of the story, after describing how in his youth he was burdened with too much of the reasoning faculty, that led him to think and act differently from other people, proceeds to study and investigate himself, especially with respect to what relation the life experienced in his body is to the life going on around his body. As a result of these investigations, he quite ingeniously formulates an argument to prove that he is in a resurrected state every time he "finds himself" after an unconscious spell (he appears to be subject to such spells), either in the old body or in a new, and this life-relation of the past, present, and future existence, he maintains, explains the possible immortality. But he takes the ground, and that certainly not a very new position, that no one can identify himself in a new body except by the same motives and characteristics that stamped him with a distinct character in the old body, and of which there is no record. The object aimed at by the

author seems, in short, to be to inspire people living now to do something worthy of record, in order that they may be able to "find themselves" as resurrected beings in a future life, and as an eschatological method, out of Christianity, it is entitled to consideration.

SLAYING THE DRAGON. A story of Cape Ann life. By Mrs. D. O. Clark. 12 mo., 267 pages. Price, \$2.25. Published by the National Temperance Society, New York.

A thoroughly earnest book written by an earnest woman. Her incidents and characters are largely drawn from life. Striking as a story, and therefore attractive to the reader, the book nevertheless teaches much truth with regard to those terrible phenomena of inheritance, the transmissions of vicious qualities from parents to children; at the same time it has a cheerful and encouraging side for those who would think that perseverance and well-doing will overcome even the evil in one's nature that has come from ancestry.

THE NEW MODEL FIRST READER. Sentence method. Chicago. George Sherwood & Co.

A casual glance at this new manual for the instruction of children makes one wish that he were a child again, so entertainingly are the principles of orthography set forth. In spite of the incongruities and inconsistencies of our English spelling, the little student is led almost unconsciously to acquire a knowledge of words and their uses.

PLYMOUTH PULPIT. Sermons preached in Plymouth Church, Brooklyn, by Henry Ward Beecher; from Ellinwood's Stenographic Reports. Four volumes, large 12 mo. Price, cloth, \$1.50 per volume. Fords, Howard & Hurlburt, publishers, New York.

It is unnecessary for the book reviewer to dwell upon anything that had emanated from the silver-tongued orator who made Plymouth pulpit famous, and we mistake greatly if the Christian world does not accept gladly these last testimonials of his great mental ability. Three of these volumes have never before been published in book form. The whole series covers the period from September, 1873, to September, 1875. This, the period of his deepest trouble, is said to cover his best pulpit work. Looking

over the topics alone, a fund of suggestions is found regarding the character of the man. They were always well chosen, and affected the most intimate concerns of human life. Let us note a few of the topics as they are mentioned in the table of contents of one volume: Heroism, New Testament Theory of Evolution, Man's Two Natures, All-sidedness in Christian Life, Fact and Fancy, Cuba and the Brotherhood of Nations, On Goes the Battle, The Science of Right Living, The Naturalness of Faith, The Debt of Strength, Special Providence. If these volumes contain, as it is thought by those who are conversant with Mr. Beecher's ministerial work, his very best efforts, what can we do better than to commend them to those who would have in their libraries something that represents one of the greatest preachers?

PUBLICATIONS RECEIVED.

NO KING IN AMERICA. A patriotic temperance programme in three parts. By Julia Colman. Paper. National Temperance Society, New York.

A TEMPERANCE PICNIC WITH THE OLD WOMAN WHO LIVED IN A SHOE. By Mrs. N. H. Bradley. 45 pages. Price, 25 cents.

A novel entertainment or cantata, just published by the National Temperance Society, and dedicated to temperance associations, schools, and other gatherings. Scenes and recitations and choruses, talks, etc., in the course of which temperance information and good advice are scattered. The music text is also given to render the series complete.

JEWISH MYTHOLOGY, as Applied to the Coming of the Messiah. By Thomas F. Page, of Laconia, N. H.

THE INTERNATIONAL STANDARD MAGAZINE. Devoted to an examination of the great Pyramid of Jeezeh. Published by the International Institute, Cleveland, O.

The memorial number is dedicated to Mr. Charles Latimer, who for many years devoted much of his time to this department of scientific investigation.

ANNUAL REPORT OF THE COMMISSIONER OF PENSIONS FOR 1888.

This work supplies information of value with regard to the number of pensioners and the amounts of money paid to them by the government. Tabular lists are given, set off by States. The number of applications for pensions is given with those whose claims are allowed and those rejected. If any are dis-

posed to consider the Republic ungrateful, let them read this report of Mr. Black for the last three fiscal years. The amount disposed of on account of pensions was over \$219,000,000, or \$70,000,000 a year. One must wonder in noting this vast aggregate why so much fuss is made over a surplus.

BULLETIN OF THE NEW YORK ACADEMY OF ANTHROPOLOGY, No. 1. Abstract of the proceedings of the International Congress of America, held at Columbia College, New York City, in June, 1888, under the auspices of the Academy.

An interesting exhibit in itself of the interest shown in anthropological research by Americans.

CURRENT EXCHANGES.

America. A journal of to-day. Weekly. America Publishing Co., Chicago.

Babyhood. A magazine for mothers. Devoted to the care of infants and young children. Monthly. Babyhood Publishing Co., New York and London.

The Illustrated Catholic American. A journal of information and recreation for the people. Monthly. Illustrated Catholic American Co., New York.

Scientific American. A journal of practical information, art, science, mechanics, chemistry, and manufacture. Weekly. Munn & Co., New York.

The Western Plowman, and South and West. A journal for farm and family. Monthly. J. W. Warr, Moline, Ill.

Arts, Professions, and Industries of Women in Buffalo. Dedicated to working women everywhere. Mrs. E. Brown. John McLaughlin & Co., Buffalo.

New York Tribune. Weekly edition. Weekly. Tribune Co., New York.

The Current. Politics, literature, science, and art. Weekly. G. P. Brown, Chicago.

The Inter-Ocean. Weekly. Inter-Ocean Co., Chicago.

The Christian Inquirer. Continuing the *Baptist Weekly* and the *Gospel Age*. Weekly. The Inquirer Publishing Co., New York.

Christian at Work. Weekly. Always vigorous and interesting. J. N. Hallock, New York.

The Old Testament Student, with New Testament supplement. Weekly. William R. Harper, New Haven.

The Popular Science Monthly comes with its November number illustrated first with a fine portrait of Mr. Edward Atkinson, the well-known statistician, and with views of geological strata, relating to Ancient Man in America. The Effects of Protection. Every Day Life of Indian

Women, The Problem of a Flying Machine, Inau Family Life, Problematical Organs of Sense, and Four-Handed Sinners are among the other articles discussed in an entertaining and instructive manner. D. Appleton & Co., New York.

In *Lippincott* for October we have first a novel by the late E. P. Roe, entitled "Queen of Spades," and then follow some words about E. P. Roe and a poem, "The Star of Gaiete." Brown Bread and Baked Beans, At Last, Six Days in the Life of an Ex-teacher, Some Childish Memories, and other topics fill up a number of considerable bulk. J. Lippincott & Company, Philadelphia.

Whether Apologetics are not more Hurtful than Useful To-day, is a seasonable topic in the *Homiletic Review* for October. There is a carefully thought-out study of Wordsworth's poetry. Mr. W. F. Round considers the Character of the Poet. Professor Wilkinson takes Goethe's Faust to task for certain moral faults. The Sermonic, the Exegetical, and other sections have their full complement of material. Funk & Wagnalls, New York.

The October *Harper* has a frontispiece which reminds one of this time of the year, whether it were intentional or not on the part of the artist. Limoges and its Industries, Old English Scenes, Western Journalism, Our Journey to the Hebrides, are richly illustrated and good reading. Harper & Brothers, New York.

Once a Week. Fiction, fact, sensation, wit, humor, news. Weekly. P. F. Collier, New York.

The Cultivator and Country Gentleman. For the farm, garden, and the fireside. Monthly. Luther, Tucker & Son, Albany.

Prairie Farm. A journal for the farm, orchard, and fireside. Weekly. Jonathan Periam, Chicago.

American Bookmaker. A journal of technical art information for publishers, bookbinders, printers, lithographers, and all interested in book-making. Monthly. Howard Lockwood & Co., New York.

New England Magazine. Monthly. New England Magazine Co., Boston.

Truth. A weekly magazine of current literature. Weekly. S. Frank Wilson, Toronto.

Home Journal. We should do our utmost to encourage the beautiful, for the useful encourages itself. Weekly. Morris Phillips & Co., New York.

Albany Medical Annals. Monthly. Albany Medical Library and Journal Association, Albany.

The Churchman. The leading New York organ of the Episcopal Church. Weekly. W. H. Mallory & Co., New York.

ECHOES FROM THE CONSULTATION ROOM.

BY PROF. NELSON SIZER.

IN DULL TIMES—SOME MUST CHANGE.

WHEN dull times throw many out of business, it is a good opportunity for those not suited or successful in that which they have been doing to change to something better. When business is brisk and all are fully employed, men keep on in pursuits they do not like because doing fairly well—but when set free by failure of employer or by a dull market, those who are not best suited for the business are the first to be dismissed, while those adapted to the business are too valuable to be parted with, and therefore are retained through hard times, and finally become partners or confidential and life-long assistants.

Those who are dropped out will, if they are wise, seek to make just the right change in which to secure for all their future pleasant and profitable occupation, and this may be greatly aided by consulting Phrenology. Hundreds have been thus advised as to their best pursuits and have been put in the right place, greatly to their improvement and profit. One man we described as a natural artist—he was a carpenter—he dropped the saw and plane, studied art, and became the best in his State; another (who was in a fancy store at \$8 a week) we assigned to architecture, and inside of three years he was earning fifty dollars a week at the new profession. Such facts are all the time occurring, but the public does not hear of them any more than they hear of the successful farmer or bookkeeper.

AN INTERESTING STATEMENT.

A MAN at our office a few days since, in speaking of a brother, whom he said had been examined here, remarked that when the brother brought home his chart and handed it to him to read, he laughed heartily, because the Professor had riddled him through and through, and left not one thing untouched. "I, of course, having known him from a child, could appreciate all the points that were made, good and bad; and it surprised me, not that a man could give the general strength of a person's character, but that he should be able to dress it out, as it were, with a fine-tooth comb, and hit every little particular. He went right and left,

through and through him, and left nothing unsaid that could be said." And then, singularly enough, he added, "but I knew everything about it; he said nothing that I did not know, and I had known him from infancy."

We quietly asked him what in the world else he would have a phrenologist say but what he may have known of his brother, whom he had known from the cradle, and with whom he had been on the terms of utmost intimacy? He looked into the distance for a moment, and then smiled, saying, "well, perhaps if a phrenologist can tell all of a person that his own brother might know of him, it would be about the whole truth, and nothing but the truth."

A MISTAKE.

A CALLER said: "I have been anxious to come to you for this for several years. I have been a firm believer in Phrenology as a science; but several years ago I got set back by a public examination you made at a lecture in a church in Williamsburgh, N. Y. The subject was Mr. —, a deacon in one of the churches, and a man very much respected in the community. He was entrusted with business such as making collections, and was collector for several institutions. When he came forward for a public examination all expected to hear a good account, but you said he was grasping and selfish, but smooth and inclined to be tricky in his dealings. When asked by some one in the audience if he was honest, you replied that, if you had occasion to confide in a man, you should look for larger Conscientiousness. I was astounded, and so were all who knew him. I thought Phrenology true, but concluded that even the most experienced were liable to mistake.

"A few months after this examination it was found that the man was a defaulter to a considerable amount, and had for years been collecting and keeping money belonging to others. When one fact was brought out others came to light, and the man left the city, and since then has been keeping one of the lowest rum shops in a neighboring State, and is suspected and despised in all decent circles."

The examiner wonders how many of that audience repeat this fact as "a mistake by Phrenology in regard to one of the most respectable men in the community," and how many who learned the other side of the case take pains to mention it to our credit.



He's got it! —

He's happy now.

THE GLADSTONE LAMP.



This lamp is in all respects a "Wonderful Lamp"—the best ever invented. It gives a pure, soft, and immense white light of 85 Candle power, the most brilliant, the largest and the purest light from kerosene oil that *HAS EVER BEEN PRODUCED*. The world has never seen the equal of such a light from oil. Everybody wants a lamp, and they want a good one. Most of those who have poor lamps want something better. Every family wants a stylish, parlor table lamp. They want a nice lamp at the price charged for the cheapest. They want above all things, a lamp that will give a clear, large, and brilliant light. The brighter the light, the more pleased they all are. Now the GLADSTONE LAMP just "catches on" to all of those "wants." It beats every lamp ever before made. Think of the labor, annoyance, expense, and health saved by a lamp having such qualities as these: Never needs trimming, never breaks chimneys, never smells; no gumming up, no leaks, no sputtering, no climbing of the flame, no annoyance of any kind! And then think of having besides all these advantages, a light of pure white brilliancy, of 85 candle power—10 to 20 times the size and brightness of the light of the best ordinary house lamp.

The "Gladstone Lamp" rolled metal, in two elegant and cast base; and the higher, without handles, and engravings here show. The in repousse, and it is finished in either Rich Gold Bronze, or Antique Bronze—the gold finish being the color of rich gold, and the antique the shade of copper or dark bronze. The Stand Table Lamp (no handles) is finished in either Nickel or Rich Gold Bronze. Being heavy Electroplate they will wear for years without change. Customers may select either style of finish. Either Lamp will make a rich and stylish ornament for Parlor or Dining Table.

**85
Candle
Power**

PRICE of Gladstone Parlor Table Lamp with Handles, finished either in Gold or Antique Bronze, with Shade-holder, Chimney, and Decorated Porcelain Shade, complete (see engraving above), - - - \$7.50.

We will send this as a premium for eight yearly subscribers to the Phrenological Journal at \$2.00 (or \$2.15 with premium), or for \$6.25 we will send the lamp and the Journal for one year.

PRICE of Gladstone Stand Table Lamp, in either Gold or Nickel, with Shade-holder, Chimney, and Porcelain Shade complete, (see engraving opposite), \$5.50.

We will send this one for six subscribers, or, for \$5.00 we will send the Journal one year and the lamp. In ordering give express address, to which lamp will be sent, charges to be paid on delivery. Journal by mail postpaid. Address

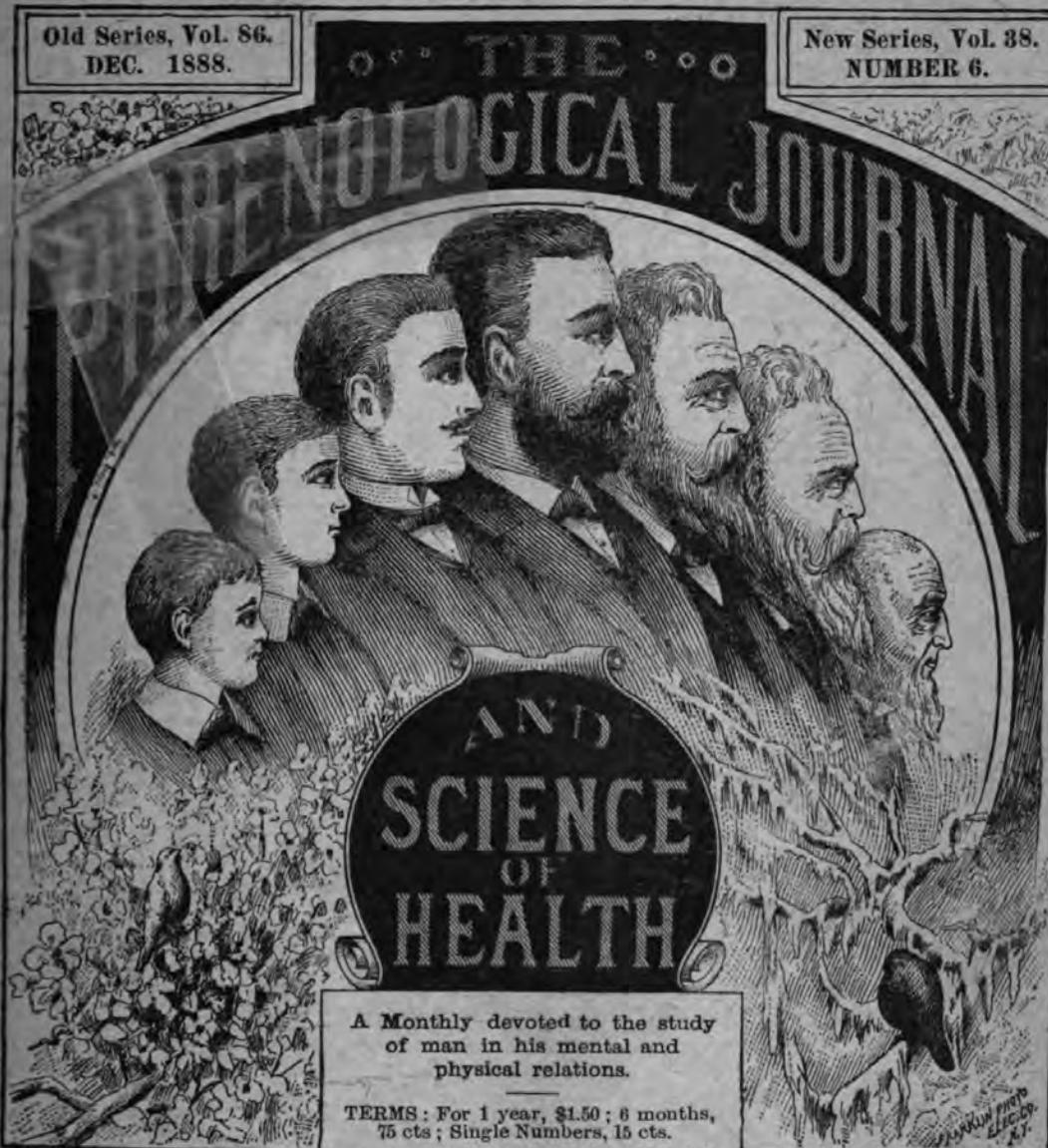


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WILLIAM EWART GLADSTONE.

NOTABLE PEOPLE OF THE DAY.—NO. 14.

THE PHRENOLOGY OF W. E. GLADSTONE.

WHEN Mr. Gladstone came down to the House of Commons in the last session, in order to move an address to the Queen against the proposed proclamation of the National League, I had, for the thousandth time, a splendid opportunity to note the right honorable gentleman's phrenology; and thinking the chance might never occur again, I took occasion by the forelock. The ex-Premier has a habit of facing first one way, and then another, as he speaks, as though he would not willingly turn his back upon any part of the House. It is very fine to see him wind his way through a closely reasoned argument addressed to the Treasury bench, now emphasizing his points by striking the palm of his left hand, and now pushing the conclusion home with finger outstretched across the table. Then, having to his satisfaction demolished his opponent's position, he will turn quickly round to his friends, and in doing so, deal his foes a final blow; or, it may be, throwing back his head, send forth a stream of withering irony.

It is a strange and interesting sight to see the "old man eloquent" address the British Senate, while its members sit in breathless silence, marveling at his flow of language, and the rapid play of his features. There is not a finer study for the physiognomist in the world than that mobile face. But here, I want to speak of his phrenology, which, up to the present time, has never been adequately described.

Let me premise by saying that Mr. Gladstone's head is over twenty four inches in circumference, and that the frontal lobe is of almost preternatural length. It is very rarely, indeed, that we see so much length of head from the opening of the ear forward. There is a good mass of brain behind the ear, that is, with cerebellum; but the first, and most striking feature, is the long, promi-

nent frontal lobe. I make a special point of the shape, which is wedge-like laterally, because the forehead focuses, so to speak, in the central line, and then gradually widens out to the ears, at which point the width is very great. This is the second striking feature, Destructiveness and Combativeness being very large, the latter especially. The third interesting point in this wonderful head is that, compared with its great length and its extraordinary width, the height of the head is not specially great.

Let us see what all this means. As I said, the cerebellum is large, and there is no lack in any of the social organs. But Self-Esteem and Approbativeness are large, the latter being markedly prominent. Firmness is a large organ, but Conscientiousness only moderately so. Hope, however, is large, and Veneration well developed. Spirituality is of a moderate size. Imagination is not excessively developed, but both Imitation and Constructiveness are well represented.

Coming once more to the intellect, I find all the perceptive faculties large, or nearly so. Individuality is a striking development, and Eventuality is hardly less prominent. Form and Size are also large, and Order and Calculation particularly so, giving a peculiarly massive and square appearance to the lower part of the forehead. The next point to notice is the extraordinary size of Comparison, and, along with it, of Intuition, and the comparative smallness of Causality, and, along with it, of Wit. I may add that Language is a large organ, as shown by his prominent eye, thrown well forward against the lower lid.

We see, therefore, where his strength lies; namely, first, in his strong perceptive, methodic, and analytical intellect; secondly, in his tremendous energy and "go"; thirdly, in his reserve of force, as given by his large cerebellum; and

fourthly, in the "balance" and poise given by his moderate firmness and his self-possession, kept steadily under stimulus by his great ambition and desire for praise. A fifth important feature in his mental make-up is the only moderate development of those organs which may, and sometimes do, lead to vagueness and visionariness, Spirituality, Ideality, etc. Hope, acting with the larger organs, yields that extraordinary buoyancy and *elan* for which the right honorable gentleman is characterized, but which, for the reason just mentioned, does not lead to air-castle building. One other point of considerable importance I have yet to name—his intuition. This it is, more than his benevolence, which is not very large, that gives him his great power over men. Few persons have so keen a mental vision—such piercing insight. It enables him to read, as it were, the still incubating thoughts of men, of the world around him, and so to stand out, as it were, as the prophet. The brooding germ of other, or slower, minds leaps into his a matured thought, full-grown, and men marvel to see him so much before them. The effect is heightened, of course, by the restraint produced by Secretiveness.

This very unusual type of head—an eminently Scotch type, by the way—is given much additional strength by a fine blend of temperaments. Speaking in the old nomenclature, I should say that there was about an equal balance of the sanguine, bilious, and nervous temperaments, with a low degree of the lymphatic. Or, to use the more expressive division of the temperaments, I should say the mental and motive predominate, while the vital, though not weak, is much subordinate.

Mr. Gladstone owes much to his parentage—to his ancestry, indeed—how much we shall not know until some one goes back for several generations and gives us a life-history of both the "spindle" and the "spear" sides of the genealogy. Had the right honorable

gentleman's immediate ancestry been of the grossly feeding, low-living, and drinking sort, the ex-Premier would have been a very different man, even with his present phrenology. He owes much to a clean, clear, undepraved temperament, or diathesis.

In conclusion, let me say one more word. Mr. Gladstone is eminently one of the people. Like the masses, he is guided by what he sees—by the things that act upon him from day to day. He seizes hold of things—or they seize hold of him—strongly, and with such force that he can not help being influenced by them. But he is no philosopher, and he has no fixed principle of thought by which he is always guided. Without perhaps knowing it, expediency is his guiding principle. Hence, he is with "the flowing tide," as he so well puts it himself. Any one who would take the trouble to contrast and compare him with the late Earl of Beaconsfield, would gain a rich phrenological lesson.

Theo. St. Martin.

MICHAEL DAVITT.

THE Irish question lost nothing by reason of the adjournment of Parliament, because popular interest has been sustained if not reinforced by the inquiry that is now being made by the commission specially appointed for the purpose of investigating the accusations brought against the leaders of the Home Rule agitation by the *London Times* newspaper. We might mention also the suit for libel that Mr. Parnell has instituted against the same newspaper, because the fact of such suit must have its influence also upon public sentiment.

The reader knows that among the Irish agitators the name of Michael Davitt has always been prominent and it is expected that he will be something of a figure in the Commission investigation, as well as in Mr. Parnell's suit. In these columns notice has been already taken of several of the Home Rule men, and it is fitting certainly that Michael Davitt,

who is reputed to be the founder of the Land League, should have a place in our consideration. He visited the United States twice, so that Americans have had some opportunity to estimate him from personal contact.

As shown in the engraving, he appears to be a man of very active temperament, and courageous and spirited, with a marked phase of excitability. He is a keen-sighted man, sharp in taking account of the situation, appreciative of facts, and rather emphatic in the utterance and manner of expressing his opinions. The face wears an expression of in-



MICHAEL DAVITT.

tensity; the nose is inquisitive, we might say acquisitive, for it betrays resources in the way of mental force that constitute Mr. Davitt no mean worker in any field that he may enter. He has strong ambition and equally strong sympathy. We infer from the organization that there is little of the crafty, the underhanded or tricky in his nature, but that he is open and "out at once." The social elements do not appear to be as strong in his composition as they are usually found in the Irish type, that is to say, there is more of head than heart, although sympathy

with oppression and indignation against injustice, stimulate the action of his intellectual faculties.

Mr. Davitt's career is familiar to the reader who has looked at all into the present Irish agitation with regard to Home Rule. He is upward of forty-two or forty-three years of age, was born in Straid, County Mayo, Ireland, of a parentage belonging to the average class of country people. While but a mere boy his father was evicted, or turned out of his old home by the landowner's bailiff, and the family made the best of its way to England and found a place of residence in Lancashire. Later his parents and other members of the family came to America. Michael was put to work in the mill, where he lost an arm. At eleven years of age he found employment in the local post office, and that served in great part for his early schooling.

It is scarcely to be wondered that with such a childhood Mr. Davitt has been led to entertain sentiments of injustice toward the ruling class, or that he was led to unite with the Fenian organization and take a somewhat active part in its affairs. In 1870 he was arrested on suspicion and tried as a political agitator, convicted, and sentenced to fifteen years of imprisonment. After seven years he was released on "ticket of leave." Three years later he was re-imprisoned. This occurrence excited a very sharp debate in the House of Commons, and so earnest was the part taken by the Irish members that they were all suspended. On his first release, his career as an agitator for land reform in Ireland began, and it was in the interest of this movement that he went on a rather extensive line of lecturing. And before his second imprisonment, to wit, in 1878, he made his first visit to the United States for the purpose of announcing his views here.

A volume of lectures, addressed "To a solitary audience," which was a pet black-bird which shared his cell, was

published after his release. This contains thoughts on prison management, social reform, the cause and cure of poverty, and similar topics. He is probably one of the most troublesome of the Irish Nationalists with whom England has to deal.

BARON STANLEY,
Governor-General of Canada.

THE successor to the Marquis of Lansdowne in the government of Canada, as representing the central authority in London, appears from the portrait to be a man of rather sturdy qualities, not perhaps brilliant or gifted with any great faculties of intellect, yet a man who respects authority, appreciates ways and means, and looks upon affairs from the practical side chiefly. He lets theories alone, and would have the good old order pursued to the confusion of all agitators and those who are disposed to stir up trouble. He looks like a man who would be disposed to fairness, while the matter under consideration was not one that interfered with the established order. Law, convention, usage, and precedent have his respect. He is eminently conservative, therefore, and a good representative of the better sort of the Tory class in England. There are marks of excellent insight and good judgment. He is no rude aristocrat, careless of the views of others, but one who believes in adaptation.

Baron Stanley is the second son of the late Earl of Derby, who was three times Prime Minister of England, and whose parliamentary ability won him the name of "the Rupert of Debate." His full name and title is Frederick Arthur, Lord Stanley of Preston. He was born in 1841, and after finishing his education in school and college, entered the army.

A few years of such connection appears to have satisfied his military spirit, and he quitted the Guards to enter upon a political career. This was opened by an election to parliament in the Conservative interest and as a representative of Preston, a Lancashire town. Later he received the suffrages of the northern section of the same county.

In 1868 he was appointed to an office under the government as one of the Lords of the Admiralty. In 1874 he received the portfolio of Financial Secretary of the War Office, and in 1878 he entered the

Portrait to be supplied in the January number.

Cabinet of D'Israeli, as Secretary of War. We will not say how much his close connection to so eminent a political leader as the late Earl of Derby had to do in securing for him these important official connections, but doubtless the gentleman possesses merit and character that enable him to perform his duties with satisfaction to his party. Of course he was retired in 1880, when his party went out, but in 1885, on the return of the Conservative ministry, he was made Secretary for the Colonies. The position of the Viceroy or Governor Gen-

eral of Canada is deemed as one of the most important gifts of the British Government, and that he has recently received it, may be taken as a confirmation of his value as a public servant.

EDGAR WILSON NYE.

PROBABLY with this spelling the reader will not recognize the well-known humorist whose sayings go the rounds of the newspapers, and excite the risibles of all who appreciate that peculiar humor, which was started by John Phoenix, and which has had many followers since. Mr. "Mark Twain," as everybody knows, is one of those who



BILL NYE.

are fond of dropping into it occasionally. "Bill Nye" seems in the rather roughly sketched portrait to be very much such a man as one would infer him to be from his humorous style. The profile of that face is characteristic. It is critical, curious, sarcastic, yet withal good-natured, round cornered, and sympathetic. We could not consider such a head as covering a brain that would function thoughts of a severe, harsh, arbitrary, and sour nature. His aim would be generally to indicate a phase of kindness and sympathy while striking at any absurdity in custom, social or secular. The faculty of language ap-

pears to be large. The social elements are strong, the side head is evidently full, imparting taste and refinement. We can scarcely state how much order there is in the make up of Bill Nye's character. Possibly it is one of those things that is difficult to find out from a mere inspection of his work-table. His autograph, we wish that we had it to show here, would impress one that he could not claim much, but that autograph really shows a good deal of the disposition of the man. He is, taken all around, a sensitive, nervous, yet good-natured man, with a very keen insight of the *outré* and extravagant, with a grave side in his moral view, expressed between the lines of his grotesque writing.

Bill Nye is of Maine extraction, and about forty years of age. He found his way westward, when young, and located in Laramie, Wis., and there, having some ambition in the direction of journalism, he started the *Boomerang*. As its name implies, its purpose was eminently humorous and there was so much of originality in the fun which filled the *Boomerang's* columns, that he produced a marked impression almost at the start.

In a few years he had made a reputation, and was led to return East and make it his permanent abode. Here, as contributor to several publications, he derives a respectable revenue. Some look upon his strokes of humor as marked by an utter disregard of reason and common sense. There is an audacity about it, it must be confessed, that is often startling; probability is outraged, but the fun of the thing overcomes, and we find ourselves intensely amused, without attempting to condemn the absurdity. A writer says that "although he has an abundance of subjects and is pumping a well that is not likely to run dry, he has but one style, yet it is a style that takes, and brother Nye, who is its best exemplar, may be expected to stick to it as long as it holds its value."

WILLIAM DEAN HOWELLS.

WHILE we are on the literary scent, let us take note of a writer who for many years has been much read and talked of. Some critics of our literature and of English literature in general, ascribe to Mr. Howells a prominence not exceeded by any other American writer who makes fiction his chief purpose.

Mr. Howells, if one may judge from the portrait, said to be a fair representation, is a person of that tone and temper that may be expressed by the term deliberate; he is reflective, studious, the very opposite of the slap-dash, off hand, or "off-the-handle" man. We can readily conceive him to study with much care any subject he has taken up. Would he write a new book, he is slow to reach the conclusion as to the nature of the plot and the series of incidents by which it will be worked out. His language is evidently large, giving him fluency and copiousness of phrase and word. He should be orderly with that forehead, and systematic. He is careful and discreet in manner and management, has a marked deference for matters social, believes in friendship and friendliness, has his sympathies and they impress his brain with views of life that give him the character of a realist. There is reflection and suggestion, but no great indication of humor, however. He is philosophical and intensive, not discursive, not promiscuous.

He has imagination in a marked degree, but it is not influenced by caprice or a desire to create sensation. Such a man in writing would endeavor to evolve the principles of action, the undercurrents of life; he would endeavor to adapt the expression of manner and language in a given personation, to the inner action of sentiment and emotion, as he has learned them from a study of the real. He appears to possess an excellent stock of vitality; and without opportunity for daily physical exercise, we think, a tendency to the lymphatic type of temperament is likely to be developed.

Mr. Howells was born in Ohio, at a place called Martin's Ferry, March 1, 1837. His parents were Quakers and had emigrated from Wales, and are said to have been people of uprightness, refinement, and perseverance. His father was a printer, and for some time published *The Weekly Intelligencer*, in Hamilton, O. In the office of that paper young William learned to set type, and at twelve assisted in the composition of President Taylor's Inaugural Message. The boy had little opportunity to attend school, but his studious bent



WILLIAM DEAN HOWELLS.

led him to read and learn by himself, and in his leisure therefore he pored over history, classic literature, and modern languages. With the opportunity offered by his father's paper, he now and then put into print some piece of his own composition. The elder Howells seems to have been given to changes of residence, but wherever he went, he kept up his printing trade. When William was fourteen, a removal was made to Columbus, O. There the *Ohio State Journal* gave him work for a year. At nineteen he became a legislative re-

porter, writing letters almost daily to Cincinnati and Cleveland papers. Later he was editor of the *State Journal*, occasionally contributing poems to the periodicals. At twenty-one, in company with Mr. J. J. Piatt, he published a small volume called "Poems of two Friends."

In 1861, Mr. Howells was appointed American consul at Venice, and being married at the time, he went with his wife to that City of the Sea and there lived until 1865. His residence in Italy afforded him fine opportunities for the pursuit of literature, and the study of Italian character and life. The fruits of his consulship have appeared in several volumes, published after Mr. Howells' return to America. Among them "Venetian Life," and "Italian Journeys" gained for him reputation as a writer of superior calibre. In 1866 he became assistant editor of the *Atlantic*

Monthly, and in 1867 chief editor of that magazine.

As a novelist he has won his special distinction. The first novel that he published, "Their Wedding Journey," appeared in 1872; it proved a success. Other novels followed; not, it must be stated, after the weedy manner of most of the "popular" novelists of the day, but at intervals that intimated no haste in their production. Among these "The Lady of the Aroostook," "The Undiscovered Country," "The Minister's Charge," "Indian Summer," deserve mention. It is said of him that he grudges neither time nor trouble in amending and revising his works, and the proofs returned to the printers are covered with corrections. His success, therefore, has been purchased at the cost of hard work and conscientious application, added to the inspiration of intellectual abilities of a high order EDITOR.

ADAPTATION.*

THE Author of nature has adapted the different orders of the lower creation to fulfil his will perfectly. The law of adaptation is everywhere manifest. I see it in the crawling insect, the fleet-winged bird, the plodding ox, the springing grass with its diamond dew-drop; and illustrated from the opening of the minutest bud to the crowning glory of the fleecy magnolia.

It has been said that "The ocean is God's thoughts spread out; the mountains, his thoughts piled up; the dew-drops, his thoughts set in pearl." Equatorial flora and fauna are not found, nor would we expect to find them where the Ice King reigns supreme. In the Mammoth Cave, the fishes that cleave its dismal waters have no eyes; they need none. Each creature has the requisite functions to fulfil the design for which it was created. *Adaptation, regularity,*

and *order* mark the whole of the lower creation. When we come to consider the crowning work of the Great First Cause, man, methinks the same order and adaptation ought to characterize *him*. I wish it were possible to speak of him as we do of the lower orders, not that it would be advisable to make him an automaton, or at best a *mere* creature of instinct; my ideal picture will be realized when we shall see all of the walks of life filled by noble representatives of our race, perfectly adapted to each peculiar sphere.

As we look out upon life, what a contrary picture we see! That mind full of Ideality, delighting in the sublime and awe-inspiring, is found cumbered, and chained to the sod, delving in the earth, instead of reading the stars; or building a snake fence, instead of moving majestically in the sphere of a Newton.

There are noble reforms on foot, influences which shall ameliorate the condition of mankind; but we need a peculiar

* Address of Rev. Arthur M. Growden.—Closing exercises of the American Institute of Phrenology, Oct. 13, 1888.

reform, one by which, according to physiological and mental adaptation, every man shall be placed in a position to act out the duties of life with credit to himself and honor to God. This is a practical, not a fancy-inflamed picture, one which ought ere long to be realized.

Every cranial development speaks of adaptation. The mind of Fulton found its congenial field in invention; and steam navigation was the result. He might have been chained to drudgery all his life, as thousands before had been. If we would have the noblest function of every life, the law of fitness between person and pursuit must be observed.

It is said that Luther, when coming into the presence of a crowd of boys, would raise his hat; it was from the consciousness that he might be raising his hat to an incipient astronomer, inventor, theologian, or discoverer. Such a spirit ought to be fostered, not repressed. The boys will soon be men, and the good of future ages will depend upon this one question of adaptation. By the settling of that, I believe a great many moral questions will also be adjusted. It is the idle, discontented brain that becomes a workshop for the devil. What is needed is work; and, in order that it may have its proper moral effect, it *must* be congenial—man must be adapted to it.

In reference to a great many of earth's heavy-hearted toilers, may we not use the following sentiment?

“ Full many a gem of purest ray serene
The dark, unfathomed caves of ocean
bear :

Full many a flower is born to blush un-
seen,

And waste its sweetness on the desert
air.”

Peter Cooper, whose monument, raised by his own hand, stands proudly before us, did a noble work for the poor and uneducated. Recognizing the need of searching for the valuable among the lowly of mankind, he placed within their reach this opportunity to adapt

themselves to a useful and honorable occupation. How many have thus been saved from destruction, and placed in fields of usefulness and power, the future alone can tell.

This institution, with its noble corps of instructors, is engaged in a grand movement for the education of humanity. Who shall be able to tell of the *bodies* that have been preserved from destruction, and of the souls that have been elevated to take a new view of life, to say within themselves, “I will arise; I am a man; I will act a man's part?” We as graduates preach a noble doctrine; our creed is to do good to all. We stand as beacon lights to the entrance of the harbor of happiness. Between so many of earth's denizens and that coveted harbor there is a “great gulf fixed,” oftentimes of a three-fold nature—want of adaptation, viciousness, and weakness. To all such we point out the danger, and show a way of escape. I call this noble work. If all were apostles of this school, paradise on earth would be regained. It would then be unnecessary to say of a fellow pilgrim :

“ Still on it creeps each little moment
at another's heels, till hours, years, and
ages are made up of such small parts as
these; and men look back, worn and
bewildered, wondering how it is thou
travelest like a ship on the wide ocean,
which hath no bounding shore to mark
its progress.”

On the contrary, as the curtain falls, it could be said that *we* go hence, “not as the quarry slave, scourged to his dungeon, but as one that wraps the drapery of his couch around him, and lies down to pleasant dreams.”

No man is born into the world whose work
Is not born with him; there is always work
And tools to work withal for those who will;
And blessed are the horny hands of toil!
The busy world shoves angrily aside
The man who stands with arms akimbo set
Until occasion tells him what to do.

JAMES RUSSELL LOWELL.

DESSIE W. FITZGERALD.

A BELOVED CHILD OF THE INSTITUTE.

THE mystic mantle whose icy folds at last embrace all forms of clay, however beautiful and warm, has chilled and withered one more tender flower; but her magic wealth of love, like sweetest incense lavished, is potent still, and will endure forever in the hearts of her countless friends.

For one so young, Dessie Fitzgerald was rich in experience with both the objective and the subjective worlds. She

education was that of a cosmopolitan, broad and liberal. A long residence in the land of Humboldt and Goethe made her familiar with the German tongue and its treasures of poetry and philosophical lore. She had also some acquaintance with French, and, as a musician, gave promise of uncommon skill. But no stagnant waters could quench her thirst for knowledge. Through her own inclination, and the encouragement of



DESSIE W. FITZGERALD.

was at home upon the mountains or within the valleys; upon placid lakes or raging seas; and her earliest toys were gems of literature and art.

Born in Chicago, her eighteen years were spent in various parts of the United States and Europe, but chiefly in Washington, New York, Brooklyn, London, Paris, and Hanover, where she enjoyed the advantage of superior private tutors, and also of several noted colleges. Her

her parents, she studied many subjects not included in the curriculum of fashionable schools. In this she gave evidence of that rare union of intelligence and magnanimity which comprehends the value of great truths, and bids them welcome, even though they come like friendless emigrants, unheralded, and meanly clad.

Thus she became interested in all problems relating to the development of

the human race, and soon learned to appreciate the wonderful science founded by Dr. Gall. To master this philosophy of all philosophies, she attended the American Institute of Phrenology in New York, where she was graduated in 1887. She expected also next June to complete a course of study at the National University of Lebanon, Ohio, and then to return to Germany for a thorough education in medicine. But these fair dreams were not to be fulfilled. Her labors during the winter had greatly impaired her health and after a short journey in the West, she rejoined her family at their summer home in the Alleghanies, where it was hoped she would speedily recover. But that stealthy destroyer, typhoid-pneumonia, had attacked, and now filled her system with its relentless fire.

She was patient and heroic through all the hard struggle, but physically too delicate to conquer such a foe, and on the 3d of September last, the weary eyelids fell, and all was still. In life, she had no fear. We who knew her have no fear for her now.

By inheritance, this noble girl received and bore upon her brow the seal of nature's aristocracy—a caste not born of wealth, or boastful of pompous titles and azure blood, but the offspring of an intellectual, æsthetical, and moral atmosphere, where brawn gives way to brain, and charity is recognized as the supreme law. A lover of the natural, with unperturbed tastes, spontaneous, free, and brave, because conscious of naught save honesty and good-will, she met both clouds and sunshine with equal grace, and sought diligently to improve the opportunities of every hour. In thought and action she was ever lovable and chaste, but the beauties of her mind were not her only charms, for in person she was of fine, almost ethereal mould, that seemed best fitted for some supernal sphere. And yet she was by no means cold or insensible to the pleasures and amusements afforded in the

material world. On the contrary, few persons were more responsive, ardent, or keen in appreciation of all healthful sports. She was a daring equestrienne, active in the diversions of both the drawing-room and field, and by her brilliant wit and sunny smiles, a natural leader in social festivities. For hollow conventionalities begotten of vanity and bequeathed by fear, for mere glitter, pomp, and parade, however, she had little sympathy, and in the crucible of life she spurned all dregs and dross, and proved herself pure gold.

The portrait before us but faintly suggests the expressiveness of the living face. In her conversation, every feature seemed to speak, and to tell volumes that could not be conveyed in words. Her countenance was a mirror that reflected all the workings of a soul devoid of guile—a heart that never throbbed with pain from a parent's stern rebuke, or knew a grief, except in the consciousness that her great joy was not the happy lot of all.

From a phrenological point of view, her organization was in some respects unique, and not easy to understand, or to define in ordinary terms. The fairness of her hair, the blue gray eyes, the delicate features, and the sensitive skin, indicated the temperament ambiguously described in the old classification as the nervous, or *nervo-sanguine*. And of the qualities that usually accompany this constitution, she certainly possessed in a marked degree its impulsiveness and warmth of feeling, associated with tender sympathy, purity of sentiment, glowing imagination, mirthfulness, musical taste, and general activity of the intellectual faculties.

Her brain was large in the occipital region, and her affections, like a halo round her life, shed forth a radiance gentle as moonbeams on a summer sea, but constant as the sun. No child was ever dearer to a fond father's heart, or more richly repaid his love. She was the idol of all her family, a favorite

among hosts of friends, both young and old.

But combined with all her mellowness and malleability of temper there was also much propelling power, independence, and courage. She was not afraid to assume responsibility, or encounter difficulties. Industry was one of her most conspicuous traits, and when alone, she was almost constantly occupied with her pen, piano, or books. Her firm, elastic step showed her intrepidity and executiveness. She could resent a wrong, or defend the down-trodden and oppressed, but her anger was no smoldering volcano, or deep reservoir of venom. It was more like a running brook, seldom, if ever, lashing into foam, but infusing into her life and labor a constant stream of force.

Nothing was more foreign to her nature than to take advantage of others, or reap profit from their labor. Her head was narrow at the seat of the hoarding instinct, and she scarcely understood the abstract love of money. But with her high moral brain, to lighten the burdens of the helpless and dependent gave her genuine delight, and she was as bounteous with her purse as with kind words.

Instinctively she grasped the true phi-

losophy of life, that virtue is its own reward, and that the greatest happiness is found in doing good. She believed that coldness and cruelty would kill the richest fruit of the human heart, just as the winter's frost and gloom are fatal to the verdure of the earth. Thus her ideas of punishment were above all revenge or needless pain; and though at all times willing to denounce injustice, with the thought of duty always present, if called upon to judge the guilt of one less fortunate than herself, the scale upon the side of mercy would fall laden with her tears.

Intellectually, she was remarkable for quickness of perception, memory, ingenuity, and fertility of resources. She had talent for both science and philosophy; she was enraptured with the beauties of art, whether expressed in color, form, or sound, while, as has been intimated, the study of her own kind invited her most earnest consideration.

Nature was generous to her in many ways, and she showed her gratitude by a life of kindly deeds. Words can not measure the love she gave and shared, or the grief of those in the home and social circle who miss her now. But it is a solace to recall the happy past, and to think of *Dessie* as a pure, white rose without a thorn.

GETTING RESTED.

MISS AVERIL had been writing all day, all the week, the month, the quarter, the half year. It was May, month of green grass and daffodils, of violets, alder tassels, and willow catkins, and since October she had held herself to her task. Story, sketch, article, poem, were imagined and created one after another. There was need of money, and each day's task must be done. It had come at last to be a task, as dearly as *Bessie Averil* loved her work. Her mind grew "stiff," as she expressed it. Her body protested against too much confinement. She longed for she knew not what—to run, to row, to

ride, to keep house; to sweep, to cook, wash, scrub—anything but to think and scribble. Visions of a little *menage* and light housekeeping danced over the page on which she was trying to write a ballad of knights and ladies. She was tired of the ever-recurring ding-dong of the boarding-house bell, calling her to the monotonous meals. She would like to make her own cup of coffee on her own little stove, cook her own beef-steak and oat meal, and sweep her own floor.

Idling in the parlor for a moment after dinner, moody and discontented, there came into the room a little wistful

faded woman, who lived in the village not far from Miss Averil's hotel. She looked as tired as Bessie felt, only it was such a different weariness. The woman was obliged to wait, and the two fell into a talk. In the course of the conversation Mrs. Shaw said: "I have heard of you, Miss Averil; you write stories and poems; that must be so nice?" The look that accompanied this speech was a revelation to the story writer. It was as if the woman spoke of the most blissful condition possible. "Nice?" replied Bessie, knowing that the woman meant delightful. "Why, I am so sick of my work just now that I should like to be anything but a writer."

"Is that so? I can not imagine anybody getting tired of a quiet room, books, and plenty of time to do as she likes. I never have a moment to read; it's three meals to cook, dishes to wash, children to take care of, washing and ironing to do, and all over and over till if it weren't for the children, I should wish myself dead. But I ought not to talk so. You are almost a stranger. Excuse me."

"I am glad you believe enough in my sympathy to talk freely," said Miss Averil. "Tell me more about yourself."

"O, there isn't much to tell except that I'm tired to death of running over the house, of scrubbing and cooking. I am growing morbid. I think continually of a quiet room, a book, and a rocking chair. I used to be so fond of reading; and I was called a good scholar when I was a girl. I graduated at the High School here."

"You think continually of a book, a quiet room, and a rocking-chair. On the contrary, I am morbid from having too much of those very things. I am sick of stillness, of reading, of writing. Pity you and I couldn't change places a little while. Ask me to go home with you, please."

This was a practical request that Mrs. Shaw had not anticipated.

"Oh, my house is all upside down,"

she said. "It's cleaning time, and I can't afford help. Father never meant that I should lack help when I needed it, but"—

"I know," said Miss Averil, a pitiful note in her voice. "The father dead in war times, the husband poor, the children many." Bessie Averil took it all in, saying to herself: "Here is a field. There is no opportunity to row or ride, but plenty of chance to scrub and sweep."

Home with Mrs. Shaw she went, made a call, got acquainted with the children, won the weary little mother's entire confidence, went back to her hostelry, filled a traveling bag, and gave out that she was going to take a fortnight's vacation.

A vacation of "sitting around" would have been torture to Miss Averil. The prospect of using her muscles, her arms, her hands, was bliss. Straight to Mr. Shaw's she went; her effects followed. She swept, she washed windows, she washed clothes, she ironed, she romped with the children, tossed the fat baby, did everything but beat carpets; and she "atted" Mr. Shaw till he did that same. She put Mrs. Shaw into the sunniest room the house afforded, and locked her in with half a dozen books, mostly novels. She let her out at meal times, and now and then gave her a peep at the baby. She whisked about the house, sang to the children, told them stories, cooked wondrous dinners, the imperfections of which Mr. Shaw winked at, glad as he was to have his wife so delightfully "spelled."

Certain actions of Miss Averil mystified the children. Now and then, in the midst of kitchen occupations, "pot-wrestling," Bessie called it, she got a scrap of paper and a pencil from her pocket, and with a table, bench, pan, or platter for a base, scribbled like mad. Thus were jotted down many bright ideas, and sometimes a complete little poem was born in the very presence of pots and kettles.

At the end of the fortnight there were two rested, refreshed, happy women. Miss Averil went back to her writing, which was her true work; and Mrs. Shaw, after the first real vacation since her marriage, was glad to take up her household affairs again, for they also were her vocation. She even fretted a little during the last days of her respite,

and told her husband, at the end of it, confidentially, that she was "glad to get into the kitchen again."

"Rest was 'the quitting the busy career,' in Mrs. Shaw's case, but not in mine," said Mrs. Averil, grasping her fountain pen and going to work with a will.

M. F. BUTTS.

IMPORTANCE OF PHRENOLOGY TO BUSINESS MEN.*

ONE of the characteristics of the people of this country is that they are generally successful; and while it is true that some failures do occur, yet success is the rule. But, whenever there are failures, they can be traced to incompetence, or inability to command the situation properly. While it may not be essential that every business man should possess a classical education, it is very important that he possess an education that will enable him to judge men as they appear in society in general; that will enable him to put the right man in the right place. There is certainly no course of study that treats so closely and definitely on the subject as Phrenology. We take, for instance, the business man who can read the temperaments of his customers; he finds a man with the motive predominating; he knows that strength, firmness, and durability are to be the leading features, not only of the purchases, but that the language during the transaction should be full of energy, life, and positive assurances. But, should the mental predominate, he knows the reason has full sway of the faculties; and the language as well as the tone must be milder, slower, and more deliberate.

Business men need to cultivate acquisitiveness, as it would not only tend toward the acquirement of property, but the means of bringing about habits of economy and frugality, and thus prove

the old adage, that "It does not depend so much on how much we make as on what we save as a surplus." Thus, with causality in the foreground, we secure the requisite amount of planning and thinking, and that attention which is always necessary to success. We see men everywhere, who, by their firmness and perseverance, show to the world that they know no such word as fail, but go on with a steadfastness that is miraculous, and a consciousness of duties well performed. It is not only the mission of Phrenology to point out the means of success, but to determine who is honest, to decide who has ability, force of character, self-respect, and noble aspirations. It also aims to teach us the laws of health, which articles of food are really essential, and which are the superfluities, and those which are injurious and detrimental to health; and to it belongs the honor of an unalloyed, unselfish temperance movement.

It is a lamentable fact that business men so often become selfish and greedy. If Phrenology could only lay on a guarding hand, and say, "My friend, you have cultivated acquisitiveness long enough; you have acquired sufficient property for yourself and family; retire, and build up your overworked energies, and see that you teach your children the perseverance, tact, and skill, requisite to the success you have attained," it would in a great measure disprove the oft-repeated adage, that "it is a misfortune to be the child of wealthy parents."

* From the address of Mr. J. C. Miller, at the closing exercises of the American Institute of Phrenology. Oct. 11, 1888.

VITATIVENESS.

IN discussing this faculty I shall follow the order outlined in the article on Alimentiveness, and would therefore say at the beginning, there are three types of persons: physical, mental, and spiritual. A little while ago I met a lady affected with a tumor, but otherwise sound in health. She worried over it greatly. I saw signs of worry in her face and wondered if something could not be done. One day I said to her, "I believe you are perishing every day from a dread of death; is it so?" "Oh, I wish I could live a *thousand* years! Life is sweet," she returned with such a passionate fervor that I wished I hadn't asked about it. She commenced rocking herself to and fro vehemently, half laughing and half crying. She continued: "I have had solid health and trampled on disease and infection all my life, but to think that I must be seized by this tumor," and finally, "I'm afraid it will make me crazy!"

She was really quite well, able to go on exhausting tramps every day, yet worrying over a future terror which made the ill ten times worse. This gives an idea of the physical type. If she had been naturally vitative, she would have dreaded mental disease more than physical disease—insanity more than tumors, in an immediate sense. One of her type lives in physical things more than any where else.

A physically vitative person shrinks from the physical aspect of disease; loathes festering sores; loathes putrefaction; loves the physical aspect of sound life, bloom and brightness, sunshine—all things being equal. Reverence for old half-decayed relics is counter-balanced by vitativeness, love of the solid: yet with large veneration and vitativeness, one would love old, solid things, because they have *lived so long*. Worm-eaten things are detested. The bodily vitative man perishes hardly and such a one, if in need, and yet having a narrow head with small providing fac-

ulty, will grow these sooner than die, if there is also a force of self-esteem to prevent beggary. It would require a great reverence, hope, and faith to correct a physical type of the vitative man, for without some corrective, he would be afraid to die, as he must. Vitativeness works with Ideality to prevent filth and encourage cleanliness. Filth is opposed to life. Physical soundness is an idea in the mind of the physically vitative man.

The mental type. Here vitativeness lends terror to the thought of insanity, or mind destruction when the body breaks. I have met vitative men who solemnly explained to me they thought when they should die, their minds would be transferred to other persons, and live over and over again—countless years. They had been trying to reconcile various theories. They didn't know but that they had lived ages ago in the skins of some beasts, finally in men like Adam, then others; and so on until they got to be *they*. Note the struggle for life.

Vitativeness is one of the best elements of progress, and constitutes a large part of the belief in immortality, veneration and other faculties producing the thought. Persons of this mental type rejoice in animation, sprightliness, earnestness. One listening to a discourse loves a show of life and brilliancy. "Mind that *lives*" is his substance of thought. He hates stagnation, even slowness—if too slow. He says, "I love action"—for why? Action, or *energy*, excludes rottenness, gives purity and soundness. Take the blood. If it circulate well, soundly, the body is sound; if not, various matters appear. Energy is life-giving. A vitative artist avoids picturing cut timber, dried and trimmed, if he can get it in the tree. A dry piece, if not carefully treated, is likely to get rotten; but so long as the tree is a tree, and not rotten, millions of veins will let the sap run through. It nourishes itself. It

drinks in the sunshine through leafy lungs, and the tree smiles with life, and sends its influence over our life. Fruit is painted often for two reasons: for the first, it is good to eat. One smacks his lips. For the second, it is the substance of the life of some live thing among vegetables, and holds juice and life-producing components for the one who paints. It arrives fresh from life; it holds life; it gives life. Dead things, sleepy things, dull, feeble things, even sober things, if they be too sober, are subjects of destruction to vitative ones. A vitative artist prefers Nature to copies, fruit or flowers—some living thing—to slate, wood, etc.

To sum up the physical and mental types, viewed negatively: Physical vitativeness hates wounds. Teeth-pulling is a cross, and hardly borne. The sight of a dying bird is powerfully effective to the finer temperaments; the contrast between life and death vivid. Vitative people avoid death scenes, and rarely go to funerals from desire to go. An awful sight to the mental type is an insane person. "Every thing is lost!" he says to himself. It is due to benevolent men, of large mental vitativeness, that asylums are built for madmen. Such men love sound logic, hate mouldy philosophers, do not deal in theories which are not seemingly sound, even if possessed of much theory. Vitativeness is a great help to soundness of mind. Mentally vitative men have great tenacity of mind, and it is difficult to get them insane, unless from *fear* of insanity. So the physical type dies hard.

In each type the environments correspond. Vitative physicality looks for the living *body* of things; vitative mentality for the living *mind* of things. The physical type is lower than the other, which is midway to the spiritual type, which looks for the living *spirit* of things. The spirit! We approach God! To keep the spirit sound means mind and body both. Immortal spirit is the crown! Take the type of one who discerns the spirit. He, perhaps, goes to

the door, looks out. He is vitative. He gets an impression of life or death. If the sun shines and the birds are singing, he feels the throbbing heart of Nature, and knows she is warm—living. He grows cheerful. Who is sad in the sunshine? Health looks out of a beaming sky and glistens in the plants. Take a leaf. Perhaps it is thick and soft. It is full of juice. It is systematically lifeful. The physical type would enjoy the mere fact of the living leaf. The mental type sees some hidden force working through veins and pores, and is glad for the life of it. The spiritual type sees the spirit itself, and hardly takes the leaf into thought—save as the result of a living spirit. You see at once that the spiritual type directs you to God: and even without veneration such a one would believe in a God, or in Pantheism.

I speak of types—yet one may say this is only various phenomena which come to nearly every one sometime. There are those who live, as a rule, in body only; there are those that always make the body secondary; there are those who observe, first of all, the spirit. One must love life to appreciate it. A physician should be very vitative. There are two sorts—the successful and the unsuccessful. The successful is the vitative. He hates disease so that he loves to cure it, if of the proper temperament and otherwise fitted. He will ransack the body till it is sound; then build it up. If mentally vitative, too, he will see that mind can not work well in a bad body. If spiritual in type, he will see that the spirit is stagnant. It remains unprogressive. It can not increase. There are physicians of the mind and those of the spirit; they are teachers and preachers. "Healers" are abundant; but they have missed their calling if they don't enjoy health—through vitativeness.

Disease is the outcome of impatience. Vitativeness is easy of time and is progressive. It sends a healthy glow over

all the other faculties. Those persons are poor who don't love to live. I happen to have the Bible open in front of me. "Greater love hath no man than this, that a man lay down his life for his friends"—not just physical life, as the physical type would think of—but mind—spirit. Many do that. They lay down their mortal life as an offering for some treasure. But you may be sure, when they do it—if of the mental type, that they are making their best sacrifice. Others lay down their very souls as their greatest sacrifice. If of the spiritual type, one has given up the very best he has to give. In either case vitativeness offers the most precious sacrifice.

The spiritual type rejoices in the spirit of living nature. An artist of the spiritual type, presents the spirit of living things. Life-like he wants them to be. Vitativeness is a drag on mere fancy, for things are wanted *life-like*. Turner seizes the life-spirit, but neglects his handiwork and presents it rudely. Generally, painters refuse to retouch a picture, if of this class, for they know that the breath they had put into the picture would be destroyed by touches in cold blood. The first was a supreme moment. The second, an intellectual effort, which is mostly weaker than feeling. Living green with a bed of sunshine over it pleases the artist who loves life—of either type, but for different reasons which are one grade above the other. "The effect is electrical. It is cheerful—it produces life!"

Again, phenomena of the spiritual type. Take a bit of grass with myrtle grown in it. Such tenderness of color, such living green, it resembles spring time. We all love Spring—why? It is a just beginning to live. Why do we feel gloomy at fall? Our spirits fall with the leaf. Do we not weep when the touch of the musician yields and softens? Sadness comes with the long sigh of the fingers scarcely touching the keys. But why? Why, the spirit of the organ can not breathe any more. It

is getting mute; it is slow-measured, uncertain; it is death! We hold our breath. We are afraid—of what? It is *death* we fear. Death is sadness.

What can we do if we hate life—hang ourselves? We are certainly no where—no where at all. Beecher lived, and put life in you. It is probable that he had immense vitativeness. He impressed you with his beaming spirit; it was life-ful, inexpressible! So with all who possess that subtle joy in life, and give out health and belief in progression and eternity. They seem to think they are talking to a crowd of maladies, and so they are; and they believe their prime business is to distribute health. Such are nearly always cheerful and good-natured in health, but infants if attacked themselves by sickness. Take a newspaper editor. He is vitative. He believes his newspaper will live forever, if he is not absolutely hopeless; and so it will if he lets vitativeness have a run through his criticisms. If he chooses lively topics, interesting a nation that expects never to drop off, he will be meeting wants; but if he include some long-drawn pathetic speeches and dialogues, unless in satire, he remains nobody at all. Wit appeals to life and continued states. It doesn't make anything by death. Jones dies. We all say, "poor Jones!" How would a pun sound at a funeral? "Poor Jones, bury his bones." That makes things ridiculous. But wit appeals to life; so does humor and all the funny stuffings that newspaper men get into their papers. Everybody wants life—soundness, health, energy of blood—to find a lodge in him. Blessed be vitativeness. How bad rotten things look to us! If the earth should parch and give no food, how terribly bad we should feel! The vitative ones are not going to blame those old Israelites for whining because they were led somewhere where there wasn't anything to *live on!* Nearly all animal they wanted food worse than we who incline to mental things. How

can the mind live without the body? how can the spirit live without mind?—at least at present and for the future. We depend on body.

But it is necessary to close. Vitativeness remains nothing less than a wish to be sound, healthy, and to continue in a

state of life—of any type. The environments are of a piece with the several types. If we aggravate life, we have forms of sorrow and grief; and whether lifeless or lifeless, vitativeness has a surrounding influence on all the faculties.

N. CLINE.

A CHINAMAN'S NERVES.

A WRITER in referring to what he calls the "nervelessness" of the Chinaman, observes that, although the nerves of the latter, as compared with those of a European, may be what geometers call "similar and similarly situated," nothing is plainer than that the two sets of nerves are wholly differ-

ent. It seems to make no particular difference to a Chinaman how long he remains in one position. He will write all day, like an automaton; he will stand all day in one place from dawn to dusky eve working away at his weaving, gold beating, or whatever it may be, and do it every day without any variation of the monotony, and apparently without any consciousness of the monotony. Chinese school children will undergo an amount of confinement, unrelieved by recesses or changes of



CHINESE LADIES SLEEPING.

work, which would drive Western pupils to the verge of insanity; even Chinese infants remain as impassive as "mud gods." It appears a physiological fact that to the Chinese exercise is superfluous; they can not understand why people should go through athletic performances when they might hire

coolies for the purpose. In the matter of sleep there is the same difference. The Chinaman, generally speaking, is able to sleep anywhere. No trifling circumstances disturb him. With a brick for a pillow he can lie down on his bed of stalks, or mud bricks, or rattan, and sleep the sleep of the just, with no reference to the rest of creation. He does not want a darkened room, nor does he require others to be still. The "infant crying in the night" may continue to cry for all he cares; it does not disturb

him. In some places the entire population seem to fall asleep as by a common instinct during the first two hours of summer afternoons, no matter where they may be. In the case of most working people at least, and also in that of many others, position in sleep is of no sort of consequence.

The very thought of the manner in which Chinese ladies sleep would provoke a hysterical headache in a nervous American woman. The illustration shows the attitude, and it certainly looks like anything but restful. It has been adopted for the purpose of keeping the head-dress in good order. Our civilized

way of nestling in a soft pillow would be destructive to the fine art of the Chinese coiffure, so fashion has invented a wooden block hollowed to fit the neck, and at the most covered closely with cloth, and so high that the crimps, puffs, and pins shall be raised up and away from possible contact with disturbing objects. Thus a Chinese lady will sleep for hours, and rise apparently refreshed.

With such illustrations as these, it must be inferred that the nervous temperament of the Chinaman is by nature and culture widely different from that of the European and American.

“HOW TO MAKE HOME HAPPY.”

A VERY stereotyped phrase, and, oh, such a quantity of good advice as is circulating through magazines and newspapers in regard to it, most of it to *wives*! Sometimes there are families where a little judicious advice may be imparted to husbands also.

I know of a home, a workingman built some years ago on high land where the sun could visit every window—of which a goodly number were put in—some part of the day. Unfortunately, the wife in this home can not bear a strong light; she has been sun-struck, and really can not endure a powerful, direct ray of it with impunity. So at all these windows are hung thick shades, and with the exception of the kitchen, thick *cretonne* curtains, just looped away at the sides. One can, with great care, carefully navigate the dining-room without upsetting the table and bric-a-brac about it, but the parlor—woe be to the man or woman of ordinary eyesight who attempts any careless movement about that shut-up shrine of nice things!

In the bed-room are three sets of curtains, with blinds, mostly closed at all seasons of the year. The unhappy inmates wishing clothing from the closet must take a lamp, in the day-time, or

fumble about until the right garment is felt and secured. The bath room most of the time, is almost hermetically sealed, and darkened with closely shut blinds the year round. But the kitchen; oh, if it was a thing that could feel, how ought it to be pitied! With two windows on the west side, a broad piazza running under them, where, in winter, the sun could light it up with cheerfulness and warmth, but which is darkened with half-closed blinds in winter, and in summer, wholly closed ones, although a thick woodbine covers the entire piazza, making blinds superfluous. Coming from his work at night into that dark kitchen, fumbling at the sink for washing apparatus, who wonders if that long-suffering man thinks, at least, of “swear words,” and bemoans the expense of putting in windows to be wholly darkened? I know I should eat gingerly in that dining-room, lest something not wanted should have dropped into the food unseen by the keen-eyed wife in the gloom that, at noon-day, broods there. Besides the curtains and shades mentioned, are iron screens in all the windows. These are always down over the lower sash, ruining all eyes that look through them long at a time.

And in that room sits the little house-

keeper, reading or sewing, day after day. How old will she become before her eyes are permanently ruined?

There is a saying that "a dark house is a dirty one," and although this wife has an enormous organ of order, I sometimes fear the dust lies quite unmolested in the corners. I am sorry for the woman that she can not bear a good, strong light, and often wonder how she can go out as much as she does from such darkness with impunity, and often wonder how I should do were I her husband.

Ah! her husband—here is the other side of the house. The home is comfortably and tastily furnished all through. On Sundays, when at home, that husband fills every room with tobacco smoke. Lace draperies in the parlor, and bed-room, and *cretonnes* in dining-room, share in the perfume. Halls are odorous for a week after. What the feelings of a clean person calling on them on the Sabbath might be, on going from the pure air and sunshine, one can imagine!

This foul odor is bottled up in that darkness, while in the center reposes a cuspidore, foul with expectoration and tobacco. Oh, ye writers upon "How to Make a Home Happy," draw near, see—if you can—and smell, as you must! Oh, for a society for the prevention of cruelty to noses!

Does any one ask the reason of this shutting up of doors and windows? The principal one I suspect, aye know, from the wife, is on account of a pet cat, that, once on a time, ran away and was lost for a week, occasioning an anguish of mind to that loving mistress that would seem incredible to the mother of children at least. That house figuratively turns on that cat. Alas! he, too, is shut up. The piazza, under the kitchen windows, has been made with wire, entirely secure from top to bottom, and for an hour in the morning he is suffered to remain there and butt his head in fruitless attempts to get at his mates frisking in the yard. There is a society for the prevention of cruelty to animals in that neighborhood. Yes, and strange enough, the owner of this cat is a member of that society, and really does do all in her power for abused animals, if abused through the unkindness of others. It has been said of her, that in the good time coming, when all the animals shall be at peace with one another, she will be the "little child" that "shall lead them." Poor affectionate little soul, how I wish she could believe that light and air could be let into her home, and the poor pet enjoy liberty, without any danger of his leaving a home where he is so well-treated in all else.

Cousin Constance.

THE ARYANS.

THE Kelts were finally driven out of their homes, on the Upper Danube, by the Teutons, and were compelled to leave the hunting of the Lithuanian Aurochs or Bison, to the burly invaders. The Kelts were the most civilized of the two races. In Bavaria they worked the salt mines, manufactured leather and, perhaps, bronze articles, and had comfortable homes; it is said the main branch settled in Jutland and there builded cities. In the course of time, the Jutlanders (*Cymry* or *Cymru*) in-

vaded Britain over the "hazy sea" or German ocean in their coracles (or wicker boats covered with leather), and there obtained dominion, "through justice and in peace," in "the Honey island" (Welsh, "Ynys fel; Irish, Innis-fail") The Brythones came afterward and gave their name to the island.

The Kelts are thought to have entered Europe as early as 1900 B. C., coming by the northern slope of the Balkan or Carpathian mountains. Of these, the Gauls were the most ferocious. The

Kelts inhabited Britain at the Roman invasion, but were subdued and pushed back on every hand. In France they were driven into the present Brittany; their language is now Breton. In the British Isles they sought the sea coast of Cornwall, the mountain fastnesses of Wales, the highlands of Scotland, Cumberland (otherwise, Cymru or Cumbri-land), and the distant Erse Gaelic and Manx domain. The word Welsh means "a foreigner, or stranger," and was given them by the invading Goths or Germans. The words Gaul, Gæl, and Scot were originally synonymous, signifying a violent, ferocious people. The Keltic languages are still spoken by about 10,000,000 people, but in Cornwall the idiom is dying out.

The Kelts were found to be of Aryan origin by a few Erse (or Irish) words, as for instance, "Traith," the sea, has the same root as the Aryan diety, Tritona, the Zend hero, Thraetaoma, the Greek Amphitrite, and the Latin Triton.

The main reason the Kelts were so easily subdued was the absence of law, order, and organization among their tribes. Strabo, Lucan, and Cæsar agree that the Kelts were monotheistic. Their god, Tentates, symbolized the bright sky; this was but a new form for the universal god Dyaus, Zeus, Theos, or Deus. The Romans tell that the Britons taught the pre-existence and immortality of the soul; that a noble action raised the soul to a higher condition of the body, and the opposite was also taught. Their priests were Druids, and in time they rose to such power and prominence, as judges, teachers, and physicians, that the warriors had to reduce them to submission; but the bards retained their power for centuries; and the wild, beautiful music of the Gæls, Erse, and Welsh is the outgrowth of the old Bardic times.

The word "Oriental" can be applied with strict propriety, outside its signification of locality, to the Keltic peoples, and especially the Irish, who derive

their earliest customs from the far east. The common language of the peasantry of the present day in Ireland teems with that rich and spontaneous Oriental imagery which is nowhere else found save in the east, the birth-place of allegory. "God save you," "God save all here," "God be with you," these are all identical with the forms and usages of the east. Similar relics and foot-prints of Oriental origin are apparent everywhere; the free hospitality, even to enemies, suggests the beautiful Hindu proverb, "The tree does not withdraw its shade even from the wood cutter." Vallancy traces hundreds of phrases, idioms, and technical terms in common use in Ireland to the Orient. None but the Irish and the Orientals would call a copy of a book "the son of a book;" for instance, an echo is called "the daughter of the voice." Great objection has been made to the rich imagery of Moore's melodies, inconsistent, it is said, with the simplicity of ballad poetry; the objection will apply to his *art* only too apparent, but the songs reflect the poetic genius of the folk.

¶ Most of the festivals held in the Irish highlands are of eastern origin also. All-hallow eve, one of the four great feasts, was anciently dedicated to the sun, and on that day offerings were made to the sun of fruit, corn, cakes of fine flour spotted with caraway seed and stained with saffron; hence the origin of the cake peculiar in Ireland, the "Bairmbreac," from "bairm," a cake, and "breac," speckled. A popular story of singular beauty connects the coming of St. Patrick and Christianity with the legend of Fronuala, the daughter of Lir, who was condemned to haunt Loch Inagh in the shape of a swan until the first mass-bell should break the enchantment. But of Aryan mythology, *per se*, we shall have to treat in a subsequent paper.—*The Current*.

[The Kelts were related to the ancient Phœnicians, it is more than likely; the term Fenian intimates such affinity.—ED.]

THE DIFFERENCE BETWEEN YOUNG MEN.

“**W**HAT a marked difference there is in young men,” remarked a suburban matron the other day. “I have two nephews who alternately ‘run out’ from the city to see me, generally staying all night. It almost gives me the shivers to allot that spare room to one of them, he is so exceedingly careless. It looks next morning as if Bedlam had been turned loose. Everything is out of place. The towel rack is overturned, the pillow shams are crushed, the washbowl is left full of water, the windows are flung open to the incursive flies, and everything generally is at sixes and sevens. But there’s the other nephew—bless my soul, why it is a pleasure to have him come! Why you’d think the daintiest lady had slept in the room. He removes the shams and spread, washes the soap before he returns it to the soap dish, puts the towel squarely on the rack and the comb into the brush, reflexes the tidy on the bureau, bows the shutters before he comes down, and all that. Why, I’ve got nothing to do scarcely but to remake

the bed, and one would hardly know he slept in it. I can not see why there should be such a marked difference between the young men when they are so much alike in almost every other respect. It’s more likely born in them than bred in them.”—*Ex.*

Yes, it is born in them. The disposition to orderly habits, the expression of refinement and delicacy in those seemingly little attentions that a woman can appreciate so well, are matters of organization. The offhand, head-over-heels young fellow has an exuberant vitality, with a temperament that stimulates him toward movement, and movement that has force in it, while his sense of order and method is weak and subordinate. The orderly, gentle, careful young man shows these qualities in his full and square forehead and rounded temples. Education, home training, may curb and modify an impetuous, careless nature to a great degree, but there will scarcely be developed the natural, easy manners of order, refinement, and carefulness that one shows who was born with them.

A HOME WINDOW.

BRIGHT open fires make a cheeriness in the family room above all else. Beautiful pictures add much, and so do neat furnishings, especially those made in the home.

But for the home window not so much dainty laces or costly shades as the plant life, green and blossoming, the finest art of all, for it is nature’s very own. How many times have we stood admiring the lovely blossoms inside the cottage window with its old fashioned panes of glass, its wealth, the bloom that pressed ambitiously toward the sunlight. No “art” window could outrival it.

It is an easy thing to procure the plants best adapted to house culture and those most likely to render satisfaction. It is not easy, quite, to be successful until experience gives the best and most

practical knowledge. But many plants are beautiful, easy of culture, and will afford the utmost satisfaction.

Geraniums are easily grown, and where the windows are large and sunlight plenty, with care and daily attention will give a wealth of bloom. Only the best should be kept, however, and not too many of one kind. Lilies, especially those of the amaryllis species, give constant bloom and afford variety. If hyacinths are potted in the fall and kept cool and dark until showing life, and then given light and warmth but gradually, they will give fine spikes of bloom and good varieties can be easily obtained. The dark shades, bright yellows and reds, as well as the more dainty colors, give satisfaction.

If a bay window is used, it is pleasant

work to arrange the plants, and will give daily delight. Fine taste can be exercised here, and a dainty work of art will result. While the winter is long and the days cold and cheerless, and many a one kept indoors by ill health or family cares, there is much pleasure in the culture of plants and their study. It is a good thing for young people to grow up within their influence, and will lead oftentimes to an interest in the beautiful things God has made. Parents need to think well of the home influences, as much will depend upon the early formation of character, whose foundation is laid within the home. It is needful to make home beautiful and so attractive that no outside influence need lure from its safeguard the young soul open to each passing fancy. The child whose

home has been used to the refining influences of flowers, and whose interest has been awakened in the same, will bear the impress through after years.

Let the home window be bright, then, with nature's handiwork. Give the child some part and parcel of it for its own, and teach it the nature and treatment of the plant itself, and be very sure love for it will grow with its growth, to blossom and bear fruit in the years to come.

We do not forget the influence cast over our own early life by the constant and daily company of flowers. The old home, with its outside attractiveness and winter comforts within; the great bay-windows filled with such varieties of plant life as we were most interested in, will bear its own testimony throughout our after years.

THE FLIGHT OF THE SPIRIT.

GONE! How did it go?
 Did it fly like an arrow sped from a bow?
 Not a cry or sound
 As it burst its bound;
 No flashing of wing,
 Or current of air,
 Or shadow fallen,
 To show us where
 The spirit passed as it left the clay,
 One moment here, the next—away!

Gone! How did it go?
 By window, or door, speeding swiftly or slow?
 Was it sorry or glad,
 As it left its load
 And started out
 On its untried road?
 Did it flit away
 Through the sombre night,
 Like a frightened bird,
 In a wavering flight,
 Or did it flee like a carrier dove,
 Straight to its haven of rest and love?

Gone! How did it go?
 Were there angels journeying to and fro?
 Did they wait in the gloom

Of the shadowy room,
 Till the ransomed spirit
 Was ready to go?
 Were our ears so dull,
 And our eyes so blind
 That we saw them not,
 Heard but the wind
 At the casement sobbing
 In dark and rain,
 And our hearts' wild throbbing?
 While tears of pain

Bedimmed our eyes, and, while we prayed,
 The spirit had left us sore dismayed.

Gone! How did it go?
 This mystery all for themselves shall know
 When out of its prison
 Each soul uprisen,
 Shall straightway feel
 New senses given,
 And speed away
 In search of its heaven:
 If near, or far,
 Past sun or star,
 At dusk or dawn, by day or night
 No eye can follow the spirit's flight!

LILLIAN GREY.



SOUTHERN CALIFORNIA AS A HEALTH RESORT.

DR. MARSHALL HALL says: "If I were seriously ill of consumption, I would live out of doors day and night, except in rainy weather or mid-winter; then I would sleep in an unplastered log-house. Physic has no nutriment; gasping for air can not cure you; monkey capers in a gymnasium can not cure you; and stimulants can not cure you. What consumptives want is pure air—not physic, pure air—not medicated air." That the majority of physicians are of the same opinion is evident from the fact that the first, and about the only, question he asks himself when he becomes assured that a patient has lung trouble, is, "Where shall I send him?" feeling convinced that the climate in which the disease has developed is not the most favorable to recovery. From the great influx of invalids, which begins with the first frosts of the East, and, during the winter months, converts some of the more favored localities into veritable sanitariums, it would seem that the majority of them decide on southern California.

It would, indeed, be hard to find a region where the conditions necessary to an out of door life—mild climate, pure air, and an abundance of sunshine—exist in a greater degree throughout the entire year.

The following table is given, showing the average heat of July, and the aver-

age cold of January, at some of the most noted health resorts:—

	HEAT.	COLD.	DIF.
Riverside, California.....	70	51	19
San Antonio, Texas.....	84	52	32
Denver, Colorado.....	72	26	46
Malta Island.....	78	56	22
Nice, France.....	75	45	30
Jacksonville, Florida.....	83	55	28
Atlanta, Georgia.....	79	46	33
St. Paul, Minnesota.....	72	15	57
Cairo, Egypt.....	85	58	27
Mentone, Italy.....	73	40	33

Southern California includes the counties of Santa Barbara, Ventura, Los Angeles, San Diego, and San Bernardino. The latitude is the same as that of northern Africa and southern Italy. All the health resorts are situated within one hundred miles of the sea, the altitude increasing with the distance inland, thus giving a great variety of climate. The air is warm and dry, and its purity is unquestioned, coming, as it does, from the ocean on one side and the great American desert on the other. Owing to the light rain fall in winter, and its total absence in summer, there is no decomposition of organic matter. Thunder and lightning are rare. Occasional fogs occur, being more frequent in autumn and winter. Places are more or less exempt from them according to their elevation and distance from the sea.

Riverside, famous for its orange groves, and one of the most noted health resorts of southern California, is situated fifty-five miles southeast from Los Angeles, one hundred and ten miles

from San Diego, and forty-five miles from the ocean. It is a picturesque valley, at an elevation varying from 850 to 1,000 feet, surrounded on three sides by a rim of hills and mountains, the highest of which are Mt. San Bernardino, 11,000 feet, twenty-two miles distant to the northeast; Gray Back, 11,600 feet, thirty miles distant in the same direction; San Jacinto, 11,100 feet, thirty miles eastward; and Old Baldy, 11,100 feet, about the same distance to the northwest. All these are snow-capped from November to June. They form a part of the Sierra Nevada range, which separates the valley from the desert, and these mountains enclose other valleys at various altitudes.

The following table, taken from a record kept by the editor of the *Riverside Press and Horticulturist*, gives the season from July, 1885, to February, 1886, inclusive, and is a fair average of summer, fall, and winter in Riverside:—

	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	TOTAL.
Average temperature for the month.....	73.0	78.5	71.0	64.4	56.0	53.0	52.0	56.0	
Number of sunny days per month.....	20	21	23	24	15	25	16	22	168
Number of days with fog till 9 A. M., rest clear.	11	10	7	7	6	2	6	6	55
Number of days showery and rainy.....	.....	.....	.....	.....	9	4	9	4	28
Rainfall per month, in inches.....	.....	.....	.....	.....	1.35	.64	1.35	.....	.....

The maximum temperature of summer is 108° to 110°, of winter 78° to 80°. The extremes of heat and cold are reached but seldom, and only for a short time. The average variation between day and night is 20° in January, and 34° in July.

TOTAL RAINFALL DURING THE WINTERS OF—

1880-1.....	5.26 inches.
1881-2.....	6.31 "
1882-3.....	2.94 "
1883-4.....	22.54 "
1884-5.....	5.97 "
1885-6.....	9.32 "

January 12, 1882, eight inches of snow fell, the only occurrence of the kind in the history of the place. Roses bloom throughout the winter, and in summer one may suit himself as to climate. If it become too warm in the valleys, the mountains or seacoast are near at hand. Resident physicians say the summer climate is preferable to the winter, for the weather is then so settled that one may find a place that just suits

him, and there will be no change until the winter, so that he practically has complete control of the climate.

During the summer the air is so pure and dry that persons of delicate health may "camp out" without any fear of injury, and, on the contrary, be very much benefitted. Camping is a favorite summer pastime, and when an invalid tries it, it rarely fails to improve his health; nor are the hardships nearly what might be imagined by one unaccustomed to an out-of-door life, and from May to November there is no danger of undue exposure to the elements. Comfortable camping outfits may be had in almost any town, and when properly arranged, one may be as comfortable as at home. It is well to join a party that makes a "fine art" of camping—and they are easily found—and thereby save many annoyances which must naturally devolve upon the inexperienced. San Jacinto mountain

is an excellent resort for those who enjoy the beauties of nature and solitude. People form in parties and go to some one of its valleys and camp, and from here make short excursions, one of which is the top of the peak. There is an occasional place where one may find board if he prefers. This is the mountain on which Helen Hunt Jackson laid the scene of a large part of her story of "Ramona," a book which everyone who visits the place reads with great enthusiasm, as the descriptions are so perfect that one can not fail to recognize the mountain trail, up which rode Aunt Ri and Felipe, and the mill she mentions is one of the places at which board may be obtained. The slayer of Alessandro may be seen almost any time about the mills, and is very proud of the distinction he enjoys—considering himself the hero of the novel. Rumbling sounds are frequently heard, and the Indians believe

the mountain to be haunted—or the home of the devil, and will not ascend beyond a certain point. They have several interesting legends about it.

At its foot are hot springs, which are fast becoming famous, though there is little or no improvement and those who would avail themselves of their use, or of the pure air, can have both, "without money and without price." A few can be accommodated with board, though the majority live in tents. San Jacinto town is not far from the springs, at an altitude of 1,400 feet. Strawberry Valley is 5,100 feet. Lockwich (which means his Satanic majesty) is 7,000 feet, and the Summit, 11,100 feet.

Another pleasant place, more easy of access, is Arrow Head Springs, which derive their name from a peculiar mark on the mountain's side, just above, and pointing toward the springs, its outlines being a perfect imitation of the Indian arrowhead. They are very popular as a resort for tourists, consumptives, rheumatics, those afflicted with skin diseases, etc. I met one case, at least, which was cured of what good physicians pronounced Bright's disease. There are good hotel accommodations here, and it is also a pleasant place to pitch one's tent in at certain seasons. They are within seven miles of San Bernardino, at an altitude of 2,000 feet, commanding a fine view of the valley beneath.

Some find benefit in the Mojave desert, an arid tract, which presents nothing but billows of sand to the vision. The western part of this region has an altitude of 2,000 feet, while in the central and eastern part, there are several places which descend below the sea level, Death Valley being 400 feet below sea level. The Southern Pacific Railroad traverses this desert, and at the railroad towns one may be as comfortable as elsewhere. The lowest point on the railroad is near Indio, 266 feet below the sea level. The advantages of these places are: the exceedingly dry, warm air, even temperature, and the entire absence of

vegetation insures a perfectly pure atmosphere, and some lungs which do not improve in the places most frequented, heal readily here.

Not the least important feature of southern California, as a health resort, is its abundance and variety of fruit, which is considered by many physicians to be the most healthful of foods. Here fruit of some kind may be had the year round. Besides apples, peaches, pears, etc., there are figs, oranges, lemons, olives, raisins, and others of minor importance. It is said that where the best raisins are produced, is the best place for consumptives, which may, or may not, be true, but grapes and raisins—which grow abundantly, are certainly a desirable part of the diet of invalids. (Raisins are simply a variety of grapes dried in the sun).

Dr. Wallace, in his *Physianthropy*, says: "My experiments, as well as those of others, testify to the fact that a broken down constitution may be rebuilt upon a fruit diet, and that a healthy person may be retained in health upon the same. Thousands of consumptives and other patients have gone to the grape countries, and, using the grape cure, have recovered health and vigor."

So far all is well, and, while I have not said all that may be said on the subject, I have stated the result of six years' study of this climate and its effects, having been careful, also, to obtain the opinions of eminent physicians, all of which will bear me out in what I have said. I might here leave the reader, feeling that I had, without exaggeration, given him a fair idea of this favored land, so far as pertains to the subject under consideration—namely, as a health resort.

But there is another side to consider, which I can not conscientiously omit, and that is the patient himself.

While the climate of California is all that is claimed for it, there are many grave mistakes made, some of which, at least, may be avoided by a better under-

standing of this important subject. It is painful in the extreme to see the many who come in the last stages of consumption, having left all, or nearly all friends behind, endured the fatigues of a long, hard journey, enabled to survive it only because buoyed up by the feeling that if they could "only live to get here," their recovery was assured—followed by bitter disappointment when they perceive that the sacrifice was of no avail, and in a few days, or weeks, or months, a metallic casket carries all that remains to the home of whose comforts and blessings they were deprived in their last moments.

The physician is largely responsible for this, for he knows perfectly well that when a disease has developed to a certain stage there is no hope of recovery—no climate in the world is going to supply lungs when but little of lungs is left. If a patient is coming at all he should come as soon as the trouble is discovered and not in its last stages. It is cruel in the greatest degree to deprive him of the associations and restfulness of home when recovery is impossible.

It is no uncommon thing for a patient to make the long journey alone, cared for by the chance acquaintances on the train, so much fatigued that he requires assistance to his room, which he may never leave again, and sometimes with only money enough to pay his expenses for a few weeks. He can not hire a nurse, and so is dependent upon the benevolently disposed people who learn of his condition. Hotels and lodging houses are crowded, help scarce, and one guest can expect no more attention than another—and rarely gets it. The patient feels lonely, neglected, dependent, homesick; a condition of mind which greatly hastens the inevitable. It is a mistake to disregard the patient's feelings in regard to separating from home and friends, for a weakened hold on life is easily severed by homesickness and only the self-reliant ones who have

the inherent power to rise above difficulties, and adapt themselves to their situation, should undertake it.

It is a mistake for a physician to send a patient to any particular locality, for the climates are many and varied, and it may not agree with one at a given place, and a dozen miles distant furnish just the condition required; but they should go until they find a place that agrees with them and there remain until occasion requires a change.

It is also a mistake for a physician to retain his authority after sending his patient away, for it is impossible for one to prescribe at this distance, even though he is acquainted with the country, for "what is one man's meat is another man's poison" and it is impossible for him to know the varying conditions of the patient, should he be fortunate enough to understand the climate. Neither can he know the amount of judgment and good common sense with which his instructions will be carried out. To illustrate: a physician prescribed an alcohol bath every morning; simple enough in itself, but the person, already very much reduced, occupied a room in which were no provisions for fire, and it being the winter months, it was uncomfortably cool morning and evening, to one in health, but every morning the covers were thrown back from his warm bed, the flannel clothing in which he slept was removed, and the attendant, "with hands like ice," rubbed him with alcohol. He was then covered as warmly as possible but that did not prevent the chill which invariably followed, nor the ultimate grave results. But no matter about the exposure: "the doctor had ordered it" and it must be done, even if at the expense of the patient's life. There are good local physicians who have much experience with this disease and it is well for the Eastern physician to relinquish his authority in favor of one who can have the case under his immediate supervision.

And now a little advice to health

seekers. It is a mistake to think that three or four months' sojourn, even under the most favorable circumstances, is going to restore one to such health that he may return to the climate in which the trouble developed and be *well*. It is best to be prepared to stay as long as need be, and if all is well, to remain permanently. There are many residents here enjoying fairly good health, who live here simply "because"—to use the common expression—"they can not live any where else." For such to return East to remain would prove fatal.

The effect of going to a place where invalids congregate is very depressing and the result often unfavorable; hence it is better if possible to be in a private family and by all means have a room which possesses the possibilities of a fire: this may be somewhat difficult to obtain, but should be insisted upon. Or, better yet, if one has friends to accompany him, rent or build a cottage with grounds surrounding, so that he may have the care and companionship of a flower garden. And above all, he should have a horse and carriage and vary the time by daily short drives and occasional long ones to the mountains, the sea, the old missions, etc., there being many places of interest within driving distance. He should remain out of doors almost altogether during the day except when damp. The only time during the entire year that one will find it disagreeable to be out is during an occasional rain, or a "norther,"—a hard, dry wind which sometimes sweeps the valleys in spring and autumn. Though somewhat disa-

greeable, they are considered very beneficial because they are highly charged with electricity.

Climate alone will not effect a cure and one needs to exercise as much care in regard to changes of temperature, clothing, diet, and physical exertion as elsewhere. In the winter there are frequently light frosts (of course much depends on the location), and it may be perhaps 30 degrees warmer at mid-day. There is also, at all seasons of the year, a decided difference between sunshine and shade, and a delicate person may take cold from a walk in the sunshine and afterward sitting down in the shade without an extra wrap, which is also needed while driving in the morning or evening, even in summer. Flannel underclothing should be worn throughout the year; otherwise one will require about the same clothing as in the East.

The peculiarities of constitution which lead to the different effects of coast and interior climate can not be known before hand, and only come with experience, so note all effects and find the place best suited to your peculiar case. Rely on your own feelings; be a law unto yourself, feeling perfectly assured that that air is the best for you which *feels* best, and if, from change of season or change in your own conditions, you cease to improve in a given place, try some other at once, your own feelings guiding you in its selection as to whether it shall be a place warmer or cooler, higher or lower, damper or dryer than the one previously tried.

M. C. F.

A VIEW OF THE SHADY SIDE OF CIVILIZATION.

THE marvelous increase of what is scheduled as "the imbecile class" in our republic, under which heading is comprised the blind, the deaf and dumb, the insane, and the idiotic, is a subject that ought to arrest the attention not only of our philanthropists, but of the public generally. It is a singular cir-

cumstance but a solemn fact, resting on statistics that can not be gainsaid, that as wealth increases, and as the adornments and luxuries of civilized life are introduced into a community, the more numerous become the imperfect and imbecile human beings that are found therein. So general is this case that some

eminent physiologists have classed "idiocy" as a product pertaining specially to civilized life. Dr. Duncan, an able British authority on the subject, says:

"The civilized, as peoples, present indications of defective vital force which are not witnessed among those in a state of nature. There must be something rotten in some parts of our boasted civilization; and not only something which has to do with our psychology, but a great deal more with our power of physical persistence. Dolts, boobies, stupid, *et hoc genus omne*, abound in young Saxondom, but their representatives are rare among the tribes who are slowly disappearing before the white man."

The above is simply a confirmation of the truth of what has been previously stated. What is wanted from the faculty is not only a diagnosis of the case, but a remedy for the evil. A glance at the "Compendium of the Census" for 1880 will readily prove to a discerning public how much that is needed; here is its summary of the number of idiotic, insane, blind, and deaf and dumb persons among us during the past forty years:

	1850	1860	1870	1880
Insane.....	15,610	24,052	37,423	91,997
Idiotic.....	15,787	18,930	24,527	76,896
Blind.....	9,754	12,658	20,320	48,028
Deaf and Dumb.....	9,803	12,821	16,205	33,378

Thus, it will be perceived, while the population of our country has only advanced from twenty-three to fifty millions, or but little more than doubled, the number of imperfect and imbecile human beings among us has increased very nearly five fold, or from 50,954 in 1850, to 251,698 in 1880.

Not very long ago the idea of forming a settlement of deaf and dumb people in one of our western states was projected and discussed. The results of such a formation might prove interesting to the ethnologist, but, in a short time they would indubitably become alarming to the statesman. As a people we have creditably distinguished ourselves by taking the highest rank as humanita-

rians with regard both to the treatment and culture of such unfortunates, but most assuredly it would only be wise in us to disfavor the conservation of the race of them. At the same time the question—How can it even be circumscribed? is one well worthy of the attention, and, if possible, of the solution of philanthropists; true, the answer may and probably will be postponed to-day, but, should such be the case, it will inevitably formidably present itself for public solution to-morrow.

To gauge misery and plumb the depths of human errors and sorrows are not pleasant but very necessary duties. It is the vocation of the press to do so and to call the attention of the public to the evils that afflict society, as well as to chronicle the blessings of civilization.

In publishing the above statistics we simply desire to call the attention of the boards of health, of the medical faculty generally, and of all who are interested in matters vitally affecting the physical, intellectual, and moral conditions of our people to the startling facts that have been exhibited. The welfare, and, indeed, the continued existence of our republic is dependent upon the ability of our people to rule it wisely, and therefore it is a duty incumbent upon all of us to aid in correcting the evil of a very alarming increase of imperfect and imbecile human beings among us. Although we can justly claim that we have done our duty by those now under our charge, still, it is submitted that we ought not to rest content with merely mitigating the conditions of the sufferers, though what has been done to that end is well worthy of commendation.

R. W. HUME.

TRICHINOSIS.—During an epidemic of trichinosis at Carthage sixty-four persons were attacked, twenty-nine of which were males, thirty-five females; of these twenty-four died, eight males and sixteen females.

THE HEART.

IN the human subject the average rapidity of the cardiac pulsation of an adult male is about seventy beats per minute. These beats are more frequent as a rule in young children and in women, and there are variations within certain limits in particular persons owing to peculiarities of organization. It would not necessarily be an abnormal sign to find in some particular individuals the habitual frequency of the heart's action from sixty to sixty-five or seventy-five to eighty per minute. As a rule, the heart's action is slower and more powerful in fully developed and muscular organizations, and more rapid and feebler in those of slighter form. In animals, the range is from twenty-five to forty-five in the cold blooded and fifty upward in the warm-blooded animals, except in the case of a horse, which has a very slow heart beat, only forty strokes a minute. The pulsations of men and all animals differ with the sea-level also. The work of a healthy human heart has been shown to equal the feat of raising 5 tons 4 hundredweight 1 foot per hour, or 125 tons in twenty-four hours. The excess of this work under alcohol in varying quantities is often very great. A curious calculation has been made by Dr. Richardson, giving the work of the heart in mileage. Presuming that the blood was thrown out of the heart at each pulsation in the proportion of 69 strokes per minute, and at the assumed force of 9 feet, the mileage of the blood through the body might be taken at 207 yards per minute, 7 miles per hour, 168 miles per day, 61,320 miles per year, or 5,150,880 miles in a lifetime of eighty-four years. The number of beats of the heart in the same long life would reach the grand total of 2,869,776,000.

Thus calculates a writer in the *Medical World*, and in this connection it is fitting to note late opinion with regard to disease of the heart. Quoting the *Medical Record*, we add :

"The opinion is now rooted in the

minds of the advanced guard of the profession that cardiac murmurs are often devoid of the grave significance formerly attributed to them. So, too, we have come to learn that considerable damage to the valves may be so thoroughly compensated by hypertrophy" (enlargement) "that it seems permissible to speak of recovery from organic disease of the heart.

"True, the anatomical lesion persists. But the individual thus affected may live for years without impairment of health, and with a working capacity in no way reduced from his normal standard.

"The time has come when the prognosis of despair must make way for the modern doctrine of hope in the possibility of a cure. What was formerly equivalent to a sentence of death may be commuted to carefulness for life."

Rheumatic fever or some other disease may cause inflammation of the lining membrane of the heart, and thus lay a foundation for permanent obstruction to the flow of blood through one or more of the valves. But nature in time often overcomes this obstruction, not by removing it, but by enlarging the heart and increasing its force.

True, there may be at length weakening of the walls of the heart, and a consequent lessening of its ability to do its work ; and there may come on palpitation, difficult breathing, cough, and signs of dropsy. But this failure may be due to preventable causes. An eminent medical authority enumerates some of these causes. They are, omitting those which are the result of disease in other organs of the body : muscular overwork ; exhaustion of the nerve system, caused by worry or excitement ; and the daily use of alcohol, tobacco, and in some cases, of tea and coffee, which act as cardiac poisons. A careful, unexciting diet, and a life the daily habits of which are quiet and temperate, will make most cases of "heart disease" tolerable.

CATARRH.—No. 3.*

CATARRH is a term used to cover many disturbances of the mucous membrane, just as "rheumatism" is a broad expression covering a very large number of morbid conditions that agree in certain symptoms of pain affecting a joint or muscle. In both classes of disease there is a congested state of the tissues, and an overaction of the capillary circulation. They are therefore related as regards cause of outbreak; similar conditions of exposure or functional derangement producing one or the other. In the case of rheumatism, however, we have a malady that indicates usually a deep and underlying cause in the constitution of the patient, a predisposition that is not easily understood. In rheumatism the secretions are obstructed or suppressed, with the necessary sequence of fever, inflammation, and pain; in catarrh the local secretions are aggravated, and there may be, as in common rhinitis, no general fever, and irritability rather than pain be the chief sensory experience.

Hereditary predisposition may exist for the catarrhal outbreak, it is admitted, a predisposition due to parental disregard of hygienic law, that becomes developed by improper habits and ignorance of right living into chronic functional irregularities of important organs, and then some exposure—wetting the feet, sitting in a cold draught, unwisely making a change of clothing, going from a very warm, close room into the outer chilly air, without sufficient wraps—brings on a "cold" which is the beginning of the morbid process that develops into catarrh.

One of the most positive predisposing conditions is any continued disturbance of the organs that relate to digestion, the liver in particular. Dr. Trall thinks that catarrh is essentially a disease of the liver, and reasons in the following manner to sustain his opinion:

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"It is the function of the liver to excrete from the blood certain hydro-carbonaceous elements in the form of bile. But suppose this organ becomes inactive, torpid, or obstructed, so that this duty is not performed? What then? Why, these biliary elements accumulate in the mass of blood for a while, and are then expelled more or less in other directions and through unusual channels. Sometimes the skin does a part of the liver's proper work, and the perspiration becomes viscid and fetid. Very frequently the kidneys do vicarious duty, and the urine is discolored. Occasionally a sufficient quantity of effete biliary matters is expelled through the lungs, when the sputa, or expectorated matter, is dark, nauseous, or bloody. I have known several cases in which the eyes were nearly destroyed—the lids granulated, the cornea ulcerated, the coats thickened, and the humors viscid and opaque with biliary deposits—in consequence of the blood being so charged with biliary elements that the mucous membrane of the *conjunctiva* became an abnormal depurating surface."

"But, in all cases of prolonged torpidity of the liver, unless the function of the skin is fully maintained, there is a tendency to expel the biliary elements through some portions, and in extreme cases through all parts of the mucous membrane of the alimentary canal; and indeed, through the mucous membrane of all those cavities or hollow organs which open externally—the uterus and bladder, for example. The affections termed in medical books *catarrhal inflammation of the uterus* and *catarrh of the bladder* are of this character."

Going further in the exposition of this theory of excreting effete or waste products that have accumulated to the excess of interference with the proper function of the mucous surfaces, he says:

"As the nasal mucous membrane is exposed to the contact and varying temperature of atmospheric air, it is more

liable to become the seat of biliary excretion than any other portion of that membrane; and when this becomes a fixed condition the case is *chronic catarrh*. This nasal portion of the mucous membrane is often so congested and turgid that the patient breathes with difficulty through the nostrils; and sometimes the passage is entirely closed, giving rise to the suspicion of polypus, tumor, or some excrescence, or morbid growth."

Perhaps Dr. Trall lays too much stress on the susceptibility of distant membranes to derangement through liver congestion, but physicians of large experience generally recognize with him that the hepatic gland, the largest by far of the organs of the body, has a very important part in the common disturbances of the excretory functions, and therefore in the causes, whether obscure or patent, of most maladies of the febrile class.

"Whatever obstructs any one of the other depurating organs, the skin, lungs, kidneys, or bowels, tends directly to congestion of the liver and indirectly to the production of catarrh." The later investigations into the function of the liver have determined that it performs an important part in the composition of the blood; is, in fact, a large laboratory in which several processes are constantly in operation, the stream of blood flowing in being the material used. The fact that the venous blood from the digestive organs flows in through the portal vein and is distributed through the lobules by an exceedingly elaborate network of intralobular veins signifies in itself that the "liver cells" have much to do with the preparation of the blood for its work of tissue nutrition.

It was thought not long ago that the excretion of bile was the chief or only duty of the liver; now we know that this is but one, and that probably a minor office of the great gland. When, however, there is a retention of biliary elements in the blood, a variety of disturbances may be occasioned, of which

"constipation," anorexia, heart-burn, "biliousness," etc., are common expressions.

If the liver has been overloaded with work for sometime, and becomes "torpid," the effete matters that should be expelled with the bile, are thrown back into the general circulation, and this procedure can not long go on before there is an outbreak of some grave form of fever like "typhoid," or an erysipelatous inflammation. "Occasionally they are deterged in a manner contributing some local disease, as sick headache, diarrhoea, or cholera morbus. Jaundice is a well-known condition produced by prolonged retention of biliary matters in the tegumentary (skin) structure. When expelled through the cutaneous excretories (ducts of the skin) humors, eruptions, and in some cases, erysipelous fever, are the result."

A skin loaded and obstructed with waste matters, the dirt and filth of the body, must induce a depraved and gross state, with all its tendencies to serious disease. They who live "generously," taking three meals a day and a "bite" or "nip" between times, are almost constant sufferers from catarrh, and finally break down altogether. Here naturally comes in a reference to those hygienic principles whose observance is essential to the maintenance of a clean, free skin. Bathing and exercise must be regular practices to assist nature in the elimination of waste, for an unclean, sluggish skin will prove a potent off-set to habits of eating that may be in the main unobjectionable.

A writer in *Good Health* particularizes "Abnormal Sensitiveness" as a predisposing cause of catarrh, arising from the enervating influences of town life or the "higher civilization" of the period: "One who is inured to hardship is able to endure without injury exposure and privations under which one unaccustomed to a similar experience soon succumbs. . . . Air-tight houses, close and unventilated, super-heated

rooms, even protection of the body by clothing required by man in a civilized state—are active causes of preventing the development of hardihood, as the result of which colds are usually taken, and catarrh becomes an ever present and almost universal malady among all civilized people.

“The lumberman in driving logs, wet to his knees all day long, and taking, every now and then, an involuntary plunge, suffers no inconvenience from the sort of exposure that would give a man unaccustomed to such a life his death cold. The native of Terra del Fuego shelters himself from the wind and sleet of his unfriendly climate by a single bit of skin, which he throws over the shoulder most exposed. Surely such a man would not incur risk of taking cold from exposure to the draught of an open window. Historians tell us that the ancestors of the Anglo-Saxons wandered over the bleak hillsides of their chilly island with no other protection than here and there a daub of paint. It is not to be supposed, then, that our aboriginal ancestors suffered serious inconvenience in consequence of making a change of garments.”

Civilization renders man wiser, but at the expense of physical endurance. It provides its multifarious conveniences and comforts, and so arms us with mechanical protectives against the exposures of a primitive existence.

“The Indian boy who has lived all

his life in a state of nudity, plunges into the stream for a swim, or races about for hours through the wet grass of the marshes in quest of seeds or mesquit beans for his dinner, experiences no inconvenience whatever from the wetting which he receives; but as soon as he puts on civilized clothing, he becomes sensitive to the same causes of cold which affect other people who wear clothes. His skin loses its ability to regulate its own temperature, beginning upon the non-conducting covering afforded by the clothing for this protection. Indian men and women who have never acquired the custom of wearing hats or bonnets never take cold in consequence of going bare headed.”

The savage living in a state of nature, ignorant as he is of the formulas of science, takes from forest and stream what nature provides for his sustenance, and thinks not of the fanciful and artificial dishes of the cultured white man. The necessities of his state render him strong and tough. If the refinements of civilization have introduced many habits of an enervating influence, they have also eliminated the necessity of exposures such as those to which the savage is subject, hence it is that the white man is really longer lived than the savage, and if he were careful to obey what he has learned of physiology and sanitary science, he would be much farther removed from liability to sickness and disease.

H. S. D.

SANITARY REFORM.

BY THE AUTHOR OF “HOUSEHOLD REMEDIES,” “PHYSICAL EDUCATION,” ETC.
CHAPTER IV.—THE TENEMENT EVIL.

FRANCIS BICHAT, the founder of modern physiology, calls attention to the suggestive fact that during the first twenty years of human life the prevalence of various disorders generally coincides with the periods of rapid growth. It would almost seem as if the economy of the human organism could not at once adapt itself to new phases of

development, and a curiously similar experience often marks the transition periods of progressive civilization. Rapid progress at first favors the development of social evils as well as of social blessings. The Protestant Reformation, for instance, was inaugurated by a revolt against the code of natural ethics, as well as against the rule of

clerical absolutism, and only by a gradual process of natural selection the doctrine of Luther prevailed against the paradogmas of Muenzer and Knipperdolling. The crisis of the French Revolution was ushered in by still worse excesses, and the benefits of emancipation from the tyranny of long-established abuses, at first, are nearly always qualified by the predominance of lawless license.

The emancipation from the despotism of legislative absurdities makes no exception from that general rule. There is no doubt that our forefathers were for centuries over-governed to a preposterous degree. Two hundred years ago the subjects of European monarchs were kept in perpetual leading-strings. Every transaction of public and domestic life was hampered by an intricate network of minute and oppressive legislative provisions. A man could not entertain a party of friends without obtaining the permission of a municipal commissioner. He could not travel beyond the suburbs of his native town without a duly signed and countersigned passport. Before venturing to enlarge his barn, he had to submit specifications of his building plan. He could not kiss his wife on Sunday without incurring the censure of his kirk-trustees. The weight and shape of penny-loaves was regulated by a monthly manifesto of the bakery commissioner.

Compared with such outrages, the benefits of the let alone-plan can hardly be over-rated. The wild hunters of the American virgin-woods, nay, the free beasts and birds of the African wilderness, had a better chance of enjoying life than the law-throttled subjects of a paternal European government. Politicians of the Stuart Mill school justly urged the wisdom of trusting the regulation of private affairs to private common sense, assisted by the law of natural selection. "Does a baker charge twenty cents for a half pound loaf? Well, let him charge twenty dollars if he feels disposed to

risk the consequences. He may sell the worst bread in town at the highest price—for a day. The next day his customers will patronize another shop. He will soon find it his own, as well as his customers' interest, to sell the best possible bread at the lowest possible price." The same in other cases. Does Mr. Reckless live beyond his means? Gives too many parties, you think, and will have to mortgage his house? Let him mortgage. His grocer and butcher will soon ascertain his absence of cash and refuse to give him further credit. The very expensiveness of his banquets will soon diminish their frequency. There is a self-regulating tendency in the conduct of human affairs.

Still, experience has demonstrated the expediency of compromise measures, avoiding the extremes both of Scotch kirk despotism and of the let-alone plan pushed to its anarchistic consequences. A very sensible compromise of that sort is expressed in the by-law of the Paris Commissioners of Sanitary Police, who permit a man to adulterate his food with all the poisons of the mineral and vegetable kingdoms, but hold him strictly responsible for the results of his trick the moment he undertakes to *sell* his adulterated comestibles. The architectural abuses of our large cities should be regulated on exactly the same plan. A miser who prefers a pig-sty to a clean cottage should have full permission to herd with hogs, and eat an unlimited amount of swill and garbage. No one should dispute his privilege of living in a cellar and moderating the vigor of winter by stopping up the cellar-hole with a lot of manure. But the moment he undertakes to fill that cellar with renters he should be dragged off to the next station-house or to the office of the lunatic commissioners.

"But suppose the cellar is his own?" objects Mr. Most, "has he not the right to utilize a bit of superfluous space the best way he can? And, moreover, where is his tenants' right of complaint? They

were not forced to rent that cellar. They moved in of their own accord and enjoy the undoubted privilege to move out again, if they can do better elsewhere. So on what pretext of natural or legal justice do you want us to interfere?"

"*Volenti non fit injuria*"—"no injury is done to a consenting party," is, indeed, a legal maxim of undoubted antiquity. At all times, among all nations, however, the practical applications of that maxim have been modified by considerations of public welfare. The definition of that latter term, only, has varied with the varying ethics of each generation. At a time when conformity to certain Oriental dogmas was considered a matter of supreme importance, the originators of heresies were burnt at the stake, though no one could doubt that the hearers of the skeptic had visited him of their own free will, and had neither been coaxed nor compelled to risk their souls. In this age of mammon-worship impecuniosity has become the one unpardonable offense, and gambling-house keepers are treated as public enemies, even if their victims should have begged and intrigued for permission to stake their money. Nay it might be doubted if a jury of American merchants would consent to accept it as a mitigating circumstance if a ruined clerk could be proved to have entered a gambling-hell *against* the advice of the cautious proprietor. The venders of obscene literature could frequently demonstrate the importunities of their customers, their notes of inquiry, their urgent requests for additional installments of illustrated smut, their enthusiastic approval of more than usually daring indecencies. The vender is punished, not for recommending but for selling his mind-polluting ware, just as the gamester is punished for furnishing eager or reluctant victims a special chance for financial ruin.

Would it be fair to fine unprincipled landlords for offering their fellow-citi-

zens an elaborate opportunity for ruining their health? The answer, on the whole, would depend on the jury's estimate of the value of health. The evidence of the impeachment would admit of no doubt whatever. No city-dweller, gifted with open eyes and ordinary intelligence, can doubt that a large number of the most malignant diseases can be traced to the sanitary defects of our tenement barracks.

Bad drainage is the most immediately fatal of those defects; as many as twenty families, packed away in buildings enclosing a central yard, are often obliged to draw their water supply from a single cistern, and such cisterns have, in countless cases, been found to be contaminated with impurities, spreading the seeds of typhoid fever and similar deadly diseases. In the midst of a populous city any neglect in the cementing of the cistern-pit is almost sure to avenge itself by such consequences. Privy vaults, waste-water sinks, garbage piles, etc., completely saturate the soil with filth, draining through every fissure of the subjacent strata and turning every subterranean water-vein into a source of epidemic diseases. It would be no exaggeration to say that for one person injured or killed by steamboat disaster, a hundred are victimized by the effects of contaminated drinking water, and cities that employ a board of public boiler inspectors might well afford the salary of a municipal investigator of cisterns and basement drains, for cellars, too, can become veritable death-traps, and the effluvium of a cesspool could hardly be more deleterious than the gases developed in leaky basement vaults, often resting on "made ground," *i.e.*, hillocks of garbage, street-sweepings, and all sorts of festering offal.

Want of light is another frequent cause of impaired health. Fertilizers cannot restore the healthy growth of a cellar plant, and even with an abundance of food and warm clothing, children brought up in the unnatural gloom

of a slum-alley will betray the lack of sunlight in their stunted physique, and their wan, sickly appearance. Fonnsagrives ("La Maison, Etude d'Hygiene et du Bien Etre Domestique," 1879) holds that "houses should never be more than three stories high, unless occupying an airy, isolated site, for brick mountain ranges, divided only by narrow alleys, cannot fail to develop an atmosphere saturated with the germs of zymotic diseases."

In that respect, too, the cities of ancient Italy, with their magnificent aqueducts and free public baths, could still serve as a model of sanitary construction. The excavations of Pompeii prove that the city residences of Roman patricians were all built around spacious courtyards, furnished with fountains and open terraces, and that ninety per cent. of all dwelling-houses were only one story high, and added flat roofs and broad balconies to other facilities for admitting sunlight, for well-to-do citizens often built *solaria*, or "sun bath-rooms," to counteract the effects of habitual indoor life. Almost in sight of those classic ruins, the city of Naples reeks with the malaria of foul tenement slums, where thousands of families, with their dogs and pigs, are penned up in sunless dungeons, unventilated, and often, indeed, unventilatable, for in many of those pest-factories the poorer tenants live underground, in cellars and sub-cellars, lighted exclusively by artificial means, and often literally dripping with accumulations of fluid filth. In the town of La Valetta, on the Island of Malta, an English traveler found several buildings with *three* such sub-cellars, the lowest thirty-six feet below the level of the street, and all crowded with squalid, haggard wretches.

London contains tenement barracks housing, or rather stabling, one hundred and twenty different families. New York would be worse off for all the foreign element—Chinese, Italians and Polacks—would care, and after all reforms,

Manhattan Island still abounds with more unhygienic buildings, in proportion to its enormous population, than any other equal area of the American continent. Only the favor of an unusually salubrious climate saves the denizens of its slum districts from a yearly visit of the plague, though it does not save them from minor epidemics, whenever summer lingers beyond its average period. In Mott street, Baxter street, in the Water street sailors' district, and the one hundred and fifty city blocks, crowded into a narrow space, between East Broadway, Pitt street, Stanton street, and the Bowery, there are lodging houses entailing an infallible penalty of disease even upon transient tenants.

"Boarders and applicants for sleeping accommodations," says Prof. W. E. Fales, "are sometimes provided with beds, but more frequently with bunks. In perhaps a majority of instances, they sleep on the uncarpeted floor. In one boarding house on Hester street, six persons occupied a room not more than twelve feet by twenty-two. There was no space for bedsteads. The pillows were wooden footsteps, similar to those used in pews and churches. The coat, vest, and trousers of the guests made pillows and bolsters; a single coverlid, greasy and dilapidated, played the part of a mattress. . . A still more pitiable sight is the room where seamstresses earn their livelihood. In a garret or loft, with low ceilings and broken floors, are arranged sewing machines, closer together than the desks in the infant class of a public school. At each machine is a girl or a woman, so crowded that her back touches the machine of the operator behind her. In this cramped attitude she has to spend never less than *ninety* hours a week."

We have no lack of sanitary regulations, and their non-enforcement is, after all, due to unbelief in their necessity, rather than the "tolerance of democratic communities." Democratic toler-

ance would not prevent a most emphatic protest if the managers of a savings bank were to store their deposits in vaults dilapidated enough to admit drainage, cockroaches, and rats; though the banker, too, could plead the favorite excuse of unprincipled landlords, that he "did not solicit the patronage of the plaintiff, nor dispute his liberty to suit himself better elsewhere." The mere fact of his having accepted the custody of valuables, would establish his responsibility for the consequences of gross neglect. The fact is that our definition of valuables has not yet come to include such things as health and physical vigor.

It might be objected that Hygiene can by no means yet claim to rank as an exact science, and that the results of financial mismanagement are far better understood than the consequences of sanitary neglect. The answer is that every civilized community should make it its business to establish a precise legal distinction between the doubtful and the well-known and avoidable causes of disease: the former to be made a subject of careful study, the latter to be prevented by clearly defined and strictly enforced precautions.

FELIX L. OSWALD, M. D.
(To be Continued.)

THE DANGER IN MEDICAL ABBREVIATIONS.

WE doubt whether many practitioners of medicine who are accustomed to write prescriptions daily realize the danger their patients run through abbreviated formulas. Some physicians affect an extreme brevity, as if it intimated their superior familiarity with the *materia medica*. One of the best we ever knew always wrote out fully the names of the drugs in a clear hand, and took time to do it. How many sick people have been poisoned by excusable mistakes on the part of the druggists in deciphering prescriptions it would be difficult to say, and the many jokes said to have been practised on drug clerks whereby meaningless scrawl was translated into a bottle of some compound, have a basis in fact.

From an exchange the following list is taken, which shows how some common modes of abbreviating may be interpreted to mean severally from two to five different things, some poisonous:

Aq. Chlor.	{ Aqua Chlori. Aqua Chloroformi.
Aq. Fontis.	{ May often be read Aqua Fortis.
Calc. Chlor.	{ Chloride of Calcium. Chlorinated Lime.
Chlor.	{ Chlorine. Chloroform. Chloral.
Emp. Lyt.	{ Emp. Lytharg, lead plaster, old name. Emp. Lyttae, blistering plaster.
Ext. Col.	{ Extractum Colchici. Extr'um Colocynthidis.
Hyd. Chlor.	{ Calomel. Corrosive Sublimate. Chloral Hydrate.
Hydr.	{ Hydrargyrum, merc'ry Hydras, hydrate. Hydrochloras, hydro- chlorate. Hydrocyanas, hydro- cyanate. Hydriodas, hydriodate.
Acid. Hydroc.	{ May mean Acidum Hy- drochloricum, or Acidum Hydr'cyanic'm
Aconit.	{ Aconitine. Aconiti Radix. Aconiti Folia.
Ammon.	{ Ammonia, alkali. Ammoniac, gum-resin.
Mist. Ammon.	{ Ammonia Mixture. Mixture of Ammoniac, gum-resin.
Potass. Hyd.	{ Hydrate of Potash, caustic potassa. Hydriodate of Potash, iodide of potassium.

Child-Culture.

PRIMARY WORK.—INTRODUCTORY.

A ROMAN prelate once said: "Give me the training of a child for the first five years of his life and I care not who teaches him afterward." I say, give the best of teaching for the first five years of his school life, and it is of less importance who guides his steps afterward. A lady remarked to me a few weeks since: "It does not need a very highly educated teacher for primary work; any young girl that is pleasing and attractive will fill that position." The more thorough and broad the education, the more thorough the knowledge given if the teacher has adaptability for this special kind of work. Remember this is the foundation. Unless the masonry is firm, compact, and sound, the structure is a failure. In character building is this especially true. To be a successful primary teacher, one must have higher aims than simply mechanical teaching, making little automations of the children. One must not be carried away by pet hobbies and compel the children to ride them also. The teacher must be filled with the importance of early impressions, and must enter into the work with heart and soul. If the work necessarily be somewhat mechanical, use plenty of the oil of human kindness to avoid friction. Enter into each individual case, for each needs different treatment. Study differences in dispositions. Take time and make it a duty to find out by degrees each child's capacity. Take into account the differences in home training. Be also awake to the responsibility of your work; never forget that it is character building, development, physically, mentally, morally. Some of your little ones will never have any moral training only what is gained at school. You can not shirk your duty; even though the

parents do not seem to realize they have any, they may err through ignorance, but the educated, enlightened Christian teacher owes much to differences in training and to knowledge. Parents' failures in duty but increase the teacher's work and responsibilities. It is only one of the cases, which are many in the world, where those who are striving in the right have to carry others' burdens with their own. Time spent at the beginning of your work in studying each child individually is time gained for the future. Well organized is half the battle. If children are brought to feel their own importance in the work, their duties to teacher, mates, and school—educated to know that it is the only safe way to do right for right's sake, not through fear, but with a correct knowledge of obedience plainly proved to be entirely separate from compulsion—order will follow.

In theory be opposed to corporal punishment; in practice, use your best judgment, and be certain the punishment is deserved before inflicting it. I know of a lady physician who is much opposed to corporal punishment. She once, while boarding in her brother's family, had in charge a young lad of eight years, left at school while his parents were abroad. He was an only child, over-indulged by his parents until he was a nuisance to himself and all around him; uncouth and ill-mannered to a degree seldom seen in so young a child. The other members of the family longed to discipline him, even to the laying on of hands forcibly.

One day he was unusually rebellious, and in his passion ran into a dark closet and slammed the door. The door could not be opened from inside, and he was a self-made prisoner. At first he re-

mained quiet, but shortly began to roar. The family were at dinner, each silently wondering what would become of the theory of gentleness and moral suasion. The doctor endured the noise until even she felt that forbearance ceased to be a virtue, and the boy received a real orthodox whipping, such as he had never received before and never needed afterward. In this case the practice proved better than theory. But this child had never been punished, while two thirds of the children in the primary depart-

ment of our public schools have been whipped since infancy and are still unruly. It can certainly do no harm to try a more humanizing method of governing. Now at the beginning of another school year, seek to know each child, its needs, its weaknesses, its faults, and virtues. Then, and not until then, are you fully equipped for your labor. For only by this thorough study of character can you successfully portion out the work according to each child's capacity.

S. B. B.

PRACTICE, NOT THEORY.

THE case of a miserable, ugly, freckle-faced, red-headed lad of about nine years of age, came under my observation. His father had deserted his mother, who had then become a wash-woman. The boy was poorly clad and only half clean. His moral character was even worse than his appearance. He had stolen repeatedly, was of course untruthful, and had such a passionate nature that he was constantly quarreling and fighting with his comrades and resisting the commands of his teacher.

Finally, he came into the hands of one of those dear, noble women, whose tender hearts go out always, and especially to those wretched children whom every one else neglects and dislikes. She knew just how to get at the spark of good hidden somewhere beneath the dirty jacket and insolent manner. She received him into her room as if she had every reason to believe him a fine fellow. She kindly inquired where he lived, and a few evenings afterward went home with him, he walking proudly by her side showing her the way. She found the mother to be one of those hard-working, honest but ignorant creatures who know nothing at all about managing boys. She was greatly distressed that David should act as he did, yet she could do nothing with him. She said he was idle, impertinent, and often got into a furious temper when she asserted any

control over him. The teacher understood the situation and first set about to arouse the boy's self-respect.

She gave him money to get his mop of hair cut, then commented on his improved looks. From some friends she begged a suit of clothes, and she made him the children's protegee, too, by allowing them to supply him with collars and neckties. When he came to school wearing these things, they all noticed and spoke of how nice he looked, and he felt the immense satisfaction there is in appearing well. Of course all this was done with the delicacy and tact of a cultured woman, and without hurting the boy's feelings in the least.

From pride of appearance she appealed to pride of character, and soon had David working nights, mornings, and Saturdays about the house of another friend whom she enlisted in the good cause. When, at length, David came to school one day wearing a "bran" new suit, the price of which he had earned and saved every cent himself, there was great rejoicing by the whole room at this triumph over idleness, and David was the hero of the hour, consequently proud and happy. He was sure it paid to work, and so he has thought ever since. He is now saving his money to surprise his mother with a clothes wringer to lighten her labor. She says he is a different boy entirely about the house. He

seldom gets angry, is helpful, kind and obedient to her, and has never taken anything not belonging to him since he came under the influence and wise direction of this good woman.

"Why, he would wade through fire for his teacher," his mother exclaimed. "She is the first person that ever cared anything about him. I never would have believed he could change so!" This David had certainly conquered his

Goliath, and the battlefield which saw the victory was located where the boundaries of Utopia and Ohio lap. The school board knows nothing about this boy and that woman's glorious work; she got no pay, no praise, from any of the authorities, but who shall say it was not the crowning act of her year's labor in service to society and to the State, though all unheeded it was done?—*Marie Jaque*.

THE REVERENT IRREVERENCE OF CHILDREN.

A LITTLE motherless girl of five years, who was left in my care four years in New Orleans, was one Sabbath morning busy over her doll's wardrobe, when I reprov'd her by saying:

"Lily, God is not pleased while you play with your doll to-day."

She looked seriously into my face, and said:

"Mrs. R—, God has nothing to do with me. Jesus takes care of little children!"

She was in a Sunday school at Trinity church.

A small boy, also in my care, was found one Sunday playing steam cars with his blocks, etc. It was in Maiden, prior to the advent of horse-cars.

I made a similar remark to the one above, and his reply was, in pure innocence:

"Does God keep 'em all up there to hisself to-day?"

This reminds the listener of a story brought home from Sunday school last

Sunday by the children of a family of his acquaintance. It sounds a little bit irreverent, but as it was told by a highly esteemed clergyman, and in Sunday school, too, it is presumably tellable in print. A little girl, walking in the public garden on Sunday with her mother, began to play upon the grass, and was instantly restrained, to her chagrin.

"Why can't I run on the grass, mamma?" she exclaimed.

"Because the policeman will make you go off if you do. Don't you see the policeman over there? Besides it is Sunday, and God doesn't want you to play."

"Oh, dear," said the little girl, "if it wasn't for the policeman and God what nice times we would have!"

The clergyman made a point that he did not want to have the children "think of God as a chief of police."

But the listener did not learn whether he would have the little girl play on the grass in the public garden on Sunday.

TRUTH TELLING.

A N editorial in a September number of *Harper's Bazaar* teaches a most important lesson on the value of studying the character and temper of children with a view to making them truthful. It points out the folly of forever calling children to account as liars in view of the well-known phase of human nature—its aptitude for sustaining a

reputation already made, be this good or bad. The *only sure way*, however, to make children truthful is to be substantially so ourselves, says Dr. C. E. Page in the *Boston Herald*. Most parents, even those habitually, scrupulously honest and frank in their dealings with their associates and the world at large, find (or think they do) occasion for more or

less "fibbing" or deception in the management of their children. I am sure that all such finessing must inevitably rebound to the injury of all concerned.

Parents are loth to admit their own fallibility to their children, and being often put to it to sustain a reputation for "knowing everything," or to explain some actual inconsistency, they are tempted to resort to prevarication. Now, children are certain to discover, in the long run, a high average of wisdom in

their parents as compared with their own, and will come to appreciate it sufficiently for the purposes of evolution. They will detect mistakes, for these are certain to exist, and children are very keen in such particulars. But as they grow in years, no harm will come from this, for, indeed, it is part of their business through life to learn the truth in all matters coming under their observation; but woe be unto all to the degree that children detect untruthfulness in their parents or guardians.

HOME INFLUENCES.--If a mother does not lay aside her courtesy with her company dress, if a father is as refined in speech when the door has closed after the guest as he was when they conversed together, the child will learn to be habitually polite and modest. For good manners are better taught by example than by precept. The woman who wrote the "Practical Thoughts of a Mother," says she has often noticed that girls who have grown up in retirement and simplicity, have shown when placed in the great world such elegant tact and behavior as to astonish high-born ladies.

"Where has the little one learned it?" exclaims some one of them. "She behaves like a queen; and my daughter, who has been educated in Paris, only just look at her! there she stands and turns her back to that lady; how improper!"

The mother does not reflect that her daughter has been taught many rules of behavior, but retains very few. But "the little one" has imbibed courtesy with the air of her home. Her mother has taught her few rules of politeness, but has set an example of high-bred courtesy. The girl has acquired so unconsciously the art of polite behavior that she *feels* what is and what is not "good form."

When she first stepped from her father's house into an assembly room where well-bred people had gathered,

she simply transferred herself to a larger but not different sphere. Her requests are entreaties, favors are returned by thanks, little acts of service are done quietly as a matter of course, and a spirit of kindness and consideration is associated with all she says and does because her father and mother were kind, polite, considerate at home.

If her mother said anything to her daughter as she was leaving the house to go to her first party, it was simply, "Behave just as if you were at home." But no mother can be thus laconic, in whose home good behavior and tact are not associated with the every-day life of the family.

SHE "DISPLAINS" IT.

"Had, too!"
 "Hadn't, neither!"
 So contended Bess and May,—
 Neighbor children who were boasting
 Of their grandmamas, one day.

"Had, too!"
 "Hadn't, neither!"
 All the difference begun
 By May's saying she'd two grandmas.
 While poor Bess had only one.

"Had, too!"
 "Hadn't, neither!"
 Tossing curls, and kinks of friz,
 "How could you have two grandmothers
 When just one is all they is?"

"Had, too!"
 "Hadn't, neither!"
 "'Cause ef you had two," said Bess,
 "You'd displain it!" Then May answered:
 "My grandmas were twins, I guess!"

JAMES WHITCOMB RILEY.

NOTES IN SCIENCE AND INDUSTRY.

Paper for Building.—The use of paper fabrics for building purposes—by the term paper being meant, broadly, a flexible sheet made of vegetable or other fiber, which has been reduced to a pulp, and then pressed out and spread and dried—is now advocated by some builders on the following grounds: First, continuity of surface; that is, it can be made in rolls of almost any width and length, is flexible, or, by gluing several layers together, may be made stiff, and will stop the passage of air, because there are no joints. Second, it has no grain like wood, and will not split. Third, it is not affected by change of temperature, and therefore has an advantage over sheet metal as roofing material. Fourth, whereas in its natural condition it is affected by moisture, it may be rendered waterproof by saturating with asphalt, or by a variety of other methods. Fifth, it is non-resonant, and well fitted to prevent the passage of sound. Sixth, it is a non-conductor of heat, and can be made also of incombustible material like asbestos, or rendered fire resisting by chemical treatment. The combination of paper with other substances, and solidifying the mass by pressure, renders practicable the production of a material capable of replacing wood for many purposes; and not the least among its characteristics of adaptability is the ease with which it may be made into sheets of any width and thickness, that will not warp or shrink from heat, cold or dampness.—*Manufacturer and Builder.*

The Russian People.—The population of the Russian Empire in 1884–85 amounted to 109,000,000, the male sex slightly exceeding the female. The density of population was as follows—19.3 per verst (about two-thirds of an English mile) for the fifty governorships of European Russia, 71.4 for Poland, 17.9 for the Caucasus, 0.4 for Siberia, 1.8 for Central Asia, and 7.6 for Finland. There were 1,300 towns and 524,000 other inhabited localities. Four towns contained a population exceeding 200,000; nine, more than 100,000; and twenty-three, over 50,000. The annual total of births averages 3,400,000. The death total is 2,500,000. In 1885 there were 867 hospitals

in towns, with 47,000 beds, and 800 country hospitals, with 11,000 beds, not including lunatic asylums, of which there were 77, with 15,000 inmates. More than 11,000,000 sick persons were supplied with medicine.

Destroy the Weeds.—A weedy pasture is not a good pasture. Measures should be taken to get rid of weeds, some of which are injurious to the dairy in a marked degree, and all of them are injurious to the pasture. But prevention is better than cure, and the old advice often given to prevent weeds from going to seed will always be timely, even in the middle of winter, for it will keep the importance of the subject conspicuously in view. It is distressing to see the neglect of gardens after the crops have been gathered. They are permitted frequently and generally to be overrun with weeds which mature their seeds to make extra work another season. And these seeds get scattered over the farm and through the pastures, making bad work all around. The weed should not be permitted to mature its seed anywhere on the farm or about the farm. We presume that the neglect to cut down weeds in the proper season—requiring only a few hours' work for each farmer—costs our farmers millions of dollars every year. Fighting weeds is always expensive, and when they ruin pastures and injure the dairy in the bargain, they are a nuisance of very large proportions.

The Yellow Fever Germ.—This subject has been much discussed lately and different views are held. Maj. G. M. Sternberg, one of the surgeons of our army, in a paper read before the Association of Physicians and Surgeons, sought to dispose of the microbe theories by showing that in numerous autopsies made by him in Havana he failed to find microbes in a single case. Having established the fact that there is no specific germ in the blood of yellow-fever patients, he set out on a search for microorganisms and found them, though he is not certain that they are yellow fever germs.

The various views of the medical savants clearly show the theoretical character of medical science and to what a considerable extent it still remains experimental. But

out of accumulated theories and repeated experiments some day may come the real knowledge of the causes of the plagues which disturb mankind, and the remedies which will cure them; or, better still, that application of cleanliness, right living, and civilized observances which will prevent them altogether. Unquestionably the day will come when such pestilences as now ravage various countries will be little less than a criminal reproach.

What Brain Growth Means.—

What is called a "head product," says *La Nature*, may be fairly regarded as representing the average brain volumes. It is obtained by multiplying the maximum length of the head by its maximum breadth and its maximum height above a certain plane. This result represents the contents of a rectangular box that would just fit over the head. This is only rudely proportional to the brain mass in individuals, but would be closely proportional to it in the average of many cases. Mr. Francis Galton makes an interesting report on measurements of the heads of Cambridge (England) students, from which the following conclusions have been deducted: 1. That while, in the population at large, brain growth ceases after the age of nineteen, this is not true of university students. 2. That men who obtain high honors have considerably larger brains at nineteen than those who do not. 3. That this predominance is reduced to about half its extent at the age of twenty-five, the brain of the "high honor" man increases by about three per cent., that of the "poor" man by about six per cent. in this period. 4. That the "high honor" men are presumably a class both more precocious and more gifted than the others.

Who Designed the White House?—It is by no means a well-known fact that the Executive Mansion was designed and built by an Irishman. It was by a Dublin man at that. James Hoban, a young son of poor Erin, then living at Charleston, S. C., was the successful competitor among six for the \$500 premium offered for the accepted plan design of a President's house or "Palace," in July, 1792. His design having been accepted, he was invited to be the architect, and on October 19th of that year the corner-stone was laid

with impressive and appropriate ceremonies. The erection of the "Palace" progressed slowly, owing to the opposition of the early patriots who wanted the Capitol to remain at Philadelphia. Appropriations were not forthcoming until General Washington made a few remarks on the subject. The first President to take possession of the Mansion was John Adams, and he took up his residence there in 1800, as soon as the seat of Government was removed to Washington. The President's House, as it was then called, was destroyed by the British in 1814. After the evacuation, Hoban, who had taken up his residence at the Capitol, was requested to proceed with the reconstruction of the building, but the year of 1818 had well advanced before it was again ready for an occupant. In the interim, the President lived in a large house on the corner of New York avenue and Eighteenth street, called the Octagon, and used until recent years by the Hydrographic Department. Various additions were made to the home of the President, and it was only in 1829 that it assumed the proportions that it still retains. About \$1,800,000 have been spent on the White House from 1792 to date. The official home of President Cleveland today was the first public building to be erected at the Capitol.

Hoban was also one of the original architects of the Capitol, as well as many of the notable private buildings of the city at that time. He is buried in one of the Washington cemeteries.—*Exchange*.

Enduring Apple.—In a paper on "The Degeneration of Fruits," read before the Massachusetts Horticultural Society, Mr. O. B. Hadwen states that the degeneration of the apple proceeds more slowly than that of the pear. Out of sixty varieties, mostly of American origin, cultivated fifty years ago, more than fifty are now grown and esteemed. It must be admitted that the apple is not only the most valuable fruit in this section of the country (New England), but also long-lived and manifesting few signs of decay. The Early Harvest and Newtown Pippin seem to be on the wane, and a few more are tending in that direction. On the other hand, the Rhode Island Greening, known in cultivation for 150 years, is seemingly as good as ever, both in

tree and fruit, and promises to last for a long time. The Costard, one of the oldest apples grown in England, was recorded in the thirteenth century.

A Pleasant Experiment.—Suspend from the ceiling a thread which has previously been soaked in very salt water, and then dried. To this fasten a light ring, and announce that you are about to burn the thread without making the ring fall. The thread will burn, it is true, but the ashes it leaves are composed of crystals of salt, and their cohesion is strong enough to sustain the light weight of the object attached to the thread.

Another form of the same experiment is to make a little hammock of muslin to be suspended by four threads, and after having soaked this in salted water and dried it, as before directed, to place in it an empty egg-shell. Set the hammock on fire; the muslin will be consumed, and the flame reach the threads which hold it, without the egg falling from its frail support.

With great care you may even succeed in performing the experiment with a full egg in place of an empty shell, taking the precaution, however, to have it previously hard boiled, that you may escape an omelet in case of failure.

Caring for the Horse.—Taking it all in all, the trotter will grow just as well with a good straw bed in a log hut as in a bed of moss in a palace barn, and the common farmer, who, from long experience, has learned to attend to all the little wants that go to make up the every-day life of the colt, keep both ends growing equally and bring him up to the full size and form that nature designed, has in the long run a little the advantage over the millionaire, who has only the knowledge of theory, without the knowledge of every-day practical experience. The common farmer is just beginning to realize the possibilities for profit in raising trotting-bred horses. A little time spent during the long winter evenings studying the recorded facts and history of the trotter, and an intelligent use made of these facts by keeping in lines that have uniformly produced size, style, good color, and kind, intelligent disposition, united with speed, will just as surely bring profitable returns as planting a field of corn.—*Horseman.*

Utilization of Old Tin Cans.—A number of people recently gathered at the Columbia Rolling Mill, Fourteenth street and Jersey avenue, Jersey City, at the formal opening of the mill. The industry is a novel one, being the manufacture of taggers' iron from old tin cans and other waste sheet metal. This iron has heretofore been manufactured almost exclusively in Europe, and the Columbia Rolling Mill Company is the only American company which turns out the product in large quantities. The process is simple. The tin cans are first heated in an oven raised to a temperature of about 1,000 degrees, which melts off the tin and lead. The sheet iron which remains is passed, first, under rubber-coated rollers, and then chilled iron rollers, which leaves the sheet smooth and flat. After annealing and trimming, they are ready for shipment. The tin and lead which is melted from the cans is run into bars, and is also placed upon the market. All the raw material used is waste, but the sheet iron turned out is said to be of good quality. It is used for buttons, tags, and objects of a like nature. The material used costing little, and the demand for taggers' iron being considerable, it is thought that this is a good opportunity to build up another American industry. We are glad to note this sign of progress, and the nearing disappearance of a great public nuisance.

Progress That is Not Improvement.—An old Georgia farmer writes to the *Country Gentleman* thus sensibly: "I have been farming fifty-four years—a long time when I consider that I began when I was twenty years of age—and I have noticed that farming undergoes changes somewhat like fashions. It runs on one line for some time on what is called the progressive scale, and then it turns back and adopts what has been discarded. I am inclined to think that there is too much theory about farming of late days. The earth is the same, the laws of nature are the same, climates are changed somewhat, but the principles of farming are the same. The progress has been in improved implements and tools, that have lessened labor and expedited work; but the ground is the same so far as plowing, pulverizing, and cultivation are concerned, and the growth of all plants is governed by the

same laws of nature. Rich soils will ever produce rich crops, and poor soils inferior crops. So now the science of farming is in keeping up the fertility of the soil, using implements that will economize labor, and the rest depends on one's good management, energy, and perseverance, and that is the "all" in successful farming. During the first half of my farming life, farmers farmed to make themselves well-off (if not rich) and comfortable; the latter half of my days, they farm to make others rich and keep themselves poor. If this is progress, it is best for us to turn back and farm as our fathers did, and farm for our own benefit, and to make ourselves happy, comfortable homes. I well recollect the time when the farmers were the most independent, well-to-do class of people in the land. Times have changed, and so has farming.

A Substitute for Hydraulic Cement.—According to a statement of Mr. Miles, a well-known engineer, it is a fact peculiar to Spanish countries that ordinary brick-dust, made from hard-burned, finely-pulverized bricks, and mixed with common lime and sand, is universally and successfully employed as a substitute for hydraulic cement. Mr. Miles says that, during an engineering experience of some six years in Cuba, his opportunities were ample for testing its merits; and he found it in all respects superior to the best Rosendale hydraulic cement for culverts, drains, tanks, or cisterns, and even for roofs. In an experiment to test the strength of this product, it was found that a block of it half an inch in thickness, without sand, and after immersion in water for four months, bore, without crushing, crumbling, or splitting, a pressure of fifteen pounds per square inch. It is thought that by the addition of pulverizing mills to brickyards, to utilize the waste and broken bricks, a profitable manufacture might be carried on.

How To Use a Thermometer.—In order to insure the proper reading of a thermometer, other things being equal, the instrument should be hung on the north side of a building and in the shade, being also suspended freely, that is, set out not less than four inches from the supporting substance or body, this distance being far

enough out for the purpose, the readings of the instrument being thus made free from any interfering influence; the best thermometers have an iron framework for this latter object, which can be fastened to the wall. On exposing a number of thermometers on different supporting materials, such as iron, tin, wood, and stone, each one will be found to record a different temperature, quite marked; the reason for this being, of course, the different conducting quality of the substance. A brick wall, for example, becomes heated slowly, but retains the heat for some time; so, at certain hours of the day, a thermometer hung on a brick wall will register the temperature inadequately in summer, while in winter it will register too high; the reverse is nearly the case with iron, which radiates heat quickly. The reflection or radiation of heat or light from neighboring objects is another disadvantage; when, therefore, there is a tin roof or a white wall near by, the thermometer should be covered.

The Markings on Mars.—The observations of M. Perrotin at Nice, and M. Terby at Louvain, and in England, of Mr. Denning at Bristol, have confirmed the presence on the planet of most of the "canals," or narrow dark lines, which were discovered by M. Schiaparelli in 1877, and at subsequent oppositions. M. Perrotin has also been able to detect, in several cases, the gemination or doubling of the canals, and M. Terby has observed the same phenomenon in one or two cases, but with much greater difficulty than in the opposition of 1881-82. But some curious changes of appearance have been noted. An entire district (Schiaparelli's *Lybia*) has been merged in the adjoining "sea," *i. e.*, its color has changed from the reddish hue of the Martial "continents" to the somber tint of the "seas." The district in question is larger than France. To the north of this district a new canal has become visible, and again another new canal has appeared to traverse the white north polar cap, or, according to M. Terby, to divide the true polar cap from a white spot of similar appearance a little to the south of it. With the exception of these changes, the principal markings, both light and dark, are those which former oppositions have rendered familiar.



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AN IMPORTANT STEP.

IN the Publisher's Department of this number an announcement is made which the reader may receive with more or less satisfaction. We refer to the reduction in the subscription price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH, which will apply to next year. It is not proposed to lower in any degree the quality of the reading matter, and the different departments will be kept up in accordance with the interest shown in them by our readers and friends.

We have always owned to a strong desire for the extension of our circulation, and in one way or another that was perfectly consistent with self-respect, have sought to promote it. This new measure has been determined upon with that end in view, and no other reason need be mentioned in this place than the one that naturally occurs to the reader. This is an era of low priced literature; the popular demand is for books and periodicals that shall cost little in money yet supply the best thought and information. What in the way of magazines, or weeklies educates and refines must be procurable at a low price. The

idea appears to be growing in the public mind that the best opportunities for moral and intellectual culture should be had at a trifling cost. Doubtless the liberal spirit of our national institutions has fostered this impression, and many publishers have not been slow to respond to it, and have found their profit in the much increased sale of their productions.

It will be evident enough to one who knows anything of the cost of printing a monthly that a reduction of twenty-five per cent. in the price of a magazine means a large discount of the possible net returns of its sale, especially when the price heretofore has been reasonable for the amount and quality of reading given, and therefore the publisher must hope for a large increase of subscribers to enable him to meet expenses. As to this, the editor must leave it to the financial wisdom of his publishers and hope with them that the step will prove successful.

The PHRENOLOGICAL JOURNAL should have a *million* readers. Every subscriber will indorse this statement. Because the influence and work of the PHRENOLOGICAL JOURNAL among the people is pre-eminently reformatory in the best sense, enlightening old and young with respect to themselves, and inciting them to effort for self-improvement and a higher estimate of the opportunities given us by life. We believe that no one can take and read our magazine for a year without being profited in important personal respects. Some one has said that only the wise profit by good fortune—but we know that many ignorant and foolish persons have been profited by such means as this magazine employs.

THIS number closes the year 1888, and another volume is added to the long line that stands upon the old subscriber's shelf. Over fifty years old! Yet the PHRENOLOGICAL JOURNAL has not reached the meridian of its usefulness; if it has done well in the past that is but the earnest and foundation for better doing in the future.

THE NEW EDUCATION.

No one seems to be able to say precisely what the new education is: it seems to be rather an attitude, a tendency, than a definite principle or set of principles. Still, all its advocates would agree in certain general postulates. They would all hold that no society is valuable that does not develop power; that the cultivation of memory should be made subservient to the cultivation of the higher faculties of the mind; that the instruction should be adapted to the condition of the pupil, and not to the wants of the future man; that greater stress should be laid on the natural sciences, and on the modern languages and literature, and less on the languages and literatures of Greece and Rome; that the curriculum of our schools in general requires re-adjustment; that industrial training should form a part of the education of all classes; that the higher education of woman is as imperatively necessary as that of man; that teachers need specific professional training.—*Journal of Pedagogics.*

The New Education is a growth of modern times, therefore of the necessities of society. The wants of the American people have a practical range; and the education that does not bring into active and efficient exercise the faculties for the attainment of practical results is

not the education suited to the masses. The current of life has undergone a great change, especially in this country. There is not the time or the room for the leisurely contemplations of fifty years ago, when classical studies were deemed the highest essential in the curriculum. It is not so much a matter of memory as it is a matter of the practical adaptation of one's faculties to the work of life that people appreciate. The use, the *cui bono*, with a prompt outcome, are demanded. If we look beneath the surface into the philosophical structure of mind, it is not difficult to discover the *ratio entis* of this new education. As men live now more in their observing faculties, more in the mechanical and æsthetic phases of activity, and therefore less in the purely theoretical and contemplative faculties, they require a new and better adjustment.

While Pestalozzi should receive his due with regard to the foundation of the principles that lie at the basis of this movement, Horace Mann must be looked upon as the real father of the so-called Quincy System, which is a development of the new education; and he, discerning the truth in those precepts of Phrenology that relate to the order of mental evolution, and facultative action, laid down the general plan of study and observation which has been so ardently embraced by distinguished educators East and West. It is really a scientific method of study—taking the facts of nature, as they are, and analyzing, classifying and combining them, and working out results that have real effects upon society,—effects that conduce to growth and progress in all the spheres of human life.

THE SUCCESSFUL CANDIDATE.

OUR attention has been called to the article in the June number, which discusses among certain "Notable People of the Day," Mr. Benjamin Harrison, and we are congratulated "for predicting his nomination," by the Republican party as its candidate for the presidency. No, we will not admit the assumption of so high a psychical quality as that of prophesy, in this case; but merely having seen in Mr. Harrison the characteristics that commended him to the notice of the people as a proper man for the highest place in their gift. Marking his conduct through the late canvass, we have found no reason for a change in

our opinion, and we think that the Republican success in the great political strife that afflicts the nation quadrennially has given us a good president.

We think that Mr. Cleveland has done well under circumstances that would have tried the nerves of any man, and that his promotion of the great questions of the tariff and Canadian reciprocity will be productive of results very important to the country at large. Without possessing brilliant talent, or any qualities of surprising altitude, Mr. Harrison has elements of strength, dignity, and discernment that we think promise well for his administration.



To Our Correspondents.

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

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

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across the case, a distance of over two feet, and the editor often wishes to make changes or additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

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

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

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 to the Editor in his professional capacity will receive his early attention if this is done.

WILL NOT THINK FOR HERSELF.—G. W. L.
—The modern treatises are so elaborate that they leave very little for a pupil to do; and, if a teacher does a good part of the recitation, why, the pupil, of course, is very likely to lack opportunity for development, with such opportunity as there may be left. This is the reason that school-children are so "parrotty." They learn by rote; and so they acquire no stimulus for original thinking. A teacher who would really teach must dispense, in great part, with the text-book, lay down the principles, and endeavor to stir up the mind of the pupil to an effort to reason out, or account for

the principles. The teacher should introduce often common, everyday subjects, and ask questions. Having secured the attention of a child in this way, one that has appeared dull may suddenly show a good degree of interest, and become, after a while, positively bright.

In a late number (September) of the *PHRENOLOGICAL*, there is something from a teacher's experience with regard to awakening attention in children, which you should read carefully. It will give you some ideas that we think will prove of value to you in your work. It must be admitted that a child who has been under the control of an inefficient teacher has fallen into ways that give no little difficulty for their correction.

ITCH.—C. E.—This is a contagious malady. Unclean habits have much to do with its propagation. The little animals that infest the skin prefer, as a habitat, the softer parts. That is one reason why a favorite residence on their part is the skin between the fingers. Bathing, thorough cleanliness, and sulphur-soap, promote a cure. Some authorities suggest a liberal use of a sulphur ointment, and confining the affected person to bed between blankets for a day or so.

GYMNASTICS.—S. T.—Any artificial substitute for natural exercise should not impose more than moderate effort on the part of the muscles. It is a mistake to use heavy clubs or dumb-bells. Generally young men who think that they must attend a gymnasium entertain a spirit of emulation, and attempt things that are altogether unnatural. They want to "get up" their muscle, and show great prowess in the matter of athletic feats. Many a young man owes his death to excessive muscular exercise. A man who pursues a regular course of self-training for the purpose of developing his muscle to a high degree of power finds in the end he has made a mistake, the muscles having been developed at the expense of the organization in general. We know a man who broke down his nervous system in this way, and became an incurable invalid. Heart and lung weaknesses are often the result of an over development of the muscles. The pathological reason is, that they induce such a strain upon the vital organs and the weaker structures, that they are worn out. The ordinary mechanical pursuits of life furnish as much exercise as a man requires. Of course, those whose habits are sedentary should get abroad as much as possible, and walk and run, and take deep inspirations, so as to improve the tone of the circulation, and invigorate all the parts of the body. It is a mistake, however, for a man who pursues a seden-

tary occupation to make strenuous efforts with a view to muscular compensation. Men of studious, reflective lives live longer than those whose lives are mechanical.

PERSPIRING FEET.—U. D.—The following treatment has been found helpful for those who suffer from the inconvenience of perspiring feet. Dip them in cold water for a minute every morning, and then dry off well. Sprinkle a little pulverized tan bark in the bottom of the shoes every other day. At night, bathe the feet in warm water, having previously dipped them for an instant in the cold. It may be added that those who are troubled with bad smelling feet if they bathe them every night in water into which some ammonia has been poured, they will find relief. In the German army, the remedy prescribed for sweating feet is a powder composed of three parts salicylic acid, and eighty-seven parts magnesium silicate. This powder is irritating to the mucous surfaces, so care should be taken not to breathe it while it is applied to the feet.

SECRETIVENESS IN WOMAN.—W. H. W.—I think that if you will carefully observe, you will find that Secretiveness is somewhat larger in woman than in man. This may seem to militate against the common notion of the incapacity of the sex for keeping secrets, but that common notion is more a humorous libel than truth.



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

How Ignorant Science Is of Fundamental Truths.—The constitution of matter has been a subject of dispute from the time of Aristotle, and it is not too much to say that we have no more absolute knowledge on this point than had Aristotle himself. Starting from the supposition that matter is not continuous, but made up of disconnected atoms or particles of definite size and weight, a most beautiful theory has been evolved which explains the observed chemical and physical phenomena; but what chemist will venture to maintain the atomic theory as an actual and provable fact, in the face of so many difficulties which such a conception of matter involves?

The nature of light and heat is another question which is even more difficult to answer than the constitution of matter. They certainly possess neither weight nor volume. The modern theory considers them as a force, or mode of vibratory motion in a hypothetical substance called ether. But the existence of the ether has never been proved; and, in fact, if it does exist, it must possess properties varying widely from any forms of matter with which we are acquainted. All that can be said is, that granting its existence, the phenomena of light and heat admit of a ready explanation.

Electricity is another substance concerning the nature of which we know absolutely nothing. To the question, What is electricity? there is but one answer—We do not know. We do know what it will do, and can make it serve us in an infinite variety of ways; but the most learned electrician is only in the same position as that of a little child who can move the lever which controls a great engine, but knows nothing of its construction, or how the motion is produced.

Chemical affinity offers a multitude of perplexing questions which as yet no one can answer. Why does the oxygen of water leave the hydrogen to which it is joined to unite with the sodium which is brought in contact with it? Why are the proportions in which the different elements unite among themselves fixed and invariable? Why does fluorine combine so strongly with every known element but one, while nitrogen, when forced into combination, confers an element of weakness upon the entire compound? No one has yet answered these, and innumerable other similar questions.

But the greatest mystery of all, and one of which we know the least, is that of the nature of life and mind. There is no appreciable difference between a mass of dead and living matter. It is only in the possibilities inherent in the two forms that we can recognize the difference. An animal grows, and so does a crystal; but no one would be likely to mistake one process of growth for the other. From the mammoth down to the microscopic bacterium or plant spore, all are possessed of something we call life, which as long as it exists, possesses the power of reproducing organisms similar

to itself. We can apparently destroy this mysterious principle, but we can not bring it back, and it is not probable that, in our present condition of existence, we shall ever know anything more regarding it.—*Popular Science News.*

J. V. G. writes from Oregon:—"My grandfather, V., was a subscriber some forty years ago or more. I have the whole volume for 1863, left us by the descendants of the P. family. The JOURNAL seems to be better every year. The addition of Child Culture seems to me a matter of great improvement. The better children are trained, the better men and women we shall have, and to help educate children is one of the highest callings."

PERSONAL.

A STATUE in honor of Horace Greeley is to be placed in City Hall Park, New York. With the exception of some very creditable work in Central Park, and the press-raised statue of Benjamin Franklin in Printing House Square, the statues of Washington, Lafayette, Seward, Dodge, and perhaps one or two others, the chief city of the Union has little to show in the way of statuary commemorative of events or personalities.

HANSON CRAIG, of Kentucky, is one of the heaviest men in the world. His weight is given at 792 pounds, and it requires 37 yards of cloth to make him a suit. He is 6 feet 4½ inches in height, is 32 years old, and weighed 11 pounds at birth. When two years old he took a \$1,000 prize in New York, tipping the beam at 206 pounds at that time. His father weighed 115 pounds and his mother 122.

MR. DANIEL HAND, of Clinton, Conn., has given away \$1,000,894.25 in various philanthropic ways. Born in Connecticut, he made his money in the South, so he gave it to be used for the education of the colored people of the Southern States, and it is held in trust by the American Missionary Association as "The Daniel Hand Educational Fund." Mr. Hand is eighty-seven years of age, and is quite alone in the world, all his family having died fifty years ago.

THE first condition of mental growth is that we keep the mind open to new impressions, and the longer we retain something of the child's susceptibility to new impressions, the longer shall the mind continue to grow.



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 MANUAL OF THE DISEASES OF THE NERVOUS SYSTEM. By W. R. Gowers, M.D., F.R.C.P., Assistant Physician of Clinical Medicine in University College, London, etc. 8vo, pp. 1,350. P. Blakiston, Son & Co., 1012 Walnut street, Philadelphia.

This is by far the most elaborate work on the diseases of the nervous system published. The American edition, as produced by the publishers above named, embodies in one the two volumes of the original edition published in England, and also additional matter, the whole having been produced under the direction of Dr. Gowers. The work is divided into two grand sections: Diseases affecting the spinal cord, and diseases of the brain. There is also a large amount of matter relating to local and functional troubles of the nervous type. Dr. Gowers has drawn upon an experience of many years, specially relating to nerve pathology and also upon the whole range of literature in this particular branch of medicine, for the data of his book. He is a clear, although voluminous writer, and seeks to cover every phase of a given topic. Treating disorders of the most complex nature known to pathology and therapeutics, his task in preparing this book has been no light one, but shows a superior comprehensiveness as well as clarity of judgment in his system. With opinions of his own, yet expressed with that modesty which becomes genuine ability, he has also availed himself of the opinions of other authorities, and gives just credit where it is due. The elaborate nature of this "Manual" is its only objection. The ordinary student of medicine is likely to be awed by the bulk of the volume, yet one who wishes

a treatise that quite covers the field of its title, can do no better than procure this and use it either for purpose of reference or as a work to be read all the way through. At this time so much is said of the motor and other centers of the brain, that a physician who lacks information with regard to them is deficient in an important particular. One can not understand the principles of therapeutics, especially as regards nerve diseases, without a knowledge of these centers. Dr. Gowers rightly devotes a considerable portion of his work to a description of them and their relation to nerve tracts, both cerebral and spinal.

SPIRIT AND LIFE; THOUGHTS FOR TO-DAY. By Amory H. Bradford, D.D. 16 mo., p.p. 265. Price, \$1. New York: Fords, Howard & Hurlburt.

There is a freedom and clearness in this volume of sermons that makes it readable. Dr. Bradford is a progressive man, not afraid to enter into the open consideration of many questions that press upon modern inquiry. It is fortunate for evangelical Christianity in this age of eager inquiry, that there is a class of sharp-eyed evangelical ministers who are deeply set in the belief of the truths of religion, and who are not stirred from their convictions, while at the same time they are not afraid to examine the questions and problems presented by science and the new philosophies. These men believe that the principles of the gospel will be confirmed by honest and proper scientific investigation; that true understanding of the operations of law in the natural and spiritual domains but supports the central principles of religion. The scope of the volume is shown by the sermonic topics, among which are: "The Holy Spirit in Individual Experience," "The Holy Spirit a Constant Factor in the Problem of Progress," "Theological Thought of Our Time," "The Appeal to Experience," "The Life the Light of Men," "The Endless Growth." These discourses have a simple strength and naturalness and go far to impress a doubter of the reasonableness of the preacher's views, while the themes possess in themselves an interest for the thoughtful reader.

SEA VISTAS IN MANY CLIMES. Edited and illustrated by Susie Barston Skelding—with fac similes of water-color drawings. Small quarto, pp. 112. New York.

Frederick A. Stokes & Brothers.

This is an ambitious step on the part of the author. Heretofore she has delighted us by her faithful sketches of field and flower; now she invites us to revel in a feast of sea-side views depicted with an artist's sense of the effect of natural coloring upon the refined eye. The plates comprise The Golden Gate, San Francisco; In the Bay of Naples; Fort Marion, St. Augustine; Dutch Points, off Scheveninger; Venetian Fishing Boats; Twilight, Marblehead; On the Cornice Road; Bass Harbor Light, Mt. Desert. Thus we have a variety of home and foreign marine scenes, that will awaken pleasant memories in many a breast. Sprinkled along among these is a choice selection of poems from many of our best known writers—mainly verses that sing of the sea, or of sea life, and all appropriate.

PUBLICATIONS RECEIVED.

WOOD BLOOMS. By John Vance Cheney, author of "Thistle Drift." 18mo, cloth, pp. 222. Price, \$1.

SONGS FROM BERANGER. Translated in the original meters, by Craven Langstroth Betts, pp. 254. Price, \$1.

IN THE NAME OF THE KING. By George Klinge, author of "Make Thy Way Mine." pp. 120. Price, \$1.

The above dainty volumes are from the press of Frederick A. Stokes & Brothers, New York, and are additions to their already long list of volumes of poetry representing foreign and home authors, old and new. We think that not a few of our young American authors who feel the motions of the tender muse would be little known were it not for the kindly interest and appreciative taste of these Fifth avenue publishers.

In Wood Blooms there is much tenderness, sympathy and pathos—the author is evidently a man whose thought has been much employed with serious things, the graver undercurrents of life. His topics, therefore, while various, have little in common with the flippant humor of the day. Some are eccentric, like *Auto da Fe*, and Our Ophidian Friend, and some intensely pathetic as "The Confession" and "St. Isophere." The thoughtful reader will find material in this verse, for it certainly meets one requisite

enumerated by Emerson as essential to genuine poetry—suggestiveness.

Mr. Betts attempted a difficult task in converting Beranger into English, but he has succeeded well, and brought many of the best conceits of the illustrious and witty Frenchman within the reach of the reader who likes poetry but can not read French. As we scan the book and note "The Beggars," "The Education of Young Ladies," "If a Little Bird I were," "The Tailor and the Fairy," we can not but commend the translator for having caught much of the spirit of the poet.

The reader of our periodical literature knows George Klinge, for many pretty things of a lyrical class has he given the public. The little volume that now comes to us with his name on the title page is one having an evident purpose, to lead one's thought to that center of religious comfort and devotion, the cross of Christ. There are some exceedingly sweet and soothing verses in the collection, admirably suited to the bereaved and mourning one. This volume seems to us a fitting companion on the home table to Miss Havergal's tender and heart-satisfying lyrics.

THE GOLDEN AGE OF PATENTS; a parody on Yankee inventions, by William Peck.

Certainly a good combination of pen and pencil humor. The preface is written in a vein of seeming seriousness which the opening paper on "The Automatic Bull Catcher" absurdly offsets; and the vein of burlesque and preposterous suggestion that goes on from this to the end of the book, makes it diverting solace for a leisure hour. Price 50 cents. Messrs. Frederick A. Stokes & Brother, publishers, New York.

SOFTLY NOW THE LIGHT OF DAY—that beautiful evening poem and hymn, by George Washington Doane.

Made the theme for several charming half-tone engravings from designs by W. St. John Harper, and hymn and designs are set in a delicate binding by the publishers above-named. Price 50 cents.

PHYSICIAN'S INTERPRETER, in Four Languages—English, French, German, Italian—specially arranged for diagnosis by M. Von V.

A very convenient book for the busy practitioner, in point of size and arrangement. All that is needed to make it serviceable is a little knowledge of the pronunciation of the languages represented. In fine Russia. Price \$1. F. A. Davis, Philadelphia.

Messrs. LEE & SHEPARD, publishers, of Boston, send us three beautiful things for the holidays. Two are poems of Dinah Maria Mulock, and the third "All Around the Year," a diary for 1889. Noting them in order, the first is the

PSALM FOR NEW YEAR'S EVE, entitled, "A Friend Stands at the Door," in which the promises of the new year are tunefully related. The illustrations, delicately printed in half-tone, a charmingly colored one on the cover, are by J. Pauline Sunter. Price, \$1.

The second, A CHRISTMAS CAROL, also by Dinah Maria Mulock, is, like the above, bound in heavy boards, the designs being from the hand of the same artist, and illustrating themes of juvenile interest at this season. Price \$1.

ALL AROUND THE YEAR is the third, in heavy boards, bound with silk cord and silvered chain, constituting a calendar with a leaf for a month. Very pretty and unique. Price 50 cents.

CURRENT EXCHANGES.

The Electrical World. Weekly review of progress in electricity and its applications. W. J. Johnson, New York.

Illustrated London News. American edition. Weekly. Illustrated News Co., New York.

Teacher and Examiner. A monthly school journal in the interests of teachers and public schools. Danville, Md.

The Doctor. Monthly. Charles Avery Welles, New York.

The American Art Journal. Devoted to music, art, and the music trades. Wm. M. Thoms & Co., New York.

Babyhood. For mothers; exclusively considering the care of infants and young children. Monthly. New York.

Chicago Medical Times. Progressive; devoted to the wants and interests of the busy doctor. Monthly. Baker & Vawter Co., Chicago.

Popular Educator. Monthly. Educator Co., Boston.

The Christian Advocate. Weekly. Phillips & Hunt, New York.

The Medical Record. Weekly journal of medicine and surgery. Wm. Wood & Co., New York.

Philosophy of Nature. Devoted to the discussion of scientific, religious, and historical subjects. Monthly. Philbrook & Dean, New York.

The Hahnemannian Monthly. Edited by Dr. Bartlett and Dr. Van Lennep. Phila.

The Quarterly Journal of Inebriety. Published under the auspices of the American Association for the Cure of Inebriates.

Vigorous and effective. T. D. Crothers, M.D., editor, Hartford.

The New Princeton Review. Six times a year. A. C. Armstrong & Son, New York. Deals with the stronger topics of the day in religion and science.

Harper's Young People. Illustrated; weekly. Harper & Bros., New York.

Shoppell's Modern Houses. An illustrated architectural quarterly. R. W. Shoppell, New York. Good suggestions for popular use well gotten up.

Harper's Bazar. Fashion, pleasure, and instruction. Weekly. Harper & Bros., New York.

The Literary World. Readings from new books and critical reviews. Fortnightly. E. H. Hames & Co., Boston.

The November number of *Lippincott* opens with a novel entitled *Earthlings*. Blondin follows with *Experiences of a Rope-Walker*. *Morality in Fiction*, *Corporate Suretyship* are readable and above the current standard. Philadelphia, Pa.

The Century for November, gives a portrait of Lord Nelson, very youthful looking. The *Guilds of the City of London* is finely illustrated and has point in this era of labor agitations; *Political Exiles and Common Convicts at Toms*, *Thomas Cole and his Work*, *The Romance of Dollard*, *Where was the Place called Calvary?* *Pictures of the Far West*, *Gravelotte Witnessed and Revisited*, are all richly set with appropriate illustrations. The editorial departments discuss current topics, and other things of interest. New York.

The Homiletic Review has something to say about Christian Evidences as affected by recent criticism, *The Church and Workingmen*, and other themes of practical import. Funk & Wagnalls, New York.

Harper's for December is a bulky affair, and coming early enough for an item here, we note *The Viking's Daughter* as a fine frontispiece. *The Last Mass*, *A Likely Story*—a Farce, in Howells' pleasant manner, *Sosrus Dismal*, F. S. Church, *A Christmas Mystery*, *Fragile*, *A Soul Drama*, *The Front Yard*, *A Midnight Ramble*, as being more or less illustrated in the best style. Harper & Brothers, New York.

The Popular Science Monthly contains in its December no., also early in the periodical market, *The Psychology of Deception*, *The Last Stages in the Genealogy of Man*, *Beliefs About the Soul*, *Infant Mortality and the Environment*, *Chinese Marriage Customs*, *Animal Arithmetic*, a sketch of F. A. Vulpian with an exceptionally fine portrait on wood, as its special features. D. Appleton & Company, New York.

ECHOES FROM THE CONSULTATION ROOM.

NORTHWEST TERRITORY, CANADA,

Oct. 21, 1888.

MESSRS. FOWLER & WELLS Co.:

I have much pleasure in saying that the delineation of our daughter's character from photograph is just received. We thank you very much for the services rendered us. You have described our daughter as no one but a practical phrenologist could do. From personal observation we concluded that she would succeed in a special line of business, and in this you bear us out. With respect to driving the work she might have in hand, she comes honestly by that, for Mr. L. N. Fowler publicly examined my head in the Central Temperance Hall, London, England, and the first remark made upon my head was that I would overwork and break my constitution by extra effort, so that trait can be accounted for in my children. We will try and carry out your (Prof. Sizer's) instructions to the best of our ability. In every instance you hit the nail on the head and clinched it with the hammer of truth.

Yours truly, G. W.

G——, PA., July 31, 1888.

FOWLER & WELLS Co.:

I was greatly surprised on reading the result of your examination of the photographs sent you, not only on account of the correctness of the same, but because it agrees almost perfectly with the chart marked by Prof. B. six months ago, which also greatly strengthens my belief in Phrenology. I intend to take your advice in regard to my future business, and believe it will be in every respect beneficial.

I remain, respectfully, D. W.

——, QUEBEC, CANADA,

Aug. 28, 1888.

GENTLEMEN:

I received the description of character and the portraits you returned. I am well satisfied as to its accuracy, so far as I can judge of myself. The remainder I will leave to my friends to judge. Your advice as to occupation and especially as to diet, with a

view to health, I believe are correct, for which I kindly thank you.

Yours respectfully, B. S.

——, IND., Sept., 22.

FOWLER & WELLS Co.:

Last June you sent me a description of my character given from photographs by Professor Nelson Sizer, and I must say that my most intimate friend does not know my character as well as you do. I thank you for your kind advice in regard to health and were I so situated that I could carry out your advice I feel sure I would have excellent health, as I have already much improved. You say that I would do well as an oil-painter of portraits, life size. My ideal of occupation has always been that of an artist and I intend to take instruction in oil-painting as you suggest. Yours truly, B. B.

A STUDENT writes as follows:

"I promised to let you know how I was succeeding in shorthand, which you advised me to study when you gave me a Phrenological examination, and I want to thank you from the bottom of my heart for your advice and counsel on that occasion, two years ago. It has been a great source of benefit, pleasure and profit to me ever since. The written examination and practical suggestions connected with it seem like a lamp to my feet and a light to my path.

"After graduating from the University of the City of New York, in 1881, not yet having decided what pursuit to follow, I made up my mind that I would take the course of instruction in the American Institute of Phrenology, but reverses which I had to share with others prevented my doing so, and I contented myself with a Phrenological examination, as before alluded to, and I have since endeavored to follow your advice as nearly as possible, and I have found it correct and excellent. The recommendations in regard to diet are worth all I paid and more. You corrected several errors in my estimation of my own character, and I am thus better able to attempt self-improvement intelligently. . . .

"With highest regards and much gratitude, I am,

"Yours respectfully, M. D. B."

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 \$2.00 a year, payable in advance, or \$2.15 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 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.

Our Premiums.—On another page of this number will be found our revised table of premium offers to those who make up clubs for the PHRENOLOGICAL JOURNAL for the coming year, to which we wish to call especial attention. The articles we have selected are practical, useful and the best of their kind, and the offers we make are such as will enable any one who will make a little well directed effort, to make it pay. In addition to these premiums to our AGENT FRIENDS we make liberal offers for subscribers. In the first place we offer the last three numbers of this year free to all new subscribers whose names are received before the first of January, and we also offer a choice of either the BUST or the CHART PREMIUM to all new subscribers, or to those who have not already received these premiums, which are found quite essential, almost necessary, to a proper understanding of the location and the function of the Phrenological faculties. THE BUST is nearly life-size, so numbered and lettered to show the location of the organs, made in plaster of Paris, carefully boxed, and sent by express at the expense of the subscriber, when 15 cents extra is sent for packing. We also have a smaller size that we can send by mail, postpaid, where the distance is so great as to render it too expensive to send the large one.

THE PHRENOLOGICAL CHART is a beautiful lithographic Symbolical Head about 19 by 24 inches, properly mounted with rings for hanging, or it may be framed, and is very attractive wherever seen.

Remember the JOURNAL is published at \$2.00 a year or \$2.15 with premium, and we ask the hearty co-operation of our friends in extending its circulation. Sample copies and posters to agents furnished free. Address all orders to this office.

Household Remedies.—The author of this book, who is now contributing a series of articles to the *JOURNAL*, writes to be read, and to show something of what is thought of his work, we publish a few of the many notices of the press.

There are two classes of people who may find herein something of interest—those who are well and would keep so—those who are in feeble health and would know the reason why.—“*Troy Telegram*.”

Dr. Oswald is known as a writer on scientific subjects and an extensive traveler, and one who never hesitates to express strong views.—“*N. Y. Sun*.”

The author is an enthusiastic apostle of the gospel of hygiene—we predict that his book will win many converts to the faith and prove a valuable aid to those who are already of the faith but asking for “more light.”—“*Memphis Appeal*.”

The consumptive, the dyspeptic, the asthmatic, the nervous, and the person suffering from “the alcohol habit,” may find sound advice and wise suggestion in Dr. Felix L. Oswald’s “*Household Remedies*.” No writer of the present day brings to his aid so large a fund of common sense mingled with thorough learning and a knowledge of real science.—“*Utica Herald*.”

He writes with a great deal of energy and enthusiasm, and carries the reader rapidly from page to page by the downright earnestness of his style and the fulness of his knowledge. His two chapters on “*Alcoholic Habit*” are alone worth the price of the book. It is one of those books on hygiene which are written to be read, and which will be read, for there is a live man in it. The reader will question many of the author’s radical utterances; but he will find them worthy of being weighed, before they are repudiated, and in general the mature second thought will give them at least a qualified acceptance. This has been our experience. The book deals with real evils beginning with consumption, and then proceeds from one set of diseases to another, until it treats all the prevalent disorders of the human organism. It is a book worthy of a place in every family, for it so plainly teaches how to treat this body of ours in order to get the best out of it.—“*National Baptist*.”

The reader may be sure of this, he is no agent for a drug store. The doctor is a high apostle gospel of hygiene, and gives the mild blue pill and other alternatives fits at every opportunity, and often forces the opportunity to launch a broadside into the old favorite of the profession. Nature is a great healer and the great merit of the book is that it demands for nature and the human organization a fair show.—“*McGregor News*.”

There is a healthy vein of common sense in the work, and those who have not access to an intelligent physician, may find many suggestions of great value as to the recognition and treatment of disease.—“*Christian Advocate*.”

Dr. Oswald’s name on the title page is sufficient to recommend any book to our readers. Miss Willard ranks him among the first of living physiologists; he certainly speaks as one having authority, because he knows whereof he speaks. We wish

this book was in every family in America.—“*Union Signal*.”

There is indeed much in this to set men a thinking and no one who reads it can escape the conviction that mankind would be much better off if there were more fresh air and fewer drugs, better drainage and more exercise.—“*Rochester Post-Express*.”

We wonder how a physician could have written this book, since it is so full of common sense, and if the directions were generally followed, would send half the doctors in the country to some other business. He advances some novel ideas in regard to consumption, fevers, and indeed all forms of disease, ideas which seem to us founded in common sense. The book is eminently practical and deserves a wide circulation, since its directions can not but restore to health many who are now being drugged to death if only those ill will patiently follow the good advice.—“*Omana Republican*.”

The suggestions presented for the treatment of prevalent disorders in the human organism are brought down to date. They are not all new, but those that are trite are worthy of restatement and are restated comprehensively. The new matter is replete with practical hints.—“*Brooklyn Times*.”

He is a thoroughly independent and vigorous writer, speaking his honest convictions, regardless of fear or favor. He is as careful and logical as he is vigorous, and always puts his pen to paper for a good and high purpose.—“*Home Journal*.”

The author of this book has achieved distinction as an advocate of hygienic living, and he puts his statements in such a plausible and bewitching way that they convince many who would not otherwise be convinced.—“*Herald of Health*.”

The book is worth the careful reading of all thoughtful people, and carries its own strong commendations of progressive, common sense ways of thinking.—“*School Journal*.”

The book can be consulted to advantage in every household. To follow its advice may be the means of preventing sickness.—“*Illustrated Christian Weekly*.”

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A New Volume.—The present number of the JOURNAL begins a new volume, therefore now is a good time to subscribe. All subscriptions will be dated from this number, unless we are advised to the contrary.

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Phreno-Mental Science in the School Curriculum.—The editor of the **JOURNAL** has received a letter from one of the principals of the Belvidere Seminary, Belvidere, N. J., in which the following testimony is given: "We have used as a textbook the past year 'Hoffman's Science of the Mind,' and our pupils have been enthusiastic in its praise. We consider the study of Phrenology a very important one and have placed it in the regular course prescribed for our students."

It is unnecessary to add that this old and well-known seminary is one of the most progressive institutions for the instruction of young people that we know. Industrial training forms a part of the regular course, and recently a commercial department has been annexed that includes a course in stenography and typewriting. The terms for tuition, board, etc., are very moderate.

For Little Folks beginning to read there is nothing so good as "Our Little Men and Women," published by D. Lathrop Company, Boston. The June number is before us and we can say this from personal examination. It is made especially for youngest readers and has plenty of short stories and pretty verses—all easy for little ones to read and understand.

The Children of the Bible.—This book is unique, for it is really the only one of the kind ever published. To show something of what is thought of it we publish the following opinions of the press:

The writer has not painted these portraits and set them in antique frames. She has brought each child by the hand so near that we hear the patter of their little feet.—"Central Baptist."

It is just the right kind of book for home and Sunday school.—"Morning News," Savannah, Ga.

There is rare simplicity and grace in these stories.—"Daily Advertiser," Boston.

We commend to our readers this chaste and interesting book.—"The Clarion," Bastrop, Lon.

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Portions were sent out for approval and advice while the book was in MS. Bishops, D. D's., school children, and in some instances the dying, bid it "God speed."—"Phonographic Monthly."

Little folks will be at once interested and learn much of Bible truth.—"Temperance Advocate."

It is written in such a simple style that children of ordinary intelligence will comprehend it.—"Blacksmith and Wheelwright."

We are glad of any book that will help the children to a better understanding of the Bible. The volume will do something in this direction.—"Illustrated Christian Weekly."

"Ole Nelson." Here is what a Minnesota reader says: "I have lately chanced to get into my possession a little book called 'Children of the Bible,' which I have read from beginning to end, and I can truthfully say that it is the best book of the kind I have ever read. I do not like to flatter any one, yet I can not but express my gratitude to the author of it, for I know no one could prepare such a beautiful little volume without being guided by the spirit of the Almighty. It was stories of which I was more or less acquainted, yet, when I read them in your book, it seemed to me that I heard them for the first time.

Mrs. Sallie Chapin says:

Many thanks for your beautiful book "Children of the Bible." I am sure many mothers will thank you for this instructive pleasing Sunday book. It is so difficult to interest children in the class of reading suitable for the Sabbath. Martin Farquhar Tupper, Principles and rules are repulsive to a child, but illustrations win them and I am confident that from your portrait gallery, so carefully selected and so beautifully drawn, many lasting and impressive lessons will be given.

I can recommend Miss Armstrong's book of Bible stories as containing good gospel in simple language and likely to interest children wherever it goes. A book containing so much of the Bible will do good.—Dr. J. L. Huribut.

The children of the Bible are not numerous, and little is known concerning them. In those days the maxim that children should be seen, not heard, was fully carried out.—"Demorest's Magazine."

This little work supplies a need long felt by mothers who have a family of children. There are no stories which attract closer attention than those which are related from the Bible, and in this book each child, who is mentioned in Scripture, has its little history, simply, and sweetly told. Ishmael, Isaac, Esau, Jacob, Joseph, Miriam, Moses, "Nameless" Samuel, David, and so on through to the One Perfect Child, and then, to Paul's friend Timothy. There is a preface by Frances A. Willard, in which she expresses a wish for the book to find open hearts in every household.

We hope it may meet with the success it so fully merits.—"The Rural New Yorker."

Miss Armstrong has drawn on that richest of moral sources, the Bible, for her topics, and with rare tact prepared this volume of stories for children. It is just the kind of a book for the home table and the Sunday school library, and should be in the hands of all Sunday school teachers.—"Western Christian Advocate."

Where can a child of five summers be found that will not listen with breathless attention to the story of Isaac, Joseph with his coat of many colors, Samuel, the little boy who was not afraid of God in the dark, David with his tiny sling, Daniel in the Den of Lions, and above all the child Jesus, who was born in a manger and died on the cross for little children, who took them in his arms and blessed them? Every Sunday school teacher, parent and instructor should obtain this valuable work.—"State Register."

Her pictures of the children of the Bible are sweetly drawn and brightly tinted. There is much to interest the child reader in her book, more even to interest the mother.—"Advocate and Guardian."

The Children of the Bible is open before me. It treats of those characters which should deeply interest all children. An adult can not look upon the pages of this book without profit. I hope it may have a wide sale.—I. D. Peasell, Pastor of Trinity M. E. Church, Oswego, N. Y.

Nothing could be sweeter or more natural than Miss Armstrong's manner of dealing with her various subjects. They seem to step out of the dim, far away past and come right down to be one among us, while we interview them on the manners and customs that obtained in their day.—"Daily Hawkeye."

One would hardly suppose there were so many children mentioned in the Bible, or that their lives were so interesting, until he has looked into this little book.—"The Standard," Chicago.

Any book like this one that helps to interest a child in the Bible should have a place in the home. It is a character builder, and thus of great value.—"East Side Baptist."

Phrenology in Canada.—Prof. Campbell is pushing forward the good work in the Provinces, and the *Exeter Times* of a recent date speaks very highly of his success in lecturing. Dr. Campbell has been in the field for a number of years, and last year attended a session of the American Institute of Phrenology.

The Old Homestead. The *Farmer and Manufacturer*, published at Cleveland, Ohio, changes its name to the Old "Homestead." It is a wide awake journal and will be found of value to all who are interested in rural and home life.

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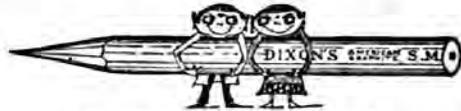
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Tobacco.—Its physical, intellectual, and moral effects, by Dr. Alcott, revised and enlarged by Prof. Nelson Sizer, will be helpful to all who are considering the subject. Price, 25 cents.

Facts About Tobacco.—By Rev. E. P. Thwing, will furnish a fund of argument which will be found valuable. Price, 25c.

Educational.—We have received the second annual catalogue of the Collegiate Institute at Fairfield, Ills., of which Prof. U. J. Hoffman, author of "Science of Mind Applied to Teaching," is the President with a full corps of assistants. Very glad to call attention to this school, as we consider Prof. Hoffman,—who is a graduate of the American Institute of Phrenology—an able and thorough instructor. Catalogue will be sent to any of our readers who will apply to Pres. Hoffman, as above.

Garfield's Sermon.—The "Christian Independent of Oakland, Cal.," recently published a sermon of President James A. Garfield. The "Christian Independent" is a live religious and literary journal. \$2 per year. Sample copy free.

The Adirondacks have for many years been known as the resort of sportsmen, but in the past year or two there has been a very marked increase in the tourist's travel, and those who spend their summer vacation in this delightful and wonderful resort among the mountains and lakes. This change is largely due to the facilities afforded by the Adirondack Railway Company, which has opened up the most attractive lake region of the Adirondacks, and affords easy access from this city by the shortest way. From Saratoga, the route runs direct into the heart of the wilderness, to North Creek, thence to Blue Mountain Lake, and on to the famous Raquette, Forked, Long, and Tupper Lakes, the latter part of the journey being made in splendid Tally-Ho coaches and on lake steamers. This route is through some of the most delightful scenery in the country, and at Blue Mountain are found the best hotels in the Adirondacks, with all the comforts that modern civilization can afford; while at Raquette, Forked, and other lakes we have a variety in rustic hotels and lodges, and in camp life, which must there be experienced to be appreciated. From this point the innermost recesses of the wilderness are reached with guides, by lakes, streams, and trails. Those interested should send six cents in stamps for the famous "Birch Bark" book, addressing the Adirondack Railway Co., 45 Broadway, New York City.

Warning and Advice.—"Who hath woe? who hath sorrow? who hath wounds without cause?" So far as physical ills are concerned no one has greater woe, or more intense sorrow than that man, woman, or child who wears the shoes of the common shoemaker. The wounds are not without cause, but they are utterly needless so long as Joel McComber, the inventor of the Patent Last, lives, and he has opened a way by which a comfortable foot-covering can be provided after he is gone. His business has been confined to the making of boots and shoes, but he is now offering to make his Patent Lasts to fit the feet for all who wish them; these will last for a life time in all cases where the feet do not change, and on these perfect lasts, which belong to the persons for whom they are made, the intelligent shoemaker, wherever he may be found, can produce wearing apparel for the feet which will be beautiful and comfortable and capable of restoring the most deformed feet, so far as they are susceptible of cure. Mr. McComber has now been manufacturing his perfect boots and shoes for many years, and we wish others would learn to appreciate the merits of the work as we have, as for a dozen years personally and in our families, and especially the ladies, they would find it impossible to go back to the old way. People who have sore and crippled feet in many cases find immediate, as well as permanent, relief by adopting this system. In a published pamphlet full directions are given for self-measurement. This will be sent to any of our readers on application to Joel McComber, 52 East 10th St., New York.

Works by Dr. Page.—Few Health Books have had a more reformatory and useful influence

than those written by Dr. Page. "Natural Cure, a treatise on Consumption, Constipation, Bright's Disease, Neuralgia," etc., considers how sickness originates, and how to prevent it. Price \$1. "How to Feed the Baby, to make it Healthy and Happy," should be in the hands of every mother or nurse of young children. Price, in paper, 50c.; in cloth, 75 cents.

Dr. Page is not content with ministering to the health and happiness of the human family, he has also written the most sensible manual of horse hygiene ever published, under the title of "Horses: Their Feed, and their Feet." It is worth many times its cost, to every owner of a horse, as a means of increasing its strength and usefulness. Price, in paper, 50 cents; in cloth, 75 cents.

The Servant Question.—It is probably quite safe to say that of all the perplexing questions which arise in the life of the average house-keeper, nothing is more perplexing, or a source of more anxiety of thought, than the servant question, and any help to the solution of this will certainly be welcomed; therefore we commend the pamphlet just issued, "The Servant Question; a View of the Inner Side," by H. S. Drayton, Editor of the *PHYSIOLOGICAL JOURNAL*, containing hints on the choosing and governing of servants, and giving very definite information in regard to the understanding of their characters and dispositions from the form of the Head and Face and other external manifestations. Dr. Drayton writes from a practical point of view, and not only does he give suggestions in regard to the selection of servants, but the points made in regard to the management of this part of the household are especially apparent to all who have experience with household affairs. As if to insure its being read by the entire class for whom it is intended the price is made 10c., which may be sent in stamps to Fowler & Wells Co., Publishers, 775 Broadway, New York.

Heads and Faces, England.—"The Paper and Printing Trade's Journal," published in London, in speaking of "Heads and Faces," says: Phrenology—the physiology of the brain—is yearly becoming more popular. The study of character and its indications is as old as human inquiry, and people watch the face and its expressions and are influenced without being able to explain their impressions, though more often than not their conclusions are correct. The joint authors of this brightly written and characteristic manual are the leaders of thought on all subjects relating to the science as taught on the other side of the Atlantic, where the study of the "lordly brain and mobile face" is much more cultivated than with us, and those who desire to investigate the laws and activities of the human mind will find the book well worth perusal. It is illustrated with considerably more than a hundred "heads" of prominent public men of both the old and new world.

This remarkable book is meeting with more rapid sales than ever, and it is with some difficulty that we are able to keep it in stock. The fifty-

fifth thousand is now ready, and copies will be sent by mail, postpaid, on receipt of price, 40c., paper; \$1 cloth. Address this office.

Agents Wanted.—We desire the services of book agents and canvassers in all parts of the country for our publications. The terms we make are such as will enable agents to meet with sure and profitable sales, either in canvassing for books or our periodicals. Our terms are liberal, and will be made known on application.

BUSINESS CARDS.

The Hamman, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Suzanna W. Dodds, M.D., and Mary Dodds, M.D., Hygienic Physicians, 2826 Washington Ave., St. Louis, Mo. All diseases, acute and chronic treated without medicine. Send for circular.

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children. 213 West 54th Street, New York.

Annie Smith, M.D., 135 E. 104th St., City.

OUR HEALTHFUL HOME is pleasantly located on Reading Heights. Send ten cents in stamps, for our Book Circular, with Portrait. Address, A. Smith, M. D., Reading, Pa.

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SPECIAL NOTICE.—Readers will oblige the Publishers if they will state, when writing to any of our advertisers, that the advertisement was seen in the *PHYSIOLOGICAL JOURNAL*.

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The only perfect Cracker made. A plain, whole wheat flour, water cracker made light, tender and crisp by manipulation only. Far better in every respect for every one than any Graham Cracker ever made. Children thrive on them and dyspeptics are cured by using them.

WHEATENA. The best Breakfast dish in the world. Cooked perfectly in two minutes. These and other products are manufactured from wheat from which the outer hull has been removed. Our complete circulars and price lists sent on application. Address, Health Food Co., 74 4th Ave., New York.

HOW { to Write, - - 60c. } ONE
 { to Talk, - - - 60c. } VOL.
 { to Behave, - - 60c. }
 { to do Business, 60c. } \$2.00.
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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
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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 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.

Our Premiums.—On another page of this number will be found our revised table of premium offers to those who make up clubs for the PHRENOLOGICAL JOURNAL for the coming year, to which we wish to call especial attention. The articles we have selected are practical, useful and the best of their kind, and the offers we make are such as will enable any one who will make a little well directed effort, to make it pay. In addition to these premiums to our AGENT FRIENDS we make liberal offers for subscribers. In the first place we offer the last three numbers of this year free to all new subscribers whose names are received before the first of January, and we also offer a choice of either the BUST or the CHART PREMIUM to all new subscribers, or to those who have not already received these premiums, which are found quite essential, almost necessary, to a proper understanding of the location and the function of the Phrenological faculties. THE BUST is nearly life-size, so numbered and lettered to show the location of the organs, made in plaster of Paris, carefully boxed, and sent by express at the expense of the subscriber, when 15 cents extra is sent for packing. We also have a smaller size that we can send by mail, postpaid, where the distance is so great as to render it too expensive to send the large one.

THE PHRENOLOGICAL CHART is a beautiful lithographic Symbolical Head about 19 by 24 inches, properly mounted with rings for hanging, or it may be framed, and is very attractive wherever seen.

Remember the JOURNAL is published at \$2.00 a year or \$2.15 with premium, and we ask the hearty co-operation of our friends in extending its circulation. Sample copies and posters to agents furnished free. Address all orders to this office.

A Trial Trip at Half Rates.—In addition to our special offer of **THREE MONTHS FREE** to new subscribers, we propose another **LIBERAL OFFER** as a means of securing new readers. That is to furnish the **JOURNAL** to those who have not been subscribers for the past year, for three months, commencing with the next number, for twenty-five cents, which is but one-half the yearly subscription rate. Now it will only be necessary for the present readers to present this to their friends in order to secure names. Although we make this specially low rate to subscribers, we do not ask our readers to work for nothing, and therefore propose to send to any of the **PRESENT SUBSCRIBERS**, who will send us four new names at twenty-five cents each, any book in our catalogue advertised at twenty-five cents, or this amount can apply on the purchase of any other higher priced book, and to make the offer still more tempting to any one who will send us one dozen trial-trip subscribers we will send a \$1.00 book. Now, may we not receive a good list of names from every post office where we now have readers? Send in the names as fast as they can be obtained, and they will be recorded in our book. Premiums will be sent, and the October number of the **JOURNAL** will be mailed when issued.

Choice of Occupations.—Few questions are more important to young people or their parents and guardians, than the **Choice of Occupation**, and anything that will throw light on the subject should be considered invaluable, and we wish to call attention to No. 4 of **Human-Nature Library**, containing Prof. Sizer's able paper on the subject, which has already had so wide a circulation, over 50,000 copies having been published, and we are about to go to press with the third edition. Price, only 10 cents. It is a document which friends of the subject might well take an interest in distributing, and for this purpose we will send 10 copies by mail, postpaid, for 75 cents.

Three Months Free.—While the **PHRENOLOGICAL JOURNAL** may be considered cheap at the subscription price—\$2 00 a year—we feel disposed to place the question of price beyond all dispute, and therefore in addition to the **Bust or Chart premiums**, which we offer to new subscribers, we also offer the last three months of this year free to new subscribers for 1889, making a year of fifteen months instead of twelve. This should certainly prove an inducement, and we trust our present readers will make this offer known among their friends and neighbors. Will not each person, now a reader of the **JOURNAL**, make it a point to tell a given number of friends—say ten out of every ten—we surely should receive some subscribers. We do, and must, rely on the co-operation of those interested in our efforts to extend the circulation of the **JOURNAL**, as well as a knowledge of the subject.

Pictorial Posters.—We have sometimes asked our readers who are interested in the subject, to put up in conspicuous places our **PICTORIAL POSTERS** advertising the **JOURNAL**. These are handsomely printed in two colors, containing many portraits and the **Phrenological Head**; are ornamental and useful, and we will esteem it a favor on the part of those who will take a sufficient interest to do this. We would like to have them put up in every neighborhood—in the post office, mill depot, shop, in fact, every place where they can have an opportunity to be seen. If our readers will let us know how many are wanted, they can be sent by mail postpaid, and we will take pleasure in adding some pamphlet reading matter which will be likely to prove of interest.

Editor of The "Journal."

DEAR SIR.—I am a constant reader of the **PHRENOLOGICAL JOURNAL**, and I drop you this note to inform you how unusually acceptable and interesting are those articles, "Notable People of the Day," continued from month to month. I do not know what your purpose is, but permit me to say that I hope you will not think of discontinuing them. Biographical sketches of notable minds of the present, written in such a manner, are a treat not enjoyed in every magazine one may chance to pick up. I am very much interested in the **JOURNAL**, and am pleased to see it maintain its high moral and progressive position from year to year.

Ponca, Neb.

J. H. K.

The Servant Question.—This is the title of Number 5 of *Human Nature Library* which is attracting a great deal of attention. It is serving the purpose of calling attention to a fact that housekeepers have largely ignored, that there are signs of CHARACTER that can be easily understood and applied in the selection and management of servants.

This question is one of the most perplexing of all questions affecting the social life, and in many households the whole subject is treated as one would invest in a lottery scheme—servants are taken on trial without any regard whatever as to their probable character, while those who have made an application of their knowledge of HUMAN NATURE have been successful in avoiding much, if not all, that is unpleasant in this part of household life. While a large volume might be written on the subject, the editor of the JOURNAL has condensed his suggestions into a concise form, and it can be sent by mail, postpaid, on application. Price, 10 cents.

Hygienic College.—Our readers will not fail to notice that the St. Louis Hygienic College of Physicians and Surgeons begins its work the 9th of October, as stated in our advertising column. We are reliably informed that quite a number of students of both sexes will be present at the opening of the college term.

Mrs. Abigail Scott Duniway, who for a score of years was editor of the *New North West*, a Woman's Rights paper, published in Portland, Oregon, writes us that she has been out of the field of active service, either journalistic or on the platform, on account of the severe and protracted illness of one of her sons, but that she expects soon to resume her activity in reformatory work. She is interested in all phases of reform that are for the benefit of mankind and, especially, woman-kind, and is an able champion.

Correction.—In the article on Shorthand published last month, the word "with" in the nineteenth line, first column, page sixty-eight, should be *without*; on page 66, first column, in lines ten and eleven, "Phonographic Shorthand" should be *Stenographic Shorthand*; in line thirty, page sixty-nine, first column, the word "independent" should have been inserted so as to make it read "and French systems use the *independent* realization."

Garfield's Sermon.—The "Christian Independent" of Oakland, Cal., recently published a sermon of President James A. Garfield. The "Christian Independent" is a live religious and literary journal. \$2 per year. Sample copy free.

Agents Wanted.—We desire the services of book agents and canvassers in all parts of the country for our publications. The terms we make are such as will enable agents to meet with sure and profitable sales, either in canvassing for books or our periodicals. Our terms are liberal, and will be made known on application.

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Smoking and Drinking.—We think it safe to say that every mother and every lady teacher would rejoice if the use of tobacco could be forever abolished. This can only be done by enlightening the coming generation as to the effects of using it. If our boys could really be made to understand and appreciate the evil effects which are sure to follow the use of this weed, many of them would never touch it. Therefore, parents and teachers should be able to explain the subject intelligently. "Smoking and Drinking," by James Parton, is a masterly effort, from the pen of an able writer, who knows whereof he writes. Price, in paper, 50 cents; cloth, 75 cents.

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Facts About Tobacco.—By Rev. E. P. Thwing, will furnish a fund of argument which will be found valuable. Price, 25c.

Heads and Faces, and How to Study Them.—This is a comprehensive manual of Phrenology and physiognomy, written in a plain, practical style by Prof. Nelson Sizer, and Dr. H. S. Drayton. It will enable the thinking parent or teacher to discern the character of the children in their care, and also enable them to understand the causes of peculiarities of character and disposition. Many a mother has felt that she would give a great deal to know something of this subject. The book contains over two hundred pages and more than two hundred illustrations, and is sold at the low price of 40 cents. The extra edition, printed on heavy paper and bound in cloth, is \$1.

The Lucky Walf.—This is a story of home and school life, written by Miss E. E. Kenyon, a very successful Brooklyn teacher. While it is a story, it is based on facts and incidents connected with her own experience. The book will be read with interest by all teachers and parents, and will prove very interesting to children. Price, \$1.

Help Wanted — We want and need some good efficient help at all times. Help to increase the circulation of the PHRENOLOGICAL JOURNAL, and it is believed this help can be obtained among the readers of the JOURNAL, better than from any other source. As is seen, we offer the last three months of this year free to all new subscribers for 1889, whose names are sent in before December 1st, and we shall continue to give either the bust or chart premium, as may be preferred. To those who will make especial effort to make up good lists of names, we will make especial and liberal terms which will be sent on application, and we would ask all who can not make a business of this to do what they can by way of introducing and recommending it to new subscribers. Will not every present reader send at least one new name, and in this way help to sustain the work?

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The Hamman, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Susanna W. Dodds, M.D., and Mary Dodds, M.D., Hygienic Physicians, 2826 Washington Ave., St. Louis, Mo. All diseases, acute and chronic treated without medicine. Send for circular.

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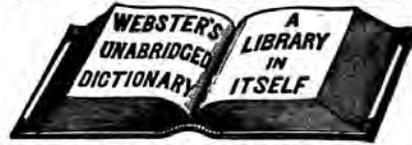
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The only perfect Cracker made. A plain, whole wheat flour, water cracker made light, tender and crisp by manipulation only. Far better in every respect for every one than any Graham Cracker ever made. Children thrive on them and dyspeptics are cured by using them.

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The People's "Safe Guard" says:—"From the publishing house of Fowler & Wells Co., 775 Broadway, New York, comes No. 5 of the 'Human Nature Library' Series, being a keen and truthful analysis of the servant question. To those unhappy households, who perennially meet with all kinds of trouble in the selection of suitable 'help' to fill the various positions which every well-regulated home affords in the domestic line, we would recommend a careful perusal of this interesting little work. Everything in the literary line which issues from the Fowler & Wells Co. is always well worth reading, and this book, which treats of the subject in a terse and common sense way, is particularly so."

Three Months Free.—While the **PHRENOLOGICAL JOURNAL** may be considered cheap at the subscription price—\$2.00 a year—we feel disposed to place the question of price beyond all dispute, and therefore in addition to the **Bust or Chart** premiums, which we offer to new subscribers, we also offer the last three months of this year free to new subscribers for 1889, making a year of fifteen months instead of twelve. This should certainly prove an inducement, and we trust our present readers will make this offer known among their friends and neighbors. Will not each person, now a reader of the **JOURNAL**, make it a point to tell a given number of friends—say ten out of every ten—we surely should receive some subscribers. We do, and must, rely on the co-operation of those interested in our efforts to extend the circulation of the **JOURNAL**, as well as a knowledge of the subject.

The Journal Free for 1889.—In all times there are people who find it difficult to provide themselves with all the reading matter they would like. Some can afford to gratify every wish in this direction; they do not need any help or suggestion in this line, but to others, we have this offer to make, a proposition which will enable every person who wishes the **JOURNAL**, to secure it. Send us three new subscribers at the regular subscription price, and we will send you as a premium the **JOURNAL** for one year free. It would certainly seem as though every one who makes a little well-directed effort could secure this number of names. Of course, some make up very large clubs, but every one who tries earnestly, can certainly send three subscribers. This offer is open to all, but we urge it upon those who do not feel that they can afford to pay the subscription price. We also make another offer which many take advantage of; that is, we will send the **JOURNAL** free for a club of 10 subscribers at our club rate of \$1.50 a year.

A Convention of American Hygienists was held in Kokomo, Ind., in September, which was well attended, there being representatives of every section of the country and Canada. The topics discussed were all of a character pertinent to the day, and indicated the great stride liberal medicine has taken during the past twenty years. We are much gratified by the occurrence of this convention, as it is full time that Hygienists agreed upon some plan of concerted action.

Schoolroom Stencils.—In this age of improvement, the teacher who attempts to follow the old lines of work and who does not keep up with new ideas, will certainly suffer in reputation and results. Among the latest innovations or novelties are Schoolroom Stencils for putting the drawings of maps and other illustrations on blackboards. These are not intended to take the place of free-hand drawing, but they enable the teacher, whether skilled or unskilled, to do rapidly that which will greatly interest the pupils. Drawings illustrating lessons in Natural History, Botany, etc., can be made without number, and there are also Stencils of Maps, and Physiological Plates, which can be made very effective and useful. We have issued a very complete catalogue of these Stencils, which sell for the low price of 5 cents each and upward. The catalogue will be sent free, or send 25 cents and we will send samples for the amount, which will show what they are like and how useful they may be found.

The Delaware and Hudson Railroad.—This railroad, about which the traveling public do not hear so much as is known of some of the great Trunk lines, has a very important relation to some of the great pleasure resorts of New York State. From Albany over this road is reached the Adirondack Mountains, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Round Lake, Sharon Springs, Howe's Cave, Cooperstown, etc., and it traverses a most interesting portion of the State. On a vacation trip we took this route from Albany to Saratoga, thence over the Adirondack Railroad to Blue Mountain and the Raquette Lake region; then on from Saratoga again, just Lake George and on the banks of Lake Champlain much of the way, on the rocky shore above the water's edge, passing many points of interest: Ticonderoga, Port Henry, Westport, and, at Port Kent, laying over for a visit to Ausable Chasm, a wonderful place, well worth a visit by all lovers of nature. On to Plattsburg, and then by the Chateaugay Railroad over a most interesting route into the Wilderness, passing through and over the Iron Mountains and Mines to Saranac Lake, the famous health point, and to other popular resorts in this great resting place, where a man can leave behind him more fully the cares of a busy life than in any other place equally near New York that we know of. To the hunter the Adirondacks offer great attractions during the coming weeks. For a very elaborate descriptive hand-book, most beautifully illustrated, address J. W. Burdick, General Passenger Agent, Albany, N. Y.

"Horticulture has now grown to be an art of broad scope, involving not only physical, but mental labor as well; and in their larger dealings with men an ability to judge character is desirable. No journal could be of more assistance in this direction than *THE PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH*." This is what the journal of the Columbus Horticultural Society says, and it is not only true in this case, but in the case of all who have in any way to deal with other men and women.

A Business Chart.—We have received from R. H. Smith, of this city, a business chart showing the fluctuations in various lines of trade for a series of years. From this we have the yearly price of pig iron per ton, the average of failures among dealers for each year, the number of thousands of emigrants for each year, average price for railroad stocks, and other items on a colored chart, 42x10, inches, very ingeniously arranged, and mounted on cloth with hangers, which we can send to any address for \$2.00. It is very interesting and so simple that a child can understand it at sight. It shows the relative values and the relations which exist between failures and railroad construction, and so on.

In the Field.—The Seneca County *News* published at Waterloo, N. Y., says: "Prof. S. F. DeVoe is doing a very thriving phrenological business here at his room in the Towsley house. He has made some very decided hits on subjects taken from among the principal men of our village. He visited the jail yesterday and endeavored to get an examination of the murderer Johnson's head, but Johnson refused to see him even. He saw the other prisoners, however, and told exactly their characteristics, even to the charges under which they were committed. He pronounced White a forger, and others were told their petty crimes."

Prof. Alexander, who has been enjoying a well earned vacation, opens the season at Salt Lake City, Utah, where he is likely to do a fine business.

Rev. W. K. Burr, Ph. D., is now engaged preaching for the Christian church in the city of Charlottetown, Prince Edward Island. He wishes to be remembered to his classmates and friends who were with him at the Phrenological Institute. He has lectured and traveled quite extensively and successfully in connection with his ministerial work, and rejoices that he ever took a phrenological course, considering it the best investment of his life.

"**Little Pieces for Little People**" is the title of a choice selection of pieces for recitation. An effort has been made to leave out the senseless twaddle so often taught, and the compiler believes the best material is not too good for the tenacious memory of childhood. The pieces are short, bright, fresh, sparkling, and easily learned. Let those who wish to furnish their children with something good for day school, Sunday school, or any entertainment, send for it. Price, 15 cents.

Language Teaching is the name of a work by a Boston teacher, giving a complete course of language teaching as taught in the best schools in that city. It is thoroughly progressive and practical, and the best work issued for the use of grammar grades. It contains a department on letter writing, dictation, spelling lessons, proverbs and maxims, picture lessons, word formation, action lessons, with talks on etiquette, and a complete list of aids. Sent by mail, postpaid, on receipt of price, \$1. Address this office.

Read Both Sides.—This is decidedly a reading campaign. Never before were voters becoming intelligent on political questions so much as now. The issues at stake require thought and intelligence, as more than ever before since the war it is a question of principles, not simply of men or power. Recognizing this, we have arranged to supply the Campaign Textbooks of both parties, and would refer our readers to the advertisement on another page of this number of the JOURNAL.

Dress Reform.—The hygienic value and importance of scientific dress and dressing are by degrees becoming more and more appreciated. At the present rate of growth it seems probable that ere many years have elapsed the objectionable features of woman's raiment will be a thing of the past. The coming improvement will be more in the re-arrangement of old ideas and materials than in the erection of new garments or accessories. Thus the much-abused corset will probably remain, while tight lacing will disappear. Instead of the present evil practice of suspending heavy skirts and petticoats from the waist and so injuring not only the beauty of the female form, but also digestion, respiration, and other important vital functions, the coming system will throw all or nearly all the weight upon the shoulders, as is done to-day by all sensible men. The holding of raiment in position by constriction rather than by suspension, whether it be by garter, waistband, or belt, is another evil which is diminishing, and will ultimately become obsolete. These dress reforms, sensible and scientific, do not shock the aesthetic sense as did the Bloomer system. They represent the best thought of educated men and cultured women. The New England Woman's Club started the movement, and to its committee, consisting of Mrs. Abbie G. Woolson, Mrs. Dio Lewis, Mrs. Caroline M. Severance, and Dr. Sarah E. Brown, much credit is due. It was promptly followed by similar action on the part of the New York Sorosis, Brooklyn Woman's Club, Chicago Woman's Club, and kindred organizations. The above is from the "Dress Reform Catalogue," issued by Mrs. E. M. Van Brunt, No. 39 E. 19th street, New York, which contains much sensible advice as well as elaborate descriptions and price lists. It will be sent free to any of our readers who will address as above.

James Pyle.—This name, which has become familiar to our readers through the advertising columns, is suggestive at once of cleanliness. His "O. K. soap" is a standard, and his new preparation, "Pearline," has already become indispensable in households all over the land.

Now is the time to introduce the PHRENOLOGICAL JOURNAL and to make up clubs for it. Do not wait until your friends have made up their lists for the coming year, but present the claims of the PHRENOLOGICAL JOURNAL to them at once. It will be found that a large proportion of the reading people would like to have the JOURNAL; it is only a question of cost, and if our agent friends will take advantage of the opportunity, they will certainly receive good orders.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Susanna W. Dodds, M.D., and Mary Dodds, M.D., Hygienic Physicians, 2826 Washington Ave., St. Louis, Mo. All diseases, acute and chronic treated without medicine. Send for circular.

The New York Medical College and Hospital FOR WOMEN, and Homeopathic Dispensary for Women and Children. 213 West 54th Street, New York.

Annie Smith, M. D., 135 E. 104th St., City.

OUR HEALTHFUL HOME is pleasantly located on Reading Heights. Send ten cents in stamps, for our Book Circular, with Portrait. Address, A. Smith, M. D., Reading, Pa.

ADVERTISEMENTS.

SPECIAL NOTICE.—Readers will oblige the Publishers if they will state, when advertising in any of our advertisements, that the advertisement was seen in the PHRENOLOGICAL JOURNAL.

NATURAL WHEAT
TRADE MARK
PEELED WHEAT

Peeled WHEAT CRACKERS.

The only perfect Cracker made. A plain, whole wheat flour, water cracker made light, tender and crisp by manipulation only. Far better in every respect for every one than any Graham Cracker ever made. Children thrive on them and dyspeptics are cured by using them.

WHEATENA. The best Breakfast dish in the world. Cooked perfectly in two minutes. These and other products are manufactured from wheat from which the outer hull has been removed. Our complete circulars and price lists sent on application. Address, Health Food Co., 74 4th Ave., New York.

MADE WITH BOILING WATER.

EPPS'S

GRATEFUL-COMFORTING.

COCOA

MADE WITH BOILING MILK.



Dress Stays

Sold by the yard.

Will not rust or break.

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 \$2.00 a year, payable in advance, or \$2.15 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 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.

Our Premiums.—On another page of this number will be found our revised table of premium offers to those who make up clubs for the PHRENOLOGICAL JOURNAL for the coming year, to which we wish to call especial attention. The articles we have selected are practical, useful and the best of their kind, and the offers we make are such as will enable any one who will make a little well directed effort, to make it pay. In addition to these premiums to our AGENT FRIENDS we make liberal offers for subscribers. In the first place we offer the last three numbers of this year free to all new subscribers whose names are received before the first of January, and we also offer a choice of either the BUST or the CHART PREMIUM to all new subscribers, or to those who have not already received these premiums, which are found quite essential, almost necessary, to a proper understanding of the location and the function of the Phrenological faculties. THE BUST is nearly life-size, so numbered and lettered to show the location of the organs, made in plaster of Paris, carefully boxed, and sent by express at the expense of the subscriber, when 15 cents extra is sent for packing. We also have a smaller size that we can send by mail, postpaid, where the distance is so great as to render it too expensive to send the large one.

The PHRENOLOGICAL CHART is a beautiful lithographic Symbolical Head about 19 by 24 inches, properly mounted with rings for hanging, or it may be framed, and is very attractive wherever seen.

Remember the JOURNAL is published at \$2.00 a year or \$2.15 with premium, and we ask the hearty co-operation of our friends in extending its circulation. Sample copies and posters to agents furnished free. Address all orders to this office.

A Trial Trip at Half Rates.—In addition to our special offer of three MONTHS FREE to new subscribers, we propose another LIBERAL OFFER as a means of securing new readers. That is to furnish the JOURNAL to those who have not been subscribers for the past year, for three months, commencing with the October number, for twenty-five cents, which is but one-half the yearly subscription rate. Now it will only be necessary for the present readers to present this to their friends in order to secure names. Although we make this specially low rate to subscribers, we do not ask our readers to work for nothing, and therefore propose to send to any of the PRESENT SUBSCRIBERS, who will send us four new names at twenty-five cents each, any book in our catalogue advertised at twenty-five cents, or this amount can apply on the purchase of any other higher priced book, and to make the offer still more tempting, to anyone who will send us one dozen trial trip subscribers, we will send a \$1.00 book. Now, may we not receive a large list of names from every post office where we now have readers? Send in the names as fast as they can be obtained and they will be recorded in our book. Premiums will be sent, and the JOURNAL mailed promptly.

The *Oldham Chronicle*, one of the most widely circulated papers in England, in speaking of HEADS AND FACES, says: "Fifty-five thousand copies of this luminous, racy, sprightly, and eminently suggestive work have already been sold. Its two hundred and fifty high-class engravings add greatly to its value, for they throw much light as illustrations on the exposition contained in the text. The work is thorough though popular, practical though chiefly explanatory, and vivacious though solid in aim. It costs but twenty pence (40 cents), and yet it will reward repeated study. Young men especially ought to master its contents. It will prove a pleasing and profitable task."

Three Months Free.—While the PHRENOLOGICAL JOURNAL may be considered cheap at the subscription price—\$2.00 a year—we feel disposed to place the question of price beyond all dispute, and therefore in addition to the Bust or Chart premiums, which we offer to new subscribers, we also offer the last three months of this year free to new subscribers for 1889, making a year of fifteen months instead of twelve. This should certainly prove an inducement, and we trust our present readers will make this offer known among their friends and neighbors. Will not each person, now a reader of the JOURNAL, make it a point to tell a given number of friends—say ten out of every ten—we surely should receive some subscribers? We do, and must, rely on the co-operation of those interested in our efforts to extend the circulation of the JOURNAL, as well as a knowledge of the subject.

Photography.—During the last days of the session of the American Institute of Phrenology, the class went to the rooms of Geo. W. Rockwood and had a fine picture made. It was said to be one of the largest groups ever taken in a photographic gallery, containing forty-five heads and faces. Some of the pictures were very excellent, and all of them certainly good. The largest size, 12 by 15 inches, cost \$1.00, and the smaller size, 8 by 10½ inches, cost 75 cents. Should any of our readers desire this photograph, which contains good likenesses of the offices of Fowler & Wells Co., as well as the class, we will send it at the above price, which is just what we paid for them, with 20 cents extra for packing and mailing.

Election.—About the time this copy of the JOURNAL is in the hands of our readers, the election excitement will have passed away, and the country will be saved once more, for we are not of those who believe that the salvation of this great country depends on the success of either or any of the political parties. Business will move right on, and we wish especially to have our share of it. We shall hope for good orders from our readers, and that our agents will take hold of business and push it vigorously, and that our friends in the phrenological field will find the way open for increased business, and that all may be prosperous and happy. We are waiting in anticipation of the

time when the presidential excitement will come once in eight years instead of four. Will our friends, the politicians, make a note of this?

The Late Session of the Institute.—The recent session of the Institute of Phrenology, Physiology, etc., was the most successful in the history of the undertaking. Forty-three students were enrolled, several being ladies. These represented a variety of callings, all the professions, including that of the teacher, besides several business men and a few in industrial departments. If distance traveled to attend the course be any evidence of interest in the subjects covered by the Institute curriculum, then those who came from the Pacific coast, Texas, Canada, England, and Australia certainly exhibited it, and these strangers from so far off were among the most intelligent and cultivated of all.

The Institute is to be congratulated for its success in the development of this educational movement in behalf of the study of mental science on the physiological basis formulated by scientific Phrenology.

NEW YORK, Oct. 12, 1888.

The class of 1888 hereby presents to the "American Institute of Phrenology" the following resolutions:

The students of the American Institute of Phrenology, having completed the course of 1888, unanimously

Resolve, First, That we recognize Phrenology as a system practically defining the abstract theories of mental philosophy.

Second, That we heartily recommend to all students of Anthropology, the American Institute of Phrenology, with its scholarly and efficient professors; its fine collection of educational appliances [skulls, busts, casts, oil paintings, etc.], which are not to be found in any other institution of its kind.

Third, That we hereby express our sense of obligation to the present staff of teachers, who, during the course of 1888, have spared neither time nor pains in communicating the necessary knowledge required by us in the practice of this all-important progressive science—Phrenology.

Committee on Resolutions: Lizzie Henderson, George Morris, Edward Masters, William Hatfield, Wm. A. Corblon.

To the American Institute of Phrenology—the Secretary of this class [1888] has been instructed to present to the Institute a copy of the foregoing resolutions, giving the Institute the power of printing them, together with the names of the Committee and Secretary, if desirable.

WM. A. CORBLON, Sec.

Field Notes.

In the session of the American Institute of Phrenology, just closed, there were a number who have already had a successful experience in the field.

Prof. Morris, who graduated ten years ago and took another diploma four years ago, was present again this year with his wife, in order that she

might have the benefit of this preparation for active field work. They remain in this city until the holiday season is over, when they will resume work in the larger cities of the Northwest, and we bespeak for them a hearty reception.

Prof. E. E. Candee has attended a number of sessions of the Institute, finding each time some additional points to engage his attention, has taken the field in central New York, and expects to spend the winter in this State.

Professor W. Windsor and his wife have been in the field working with a great degree of success for some time, and, at the close of the Institute, went to Texas for a visit; will work in the Southwest during the coming season, and will unquestionably meet with continued and increasing success.

Prof. W. Hatfield has been lecturing in the central and northern part of England with success. He sailed for home the day of the closing exercises of the Institute, and we bespeak for him a good word wherever he may go. He is intelligent, and an earnest worker.

Prof. Haskell, a graduate of '86, accompanied by G. B. Getchell, of the last class, has gone to St. Louis; from there they will work out into various parts of the State.

Prof. H. E. Foster, who has had an office in Louisville, Ky., for some time, is now in the field and stirring up business, and meeting with success.

Prof. Ira Gullford, of the class of '71, who has worked Michigan and the West, has settled in Maryland, and is pushing the work vigorously, sending large orders for "Heads and Faces."

Prof. W. G. Alexander, of '84, is in Utah, and during the early summer months was unprecedentedly successful; he is opening up another season with a most favorable outlook, and he expects to do a larger business than ever. He has enterprise and tact as well as talent.

Dr. B. F. Pratt, of the class of '75, has just sent in a very large order for books and charts, from Nebraska, and reports business very encouraging; says the political excitement has little or no effect on his business, which speaks well for his presentation of the subject.

Prof. V. P. English, of the class of '86, is in Kansas, and meeting with much encouragement. He hopes for a very prosperous season.

F. W. S. Langmaid, of the class of '87, attended a part of the present session of the Institute, and has gone to Manchester, N. H., for a few weeks, where he will lecture and do professional work.

H. E. Swain, of the class of '70, is working in New England, and making large sales of "Heads and Faces," which is a staple work with him now.

Perry L. Nichols, of the class of '87, has been doing a good work in the Normal School in Valparaiso, Ind., and expects this fall to enter upon the study of law.

Prof. S. F. De Vore, of the class of '87, has been spending some weeks in New York State, teaching classes and lecturing.

Dr. Oliver, of the class of '85, enters the field this fall in Iowa.

Rev. A. C. Dill, of the class of '88, is in charge of a congregation in New Jersey. In addition to

writing for the *Phrenological Journal*, this year he gave instruction to the class most acceptably.

Dr. Campbell, of the class of '87, is still in Canada, but writes us that he proposes to visit the South during the winter.

James Mason, of the class of '80, is in British North America, and judging from the orders received for Charts, is doing a very good business.

Rev. George A. Lee is in charge of a church in Ohio, and sends frequent orders for our publications, for which he acts as agent.

Mr. Matt W. Alderson gave us a call a few weeks since on his way back to Montana from Massachusetts, where he has been to marry a wife. He received our congratulations.

Mr. J. W. Beard, of the class of '87, attended the class of '88, and is preparing to enter the field in Virginia, as soon as the election excitement is over.

Mr. Albert Bousch, of '87, also attended this year, and is at this time on Long Island, but expects to start on an extended tour soon.

Prof. Edgar C. Beall is located in Cincinnati, doing office professional work and delivering an occasional lecture.

Miss M. L. Moran has an office in Newark, N. J., and gives lectures and parlor talks.

The Student's Set.—We are frequently asked for a list of the best books to read and study in order to gain a knowledge of Human Nature as based on Phrenology and Physiognomy, and to answer this demand we have selected a set of books including the Bust, called "The Student's Set," which are recommended to all interested in the subject, and to those intending to attend the Institute. A description of these books will be found on another page. The set is sold at \$10, or it is offered as a premium for a club of eight subscribers to the *JOURNAL* at \$2 each.

Any Books.—We will send to our readers any books desired, whether our own publications or others at the advertised price. We do this as an accommodation, enabling them to make their orders all from one place. The books ordered from us will be procured direct from the publishers, and will in all cases be fresh from the latest stock, while those from local booksellers are sometimes shelf-worn. We will also purchase for our readers any kind of merchandise from this city, and the discounts allowed us as purchasers will give us all the compensation we demand. All orders should be accompanied with the amount required for the purchase as we can not send goods C. O. D.

The Servant Question.—This number of the Human Nature Library is attracting a great deal of attention, and justly so, for it is the most important consideration of the question that has ever been made. There is no household in which a servant of any kind is employed where the reading of this would not do much good both to the employer and the employed. What we want to show is how to deal with each other fairly, and not unfairly. This is No. 5 of the Human Nature Library, and we will send it by mail, post-paid, for 10 cents.

The Ideal Pen.—In all things we like to have our ideal, that is, the best thing we can think of its kind. In some articles this is not attainable, for the perfect thing has not been made, but this is not so with Fountain Pens. We believe Waterman's "Ideal" Fountain Pen has all the merits that it is possible for a pen to have. It has not, so far as we know, been claimed for it that it will write without human agency, or that it will make the penmanship of a poor writer, or a poor speller perfect, but it will unquestionably do all that a pen can do. We have the last year or two sent out a great many pens, and so far as we know they have in every case been perfectly satisfactory. We are offering them on most favorable terms, as will be seen on reference to our advertising pages.

Phonography.—As the season of long evenings is approaching, we know of no better use of time that can be made by young people and those especially adapted to the work, than the study of shorthand. It affords admirable discipline, besides opening up a pleasant and profitable way of earning a livelihood. We have established ourselves as a depot for all standard Phonographic publications, and we can supply whatever is wanted. For the purpose of bringing these works before the public, we have issued one of the most complete catalogues of Phonographic literature ever published. This contains a great deal of information that will be found valuable besides the list of books, as it gives descriptions of Typewriters, books of reference, etc. It will be sent to any address on receipt of stamp for postage.

Napoleon Bonaparte.—We have just made a cabinet bust of Napoleon the First. It is thirteen inches high, very attractive, and an ornamental representation of the great Napoleon. It will be carefully boxed, and sent on receipt of price, \$1.50, to any of our readers, or we will send it to any one who will send us a new yearly subscriber with a renewal of his own for the *JOURNAL* for the coming year.

The Home Exerciser.—Now that the season of out-door life is passing by for a while, we would remind our readers of the importance of taking proper exercise. There should be something besides the brisk morning walk, something which should develop the muscles, as out-door work, games, and other pastimes have done during the pleasant weather. The "Home Exerciser" invented by the author of "Physical Culture," Prof. Dowd, is undoubtedly the best apparatus for this purpose ever devised. It is something occupying but little room, always in order and always ready for use by most feeble or strongest members of the family. It is made in a plain but substantial style and sold at \$8, or we will give it as a premium for six subscribers to the *JOURNAL*; another more ornamental style is sold at \$10, which we offer for eight subscribers, or we will send the *JOURNAL* as a premium to any one ordering the apparatus at the regular price and inclosing fifty cents additional.

Clubbing For 1889.—For the accommodation of our readers and friends we have made arrangements for the combination of other publications with our popular and useful magazine as follows: The subscription price to the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00; and any of the following may be included at the prices given.

Names sent for the JOURNAL with either of these will count on Premium List, and to agents the same as though sent singly.

Eclectic Magazine.. \$4 25	Scottish Am..... 2 60
Atlantic Monthly... 3 40	N.Y. Evang'list, new 2 00
Lippincott's Mag... 2 50	The Treasury..... 1 85
Harper's Monthly... 3 10	Homiletic Review... 2 10
Weekly... 3 35	Am. Garden..... 1 60
Bazar... 3 35	World Travel Gaz'te 75
Young People 1 70	The Fanny..... 85
The Century Mag... 3 60	Baby Land..... 45
St. Nicholas..... 2 60	Peterson's Mag..... 1 60
Popular Sci. Mon... 4 20	North Am. Review.. 4 10
Godey's Lady's Book 1 70	Tribune, Weekly... 1 10
Arthur's Home Mag 1 60	Semi "..... 2 25
Rural New Yorker... 1 85	Times, Weekly..... 90
Scribner's Mag..... 2 50	Sun "..... 90
Cosmopolitan..... 2 50	World, " & Prem. 90
Demorest's Mag..... 1 60	Country Gentleman 1 85
Home Journal..... 1 60	Herald, Weekly... 90
Am. Agriculturist... 1 10	Illus. Chris'n W'kly. 2 20
Wide Awake..... 2 10	Weekly Witness... 90
Our Little Men and 85	Poultry World... 90
Women..... 85	Gardeners' Monthly 1 50
Our Little Ones... 1 25	Herald of Health... 80
Critic..... 2 50	N. E. Journal of Ed- 2 15
American Mag..... 60	ucation..... 2 15
The Independent... 60	The School Journal. 2 60
Cassell's Fam. Mag. 1 25	Pop. Educator..... 1 75
Baby Hood..... 1 10	Christian Union... 2 60
Scientific Am..... 2 60	Christian at Work... 2 60
Phonographic Mag. 1 10	Laws of Life..... 1 35
The Forum..... 4 10	American Mag..... 2 50
Observer, new sub. 2 25	Good Housekeeping. 2 10
The Studio..... 2 00	Weekly..... 85
Galaxy of Music... 80	Chic'go Inter-Ocean 2 10
The Esoteric..... 1 10	Semi-weekly... 2 10
Puck..... 4 00	Mag. Am. History.. 4 20
Judge..... 3 30	
Modern Priscilla... 40	

The only condition for obtaining the above reduction is that the person ordering shall subscribe for, or be a subscriber to the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH, then any number of the above publications may be ordered. Chart and Bust premiums are offered to new subscribers to the JOURNAL as above. Make up your list and send on the amount, saving time, money, risk, and trouble. Agents can often offer the above combination to advantage. Address all orders to FOWLER & WELLS Co., Publishers, 775 Broadway, N. Y.

"Buds and Blossoms" is the title of an illustrated religious monthly, issued by J. F. Avery, No. 1 Henry street, this city. It is fully illustrated, devoted to Evangelistic interests, and very attractive. The reading of it will awaken the better part of our natures. A sample copy will be sent free to any of our readers who will address as above. Send your address on a postal.

Cake Griddles.—We have recently had our attention called to the greatest improvement for baking griddle cakes we have ever seen. It does away with very many objectionable features, and we have arranged to offer it to our subscribers to advantage. On another page will be found cut, with full description.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Susanna W. Dodds, M.D., and Mary Dodds, M.D., Hygienic Physicians, 2836 Washington Ave., St. Louis, Mo. All diseases, acute and chronic treated without medicine. Send for circular.

The New York Medical College and Hospital FOR WOMEN, and Homeopathic Dispensary for Women and Children. 213 West 54th Street, New York.

Annie Smith, M. D., 135 E. 104th St., City.

OUR HEALTHFUL HOME is pleasantly located on Reading Heights. Send ten cents in stamps, for our Book Circular, with Portrait. Address, A. Smith, M. D., Reading, Pa.

ADVERTISEMENTS.

SPECIAL NOTICE.—Readers will oblige the Publishers if they will state, when writing to any of our advertisers, that the advertisement was seen in the PHRENOLOGICAL JOURNAL.

The only perfect Cracker made. A plain, whole wheat flour, water cracker made light, tender and crisp by manipulation only. Far better in every respect for every one than any Graham Cracker ever made. Children thrive on them and dyspeptics are cured by using them.

WHEATENA. The best Breakfast dish in the world. Cooked perfectly in two minutes. These and other products are manufactured from wheat from which the outer hull has been removed. Our complete circulars and price lists sent on application. Address, Health Food Co., 74 4th Ave., New York.

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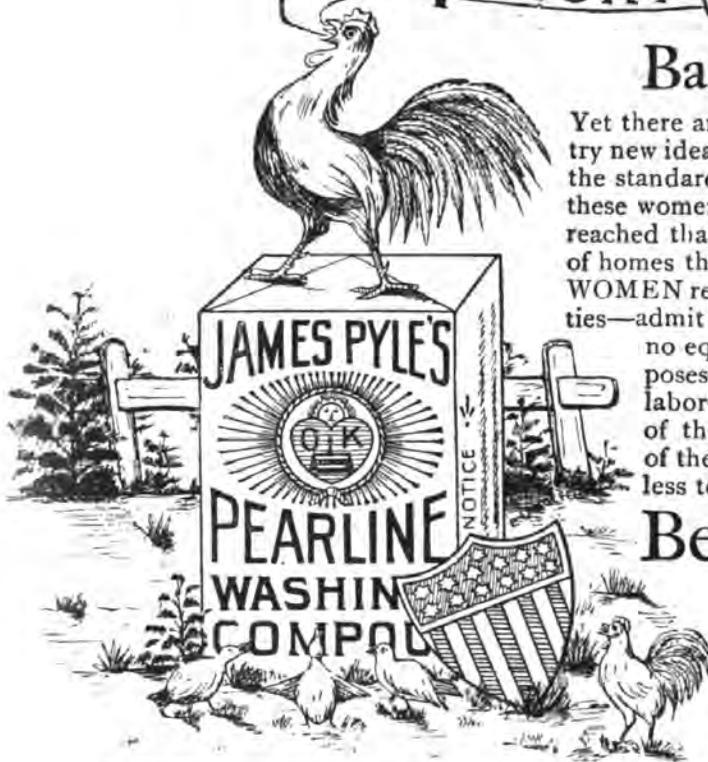
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Bad Policy to Crow

Yet there are many conservative women who never try new ideas; they wait until an article has become the standard in its line—"until it can crow." To these women we want to say that PEARLINE has reached that point; it is now a necessity in millions of homes throughout the land. INTELLIGENT WOMEN recognize its wonderful cleansing properties—admit that it is the modern soap—that it has no equal for ALL washing and cleaning purposes—that it effects a saving of time and labor—that by doing away with the worst of the rubbing it does away with the worst of the wear, and besides is absolutely harmless to fabric or hands.

Beware Peddlers and some unscrupulous grocers are offering imitations which they claim to be Pearlina, or "the same as Pearlina." IT'S FALSE—they are not, and besides are dangerous. PEARLINE is never peddled, but sold by all good grocers.

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JERSEY FITTING UNDERGARMENTS
MADE TO ORDER.
READY MADE UNION UNDERGARMENTS,
Jersey fitting material, Stockinet and Jaeger Wool. Samples sent on application. **LADIES,' MISSES,' and CHILDREN'S WAISTS** a Specialty. Equipoise, Emancipation, Dress Reform, and Comfort Waists. Corded Waists, Shoulder Brace and Corset Combined, Obstetric Bandages, Shoulder Stocking Supporters, Sanitary Napkins, etc. *New Illustrated Catalogue Free.*

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\$1.50 A YEAR.

The most beautiful magazine for children in matter and illustrations ever published.

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Single copies 15 cents.

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AND THE NURSERY.

A Christmas Present that lasts all through the year.

A Specimen copy and Premium List sent to any address on receipt of a two cent stamp.

For Sale by all Newsdealers.

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"GOOD BABIES."

If Mothers want to know what has been done and what can be done in the way of reducing the care of their Children, and increasing their health and happiness, by reducing the number of daily feedings, let them send 50 cents for

"HOW to FEED the BABY," by Dr. C. E. PAGE. Said by authority to be the best work on Infant Dietetics published. Sent by mail. Address
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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 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.

OUR REDUCED TERMS.

We have decided on a reduction in the price of the PHRENOLOGICAL JOURNAL from \$2.00 to \$1.50 a year, in consideration of the fact that it is our desire to secure as large a circulation of it as possible, and also of the fact that the larger the number printed the less is the cost for each. In doing this the size of the JOURNAL will not be materially changed, and it is our purpose to improve the quality in every way possible. The new price should certainly place it within the reach of all who would like to read it, and we will be disappointed if this change does not result in a largely increased subscription list. We shall continue the offer of the Bust or Chart premium to new subscribers as before, that is, to all who will send 15 cents extra with each subscription for boxing and packing the large, bust which is sent by express at the expense of the subscriber, or for postage on the chart or small bust, which is sent prepaid.

A Call For Help.—We feel justified in calling upon the friends of Phrenology and friends of the PHRENOLOGICAL JOURNAL to render us a little assistance at the present time. We have reduced the price of the JOURNAL for the purpose of increasing its circulation, and in this way a knowledge of Phrenology. We can not of course present the JOURNAL and its claims to every one, we shall advertise it largely and send out a great many specimen copies, but this is not likely to be sufficient to accomplish our purpose fully, and for this reason we take the liberty of calling upon our friends for their co-operation. At \$1 a year—and this is our club rate—we believe a club can be made up in every neighborhood by a person sufficiently interested to introduce the JOURNAL, and in towns and cities, of course many clubs could be made, one by almost every person who would try, and will not our friends make a timely effort and give the JOURNAL a new start with the new year?

The JOURNAL for 1889. The "bill of fare" supplied during the past year has pleased the great mass of subscribers and readers, and the general expression seems to indicate "more of the same sort."

A lady of high culture who has shown the disposition to criticise unfavorably most of the periodicals of the day, was persuaded by a clerical reader to examine a few numbers of the PHRENOLOGICAL. He wanted her opinion because he was inclined to advise his people to read it, but did not wish to be hasty.

To his surprise he received an answer stating her entire satisfaction with the matter and style of the magazine. She had taken it up with a prejudiced mind; she laid it down with the conviction that "there was *nothing better published in this country.*" It met the great want of the people for reading that interests and at the same time instructs, not only the mind but also the heart.

In 1889, the series of sketches entitled Notable People of the Day will continue, as interest in these sketches is growing.

Dr. Felix L. Oswald, the eminent writer, will contribute new papers on Sanitary Reform.

Prof. Nelson Sizer, the widely known lecturer and examiner in Phrenology, will continue his old relations to the JOURNAL.

From Prof. L. N. Fowler, Mr. Theo. St. Martin, Mr. A. Nolan-Martin, Miss M. Cline, Mr. J. J. Sheridan, of Hobart, Tasmania; Prof. H. S. Bartholomew, Rev. A. C. Dill, and other experienced writers, essays, characterizations, results of observations in the fields of Phrenology and Pysiognomy are expected.

In Physiology and Hygiene the editor will be assisted by such names as Dr. Chas. E. Page, Dr. J. S. Galloway, Dr. Henry G. Hanchett, Dr. H. Reynolds, and Rev. J. Trimmer.

In the discussion of psychological questions, Prof. J. W. Lowber, Dr. E. P. Thwing, Rev. Dr. Wm. Tucker, Rev. John Waugh, are names that always command respect.

Besides, in the fields of Child-Culture, sociology, general science, biography, domestic sketches and miscellany we have such names as these: Prof. Myron Colby, Miss Annie E. Cole, Mrs. A. C. Frederick, George W. Bungay, J. I. N. Johnston, J. W. Shull, D. N. Curtis, Isaac P. Noyes, S. M. Biddle, Mrs. S. E. Kennedy, Caroline B. LeRow, Mrs. M. F. Butts, Callie L. Bonney, Almada Costello, Belle Bush.

Preference will be given to matter that has a direct relation to human nature, and is distinguished by terse, clear language that every reader can understand.

Our Club Premiums.—Although the price of the JOURNAL is reduced from \$2.00 to \$1.50 this will in no way affect our Club Premium offers or our cash commissions to our agent friends, that is, for the same number of subscribers as before the different premiums are supplied.

Club Rates.—Under our new subscription terms we offer the PHRENOLOGICAL JOURNAL in clubs of ten at \$1 a year, with an extra copy to the person making up the club. We trust this offer will result in a good club in every neighborhood where there is now a friend of the JOURNAL or the subject.

New Physiognomy.—This work has been out of print for several weeks, but a new edition very carefully printed is just in from the bindery and all standing orders have been filled, and new orders will receive prompt attention. We can safely say, this is unquestionably the best work published on Character-Reading. We make three styles, one in cloth at \$5.00, calf at \$8.00, full Turkey Morocco \$10.00.

"Heads and Faces."—The popularity of this work is on the increase rather than otherwise, and large sales are being made both direct from this office and from agents who are in the field. The last edition, the 55th thousand, contains a number of new portraits, adding quite materially to the attractiveness of the work. It is fair to presume that most of the readers of the PHRENOLOGICAL JOURNAL have already secured it, but if not, we do not hesitate to freely urge upon them the importance of sending for it, and we wish also to call the attention of those who wish to make money during the coming winter months, to the salable qualities of this work. It is easy to see that when a book containing 200 pages the size of the JOURNAL, and 200 illustrations, is offered for 40 cents, it is likely to have purchasers, and it proves so in the experience of those who are in the field. We make liberal terms, the best ever offered to agents, and there is no neighborhood in which at least twenty-five copies of this book might not be sold in a comparatively short space of time. Will those interested send for terms?

A Convenience.—Every person has felt the want of some convenient arrangement for the keeping open of books at a musical instrument, or for copying, or reading, and for this purpose the "Universal Open Book-Holder, Bookmark, and Clip" has been invented. It is a very simple arrangement, handsomely nickel-plated. Will not in any way disfigure the book, can be quickly applied, and will not prevent the immediate closing of the book when done using it; can be sent by mail, postpaid, for ten cents. Address this office.

The "Illustrator" is the name of a monthly publication issued in Minneapolis, Minn., by Thomas J. Morrow, devoted to an exposition of the International Sunday School Lessons. It is very full, and well worth to any Sunday School teacher the small price asked for it, 60 cents.

Our Premiums.—We ask the attention of JOURNAL readers to our liberal premium offers. Will not each reader look them over, and if you do not need to take advantage of our propositions call the attention of another to the liberal offers. The reduction of subscription price has not affected our offers, as we depend upon an increased circulation to fully make up for this. We offer only the best articles of their kinds; for instance, we have proved that the WATERMAN "IDEAL" FOUNTAIN PEN is the best, in fact the ideal, and every reader of the JOURNAL would find one of them of value and when once in use it would not be parted with.

THE GLADSTONE LAMP presents many points of superiority. In many homes the old-fashioned kerosene lamp is still in use; so much better than what preceded it that it is considered good enough, but let the "GLADSTONE" be seen and tried, and compared with even the best of the most recent inventions, and it will be found to surpass them all. See the description and note our liberal offers.

THE HOME EXERCISER is another premium that should attract attention. Ladies should note the CARPET SWEEPER offers and all should make a note of the liberal terms on which books are sent to those who will make a little effort in our behalf. It must, we think, be conceded that we offer a chance "to do good and be paid for it." Specimen numbers, posters, etc., sent free to those who will canvass.

Your Time Extended.—If you have sent \$2 for the JOURNAL for 1889, we will extend your time so as to make the term fifteen months instead of twelve and so giving full value for money received.

Renew—A Special Offer.—As an incentive to promptness in renewing subscriptions for 1889, we make the following offer to all who send in their names before the first of January: we will send any of our publications ordered before January 1st at wholesale price, making a discount of twenty-five per cent. and send to any address, prepaid. Please note this is only to those whose names are on our books for 1889, and who order our own publications before January 1st.

Our Advertisers.—We wish to call the attention of our readers to our advertising pages where will be found announcements of much that may be of interest, and we have this favor to ask, that our readers in answering these advertisements will mention the PHRENOLOGICAL JOURNAL. This will show to our patrons that the JOURNAL advertisements have been read, and in this way they will be encouraged to continue their orders.

Prof. De Vore left the lecture field after a successful summer's work to go to his home in Iowa to vote. On his return he spent a few days at this office getting printing done, and adding to his stock of supplies. He will work during the winter in New England, commencing in Massachusetts.

Seeing New York.—All visitors to our city are anxious to see the curiosities, art treasures, mammoth buildings, monuments, wonderful machinery, and grand institutions of learning and charity, as well as to hear our great preachers, singers, and actors. They endeavor to crowd into their visit a glimpse of everything that is worth seeing and worth remembering. This sight-seeing is not complete until the visitor has inspected the Phrenological Cabinet at 775 Broadway, New York, the old house of Fowler & Wells Co., where casts of renowned people of all ages, nations, and lands; artists, authors, inventors, teachers, reformers, orators, and poets, stand side by side, shelf-full on shelf-full, until they number up into the hundreds.

Abnormal mentality is represented by casts of idiots, maniacs, murderers, pirates, and all grades of the guilds of crime. Portraits in oil, crayon, and outline pencil sketches; skulls of animals and men; in fact every facility for the accurate study of Human Nature is there offered. Many items of interest may be gathered during the brief stay of a casual visitor, as an accomplished and courteous guide is in constant attendance, to answer questions and explain the exhibits. Fowler & Wells Co. "keep open house." Visitors are welcome at all hours, of the week-days, from 8 A. M. to 6 P. M., welcome to remain as long as they please, studying and comparing the heads in this wonderful collection.

The "Christian at Work," issued weekly, by J. N. Hallock, is one of the best of this class of weeklies published in this country. It is ably edited, and secures for its columns papers from the best of writers, while its news of the churches and current events and its department of Home Life and for children are well sustained. It is undoubtedly a model religious and family newspaper. It is but \$3 a year, and a sample copy will be sent to any of our readers free, who will send their address to the above. It is clubbed with the PHRENOLOGICAL JOURNAL for \$4.00 at this office.

The Battle of Gettysburg.—To those who have not had the experience of being on a battle field, but who wish to have a realization of what it is, we would recommend a visit to the "Cyclorama" on 4th avenue and 17th street, this city. It is as though you were placed on an eminence in the midst of the Gettysburg field and surrounded by all the activities of the fiercest conflict. The painting is so lifelike and real that it is hard to believe that the men and horses, which are life size, are not actually changing position. You see the contending armies approach each other, taking into account the advantages of position and chances of success. You also note the rapid approach of the reinforcements and watch with interest the consultation of the commanding officers and staff. At first the scene is so real as to be terrible, but after a time it becomes fascinating, and one looks and studies with increasing interest. Our friends from out the city should not miss the opportunity of visiting this place when here.

Names Wanted.—We desire the names and addresses of intelligent reading women, especially women with families, to whom we wish to send our new illustrated and descriptive catalogue of "Books for Women," containing titles, prices, and descriptions of works on the Health and Diseases of Women and Children, Heredity, Cookery, and Household affairs, etc., and to the first lady at each post-office who will send us the names of 50 women of the right kind we will send a copy of the new edition of our "Hygeian Home Cook Book." The names need not be sent from the same post-office; we would prefer that they should be carefully selected names of those who will be likely to be interested.

Scribner's Magazine has reached the end of the fourth volume, and with January, 1889, commences the third year and the fifth volume. As was expected, it at once made a place for itself with the older magazines and is now one among the best. Its railway articles have attracted a wide spread and influential constituency, and with other practical articles are to be continued during the coming year. The best literary and artistic talent is employed and the standard of excellence is steadily improving. See prospectus in this number. Scribner's is clubbed with the **PHRENOLOGICAL** at \$4.00.

The Christian Woman in noticing the last number says: "The **PHRENOLOGICAL JOURNAL** contains remarkable articles, but this is nothing unusual. It is steady, consistent, and enthusiastic in regard to philosophical, hygienic, and economic principles." After citing numerous articles as being practical and meritorious, it says:

"There are twenty-four pages of advertisements which are good reading, have no proprietary medicines recommended and clashing with the inevitable 'Pears' Soap.' The magazine is only \$1.50 a year, and offers attractive premiums for new subscribers. Healthy and vigorous enterprise makes its progress, and it deserves success."

We are justly proud of the fact that the **JOURNAL** merits such praise. We sacrifice thousands of dollars every year that nothing may be admitted to its advertising pages that will mislead or deceive our readers.

Masterpieces.—This volume, which was announced for publication last fall, but not issued, will be ready the 10th. It is a handsome volume containing "The Rime of the Ancient Mariner, by Coleridge; "The Traveller," "The Hermit," "The Deserted Village," by Goldsmith; "The Comus," by Milton; Pope's "Essay on Man," and "Æsop's Fables," finely illustrated.

These gems, always popular, will be especially acceptable in this form, printed on fine paper, and handsomely bound in extra cloth, ink, and gold. Price, \$1.25.

Hygienic Medical College.—We are glad to be informed that the attendance of the Hygienic Medical College in St. Louis, is about three times as large this year as last, and at this rate it

will not be long before our friend Dr. Dodds, the dean, will find her hands full. We have copies of the College announcements which we will send to any of our readers who will send us their address with stamp for postage.

Clubbing For 1889.—For the accommodation of our readers and friends we have made arrangements for the combination of other publications with our popular and useful magazine as follows: The subscription price to the **PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH** is \$1.50; and any of the following may be included at the prices given.

Names sent for the **JOURNAL** with either of these will count on Premium List, and to agents the same as though sent singly.

Eclectic Magazine..	\$4 25	Scottish Am.....	2 60
Atlantic Monthly...	3 40	N. Y. Evang'list, new	2 00
Lippincott's Mag....	2 50	The Treasury.....	1 85
Harper's Monthly...	3 10	Homiletic Review...	2 10
Weekly.....	3 35	Am. Garden.....	1 60
Bazar.....	3 35	World Travel Gaz'te	75
" Young People	1 70	The Pansy.....	85
The Century Mag....	3 60	Baby Land.....	45
St. Nicholas.....	2 60	Peterson's Mag.....	1 60
Popular Sci. Mon....	4 20	North Am. Review...	4 10
Godey's Lady's Book	1 70	Tribune, Weekly....	1 10
Arthur's Home Mag	1 60	" Semi ".....	2 25
Rural New Yorker..	1 85	Times, Weekly.....	90
Scribner's Mag.....	2 50	Sun ".....	90
Cosmopolitan.....	2 50	World, ".....	90
Demorest's Mag....	1 60	Country Gentleman	1 85
Home Journal.....	1 60	Herald, Weekly....	90
Am. Agriculturist..	1 10	Illus. Chris'n W'kly.	2 50
Wide Awake.....	2 10	Weekly Witness....	90
Our Little Men and		Poultry World.....	90
Women.....	85	Gardeners' Monthly	1 50
Our Little Ones....	1 25	Herald of Health...	80
Critic.....	2 50	N. E. Journal of Ed-	
American Mag.....	2 60	ucation.....	2 15
The Independent...	2 60	The School Journal..	2 60
Cassell's Fam. Mag.	1 25	Pop. Educator.....	1 75
Baby Hood.....	1 10	Christian Union....	2 60
Scientific Am.....	2 60	Christian at Work...	2 60
Phonographic Mag..	1 10	Laws of Life.....	1 35
The Forum.....	4 10	American Field....	2 50
Observer, new sub.	2 25	Good Housekeeping.	2 10
The Studio.....	2 00	Chic'go Inter-Ocean	
Galaxy of Music....	80	Weekly.....	85
The Esoteric.....	1 10	Chic'go Inter-Ocean	
Puck.....	4 00	Semi-weekly....	2 10
Judge.....	3 90	Mag. Am. History...	4 20
Modern Priscilla...	40	The Old Homestead	35

The only condition for obtaining the above reduction is that the person ordering shall subscribe for, or be a subscriber to the **PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH**, then any number of the above publications may be ordered. Chart and Bust premiums are offered to new subscribers to the **JOURNAL** as above. Make up your list and send on the amount, saving time, money, risk, and trouble. Agents can often offer the above combination to advantage. Address all orders to **FOWLER & WELLS Co., Publishers, 775 Broadway, N. Y.**

Now is the time to introduce the PHRENOLOGICAL JOURNAL and to make up clubs for it. Do not wait till your friends have made up their lists for the coming year, but present the claims of the **PHRENOLOGICAL JOURNAL** to them at once. Let them have a chance to include this in their list before their money which has been set aside for reading purposes has been exhausted.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Susanna W. Dodds, M.D., and Mary Dodds, M.D., Hygienic Physicians, 2826 Washington Ave., St. Louis, Mo. All diseases, acute and chronic treated without medicine. Send for circular.

The New York Medical College and Hospital FOR WOMEN, and Homeopathic Dispensary for Women and Children. 213 West 54th Street, New York.

Annie Smith, M. D., 135 E. 104th St., City.

OUR HEALTHFUL HOME is pleasantly located on Reading Heights. Send ten cents in stamps, for our Book Circular, with Portrait. Address, A. Smith, M. D., Reading, Pa.

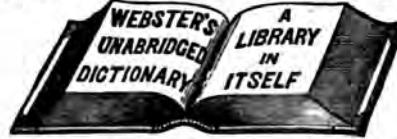
Fowler & Wells Co., Phrenologists and Publishers, 775 Broadway, N. Y. Agents Wanted.

ADVERTISEMENTS.

SPECIAL NOTICE.—Readers will oblige the Publishers if they will state, when writing to any of our advertisers, that the advertisement was seen in the PHRENOLOGICAL JOURNAL.

THE BEST INVESTMENT

for the Family, the School, or the Professional or Public Library, is a copy of the latest issue of Webster's Unabridged.



Besides many other valuable features, it contains

- A Dictionary** of 118,000 Words, 3000 Engravings,
- A Gazetteer of the World** locating and describing 25,000 Places,
- A Biographical Dictionary** of nearly 10,000 Noted Persons,
- All in One Book.**

3000 more Words and nearly 2000 more Illustrations than any other American Dictionary. Sold by all Booksellers. Pamphlet free. **G. & C. MERRIAM & CO.**, Pub'rs, Springfield, Mass.



A Practical Christmas Present

The number of bright women who no longer doubt that PEARLINE saves time, labor, wear and tear in all washing and cleaning, and is withal perfectly harmless, reaches millions—and increases daily—a fact proven by the consumption of the article, which is equal to two packages a year for every family in the land.

Every pound package of Pearline which you give away will enable a poor woman to do in half a day, washing or cleaning that would consume a whole day if done in the ordinary way, with soap; besides, the work will be well and easily done, and the things washed (as well as the woman herself) will not be rubbed to pieces.

We think most women would appreciate such a present. To prove all this, get a package of PEARLINE from your grocer, and wash or clean something by the labor-saving directions which are on every package.

Beware of imitations.

124

JAMES PYLE, New York.

NATURAL WHEAT
TRADE MARK
PEELED WHEAT

Peeled WHEAT CRACKERS.

The only perfect Cracker made. A plain, whole wheat flour, water cracker made light, tender and crisp by manipulation only. Far better in every respect for every one than any Graham Cracker ever made. Children thrive on them and dyspeptics are cured by using them.

WHEATENA. The best Breakfast dish in the world. Cooked perfectly in two minutes. These and other products are manufactured from wheat from which the outer hull has been removed. Our complete circulars and price lists sent on application. Address, Health Food Co., 74 4th Ave., New York.

"THE GEM" PACKAGE.

For only 25 cents we will send you "The Gem" Package, containing: Best quality Felt Mat, stamped, with silk to work it. Scrim Tidy, stamped, floss and tinsel to work it, with lace for the end of the tidy. Book of New Stitches for Crazy Patchwork, over 150 stitches, and eight full-sized blocks, illustrated, as samples. Book of Knitting and Crocheting, with 45 Patterns of Edging, Insertions, Skirts, Bed Spreads, Capes, Lamp Mats, Hoods, Etc.

Send Your Order at Once and Secure One of These Packages.

Address Mrs. M. D. FRAZAR, Editor "The Home Life" (Somerville Station), Boston, Mass.

REPLY

TO

"Robert Elsmere,"

entitled "Curfew Jessell,"

BY

REV. DR. JOSEPH PARKER,

OF LONDON.

OUR DAY,

FOR 1880.

BEGINNING IN THE JANUARY NUMBER.

Subscription price \$2.00 per year. After January 1st, \$2.50 per year.

OUR DAY PUBLISHING COMPANY,

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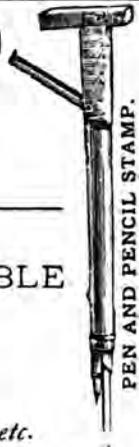
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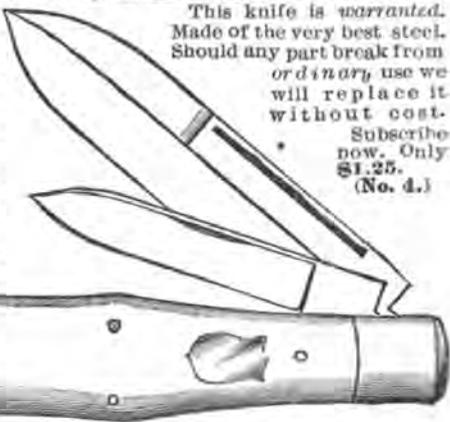
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