

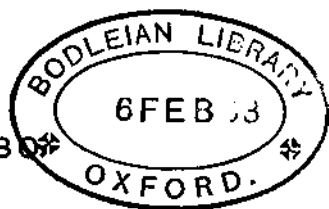
THE
Phrenological Magazine:

A JOURNAL OF
EDUCATION AND MENTAL SCIENCE.

EDITED BY
ALFRED T. STORY,

AUTHOR OF
"A MANUAL OF PHRENOLOGY," AND "WOMAN IN THE TALMUD."

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THE
Phrenological Magazine.

JANUARY, 1880.

INTRODUCTORY.

IN presenting to the public a new periodical devoted to the investigation and dissemination of Phrenology, little need be said by way of apology for its appearance. There is no other organ in existence in England that takes up the ground the PHRENOLOGICAL MAGAZINE proposes to fill, and that there is an acknowledged want in that direction has long been felt and expressed by those interested in the science. It has been recently said in a weekly periodical (by a writer, evidently, who was not alive to what is going on about him) that Phrenology is dead. It may be that the person in question thinks that because the subject has been tabooed by certain scientific men it must therefore be dead; though it is well generally for those who reason in such a manner to remember how many facts have been killed by scientists and yet have lived notwithstanding: *e pur muove*. Anyway, it will be the aim of the PHRENOLOGICAL MAGAZINE to prove that Phrenology still lives, and that, though yet imperfect as a science, it is nevertheless destined to play an important part in the study and comprehension of that strange entity—man.

We do not propose to make any particular promises with reference to the scope and intention of the PHRENOLOGICAL MAGAZINE. Our main idea is, of course, Phrenology, and therefore, whatever bears directly or indirectly on that subject will be fully and freely discussed in its pages. At the same time we shall not exclude other subjects that have a bearing on the study of man and his general welfare. Articles on Physiology, Ethnology, and kindred topics will therefore be admitted from time to time.

The chief aim of the Magazine will be educational; but as instruction can often be most judiciously combined with

amusement, it will sometimes be our effort to try to amuse. Stories, and light literature of that kind, will, from time to time, appear in its pages; and in this, as in other departments, the children will not be forgotten.

Such, briefly, is what we at present purpose doing; and as the scope of such ventures naturally tends to expand rather than to contract, it may be taken for granted that we shall be more likely to exceed our promise than to fall short of it. In any case, of one thing the readers of the PHRENOLOGICAL MAGAZINE may be assured—namely, that nothing will appear in its pages that may not be read—and read, too, without harm, if not with positive benefit—by everybody.

W. E. GLADSTONE :

A DELINEATION BY L. N. FOWLER.

Mr. Gladstone is one of the marked men of the age as to political standing, learning, and personal influence.

His phrenological organisation is equally marked, and the science is fully sustained by what is known of his true character, aside from the opinion of his political friends and opponents.

His head is large, giving him his predominating power, yet he has a strong frame, a vigorous muscle, and a tenacious constitution. His strong osseous system has a great regulating and balancing influence, while his muscular system aids to give strength and stamina to his character. He has not a superabundance of arterial and digestive force, so that he does not show an excess of impulsiveness or animal feeling, hence he does not often go beyond his strength. He thinks, talks, walks, and works easily, and without friction. He has more balance of power than most men. He can take average views of subjects, and does not delight in extremes or sensationalism. He has a great amount of force and executive ability, and has pluck to endure hardship and even severe labour. His frame is as well adapted to physical exercise as his brain is to the manifestation of thought and feeling, and he must have a distinct pleasure in work. His head is prominently developed in the crown and above the ears, giving him an acute sense of character, desire for position, influence, and appreciation, joined to a high degree of perseverance and determination of mind.

He has a marked degree of intellectual power. His frontal lobe is long, and very fully developed, and he is particularly large in the perceptive faculties, which give him great range of observation, definite and correct perception of things, their qualities, conditions, and uses, also shape, proportion, the laws of gravity, colour, the order and the arrangement of things and ideas, a ready power to estimate numbers, recall places, to



acquaint himself with facts and results of experiments, and to give him general scholastic and experimental memory. His large Language, joined to his great variety of knowledge, enables him to express himself in a free, easy, and copious manner. His very large Order, connected with his great discipline of mind, enables him to arrange all his thoughts before utterance, while his large Constructiveness and Ideality aid to

give scope to his mental operations, finish to his style of speaking, and ingenuity in the constructing of his sentences. His Secretiveness and Cautiousness aid to give reserve and tact, if necessary, in presenting his ideas, while his very large Comparison and Intuition give him great insight, penetration, and aptitude in getting at the essence of truth, together with great power of illustration, thus enabling him to make the most of his knowledge and experience.

He has superior ability for scientific or literary pursuits; can apply ideas, illustrate thoughts, and criticise positions taken, and make improvements, as well as originate, invent, start the debate, and lay foundations.

The strength of Mr. Gladstone's character, however, is in his moral brain. His portraits indicate that all the organs are full or large in development. Probably Hope is the smallest of the group. He is not given to extravagant anticipation, and, in making his plans, he makes considerable allowance for failure. His hope is greater of the far than the near future. Conscientiousness, Veneration, and Benevolence are all controlling faculties, and must have an intense and abiding influence on character and motive. He could never allow himself to be ruled by mere expediency without doing violence to his nature. There is something of the Hebrew prophet in his moral composition. Naturally slow to adopt innovations and accept new ideas, he is conservative rather than revolutionary; yet once possessed of what appears to be a sense of duty, and it is as if he were given a command from above to "go and do this thing." His large Cautiousness, together with Conscientiousness, makes him hesitate in taking a new position or a fresh responsibility; but, having taken the step, he withholds not his hand from the plough. Duty to God, duty to man, and duty to himself, as regards his allegiance to truth, must always have constituted the ultimate court of appeal in his character, and the decision therein come to, whether arrived at soon or late, compels his obedience; and having accepted a position, few men would more resolutely and steadfastly manifest the courage of their opinions. Mr. Gladstone might have been a more "popular" man, in the ordinary sense of the term, if he had had more affability, suavity, and bendingness of mind (if I may coin a phrase); but it is not easy for him to be "all things to all men." Life to him is "real" and very "earnest," and though his mental constitution is such that he could have excelled in many spheres, he would not have been in his element save in one that brought him into direct contact with the actual problems of life.

PHRENOLOGY IN ENGLAND.

BY L. N. FOWLER.

When I came to England, now nearly twenty years ago, I found Phrenology at a very low ebb, and its believers few and far between. There was but one practical phrenologist, of any note, at that time in London—I refer to the late Mr. Donovan, who did a moderate business. There were, besides, several of some note in the provinces. In Manchester Mr. Bally had made himself known and valued as an examiner. Besides Mr. Spurzheim's collection of casts and skulls, he made a large collection of his own, by taking casts of those he examined. Mr. Bridges, of Liverpool—still at work—I found a clever phrenologist. I found a Phrenological Society in Edinburgh, that had probably existed since its first formation in the days of Spurzheim, and kept alive through the influence of George Combe. At his death he left a legacy to the society, to keep up the institution and add to its already choice and large collection. That society still exists, but I have not heard of its having lectures on phrenology, or of aiding lecturers on the subject, unless connected with its own members: neither has it, to my knowledge, published any books on the subject of phrenology. The most successful and correct itinerant lecturer and examiner then was Mrs. Hamilton, who travelled extensively in Great Britain, and made many friends for herself and for the science. She was a close observer, an acute reasoner, and had a very quick, intuitive mind. She died some seven or eight years since in Edinburgh.

Many years ago, Spurzheim created a great interest in the science. He travelled and lectured in many of the larger towns in this country, and drew around him many medical men, clergymen, and literary ladies and gentlemen. Great expectations were created with reference to changes that were soon to take place in reforming the wayward and educating the ignorant; but Spurzheim was the agitator of the cause, the magnet that drew, and the mouthpiece that promulgated its doctrines. When he left for America, in 1832, the magnet was gone, and the interest in the cause began to die away for the want of bold champions to hold it up in a favourable manner before the popular mind. George Combe became the champion of phrenology after Spurzheim left, but he was not sufficiently orthodox, and because he presented the scientific and philosophical side of the subject, and left out the theo-

logical side, he was ignored by the old school, and that was enough in those days to put a check on the progress of the science.

Gall and Spurzheim's mode of dissecting the brain, was accepted, as well as their defence of phrenology, but when they were no longer present to advocate the new science, one after another began to grow cold and lose their interest in it. Many Phrenological Societies were formed in the different larger towns, but the speedy reformation that was anticipated at first did not take place, and as the first disciples died off there were none to take their place. I only found the remains of these societies represented by a few old dusty casts, skulls, and small libraries. In Dublin there had been a very flourishing society, and I found many enthusiastic believers who continued their interest in the science after the society was broken up. One of its members, a physician of Dublin, collected a large number of casts and busts, which are still in existence. When I introduced the science afresh in different parts of England, Scotland, and Ireland, the remark was frequently made to me: "I thought phrenology was dead." I found a few obscure smatterers going from house to house to *examine*, but there were very few who travelled and lectured, and still fewer who commanded respect. As a practical phrenologist, I found Deville of London was the most favourably known, and had done the most to keep the science before the people in his lifetime. He was an enthusiast in the science, and although he had his calling, and was not prepared by a proper education, and could not enter fully into the complete analysis of a cultivated character, yet he did not bring disgrace upon the science by his assumption of titles and by ignorant and absurd pretensions. He had many friends among the better class, and did much to further the science by the many casts he took of the great variety of heads he examined, to show the contrasts and characteristic traits of different and peculiar individuals; but he is gone, and his collection scattered.

Mr. Craig and Mr. Jabez Inwards were, a few years since, successful lecturers on the science. I commenced my lectures in Liverpool, in August, 1860, and soon found I was giving a new feature to the science by dwelling on the temperaments, and in explaining the condition of the body as being favourable or unfavourable for mental manifestations, and showing the necessity of having a sound, healthy body for the manifestation of a sound, healthy mind: in short, I united physiology to phrenology, thus developing features of the science that had not hitherto been popularly explained.

When the subject began to be presented in a new and fresh

manner, many old believers rallied round me, and new ones were added to the ranks.

In 1860 the phrenological literature was not extensive, with the exception of Combe's works, and several reprints of the works published by Fowler and Wells of New York. These were sold at a cheap rate, and have since been circulated by thousands. During the last twenty years, over sixty-five thousand of the "Self-Instructor in Phrenology and Physiology," fifty-two thousand of the "Phrenological and Physiological Register," and over half a million of my own and Mrs. Fowler's lectures on phrenology and physiology have been circulated in Great Britain. From the beginning of my lecturing in this country, I have always selected the largest and best halls, and have had good audiences from first to last. For thirteen years previous to settling in London, I lectured five nights in the week, for ten months in the year, without a single break. Since establishing myself in London, seven years ago, I have lectured in all parts of the metropolis, and in some halls from 50 to 100 times.

It is to be regretted that phrenology cannot be more correctly represented and put on a higher basis than it is by many who pretend to advocate it : but when a man who has read a few books on the science leaves the factory or the mechanic's shop, and starts out with a bundle of penny charts, and in a week calls himself "Professor," and advertises that he is equal to those who have been in the practice of the science for nearly fifty years, what can be the result but to bring the subject into disrepute? There are others, again, who are promulgating the science from pure love of it, and who are doing great good in spreading its doctrines. Thousands of men, women, and children have found their right sphere through phrenological consultations.

The science was never more universally believed in than at present, and I am convinced that, in spite of the cold shoulder given to it generally by scientific men, the time is not far off when its claims will be fully acknowledged as the true basis of mental science.

It is a good thing, says La Bruyère, to be well descended, but it is not less so to be such that people do not ask if you are of noble birth.

SOME men are born in greatness, others have greatness thrust upon them, but the most truly eminent are those who attain greatness by patient industry, perseverance, and unswerving allegiance to a high purpose.

PHRENOLOGY AND EDUCATION.

We are in most respects a practical people, and have a tendency to look at most things, not excepting the highest, from a practical point of view. We do not want to enter upon things if there is a chance that they will not pay. We consider beforehand whether the expenditure—be it in time, trouble, or money—will be recouped. If the chance is against that possibility, we do not venture. Such, at least, is our general procedure in most of the affairs of life.

But when we come to the matter of education, how differently we act. We have an eye to utility all the same; but how cumbrously we go to work, and what wretched results we oftentimes arrive at. At the proper age a youth is sent to school, and is duly put under the set educational appliances, along with fifty, a hundred, or two hundred others. Little or no account is taken of difference of capacity; hardly any allowance is made for the fact that no two lads are alike in mental calibre; no difference is made in treatment, however different the subject.

A system is adopted, as it were, for an ideal boy or girl, and all who do not come up to, or who exceed, the ideal, fail to be properly acted upon by it. This is the way it works theoretically. Practically, the system adopted in a given school is as follows:—The tuition given by this or that master or teacher is adapted to a certain number of scholars of fair average abilities—that is, whose intellects are fairly developed throughout, and who are, intellectually, about equal, taken altogether. The instruction given to them is on a par with their capacity, and they make tolerable progress. No allowance is made for those who, though superior to them in some intellectual qualities, are deficient in comparison with them in others.

Take the matter of memory. Here is a boy with a poor general memory. The organ of Eventuality is small, and he is never up to the mark with his history lessons. A period is read over, and some general remarks and comments are made on it; the average pupils retain the leading events; but after the lesson is over, the boy with the poor memory has only a confused notion of the whole. Now, with such a lad, such a method of teaching history, is worse than useless; it is cruel: for not only is his time wasted, but he is often punished into the bargain.

The reasonable course to pursue with such a youth would be either to set him apart with other boys like himself when

the history lesson came on, and take special pains to encourage memory by taxing it lightly at first, and at the same time aiding it by bringing in the assistance of other faculties, or to appeal to his reflective powers, and possibly his imagination. The latter is a course which can nearly always be relied upon for success. There are some persons who never can remember history, that is history as it is usually taught at schools. They may read over four score of the bald records known as school histories, and their actual knowledge of the subject is but little, if at all, increased. But let them take up a philosophical history, in which the moving principles of a period, or of an age, are set forth, and the subject becomes luminous. Say it is a period of revival or reawakening, in which a nation, long under a cloud, is being vivified by a new principle, and the historian clearly describes the first beginnings of the new idea, its gradual growth, the opposing forces it had to contend with, and its final efflorescence and effects. The whole thing is well argued out, supported and illustrated by facts, with side-lights thrown in to show the varying state of the people. The reflective and imaginative mind is presented with a picture that cannot be effaced; the whole mind is, as it were, brought in to aid the memory.

Or, take a youth with but a small or average faculty for calculation: if he is put into a class with boys having full or large arithmetical powers, he is soon left behind, and makes little or no progress. An instance of this kind came under the writer's notice recently. A youth was sent to school, and was put into a form along with twenty or thirty other lads. The first year he made hardly the slightest progress in arithmetic, for the simple reason that his organ of Calculation was small, and so needed special attention in regard to it; in all other respects he was equal to the other boys of his form, and in some things above them. But the ordinary method of teaching arithmetic, though it got the other lads on, had no effect on him. He seemed unable to comprehend the relationship of figures, as such. He could learn the multiplication tables with comparative ease, and could repeat them; but seemed at a loss to know how to use them in making calculations. His teacher gave the usual demonstrations on the blackboard, but they were simply exhibitions of the ordinary ways of manipulating figures: there was no attempt to aid a deficient arithmetical faculty by appealing to the assistance of the reason or other powers.

The method of teaching that phrenology would have suggested in a case like this, would be that all the boys in the school deficient in Calculation—and out of two or three hundred

boys it will generally be found that there will be from twelve to a score lacking—should have special lessons in arithmetic, and that particular attention should be paid to exhibiting to the pupils the power of numbers, their value, and uses. They should be made to count objects—say marbles—to divide them into sets, then to add them together again, then to divide and subtract, and so on, the actual counting always being accompanied by a demonstration of the process on the black-board, to accustom the pupil to associate the abstract with the concrete operation.

The same lack of a reasonable system is shown as regards the teaching of other matters. Some persons, for instance, have hardly any sense of size, shape, proportion, or outline. They cannot recognise a likeness, whether painted or photographed, and pictorial representation is almost meaningless to them. Of course, such peculiarities, in so marked a degree, are rare, although not so rare as some would suppose. Now to attempt to teach persons of this kind, when young, to draw, borders on something akin to farce; and yet this is frequently done, and much time in consequence wasted to no purpose.

The same criticism may be made with regard to music. The amount of enforced strumming on pianos by children and youth of no musical capacity is something lamentable. The time thus wasted—to say nothing of the torture to which helpless listeners are subjected—might have been usefully employed in other channels; but, no, it is fashionable to play the piano, and so, whether there is talent or not, money and energy are thrown to the wind. Let anyone with a good musical ear go into a school where the usual singing lesson is being given, and he will probably be struck by two things: first, by the fact that a certain proportion of the scholars have no idea whatever of time, and, secondly, by the conclusion that to pretend to teach correct singing where there are so many at fault, is worse than useless—is, in short, doing harm to those who would otherwise do well. And yet this is the system pursued almost universally. Schoolmasters and those who have charge of the education of the young seldom seem to clearly grasp the notion that there is a wide difference between individuals in respect to particular faculties, as that of arithmetic, of music, or of the appreciation of form and size, and so all are treated alike.

One might instance other powers of mind, with respect to which the same unreasoning course is pursued; but enough has been said to indicate how much better educational results might be obtained by using that common sense which is ordinarily brought to bear on the common affairs of life. It

is not the schoolmaster and teacher, however, who are to blame. They find a system in vogue, and have nothing to do but to fall into the routine ; the bare mention of anything like innovation would be met with a frown.

From the lack of some reasonable system of adapting teaching to mental organisation, an infinite deal of time is lost, and youths are often allowed to finish their course at school in such a backward state, that they then have to begin in earnest their real education. This arises from those who have the educating of the young, or in authority over those who have, knowing nothing about mental science. A simple acquaintance with phrenology would enable such persons to adopt a more reasonable system. Such knowledge, too, would give teachers the means of more easily getting at the characters of scholars, and so of adapting discipline to disposition ; and how many failures at school have resulted from the want of proper understanding of this kind, it would be difficult to estimate.

To some, all this, even if thought practicable, will appear to be drawing unnecessarily fine lines in the work of education, but to those to whom anything hap-hazard, that sacrifices the few to the many, is manifestly wrong, the more philosophical system would be highly acceptable ; and we may hope that the time will soon arrive when it will be as necessary for teachers, professors, and others engaged in the instruction of the young, to have a knowledge of practical mental science, as embodied in phrenology, as to have passed his examinations in the subject he undertakes to teach.

A WINTER'S NIGHT.

Benumb'd with cold the stirless air,
 Beneath my footsteps grinds the snow ;
 My breath steams through my beard's crisp hair,
 But onward—onward still I go.

How solemnly the fields are hushed !
 The moonlight tips the ancient pines,
 Which yearn for death, while downward crushed
 Back to the earth the bough inclines.

Cold, freeze my very heart's core fast,
 Where hot, fierce passions burn and fight,
 That rest may enter there at last,
 As in these tranquil fields of night.

NICHOLAS LENAU.

THE COLOUR SENSE.

A great deal is at present being written about what is rather inappropriately called colour blindness. It has long been known that there are certain persons who have no appreciation of colours, and that others are very defective in this sense; but until recent times no particular inconvenience appears to have arisen from the peculiarity. Since the development of the railway and steamship systems, however, with their colour-signals, attention to defect in the colour sense has been drawn in a somewhat awkward manner. Serious accidents occurring, it was found, on strict investigation into them being made, that the unfortunate events were the result of guards, drivers, signalmen, or pilots mistaking the colour of signals. This discovery, of course, brought the question of the colour sense into strong prominence, and caused rigid inquiry to be made into the subject by scientific men. The general result arrived at in regard to the prevalence of "colour blindness" is, that a large per-centage of males are wanting in the faculty for distinguishing colours. There is some difference of opinion as to the actual per-centage of colour-blind persons. Professor Holmgren, Dr. Magnus, Dr. Jeffries, and others have come to the conclusion that on an average one male out of every twenty is unable to discriminate all the principal colours of the spectrum. Dr. Favre, however, believes that almost ten per cent. of the inhabitants of France are colour-blind. These differences in results are probably due in some measure to the different methods used in the examination of subjects; but it is quite possible that colour-blindness is more prevalent in one country than in another, according to culture. In the United States, for instance, where there is probably more general mental activity than in any European country, the per-centage of those deficient in the colour sense appears to be the least, Dr. Jeffries finding only 4.15 per cent. of men colour-blind. The proportion of the female sex who are weak in the colour sense is far less. Dr. Jeffries discovered but six defective among 10,605 women and girls examined. This is a very important fact, and gives us a probable clue to the cause of defect in men. As a rule, boys are much more backward at distinguishing and naming colours than girls, and we can easily understand the reason. A girl's playthings are coloured rags, with which she is always dressing and undressing her doll, and, while thus handling colours, she naturally learns to

use their names, whereas a lad learns to distinguish and name the more pronounced colours, as red, green, blue, and yellow; and the imperfect training of the youth is often not corrected in the man.

Some curious and highly interesting speculations have been advanced with reference to the development of the sense of colour. Mr. Gladstone some years ago advanced the opinion that it was partially developed among the Greeks of the Homeric age; while others, enlarging upon this theory, have expressed the conviction that there has been a marked progress in the development of the colour sense in man within a period open to investigation. All these theorists base their deductions on the paucity of colour names used by ancient writers, amongst others by the scribes of the Bible. This, however, does not prove that the colour sense was not there, but simply that it was not a cultured quality. We know that many savages, and those who live chiefly by the chase or in a constant state of warfare, have the sense of hearing almost preternaturally developed, in comparison with which the hearing of a civilised man would appear extremely defective. It is probably the same with regard to the colour sense. In olden times it was not cultivated to the degree it has been in modern times; but there can be no doubt that so long as man has been human he has possessed the colour sense. In what lowly progenitor—supposing man to have been “developed” from some inferior type—it first appeared, it would be hard to say, but certainly in some form lower than the monkey, which has the colour sense largely developed, as is proved by comparative physiology, as well as by other facts which space will not admit my entering into here.

Without going into the anatomy of the eye, I may say that recent investigations have shown that, of a certain layer of the retina, known as the layer of rods and cones, in which waves of ether are converted into sensations of light and colour, one portion—namely, the cones—is particularly concerned with the transmission of colour. This being true, it follows that wherever these cones are found, the existence of the colour sense may be assumed, and *vice versa*. The inference is curiously borne out by the facts of natural history. Of the animal kingdom, birds generally are most dependent on their sense of colour, as is shown by Mr. Wallace, and an examination of the eye of birds shows that the cones are largely developed. There are some birds, however—the nocturnal ones to wit—that have no need for a sense of colour, and in them the cones are absent. The mammals generally are inferior to man in the development of the nerves that transmit colour. Monkeys are the

only exception. The proportion of cones to rods in the retina is the same in them as in man, and it is therefore assumed that they have the same power to perceive colours. This inference is borne out by phrenology. An examination of the skull of most monkeys indicates the presence of the organ of Colour.

This leads us to another point in the question of the colour sense, namely, how to detect its deficiency. It is assumed by physiologists that the sense lies in the eye, and that the only way of deciding whether persons are afflicted with colour-blindness is to place before them coloured objects, and so test their power of distinguishing one from another. But this method is defective, inasmuch as many are able to note differences of colour when they cannot readily give the names of them. The phrenologist long since found out a much readier and surer method of detecting a deficiency in the sense. He found that the organ of Colour is situated in the lower portion of the frontal lobe, immediately over the eye. Physiologists tell us that anatomy does not bear out this idea, and, to the present day, some of the foremost affirm that there is no such thing as a part of the brain performing an individual function, but that the brain, as a whole, performs all the functions. Nevertheless, they point us out the parts of the brain that have to do with the special functions of smell, hearing, taste, &c. The nose, the ears, the tongue are only the instruments, so to speak, of those senses; the actual organ, which registers and remembers their impressions, being in, and forming part of, the brain itself. Now, the same is true of the colour sense. The cones of the layer of rods and cones in the retina are the instruments of the colour sense, while the actual organ which registers the impressions of colour made on the eye is part of the general perceptive brain. Without it there can be no mental appreciation or memory of colours, any more than some persons without the organs of form and size, fully developed, can remember forms or recognise portraits, although the organ of vision itself is perfect.

The sense of colour is one of the most curious and interesting possessed by man, along with some of the lower animals, and article after article might be written on it without exhausting the wonders of the theme; but enough, perhaps, has been said in this short sketch to indicate the position of phrenology with reference thereto.

J. W.

THE STUDY OF PSYCHOLOGY.

Psychology, or the science of the soul or spirit, is so intimately connected with phrenology, that it is almost impossible to study the one without the other. Phrenology, however, has to do more particularly with the brain as the organ of the mind ; while the province of psychology, as it is commonly understood, includes the whole of the phenomena of life. It asks, and seeks to answer, What is Life ? What is Consciousness ? What is what we call Soul ? It would account for all those strange and mysterious effects of mind or spirit which have been a puzzle to men in all ages, and the causes of which are still hidden in obscurity.

Who knows what is sensation ? Who can explain the phenomena of sleep and dream ? What are the causes of insanity ? What of those mental hallucinations which make this man think himself a prophet, and that a glass vessel ? Both of them are sane in the ordinary acceptation of the term ; to most people the former, throughout a long lifetime, would appear thoroughly sound in his intellect, only to an intimate few betraying the belief that Heaven had entrusted him with a special mission ; the latter talks and acts for the most part quite sensibly, but if you approach too near to him with anything hard, he carefully shields his person lest it should be cracked like a vase. Why is this ?

Then there are the phenomena of somnambulism, sometimes called second consciousness, universally recognised as an abnormal condition of the mind, common at all times and in all countries, but still unaccounted for. It is a curious fact in connection with this subject, that artificial somnambulism, which twenty years ago was cried down by scientific men as imposition, is now used by them to explain and discredit other mental phenomena. Akin to this second consciousness is the power, still more extraordinary and unaccountable, known as clairvoyance—a power which enables the person thus endowed to see what is transpiring miles away, or has transpired years ago, or possibly that will occur in time to come. This is nothing visionary or fanciful. Thousands of persons now living have experimented with such mentally-endowed individuals, and have scientifically tested and proved the existence of the power. The late Prince Consort—a man certainly not prone to be deceived or carried away by fancies—is said to have more than once had intelligence of important actions in the Crimea, during the war with Russia, through a

clairvoyante, long before news thereof came to hand in the ordinary way. In like manner cases are on record of persons having foreseen events, in some instances months, and even years, before they took place.

Less striking, perhaps, but of more frequent occurrence, are premonitions. A very remarkable circumstance of the kind came under the writer's notice years ago. The captain of a Liverpool ship, trading between that port and China, was once, when in mid-ocean, seized with such a feverish restlessness and anxiety that he could not sleep. He confided to the first mate that he was afraid something had happened to his wife, to whom he was most tenderly attached. The mate tried to console him by saying that it was a fancy that had taken possession of his mind, and that he would find all well when they arrived in port, though at the same time, he carefully noted the circumstance, along with the date. The captain did not recover his cheerfulness during the rest of the voyage, but felt all the time that something untoward had happened, and, when the ship reached Liverpool, the first news he heard was that, on the very night on which he had had his premonition, his wife and their two children were burned to death in the house. The mate of the vessel was the writer's informant. Many persons can tell almost equally remarkable occurrences that have come within their own cognisance. What is the psychical condition which produces these phenomena? They cannot be put down to imagination, pure and simple.

There is another class of phenomena—and the public has been specially drawn thereto of late—the cause of which will probably have to be sought for in the, as yet, unknown laws of psychology. Every now and again we are called upon to be interested in some "mysterious disappearance." Some person has gone off, nobody knows whither; he is sought for high and low for several days or weeks, as the case may be, and the greatest anxiety is manifested; rivers are dragged, woods searched, and heaven knows what done besides, but in vain, and at length he is given up as having been murdered and mysteriously done away with, when suddenly he walks into his house with the utmost nonchalance, and greets everybody as if he had just been for a morning's walk. The intervening period of anxiety and search by his relatives and friends is more or less a blank to him. He cannot explain it. An instructive case of the kind was recently reported in an American newspaper. A man left home to go about his day's business; he got in the tram to proceed to a certain place, but before he got there he remembered quitting the car, and from

that moment until he suddenly found himself in a street in St. Louis, hundreds of miles from his home, his existence was a perfect blank. He was away from home more than a week, during which time his family were totally unable to account for his absence, and so was he. Can the duality of the brain be made to account for a case like this? It is now a recognised fact that we ordinarily do our mental work—our thinking, feeling, remembering, &c.—with the left hemisphere, or lobe, of the brain; though there are right-brained people, just as there are left-handed people. Can it be that these cases of obliviousness arise from the consciousness being, from some cause, suddenly transferred from the left to the right hemisphere of the brain? If such could be—and there is no inherent impossibility in the supposition—it would account for many a strange and perplexing psychological phenomenon. Such a transference of consciousness would be like making another individual of a person. In the left lobe of his brain is stored up all his memory, his experience, the bias of habit, &c.—all, indeed, that constitutes his individuality; take that away from him, and make the right lobe, on which no experience has been impressed, the seat of consciousness, and you have another being. There are cases on record where persons have had, as it were, two separate identities. In one state they were totally unlike themselves in the other, and they had no remembrance of the alternate conditions, although each was perfect in its way.

Dr. Carpenter records the case of a young man who had overworked himself in studying for an examination, and who had two distinct lives, as it were, in each of which his mind worked quite separately and distinct from the other. The doctor, of course, would account for the phenomena by his theory of unconscious cerebration. But might it not more easily be explained by the transference of consciousness from one lobe of the brain to the other?

There are doubtless many phenomena of the mind which may be accounted for by unconscious action, as, for instance, that of the not uncommon solution of difficulties and perplexities in sleep. A person has lost something, and he cudgels his brains to think where he put it; but the more he troubles and worries the more perplexed he becomes; on going to rest, however, he dreams where he put the thing, and when he awakes finds it.

Numerous instances of this kind of action—some of a very surprising nature—are on record, in which the mind has obviously worked more clearly and more successfully in this unconscious manner, when left entirely to itself than when

it has been kept to work under the impulse of will. But automatic action, or unconscious cerebration, cannot be made to account for all, or a moiety, of the phenomena more particularly known as psychological, not one-half of which have been alluded to in the above remarks. Enough, however, has been said to indicate the wide field of investigation which lies before the psychologist, and the deep interest and importance which attaches to his studies.

PRINCE FORIS AND THE FISHER MAIDEN.

A STORY FOR CHILDREN.

There was once on a time a young prince who was more than ordinarily happy in having a very loving nature, a generous disposition, and a heart that was above meanness and deceit. It was the more striking, because he lived in a court where these things were not common, and where some hated him because he was different from themselves. But he was very much beloved by the people, who used to say: "It will be a happy day when Prince Foris—for that was his name—reigns over us; for then there will be an end to much of the misery we now suffer. We can see from his brow that he will be just and good, and will not allow the evils that are now laid upon us." And so many longed for the day when the young prince should take his father's place.

Prince Foris's father reigned over a land that was not very large, but very beautiful, and might have been very happy had the king been a stronger and a wiser man; but sovereigns are often trained to be magnificent rather than discreet; and so it was with the prince's father, who thought more of pomp and splendour than of the happiness and well-being of his people.

In his wanderings here and there, Prince Foris saw much misery among the people, and it was the only thing that cast a cloud over his generally contented mind. He sometimes thought to himself, "Why is it that the people should be so unhappy?" and by asking questions and turning things over in his mind, he came to the conclusion that he should like to make them all happy, if he could only find out how.

One day, while he was brooding on this subject, he met an aged man in the forest near his father's castle—a very grand one, that looked down from a height upon rich fields and a broad and shining river. The man looked very venerable, albeit his garments were poor and old. Prince Foris offered

him alms; the old man, however, said he was in need of nothing.

"But, for your kindness," said he, "if you like, I will tell you something that may be of great advantage to you."

"I should like very much to hear it," answered the prince.

"Well," said the grey beard, "it is this: There is a fair maiden, named Vera, who, so great is her virtue and beauty, if you can find her and wed her, will make you the happiest man in the world, and your people, when you shall reign over them, the happiest people."

"I should like to find her very much," said Prince Foris. "Can you tell me where she dwells?"

"I would I could," said the old man; "but the thing was told me in a dream."

"Since that is so, I must go and seek till I find her; and I will spare no pains," answered the young prince.

The old man wished him luck, and departed.

Then the prince, getting permission of his father, and bidding good-bye to his mother, set out on his search.

His wanderings were very long. He went all over his father's kingdom, and over many other kingdoms beside. Then he crossed the sea, and came into strange and unknown lands, where the people looked on him with wide and wondering eyes. But he was so gentle and so comely withal, and he had, at times, moreover, so sad an air, that the people were never unkind to him, or molested him in any way, but gave him food and drink, and spread him carpets to lie upon when he seemed weary. And then, when he had learned a few of their words, he would ask them if they knew anything of the maiden he sought, the most beautiful in the world. But they all shook their heads, and sent him further, saying:

"It is not here she dwells. We never heard of her."

But they all besought him, if he should find her, to come back their way, so that they might behold her. Some however, said, no doubt with kindly enough intent:

"Is it not a will-o'-the-wisp you seek? Why should you weary yourself with so vain a search? Look how many fair maidens there are on every hand. Choose one, and be happy with her, as others have been before you. This Vera you seek, if she exists at all, is but a phantom."

"Nay, that cannot be," answered Prince Foris, and continued his search.

Now, after a long time, and after passing through many strange adventures, the prince came to the borders of a large kingdom, called Cathay. It was evening, and he was very weary, for he had gone a long way that day. So he sat down

by the way-side, and was very sad. He thought of all the toils he had undergone, and the disappointments he had suffered, and said to himself:

"What, if after all, I am pursuing a phantom, and there is no such tangible thing as this Vera!"

One may imagine he felt very disconsolate.

Presently there came towards him an old man with tattered clothes, and a shrunk, toil-worn countenance. He looked very poor and very wretched, and Foris said to himself, "Surely this man is in a worse plight than I am."

Then he said to him, "My good man, you seem very tired. Can I do anything for you?"

"No, nothing," he replied gruffly, but immediately added more gently: "I thank you, young man, but I have now no earthly want. Listen: Fifty years ago I started out in search of happiness. I have visited every country of the known world without finding it, and now, when I am about at the end of my days, I have come to the conclusion that happiness comes the readiest to those who do not seek it at all, but simply do the thing that seems given for them to do."

"Ah, I am afraid," said the prince with a sigh, "that I am on a similar futile quest."

"What, then, do you seek?"

"Oh, I left my father's home to go in search of a fair maiden, the fairest that lives, named Vera, who, if I can wed her, will enable me to do much good to the people over whom I shall one day reign; so I was told by a venerable old man; and I have wandered long and very far, but as yet I have not seen her."

"Nor will you see her here," replied the old man. "The fairest maiden I have set eyes on in all my wanderings—yes, and they told me her name was Vera—was far away in a Western land. She was a fisherman's daughter, and lived in a little cot, close by a mighty castle that frowned from a height over fertile fields and a broad and shining river. Well I remember her, for she brought me out food when I was hungry."

Then the poor old man fell into a muse, and the prince said to himself: "As I live it is my father's castle of which he speaks, and the maiden is the sweet child that used to play at my father's gate, and smile on me as I passed in and out. O stupid that I have been!"

Then, after a few words of parting, Prince Foris turned his steps homewards, and after many days he came to the borders of his father's kingdom, where he was met by several persons

whom he remembered to have been in constant attendance upon the king. They saw him with gladness, and exclaimed :

"Sire, we came in search of you. Your father is dead, and you are the King. Long live the King!"

Then they brought him in state to the castle, and, as they approached the gate, the King looked about, and there, at her father's door, he saw the maiden the wanderer told him of, and he knew it was she whom he had sought so long. He saw that she was very fair, but fairest of all was the wondrous light in her eyes.

So he rode up to the castle, and the people cried : "Long live the King!"

Anon the wisest of his father's counsellors, whom he had chosen as his advisers, approached him humbly and said :

"Sire, we would, and the people would, that you took to yourself a wife. Consider, therefore, O King, and let us know, for it would make the people happy."

Then the King, after he had been silent for a little space, bade them fetch the fisher's daughter, for she or none, said he, should be his wife. So they brought her, and he met her, and bowed low to her, and led her to the throne, and placed her by his side upon it. Vera, in all this, conducted herself with wondrous modesty, and yet withal, as one born to the high position in which she was placed, and on which she threw a splendour never before known. Then there was great rejoicing in the land, for happiness prevailed.

And it became a proverb in the land, that it were waste toil to seek through the world for what grew at ones own door.

SONNET.

Days, months pass by, and still no solace comes,
 Or small ; the house is lonesome, still and dull ;
 Thy cheery voice breaks not the morning lull ;
 Thy little hand no longer tuneful drums
 On board or table, nor thy fond, fair face,
 With its perpetual smile, makes all things glad
 Around and near ; the sunshine e'en seems sad,
 As though it missed thee from thy wonted place :
 It lies and dreams upon our bit of grass
 Like some lorn lover in a fairy tale,
 Then flies upon a cloud to seek thee, as my thought
 Flies out to seek, but aye returns, alas !
 One burthen still repeating like a wail :
 "Gone, gone is he, and love availeth nought !"

S.

REMARKABLE INTELLIGENCE IN DOGS.

A correspondent writes as follows: "As the study of intelligence in the lower animals must aid us in the comprehension of mind as a whole, I should suppose that cases of exceptional canine sagacity, like the one I am about to relate, would be acceptable to students of phrenology. Some years ago a cattle-dealer of Hull used to take an intelligent dog with him in his weekly trips to Amsterdam to buy cattle. On his last journey the dealer was taken suddenly ill, and died. The poor brute saw his master buried, and then made its way to the quay. Selecting from among the hundreds of vessels in port a Hull packet, it leaped on board, but was immediately driven off, with blows. Again and again it made its way on board, and was as often ejected. At length, however, the captain, being struck by the animal's persistence, allowed it to remain, and brought it to Hull, where, as soon as the vessel touched the dock, it sprang on shore, and hastened to its late master's home. The curious part of this exhibition of intelligence is that the steamboat in which the dog generally accompanied the dealer was not in port at the time, and the one it selected they had never travelled in, so that there could be no question of memory in the case. I regret that I forgot the species of the dog."

This reminds us of the story of a dog named Dick we heard some years ago from the lips of a gentleman who resided not far from Hull. The owner of the animal had a dispute with a poulterer about some birds which had been charged to him, but which he was sure he had not had. He called one day at the tradesman's, accompanied by Dick, and, after protesting in somewhat high words that the birds charged had never been supplied, he paid the bill and withdrew. After walking some distance down the street, he became aware that Dick was not with him, and turned to look for him. Imagine his surprise to see the creature bound out of the poulterer's shop with something in his mouth. It proved to be a brace of partridges, which Dick dutifully laid at his master's feet, and then knowingly wagged his tail. Not the least curious part of the story is that the dispute was about a brace of partridges. Several other almost equally remarkable instances of this dog's intelligence were recorded. He seemed to understand everything that was said in his hearing, and often caused astonishment by acting on casually-dropped hints that no one

would have thought a dog could comprehend,—indeed, he only seemed to lack the power of expression.

Those who have studied the canine race most are of opinion that, were it not for the shortness of the dog's life, he and man might come to understand each other most thoroughly; but just when they begin to comprehend one another, the life of the lower animal comes to an end. E.

A TALE OF THE AMERICAN WAR.

The *Philadelphia Ledger* is responsible for the following:—An aged couple in Medway, Massachusetts, had a merry thanksgiving. At the outbreak of the war their only son ran away to sea, and served under Farragut at New Orleans and with Cushing in the Albemarle exploit. Here all trace of the sailor was lost, and it was supposed that he was drowned in the river when the torpedo exploded. His sister died a few years ago, and his parents have been living in retirement and poverty. Late on Wednesday night a man with a scar on his face knocked at the door and requested a lodging. He was admitted by the old lady, who asked her aged husband to entertain the stranger while she was making a cup of tea for him. The stranger kept his hat on; the old lady noticed that his eyes followed her every movement. To the old man he represented that he had formerly lived in the neighbourhood. When asked his name he gave an evasive answer, but asked if James Merrick lived there yet. "I am James Merrick," answered the old man. The old lady had been watching the stranger closely. Before he could utter another word she stepped quickly to his side, lifted the hat from his head, gazed a moment into his face, and sank into the arms outstretched to receive her, loudly screaming, "Jim! Our Jim!" "Yes, your Jim; come home for thanksgiving," exclaimed the stranger, as he kissed the aged face with joy, and turned to his father, whose frame was trembling with gratitude. After a while he related the eventful history of his wanderings. He had been severely wounded by the explosion of the torpedo, as the scar on his face testified. He was pulled from the river by one of the boats which came to the relief of the crew of the *Albemarle*. He lost his senses by the concussion and wound, but after the latter healed he was permitted to go at large as harmless, knowing nothing of himself, not even his name. Finally he fell into the employ of a former surgeon of

the Rebel army, and with him went to a plantation outside of Raleigh, N.C. One day, however, the surgeon examined his wound, and determined to try an experiment. He opened a wound in the head, and found the skull fractured and pressing on the brain. With the aid of another surgeon the skull was lifted or trepanned, and the wound again closed gradually. Merrick's condition improved, but it was fully a year before his memory returned.

HEALTH *v.* FASHION.

A medical journal raises a timely protest against the far too common practice of clothing children so as to leave a portion of their limbs uncovered. In the severest weather slim girls and boys may be seen with short stockings and dresses reaching a little below the knee. It seems to be imagined by their mothers that not only is such a winter costume graceful, but that it is a means of imparting strength to the constitution, and that children so treated grow up robust men and women, able to set at defiance, by means of this hardy training, the ordinary ills that beset the man and woman who were kept warm and comfortable when children. Such exposure may suit certain constitutions and certain circumstances. It may make a strong boy stronger, and render him almost impervious to the assaults of the weather. But on weaklings, whether boys or girls, it must inevitably have a bad effect. It is directly provocative of colds and bronchial diseases. A boy who, in addition to exposed legs, has his throat and chest bared like a sailor's, is, unless of exceptional physique, as he not very often is, a fit subject for all troubles which begin in a cold and end in a coffin. But Fashion has a supreme contempt for the ordinary laws of health. A woman encloses her head in a bonnet like a coal-scuttle, or crowns it with a patch of ribbon with equal indifference. It is no wonder, therefore that in clothing children her chief thought is fashion, and neither health nor comfort.

Book Notice.

COMFORT IN BATHING.—Mr. Richard Metcalfe has published a timely little pamphlet entitled "*Hot-air versus Hot-water Baths for the Working Classes.*" It is in the form of a letter to the Commissioner of Baths and Washhouses, and gives, in a succinct form, his reasons for advocating the adoption of the hot-air (*i. e.*, improved Turkish) bath, or a modification thereof, as subsidiary to, or in place of, the common form of bath. The work is very suggestive, and will be read with profit by all who are interested in the subject of health and cleanliness.

THE
Phrenological Magazine.

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PRINCE VON BISMARCK.

Von Bismarck is one of the most remarkable men of the age. He has, during his public career, exerted such an



extensive influence, and produced such great changes in his own country, that all eyes have for a long time been turned

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D

on him, as though he had the destiny of nations in his hands. The inquiry naturally arises, In what does his greatness consist? Is there anything in his organisation to indicate the talents he has manifested? The developments of such men should go far to prove or disprove the truth of phrenological science. The following phrenological delineation of Bismarck is formed from the examination of many different photographs, paintings, prints, and a cast of his head in the Paris Exhibition of 1867 :—

Physiologically he is a most powerful man, being six feet three inches in height, with very broad shoulders and chest—characteristics which indicate great vitality, a strong hold on life, and a powerful constitution. If by nature a man has a large, strong, healthy body, with a good osseous and muscular structure, and it is of any advantage to him, in a mental sense, then Bismarck had a superior foundation to start upon. With so much physical power as he possesses, he cannot keep still, do things by halves, be satisfied with small matters, or exert merely a limited influence. His head is well set on his shoulders, and amply sustained by a large, strong, muscular, masculine neck. The cast of his head indicated a large brain, which, joined to his powerful body, gives him a comprehensive mind. About the quality, vigour, and density of his brain there can be no doubt, for these he has proved by the vast amount of work he has done, indicating great activity and endurance. The entire base of his brain, which is the seat of all the animal and vital forces, is large. The first strong point of his character to be noticed is Executiveness: this he has in so superior a degree that it allows of no restraint from others. He is courageous to the backbone, and feels equal to any task. His indignation, when aroused, must be of the strongest and most demonstrative kind. He must take delight in doing the most heroic and executive work.

His head is unusually high in the crown and over the ears, indicating that ambition is another most powerful element of his mind. It must have been, from his earliest boyhood, a most powerful stimulus to action; and long before the days of active and responsible duty its manifestations must have been most noteworthy. Self-esteem is also very distinctly developed, and this quality, joined to his large Approbateness, gives him great aspiration and desire to do something worthy of a great man. Nothing short of making a decided mark on the page of history could satisfy a man with his talents and such a towering crown to the head. Firmness is very large, which, together with his great force and ambition, endue him with unusual perseverance, determination, and tena-

city of mind. The three combined give him a willingness, and even a desire to take the lead, assume responsibilities, and do as much as possible without the aid of others. He is liable to become imperative, and to feel that he must have his way. The element of surrender is not in his nature ; if he cannot accomplish his ends in one way, he will in another. His will and energy are equal to almost any occasion. Men with less reason would be very liable to become unreasonably stubborn and self-willed.

His frontal lobe is long, broad, full, and high. It indicates a most powerful intellect, both of a perceptive and reflective kind—one adapted to scientific pursuits, close and correct observation, the study of the exact sciences, or to close-connected thought, deep research, great originality of mind, and ability to go to the root of a matter and solve difficult problems. He is able to form opinions very rapidly, to take a survey of the whole subject at a glance, and at once reduce his thoughts to practice : for him to think is to act. Order is very large, as seen by the long eyebrow, and the sharp outer angle to the eye. This faculty, joined to his quick perceptions, correct judgment of things, and his ready application of principles, gives him great power to organise, plan, and systematise, and so enables him to know exactly what he wants to do before he begins. His massive brain, with his large Causality and Comparison, make him far-seeing, and enable him to act with reference to the remote future as well as with reference to present results. Circumstances may have given him a special bent of mind ; but, with opportunities, he could have excelled equally well in a great variety of pursuits ; yet he is in his element where great and responsible work is to be done and changes made.

His head is broad in Secretiveness, which gives him great tact and power to manage and bring about his ends without the process being known. He has superior power to keep his motives to himself, and, if necessary, to outwit others. Caution is not large enough to cause timidity or irresolution, yet sufficiently active to give forethought and guardedness in times of danger. When excited, however, he will need all the restraining power he can bring to bear to regulate his actions.

The head is high in the coronal brain, but none too much so to be a good off-set to the massive development of brain at the base. He requires all the moral power he has to aid him in regulating his impulses and in giving strength to his religious feeling. He may have pronounced and orthodox religious opinions, yet could not easily become very sectarian.

in his opinions or formal in his worship. His religion would be one of opinion and conviction rather than of feeling.

His Benevolence and social brain would lead him, when away from business and in the family and social circle, to be genial, hospitable, and entertaining. He is strong in the sense of duty and obligation, and, if he yields to expediency, it is as a politician rather than as a business man.

An organisation with forces apparently so antagonistic is subject to some extremes, according as one or another set of faculties are aroused. His large Self-Esteem, for instance, would incline him to sympathise with aristocracy, and when in company of the kind he can be an aristocrat with the best ; yet his small Veneration (for such the cast above mentioned indicated he had) gives him strong leanings towards democracy, in opposition to the old worn-out formalities and traditions of the past. Under the influence of his Benevolence and social nature he would be genial and kind, while under that of the executive brain and Self-Esteem he would be most positive and unyielding. Yet, taking his life as a whole into account, he will be found to be as harmonious as most men, only on a higher and more extravagant key.

In his prime, Bismarck had neither a superior nor an equal for strength of mind and body ; for power to comprehend the whole subject ; for force of character and personal influence ; for energy, industry, and tenacity of desire ; for self-reliance and consciousness of his own abilities ; for ambition and desire to do something worthy of a *man* ; for presence of mind, determination, perseverance, and persistency in action ; for tact, shrewdness, and ability to manœuvre to secure his ends ; for power of combination and capacity to plan, arrange, and systematise, and make correct estimates of the forces in hand ; for minute and extensive observations of men and things, and their value and availability ; for originality and soundness of judgment, and ability to adopt means to ends ; for ability not only to take the advantage of circumstances, but to create them to suit his purpose ; for his knowledge of men, and his power to influence them to his advantage ; and, lastly, for his quick and correct perception of what is true in nature and philosophy, and his almost prophetic perception of the future.

L. N. FOWLER.

GASTRONOMY should become a science, for, however much ashamed some well-bred young ladies may profess to be of eating and drinking, gastronomy is of more importance to us than astronomy, and by all the difference, at least, of their comparative near or distant relation to us.—*Chas. Bray.*

TALENTED IDIOTS.

At first sight this will appear to be a misnomer; and yet, I think I shall be able to show, before I finish what I have to say on the subject, that there are such beings as talented idiots. In botany there are what are called "sports." A flower that develops two corollas within one calix is a "sport." The idea is suggested that nature was playing when it produced such a bloom. The Italians have an expression that an idiot is a "joke" of nature. To our more reverent notions, however, such an idea is somewhat revolting. We cannot conceive of nature doing anything for "sport," or in a "joke," especially if likely to be productive of suffering to human beings.

It is more in harmony with our conceptions to look upon the effort of nature as being to arrive more and more at a perfect type, and to regard any departure from the standard reached as the result of some unfortunate bias or defect in parentage at the time of birth, rather than the effect of a set purpose in nature—if such a thing could be. And yet—using the word in no irreverent sense—how many "sports" one meets with among human beings!

Everyone has heard of the "Calculating Boy," and the extraordinary feats of reckoning he could do. But more wonderful even than the gifts of the late George Bidder must be considered those of Moritz Frankl, the Hungarian arithmetical prodigy. This extraordinary child, who has not completed his eighth year, recently gave exhibitions of his marvellous calculating powers in the Belle Alliance Theatre, in Berlin, before crowded audiences, solving the most appalling arithmetical problems with amazing readiness and unerring correctness. One evening, for instance, a person propounded to the little Moritz the following complicated calculation:—"My deceased friend, August Kniepmeier, recently expired at the age of sixty-two years, eight months, and seventeen days. When he was fourteen years and a half old he began to drink beer at the rate of six *seidels* and two '*schnitte*' per diem, and continued so to do until the day of his death. Now a *seidel* costs fifteen pfennige, and a '*schnitte*' ten pfennige. How many pfennige did he spend upon beer between his twenty-ninth semester and his demise?" In less than half a minute young Frankl was ready with his answer. "He spent exactly 1,618,870 pfennige!" "That is right," rejoined Kniepmeier's friend. "I worked it out myself in a day and a half with paper and pencil. The lamented August managed

to spend 16,188 marks, 70 pfennige (a little over £8,000), in beer within the space of forty-eight years and two months."

But Frankl is not an idiot, and therefore his gift, extraordinary as it is, pales before that of an individual, who, some ten or twelve years ago, was the wonder and delight of Ulverstone. He was in most respects an idiot, but was a marvel in respect to his power of reckoning. He would tote up a sum involving unheard-of lines of figures in the most inconceivably short space of time. You might give him addition, subtraction, multiplication, or division sums, in which the answers would be in billions or trillions, and he would read off the answers in two or three seconds. His calculations, too, were all done mentally. A feat which persons were never tired of seeing was this: to give him their ages and require him to tell the number of days, hours, minutes, or seconds they had lived. The answer was almost instantaneous. Not the least curious thing in connection with this faculty was that he invariably spun about on his heel while he made his calculations. The phrenological developments of this "sport" of nature were in accordance with his extraordinary gifts. The organ of Calculation was very large, as was also that of Order. The perceptive faculties generally were fairly developed, while the reflective intellect was defective.

Another of these human oddities will be well remembered by many persons at Stockton-on-Tees, of which place he was a native. He was an uneducated man, incapable of doing anything for a livelihood, and completely dependent upon charity. In most respects he manifested perfect idiocy; but in one thing he was equal to the best and most literate. He was a real walking dictionary. You could not puzzle him about the meaning of a word, and his use of language was something astounding in one otherwise so illiterate and mentally deficient. In conversation, marked in other respects by the utmost childishness, he would suddenly surprise one by the quaintest and most appropriate use of words. I remember the first time he was introduced to me he dropped a very gentle hint that he had not breakfasted, and, on preparing to go, he repeated it much more broadly. "Why did you not say you were hungry before, man?" said my host. "I did so," he replied, "by implication." This man, it should be said, did not appear to have been an idiot from birth, but rather to have become *non compos mentis* by subsequent disease. His Language was large, and the critical faculties generally active.

My next instance of talented idiocy will probably be remembered by many. Some years ago a negro lad was taken

from town to town and exhibited as a musical wonder. He was commonly known as "Blind Tom," though he was not quite blind. He had the narrow retreating forehead of the natural idiot, and his general mentality was in accordance with his phrenological developments; but, as regards music, he was certainly a prodigy. He was a perfect adept on the pianoforte, and could play any tune, after once hearing it, with rigid accuracy. Of course, being blind, everything was learned by the ear; but so accurate was that organ that the most difficult compositions were reproduced after once hearing. It was generally a part of his public performance to have some experienced musician play a difficult test-piece, and then to repeat it. He invariably reproduced it with faultless precision, and those best qualified to judge would say his gift was inconceivable. Like the calculating man, Tom, too, had a knack of spinning about when he was listening to a piece of music. If it was new or specially good, he would also show his delight by rubbing his hands, laughing, and making curious inarticulate noises. Mr. Fowler made an examination of his head, and found the organs of Tune, Time, Order, and Calculation—all of which are necessary in a good musical performer—all large.

It will generally be found that Nature has endowed persons of this class with some slightly compensatory quality. Just as the blind enjoy an enhanced sense of touch or hearing, so one with deficient intellects will often be endowed with some extraordinary, and, to people generally, incomprehensible development. From this it doubtless arises that, among unsophisticated people, "naturals," as they are termed, are considered to be under the special protection of heaven. Like the humbler "waiters on Providence," they appear to have instincts not usually accorded to man: one of these being their knowledge of, and sympathy with, the lower animals, and one might almost say, with Nature generally. Quite a number of this kind I have met with; but one instance will suffice for the present occasion. I never knew the man's name, but he frequented the neighbourhood of Culworth, in Northamptonshire. He was not a complete idiot, and yet was very deficient in intellect. Original to the backbone, he never slept under a roof, save in the most inclement weather. He had no particularly recondite idea of morals; but had a notion that God intended man to live in the open air, and that it was going against His will to do otherwise. But the distinguishing feature of his mind was his love of birds and four-footed creatures, with which he cultivated the closest acquaintance. He would talk by the half-

hour, in his quaint way, of their habits and instincts, and was, indeed, quite a naturalist in his way. He must have had Philoprogenitiveness largely developed. Another peculiar characteristic was his gift of vaticination. He not only had the gift of accurately prognosticating the weather, but I was assured that he had the remarkable faculty of predicting affairs amounting almost to prophecy. The events of the neighbourhood seemed to be known to him long before they came within the mental ken of those more immediately concerned in them.

These curious instances of partial mental development are very interesting to the student of phrenology, affording, as they do, striking testimony of the truth of one of the fundamental principles of the science, that each special faculty has its special organ. If this were not so, and the brain, as a whole, had to do with the production of all mental manifestations, then it would be difficult to understand how a brain, capable of producing one series of perfect mental acts, should be quite unable to reply to mental stimulus in other directions.

C. N.

THE VALUE OF WATER AS A REMEDIAL AGENT.—That the preservation or recovery of health by means of hydro-therapeutics involves some trouble and the sacrifice of a little time I do not deny. You know the value of health, and also how many things in these days tend to deteriorate and destroy it. You grant that means ought to be used to preserve so great a blessing when enjoyed, and to recover it when lost. Now in matters pertaining to health as to everything else worth having, nothing of real and permanent value can be gained without exertion and sacrifice. And as for the trouble and loss of time attendant upon the *regime* of hydro-therapeutics, how come they to assume in your eyes such formidable dimensions? Simply because the system has not been duly appreciated by the community at large. Had it been so, all our public hospitals would long ere this have been furnished with every convenience for its appliances. Every private dwelling would have its bath-room, with the apparatus necessary for ordinary hydropathic treatment. Again, very little hydropathic treatment suffices to preserve health, that is to counteract, as they arise, the daily effects of pursuits unfavourable to health, whether active or sedentary. And even actual disease, if taken early, is comparatively easy to be grappled with. But the water cure is now sometimes slow in its operations, because it is not resorted to until long after all other means have failed. No wonder, therefore, that, with such lee-way to make up, the cure is tedious. But let hydropathy enjoy the same advantages as other systems, and it will be found the surest, speediest, as well as the most natural remedy for the majority of diseases.—*The Modern Physician.*

THE USES OF PHRENOLOGY.

BY L. N. FOWLER.

We often meet with persons who, while acknowledging the general facts of phrenology, seem at a loss to understand its practical utility. They ask, What is it good for? Supposing it is true, what then? I purpose, as far as is possible within the limits of a short article, giving an answer to these questions.

In the first place, the science of phrenology gives us the means whereby we can become more perfectly acquainted with the mind and the different faculties of which it is composed. Up to the present time no system of mental philosophy has been able so thoroughly to account for the various and distinct manifestations of mind. Phrenology not only locates the various organs through which particular moral, intellectual, or emotional powers are manifested, but it has given a nomenclature to mental science in advance of anything that preceded it. Considerable improvement might undoubtedly be made in the names that have been given to the different organs; but of that I do not propose to treat here. The very fact that the various faculties of the mind have been named, even though imperfectly, is of itself an advance in mental philosophy.

Writers and speakers can explain themselves more correctly when referring to the mind. By knowing that the mind is composed of different and distinct faculties, we can easily see why people differ so widely from each other, although all have the same number of faculties. We can better understand each other, and see why it is that we are as we are and not different. By phrenology we can account for the conduct and eccentricities of each other; and, if we are disposed, we can make just allowance for the failings of each other.

To a Christian man, who is anxious to examine himself so as to become more correctly acquainted with his imperfections, his waywardness, and the causes thereof, phrenology proves a help such as he cannot find elsewhere, for it gives him definite ground to work upon. It helps parents and teachers to understand of what all human minds are composed, of what the mind of their child or scholar is made, or what ought to be there, if it is all there; and the application of the science makes them acquainted with what is fully represented and what is defective, so that not only can

some allowance be made for natural defects and excesses, but they can be guided in training and teaching, as well by what should naturally be there, as by what is in fact and in degree: for the doctrine of the science is that every faculty is dependent on certain nerves or positions of the brain, as an organ for its manifestation, and that the development of that organ indicates the natural strength of the faculty when compared with the other faculties of the same brain. It enables us to make proper and correct comparisons between one person and another when quality, quantity, healthiness and culture of mind are being considered.

Phrenology will be of great service in establishing systems of education, that will be adopted not only to the development of the mind as a whole, but to the various parts of the mind and to individual minds, according to their particular development: for, by cultivating one faculty, we do not necessarily cultivate the one next to it or remote from it. Each particular faculty to be cultivated must receive special attention. Thus only can the mind as a whole, and its parts individually, receive due and appropriate cultivation. When phrenology is properly understood, the order of education will be reversed; it will be adapted and applied to the mind and its wants, instead of the mind being obliged to adapt itself to a system of education based on an erroneous idea of mental science, or none at all.

A trade, profession, or calling is necessary for discipline or for earning a livelihood, and it is quite difficult for an undeveloped mind to decide what is best to do; and, when the mind has not been tested, it is impossible for anyone but a phrenologist to decide what a person is best adapted for, and in what way he can use his talents to the best advantage. Thus, by a reference to phrenology, a youth can be put to a proper calling before the desires are practically formed in that direction. This is a matter of great importance, especially where there are large families.

By the aid of phrenology, too, persons learn their status and their place among men. While large Self-Esteem tends to make a man put too high an estimation on himself, the organ small causes him to have too low an opinion of himself; so it is with other organs. We do not rightly estimate ourselves until we have compared ourselves with ourselves, as it were, and with others. Phrenology thus weighs and measures men more accurately than they can do themselves; it points out beforehand what we may cultivate to advantage, and what may be expected if cultivated in certain directions.

Phrenology throws much light on the laws of hereditary

descent; it teaches the sexes to select with reference to posterity, which requires a knowledge of themselves physically, as well as of their ancestors. If a young man is distressed because some bodily or mental defect has been transmitted to him, it should make him all the more careful not to transmit the same to his descendants. If the welfare of posterity were consulted, many would altogether avoid transmitting their disease, depravity, deformities, and imperfections to others. Society is groaning under the burden that has been cast upon it by not duly considering the influence of parents on children. It is as true to-day as ever it was that the sins of parents are visited on their offspring to the third and fourth generation. Prisons, hospitals, and asylums are full, and many more are wanted, especially for imbeciles, because the laws of hereditary descent are disregarded. But before these laws can be observed there will need to be a vast amount more self-government and sense of obligation and personal responsibility among men than there is practised at present. Society might be much more perfect than it is with much less expense, and happiness in wedlock might be much greater than it is with less effort, if young people would think correctly first, and love correctly as the result of thought.

Phrenology aids greatly in understanding insanity and in treating the insane. Before phrenology was known, an insane person was supposed to be possessed of an evil spirit, and deserved severe treatment. Now all forms of insanity, and, especially, partial insanity, are better understood, and treated accordingly. Phrenology, combined with physiology (and they cannot well be separated in the study of man), enables us more fully and accurately to judge of the temperament, tone, quality, and susceptibility of each organisation, and its capacity for endurance and improvement; thus enabling the physician, prepared to take advantage thereof, not only more thoroughly to understand the nature of mental disease, but also the best way to treat it, in accordance with natural peculiarity and idiosyncrasy.

When both phrenology and physiology are properly understood and applied, we shall not go so far astray in marriage, in parentage, in the rearing and training of children, in selecting callings in life, or in trying to put the right man in the right place. In short, a proper knowledge of the two will enable us to understand ourselves and those with whom we come in contact much better than we do, and so prevent us from making so many mistakes, both in regard to the things of to-day which concern us much, and also in regard to the things of the future, which are of no less moment.

ON DREAMING.

Of the more ordinary phenomena of the mind, dreaming is, perhaps, the most wonderful. It is so common, however, that we often cease to regard it with more than a passing thought, except when presented with some of its more surprising manifestations. A good deal of attention has been given to the subject by thinkers from time to time, and many theories to account for it have been advanced; but the cause of dreaming is still shrouded in obscurity. We know, of course, that an over-loaded stomach will occasion bad dreams; that an over-exhausted frame often results in a sleep in which the whole of the day's fatigues are again gone through mentally; and that when the mind is anxious about a task to be done, it will work at it in dream the night through. The cause here is simply that too great a strain has been put upon the nerves, and that they react upon the part of the brain which seems most in sympathy therewith.

But there are other phases of dreaming, the causes whereof are much more recondite. These are the dreams, for instance, which are prophetic in character, and those in which the mind, or portions of it, left to their own automatic action, work more clearly than when in the waking state.

Of the former, there are numberless cases on record. A striking one was recently reported in an American paper. A man dreamed that he made a journey to a certain place, and so indelibly was the impression fixed on his mind, that he remembered the forest road along which he passed, the clearing he came upon, the rapid descent beyond, a log hut, and a man with a horse and cart near it. Some time afterwards he had occasion, unexpectedly, to make a journey, along with a companion, in a direction in which he had never before been. After they had gone some distance, he seemed to recognise the road they were travelling, and immediately remembered his dream. Presently he came to the clearing, and then the resemblance was so striking, that he told his dream to his companion. "Everything," he said, "is as it appeared in my dream, only there is no log hut, and no man." "Let us descend the hill," said his fellow-traveller; "perhaps we may find even them;" and sure enough, when they got to the foot of the hill, there they were. Many even more striking instances than this could be given. Perhaps the originating cause of this kind of dream is to be sought in the same direction as that of premonitions and the like. It is generally supposed that the organ of Spirituality of the phrenologist has something to do with this class

of mental phenomena, but how much is not clear. Persons with that faculty large are generally found to be more vivid in their dreams than others; and children who are in the habit of telling their dreams will almost invariably be found to have this part of the brain well developed. It may yet be discovered that there is a special faculty for the cognition of the future, as there is for anticipation thereof.

Of the other forms of dreaming mentioned above, wherein the faculties act with more lucidity than in the normal state, many equally striking examples are recorded. For instance, Dr. Abercrombie, in his work on the "Intellectual Powers," gives the case of a lawyer, who had been excessively perplexed about a very complicated question. An opinion was required from him, but the question was of such difficulty that he felt very uncertain how his opinion should be given. The opinion had to be given on a certain day, and he awoke on the morning of that day with a feeling of great distress. He said to his wife, "I had a dream: and the whole thing in that dream was clear before my mind, and I would give anything to recover that train of thought." His wife said to him, "Go and look on your table." She had seen him get up, and go to his table, and sit down and write. He went to his table, and found there, in his own handwriting, the very opinion which he had been most earnestly endeavouring to recover, and this opinion he at once saw was the very thing he had been anxious to be able to give.

A case of a very similar kind was put on record a few years ago by a gentleman well known in London, the Rev. John De Liefde, a Dutch clergyman. This gentleman mentioned it on the authority of a fellow-student who had been at the college at which he studied in early life. He had been attending a class in mathematics, and the professor said to his class, one day: "A question of great difficulty has been referred to me by a banker, a very complicated question of accounts, which they themselves have not been able to bring to a satisfactory issue, and they have asked my assistance. I have been trying, and I cannot resolve it. Will you try?" He gave it as a sort of problem to his class, and said he should be extremely obliged to anyone who would bring him the solution by a certain day. The student in question tried it over and over again; he covered many slates with figures, but could not succeed in resolving it. He was a little put on his mettle, and very much desired to attain the solution; but he went to bed on the night before the solution, if attained, was to be given in, without having succeeded. In the morning, when he went to his desk, he found the whole solution worked out

in his own hand. He was perfectly satisfied that it was in his own hand ; but the curious part of it was that the result was correctly obtained by a process very much shorter than any he had tried.

Many persons can remember similar, if not equally striking, results of dreaming, in which the mind has obviously worked more clearly and successfully in this automatic condition than when they have been racking their brains to arrive at some solution. Not many weeks ago, for instance, the writer was greatly troubled at the loss of a manuscript. He ransacked his library for it for days, but without success. At length he gave up the search, thinking some careless hand had destroyed it. The very night that he came to this conclusion he dreamed that the missing MS. was between two books on one of his library shelves. In the morning, when at breakfast, he suddenly remembered his dream, and went to the very place where he had dreamed he saw the MS., and there found it.

In all these instances there can be no doubt the initial direction was given by the will ; but the mind had become harassed, and failed because of the worry ; and it was only when the brain was able to work freely, and without the disturbance of any emotion, that it could attain that steadiness and evenness necessary to a successful result.

A similar effect is often produced in the normal state. We cudgel our brains for a thing—an idea, the solution of a difficulty, perhaps merely a forgotten fact. The more we trouble the further we seem to be from what we want ; but when, for the time being, we have given the thing up, and are thinking about something totally foreign to the matter, there it is. This is a fact worthy of note by young men who are anxious to improve themselves, and to do something, either for themselves or the world. Our best efforts, whether of thought or invention, memory or inspiration, are never the result of a strain, but are the result of a semi-unconscious action of the mind, though of a trained and disciplined mind. It is a hint worthy of acceptance by such, therefore, to train and discipline their minds as much as possible, but to allow them at times quiet and relaxation, and not keep them always on the stretch. Many young men fail from this one cause.

There are other forms of dreaming that might be mentioned did space permit ; but those mentioned above will suffice to show that the phenomena are produced by different causes. It was at one time believed by some phrenologists that there was a special organ for dreaming, and some went so far as to give it a place in their chart of the skull. But this was mere

guess-work, and was not sustained by accurate observation. Nor would the analysis of the phenomena of dreaming lead us to the supposition that there was a special organ for the faculty, since, in the course of a single dream, we may exercise nearly every power of the mind, which, according to one of the fundamental principles of phrenology, could not be. We must, therefore, look for an explanation in another direction.

J. W.

Poetry.

BIRDS OF PASSAGE.

Tell me, happy birds of flight,
Whither fly ye thus to-night?
Have ye more than mortal sight
That guides you on?

O'er the welkin darkness spreads,
Star nor moon no glimmer sheds,
Such a night the wanderer dreads,
Yet fly ye on!

Say, what beacon is your guide
That the clouds from us do hide?
Say, who leads you o'er the tide
So safe and sure?

Doth His watchful hand you lead
As the desert o'er ye speed,
And provide all things in need
In all your ways?

I, like you, am in His hand,
Fronting e'er an unknown land:
Will He guide me to a strand
Of peace and rest?

Fly ye on! though dark the night,
You and me He'll guide aright,
Into realms of endless light
And deathless joy.

ONLY HALF A HERO.

A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER I.

When the pasteboard Jupiter of France hurled his dread thunderbolt of war against poor, terror-stricken Germany, and immediately followed it up by preparing to launch his light-hearted and lighter-ranked legions across the Rhine, making soft-hearted sons of the Fatherland, when they heard the news, feel their hair stand on end, and a cold shudder run through their frames,—there was living in a mansard, in a suburb of Frankfort-on-the-Main, a young man named Gustav Riese. He was a youth who had barely passed his twenty-first birthday; a poor clerk, but recently from the country, somewhere by the Black Forest; retiring and studious of disposition, and by no means over-ambitious or courageous—nay, of so timorous a disposition was he, that the day the declaration of war burst on the astonished world, he told the maid Sanchen, when she opened the door for him, and they had a chat about the terrible news on the stairs, that if he were called out, as he feared he might be, he was sure he should go mad. He certainly seemed better constituted for the arts of peace than for those of war. Slim, and apparently delicate in person—of anything but the giant-like stature that his name would imply, and with hands of almost feminine delicacy, the lute or zither seemed more his instruments than the musket and sword.

Gustav had occupied his present quarters but a few months. Having but the salary of a junior clerk, he was not able to indulge in anything like luxury in the way of lodgings, or, indeed, in any other way. His single mansard room was an exceedingly humble one, and far from elegant, as far as regards the interior; but he had, in a measure, ample compensation exteriorly. The house stood by itself, had a large garden attached to it, and was surrounded by gardens on every side—small market gardens, with neat garden-houses on one side, and on the other the carefully-tended grounds of well-to-do people. The houses—or, perhaps, one ought to say, mansions—of the latter fronted the Anlage, or public promenade, which stretches right round the city, on the site formerly occupied by the city wall and ditch, forming a kind

of green flowery zone, cutting the old town from the suburbs. At the time when our story begins, Spring had completed her perennial conquest of Winter, and had strewn the broad earth with blossom and verdure, as if in triumph, so that Gustav Riese looked down from his dormer window on a perfect sea of white and crimson bloom. The houses seemed like boats or rafts afloat here and there on the bosom of it. Gustav took extreme delight to sit at his casement and gaze down upon the beautiful scene and inhale the fragrant balm that rose on the air. If it was a charming sight in the early morning, it was a delicious one at night, under the pale stars or shimmering moon, more especially when lights began to twinkle here and there, and merry voices and gay laughter rang out on the silent air. Gustav enjoyed his window-place the more because he felt that there was companionship even in these distant voices, and other companionship he had none. He was too poor to be able to go out in the evening, and sit in the cafés or frequent the theatres, as other young men did; and the other inmates of the house—all save Sanchen—considered him beneath them: for, in Frankfort, as in many other places in this imperfect world, a person possessing a few five-pound notes more than another regards the fact as a kind of small patent of nobility, which entitles him to look down upon that other. These other inmates were a widow lady and her extremely plain and extremely proud daughter, who were the owners of the house, and occupied the ground floor, and a couple of very retired, aged people, both invalids, and both without sympathy for any living creature save their dog and their cat. These two occupied the second floor. Sanchen was a maid-of-all-work to the two families, and what with one and another had a pretty lively time of it. But she was a good-natured girl, full of animal spirits and health.

Riese had free access to the garden; indeed he had it pretty much all to himself, for nobody else in the house made any use of it, and a wilderness of a place it had become in consequence. But he preferred the seat by his dormer window, it gave him so much wider outlook into the world; it had, besides, another advantage: it enabled him to be seen; but of that Gustav did not think as yet, for he was not a particularly self-conscious youth. He simply sat at his window, looking down upon the life about him in the gardens and on the promenade, wondering when he should be able to take part in it and enjoy it as others did. There was hardly anything of envy in his composition. The sight of others charged with the positive magnetism of pleasure, did not have the effect of infusing him with a negative fluid. Poverty and

adversity had not sown the slightest bitterness in his nature. There are some whose hearts, like the leaf of the *Combretum grandiflorum*, begin to harden into spines or hooks directly the storms of life beat upon them. Not so Gustav; though acquainted from his earliest youth with hardship, he had kept his heart mellow and without gall, content—almost too content—with the joy that fell to his share. Of course he imagined to himself a future—not a very grand one, but one which would enable him to marry, have his garden-house, his club, and his circle of friends, and to enjoy himself as quietly and sedately as became a pious German subject.

Sitting there, then, with his book before him, and with his honest, patient blue eyes gazing now upon the open page, and now into the world about him, and into the future before him, what wonder that he should become the gazing-stock, and then the object of admiration, of a young soul like himself? Such, indeed, was the case. Between the Schappel-house, under the roof of which was the tiny chamber that constituted Gustav's hearth and home and the promenade, was a large mansion known as "Six-Trees House," from the number of plane trees shading and adorning it on the Anlage side. It was inhabited by a wealthy Protestant Jewish family of the name of Durer, who were justly ranked among the *élite* of the city. The garden bounding the house on three sides was large and well provided with shade. It adjoined the Schappel-house garden, and was only separated from it by a privet hedge.

The Durers were a fashionable people; indeed they were nothing if not fashionable. They accordingly gave and frequented balls and parties very often, partly because they were fond of that sort of thing, and in part because the elders deemed it the proper way to get their daughters provided with husbands. The said daughters were two in number, and rather plain than otherwise; they were, besides, no longer in the bloom of youth, so that both they and their parents thought there was no time to be lost if they were to wed at all. They were good enough natured young ladies, as the world goes; but the fact of their not hitherto having found husbands made them somewhat unjust to another female member of the family, to wit, a cousin. This young lady was the daughter of an only sister of Mr. Durer's, who, together with her husband, had died when their child was but five years old. She had accordingly been left to the guardianship of her uncle, who was also the trustee of her fortune, which was not inconsiderable.

Jessica Bechstein, for that was her name at the time of which we speak, was barely seventeen, and was as pretty as

she was good, which is saying a good deal. She was slight and sylph-like in figure, with a face that was almost angelic in its beauty. It was as fair as a lily, with the slightest touch of peach-like bloom on the cheeks, and was set off by the dark and delicately pencilled arc of the eyebrows, and the long dark lashes of the eyes. The latter were large and pensive, and gave an expression of thoughtfulness, tenderness, and devotion to the face which was very striking. Indeed it was a countenance which, once seen, could not well be forgotten. It was this attractiveness about Jessica which caused her cousins to be jealous of her, and made them keep her mewed up at home when they went out, and in her own room when they had company. She got, however, that she did not greatly mind it. The more she had been kept apart from the world about her the deeper acquaintance had she made with the world of poetry and romance. Her own room, and the garden with its green alleys and shady arbours, were her world; and these she peopled to suit herself.

It is astonishing what injustices people will do, and in some lame way find justification for themselves. Frau Durer, Jessica's aunt, satisfied herself that she was doing right by her niece, on the ground that she was too young to go to balls, too delicate to bear dissipation, and too weak-minded generally for contact with a bad world. A very shallow excuse truly; but many a weaker passes current. Herr Durer had a soul above such trifles as womenkind; he concerned himself with nothing but stocks, and, if they were firm, all else was well. As to the Fraulein Durer, it was enough that they were jealous of the good looks of their cousin. Sometimes we find injustices set off by surprising compensations, but not always. Jessica had her compensations.

It so happened that her window was opposite to the young man Riese's, or nearly so, and it was not long after his advent at the Schappel-house that Jessica began regularly towards evening to look for his appearance at the dormer, and to speculate as to what and who he was. He seemed so high up in the world, so lonely, and altogether so charming with his blond locks, that she had soon surrounded him with a halo of poetry. In short, as is so often the case with women of her type, she first commiserated him for his loneliness and apparent friendlessness, and then loved him, because, apparently, he had afforded her the pleasure of pitying him. All this time Gustav was ignorant of the little romance that was being woven about his being in the mind of a creature as ethereal as ever sprang from the bosom of humanity. An accident, however, discovered his happiness to him.

It happened in the following manner. One evening, as he was sitting at his casement, he saw a young canary fly from Jessica's window and alight in the garden, and immediately after her fair form appear thereat to look where it had gone. Presently she descended into the garden to recover her pet ; she pursued it from one covert to another, the little untame thing flying before her gentle hand as though it had been the greatest barbarian's; finally it took refuge in Gustav's garden, and like a shot he descended the stairs to see if he might aid the young lady in her endeavours to recapture her pet. He succeeded after some little trouble, and, handing it to its fair mistress through the privet fence, where a small opening could be made by pressing the branches gently aside, was rewarded by the sweetest smile he thought he had ever seen light up human lips and human eyes, and gently murmured thanks, the tones whereof, rather than the words, he remembered. But when he got back to his garret and his window, what a difference was there ! The little sphinx had put a riddle in his heart he knew not how to answer. He became unrestful, dissatisfied, and no longer took comfort from the beauty of the world about him as he had hitherto done. Night after night he sat at his window longing for a glance of the fair Jessica, wishing even her pet bird would get loose again, so that he might have the happiness of again catching it, and placing it in her soft hand ; but nothing of the kind happened. One evening, however, as he ate his frugal supper, he heard a soft feminine voice singing Heine's well-known song :

A pine-tree standeth lonely
On a dreary northern height ;
It sleeps with pallid cover
Of ice and snow bedight.

It of a palm tree dreameth
That far in the eastern land,
Silent and lonesome, pineth
On the burning rocky strand.

He went to the window and saw Jessica seated at hers ; she seemed to be sunk in meditation as she sang. How Gustav wished then that he too could sing ; but he had a voice like a swan : it might be tuneful at death's door, but not at love's. When she had done, he thought she looked his way, for it was now dark. But what need to prolong the story of a love's beginning !

“ — loving eyes can it not hide ;
At last the truth will sure be spied.”

So sings Wyatt, and so it has been since ever Adam delved and Eve span. In brief, within a very short space the lovers found their way to the privet hedge, and conversed together through it, pretty much as Pyramus and Thisby did of old, through the chink of a wall. They took care, however, that they were not seen, as much perhaps from the shyness of young love as from a desire to keep the matter secret, though both knew that their sly courtship must be put a stop to directly it was known by her guardians. Consequently their stolen interviews took place at night, or, as happened once or twice, very early in the morning, ere the world generally was up and about.

Matters had gone on thus for about a month or two when the event happened with which our story opens, the hurling of the Jovian thunderbolt which startled the Fatherland so suddenly out of its lethargy and repose. In the Zeil and along the Anlagen men with bloodless faces and quivering lips were meeting and asking each other, "Have you heard the news? War is declared!" And then they stood in groups discussing the momentous event with bated breath. Never did calamity find a people mentally so unprepared for it, or who rose so magnificently to meet it.

Riese was like one stunned at the news. For the first time for months he did not go straight to his lodgings when his day's work was done. Like many another, he loitered about the streets, joining first this group, and then that, to hear the talk and to try to extract some crumb of comfort from amidst the general misery. When he did get to his garret, it was to throw himself down with a feeling of utter despair. When Sanchen entered with the bowl of chocolate and roll which formed his frugal supper, she found him blubbering like a whipped child. Her breast, too, was full of the common emotion, so that she consoled with him, and had no heart to tell him to leave weeping to the women. Many a brave warrior of those days cried ere he shouldered musket, and only found his tears dry up in the heat of battle.

"Get something to eat," said Sanchen after she had given the poor fellow a sisterly hug, and smoothed down his hair with her broad hand, "like the hand of Providence."

"I can't eat," replied Gustav.

"Well, take a drink anyhow," urged Sanchen. "It will do you good."

The youth raised the bowl to his lips and drank, while the tears rolled down into his chocolate.

"Now eat a bit," said Sanchen coaxingly. "It makes one braver to have the stomach full," she added.

"O time enough to eat and be brave when they call me out," answered Gustav dolefully, "and I suppose that won't be long."

"Don't begin to trouble about that already; you may not be wanted at all. They may be able to put these French to rights as they did the Austrians in sixty-six; so cheer up!"

This was the only bit of comfort he had had since the awful news came, and Gustav accordingly took a little heart. He now thought of his beloved Jessica, and inwardly chid himself for having forgotten her in his trouble. Quickly preparing himself for an interview, he descended and made his way stealthily to the most secret corner of the garden, where they had found that, by a little management, they could get pretty close to each other; indeed it would not have been difficult, as Gustav soon discovered, for him to get right through into the Durer garden. But hitherto they had been content to stand and talk "for their comfort," separated by the hedge. He had not been seated many minutes ere he heard a light footstep, and then a gentle voice whispering—

"Bist du da?" (Are you there?)

"Ja, da bin ich, mein Liebchen" (Yes, here I am), he answered, pushing the foliage aside, and grasping and pressing the tiny white hand that was held out to him.

Of course they talked of the great news, and hoped that he would not be called on to join the ranks. "But," said Jessica, "if you are you will go with a strong heart, and fight for the Fatherland like a hero, as all true German sons should in this hour of her trial."

"Oh, yes, of course," said Gustav; and then added, after a pause; "but I must confess I am anything but a hero; for the bare thought of guns and cold steel makes me shudder."

Poor Jessica shuddered, too, at the mention of these implements of civilisation; but she said, nevertheless: "Perhaps that is natural; but the sense of duty should overcome those qualms."

"Yes, truly," acquiesced Gustav; "but I would rather duty called me anywhere else than to the battle-field."

"But when an enemy threatens to desecrate our hearths and homes," pleaded Jessica, "all, even weak women, ought to become heroes and heroines."

"They ought, indeed," said Gustav; "but I'm afraid a hero was never made out of such unpromising stuff as myself."

The young lady's answer was a mild objurgation. She added, that she trusted his courage would not need to be put to the proof; to which prayer Gustav fervently responded "Amen."

In this, however, their wishes were not fulfilled, Riese's summons to the ranks coming upon him the very next morning, and giving him but twelve hours for preparation. He had nothing to do but to go and inform his employer, Mr. Mosenthal, a wine merchant, of his call, settle matters with him, and then go home to console his drooping spirits as best he might. Even the generosity of Mosenthal, who promised that his place should be there for him with an increase of salary when he returned, did not comfort him much. Sanchen had again to take upon herself the office of comforter, which she did with a good will, seeing that she had a lurking fondness for the good-natured youth.

How he longed for night and darkness. Never had he wished for them so much in his life. A little after eleven he had to be at the Mainz-Necker railway station, to proceed he knew not whither; and he feared lest the light should last until that hour and deprive him of the pleasure of a last interview with Jessica; but gloaming came at length, and then he went to his window and gave the signal they had agreed upon. Descending immediately afterwards to the garden, he was joined almost instantly by Jessica.

"Beloved," he said, with a solemnity of tone that would have well fitted a funeral, "it is not long that I shall be able to stay with you to-night."

"Why?"

"Because I have to go to the war."

"Have you received your summons then?"

"Yes."

"When?"

"This morning; and in three quarters of an hour I have to be at the Mainz-Necker station *en route* for the front."

"That is very sudden," said Jessica, tremulously.

"It is," replied Gustav, adding, with a lump in his throat, "and it may be the last time we shall meet."

There was a pause for a few moments, Jessica's heart being too full for her to speak. She soon mastered her emotion, however, and replied: "We must hope for the best. The war may soon be over, and you may come home covered with glory—"

"And with a wooden leg, or only one arm," interrupted Gustav sadly.

"Why should you look at the worst side of the picture?" said Jessica. "Why should you not take the brightest view, and anticipate that you may live through hardship and danger, and come home to receive the thanks of your country and—"

Jessica did not finish her sentence. Perhaps she found that her feelings were carrying her further than prudence would dictate. Anyhow, she stopped short, and Gustav asked :

"And what?"

Jessica hesitated a moment for her reply, and then said :

"Well, perhaps my thanks, after you had received your country's, would be superfluous ; it would be like the gift of a dewdrop after you had received the ocean."

"But the dewdrop," said Gustav, "would, nevertheless, be the better gift ; it would be one to touch the heart, while the other would only appeal to the imagination."

"Well, then, be sure you shall receive my thanks."

"Thank you, Liebchen," said Gustav, grasping both Jessica's hands, and drawing her nearer to him. Then, after a pause, he said, in a lower and more mournful tone : "And if I never come back again, will you still bear a little thought in your heart for me?"

"Why will you persist in looking so darkly on things?"

"Because I have thought ever since this thunder-cloud of war burst over us that it would perhaps be best that I should be called to the ranks, and fall fighting for the Fatherland ; for by so dying I should perhaps be spared a greater misfortune."

"How so?"

"Why, dear," replied Gustav, "am I not a poor man, and am I not loving a maiden, who, both by fortune and education, is placed above me, to love whom is a presumption?"

"Is there, then, so great a difference between us? Does the fact of my relations being rich and yours poor place such a gulf between us? Have not greater chasms been bridged ere now? If someone were to say to you, 'There is on yonder mountain a rich treasure, which, if you can secure it, will make you happy for life, but it will cost much pain and trouble in the getting,'—would you say, 'It were better I stayed here on these low and level grounds?'"

"No, no!" said Gustav ; "not so. But were you the treasure, and the end of my striving were to bring sorrow to you—for would not your friends turn against you and make you unhappy?—should I then not hesitate?"

Jessica waited some time before she answered. She then said : "If your thought is for me, Gustav, be sure that if you take your risk, and do your duty worthily before the foe of our country, I shall not shrink from doing mine before any foe that may appear here."

"Your words make me half a hero," said Gustav, with effusion.

It was now time for the young man to be going, and, taking his first kiss, he departed ; but ere he left his garret-room, he cast another tearful look on the blooming gardens beneath him and upon the casement opposite, the light issuing from which was as the one star that was to light him through the troubles and dangers of the coming time.

(To be continued.)

EVENING SADNESS.

(From the German of Salis.)

Over the pines the lamp of Hesper twinkled ;
Gently died the fervent glow of ev'ning,
And th' trembling aspen by the silent water
Rustled so softly.

Spiritual forms arose from out the gloaming
Of mem'ries fond ; around me hover'd sadly
The images of loved ones far away,
And those the grave had ta'en.

O holy shades ! no more can earthly ev'ning
Unite us all again, I sigh'd so lonely ;
Hesper had sunk, and now the trembling aspen
Rustled in sadness.

THE SECRET OF GREAT ACHIEVEMENTS.—There is a certain showy and superficial something which can be done in a very short time. One may act the part of a harlequin with his mind as well as with his body ; and there is a sort of mental agility which always gives one the impression of a harlequin. Anything which can be spoken of as a feat is apt to suggest this association. That man, for example, was a thorough harlequin in both senses of the word, who boasted that he could throw off a hundred verses of poetry while he stood upon one foot. There was something for wonder in this ; but it is rarely by any such exploit that we obtain deep and powerful and enduring poetry. It is by dint of steady labour,—it is by giving enough of application to the work, and having enough of time for the doing of it,—it is by regular painstaking and the plying of constant assiduities,—it is by these, and not by any process oflegerdemain, that we secure the strength and the staple of real excellence. It was thus that Newton pioneered his way, by the steps of an ascending geometry, to the mechanism of the heavens, after which he left this testimony behind him : that he was conscious of nothing else but a habit of patient thinking which could at all distinguish him from other men.—*Dr. Chalmers.*

Facts and Gossip.

THE proprietors of the PHRENOLOGICAL MAGAZINE have great pleasure in announcing that the reception of their venture has been so encouraging that they have decided permanently to increase its size. They also hope, if the promise of the first month be sustained, to enlarge it still more in the course of a few months. So earnest is the desire for the success of the MAGAZINE, that some of our friends have subscribed for three or more copies each month, doubtless thinking that an important element in its success is the sinews of war; others have ordered copies for public library tables. No effort will be left wanting to sustain the good impression made, and, if possible, to increase it.

A LADY correspondent, writing in reference to the article on Psychology in our last issue, calls attention to the fact that there is an interesting example of sympathy or premonition in the life of Bishop Wilberforce, which is now being very widely read. His son was at sea, and the memoir records a remarkable sense he had of some hurt happening to him. So strong was the impression that he recorded it, and it turned out afterwards that, at the very time, his son's foot was badly crushed on board ship.

A CONTEMPORARY animadverts on the growing tendency to allow children to keep late hours, and develop other unwholesome and unnatural habits. Late hours are no doubt bad for all of us. The adult knowingly incurs the penalty, and is besides prepared to resist the penalties that ill-doing involves. But with fatal effect will evenings which end with early morning tell on the constitutions of children who, in this year of grace, consider it their business to go to half-a-dozen parties a week, and to partake of meats and drinks hardly fit for those of an age at which indigestion and its attendant evils are matters of privilege. The result of such habits is inevitable. The fresh, lovable, ingenuous child, sung of by the poet, painted by the artist, and beloved in the household, will cease to exist, and in its stead will be presented a growth unpleasant to contemplate, and impossible to sympathise with. In place of children we shall have little old men and women.

It has long been known that certain persons are strongly electric, that is, they are so charged with electricity that they can give shocks pretty much as the gymnotus and other fishes do. The case of the electric girl of London, Canada, however, is one of the most remarkable we have heard of. She is just nineteen years old. She has

been sick two years, but is now well. The doctors could not tell what was the matter with her, but since her recovery she seems to be a walking battery. Unless your nerves are very strong, you cannot shake hands with her, nor can anyone place his hand in a pail of water with hers. By joining hands, she can send a sharp shock through fifteen or twenty people in a room, and she possesses all the attractions of a magnet. If she attempts to pick up a knife, the blade jumps into her hand, and a paper of needles will hang suspended from one of her fingers. She cannot drop any small article of steel she may pick up. On entering a room, a perceptible influence seizes everyone present; and while some are affected with sleepiness, others are ill and fidgety till they leave. A sleeping infant will wake at her approach, but with a stroke of her hand she can coax it to slumber again. Animals are also subject to her influence, and a pet dog of the household will lie for hours at her feet as motionless as death: so, at least, says an American paper.

RECENTLY some discussion took place in the pages of a London daily newspaper as to the mental capacity of woman, in regard to her qualifications as a voter. Some facts were given about her phrenology that were very wide of the mark, and need, therefore, to be corrected. The average circumference of the female head is $21\frac{1}{2}$ inches, and that of the male head 22 inches; so that the average female head is not $1\frac{1}{2}$ inches less than the average male (as was stated), but only half an inch. A 24-inch male head is a rarity, and a 22-inch head, with good quality of brain, is often the most available. The heads of some of our most able and talented men do not exceed from 20 to $22\frac{1}{2}$ inches. To say that male heads of 22 inches have no power (as was said) is absurdly wrong; and to argue that because a woman has a brain half an inch less than a man, therefore she is incapable of voting, is nonsense; for many a man with a 21-inch brain has a vote. But the whole discussion on such a basis is unreasonable. Size, as a measure of power, is misleading, unless taken in conjunction with quality and other conditions. As a rule, woman has a finer texture of organisation and more condensed and concentrated force than man: hence her powers are more available, her instincts sharper, and her mental operations quicker than those of the stronger sex.

AN important question as regards phrenology has just been decided in the Scotch Law Courts. Some years ago, a gentleman named Henderson left a sum of money "to be applied for the advancement of the science of phrenology, and its practical application." The trustees of the will spent a portion of the money in a way, as they thought, calculated to promote phrenological science. Recently, however, two of the grandchildren of the testator's father, brought an action against the trustees to have it "found and declared" that they were entitled to the residue of their uncle's estate (estimated at

£9,000) on the ground that phrenology was not a science ; but the judge decided against them, and so, henceforth, it is to be presumed that legal minds will have to recognise phrenology as a science. His lordship said that he understood by the science of phrenology that branch of scientific inquiry which undertakes to investigate the nature and functions of the brain. There might possibly be differences of opinion as to the scientific value of such investigations, as also to the scientific character of some of the modes of investigation which had been adopted by the trustees ; but the validity of the bequest did not depend on these considerations. The question was whether phrenology was a sufficiently distinct and definite branch of science to be the subject of a bequest, and he decidedly thought that it was. So now the trustees can go on encouraging investigation in peace and quietness.

THE English have always been said to be the most practical people in the world. The Americans, however, bid fair to out-do us in practicality. Since the question of colour-blindness has come so prominently to the front, they have begun to look at the bearings of the subject very closely, and one of the results has been that the directors of the Pennsylvania railroad ferries, following the example given them by the steam and ferryboat companies of Philadelphia, recently decided that every man in their employ should be examined, and that those not having the proper qualifications for accurately distinguishing colours should be placed in positions not requiring that faculty. Ten men were put to the test every day until the whole were examined, and those who passed the examination successfully were given certificates. Dr. White, the examining surgeon, stated that he was satisfied, from his personal experience, that a great many collisions between vessels were caused by colour-blindness, and was of opinion that no person was fit to be captain or pilot of a vessel until he had passed a rigid examination as to his perception of colours. On an average he found one man in every twenty colour-blind.

THE influences of the domestication of animals on brain-growth has been found by Dr. Crichton Brown to result in a gradual reduction in the size of the brain. The duck affords a striking example. Dr. Brown extends the same principle to man, and argues that he may, if brought up in luxury and idleness, and not forced to participate in the struggle for place and power, depreciate in brain-calibre ; civilisation, therefore, that tends to the enervation of men, or classes of men, is not a true one.

Reviews.

Business—Money—Morality. By JAMES PLATT. Simpkin, Marshall & Co., Stationers' Hall Court, London.

These three volumes are exceedingly valuable, and should be in the hands of every young man who has entered or is about to enter upon a business career; indeed, hardly anyone could fail to profit by them. Written by a business man, they are practical and suggestive from beginning to end. In writing them, Mr. Platt has evidently had before his mind's eye the ideal merchant or tradesman. In "Business" he passes under review the leading principles that conduce to success, and if they could be summed up in a few sentences they would be embodied in the following: "After reading every available book, and reflecting carefully upon my own experience, I am convinced that, although success and fortune may seem at times accidental, they are invariably due to industry, perseverance, wise forethought, and by a prudent reserve against being led away by the temporary excitement of speculations which seem periodically to make sad havoc with the accumulations of equally industrious but less careful men. As a rule, the man who honestly and exactly describes the process by which the sound fortunes in any city are or have been made, would detail a story of thrift and prudence, good judgment, and wise reserve; and also that the lasting fortunes are those that have been made in regular, straightforward businesses, by cautious investments, and not by hazardous speculations, or a system of sharp practice bordering on actual dishonesty." The chapters on health, on education and observation, on industry, arrangement, punctuality, prudence, and integrity, are especially valuable.

Within the compass of the 208 pages forming the volume on "Money," is comprised a mass of information truly invaluable to anyone willing to use it; and it is put in such a way that none can fail to benefit by it who give it attention. Mr. Platt has been struck with the amount of ignorance that prevails on the subject of money, and has in this little work tried in some measure to remedy the defect. "We want," he says, "a writer of equal calibre (to Adam Smith) to clearly demonstrate to the people that the causes of, and remedies for, the distress and misery we are subjected to as a commercial nation from periodical 'panics' arise from the people's ignorance of 'money,' what it can and what it *cannot* do, and its function as a medium of exchange. 'Money,' in its various forms of credit, bank-notes, bills, cheques, is an enigma to the mass. To supply this information, so as to enable the people to comprehend business, and how to make money morally, would be one of the greatest and most beneficial reforms ever achieved." He would have "business," "money," and kindred subjects form part of every man's education; and as the end he aims at is not only a material but a moral one, he asks for the aid of the pulpit, the platform, and the School Board. The importance of the subject can hardly be over-estimated. The acquiring and using of money take up a large portion of most

people's life, and hence we cannot too well understand the power and value of money, its various forms—as bank-notes, cheques, bills of exchange, &c., and its influence on national and individual prosperity. All these and many other questions are thoroughly discussed in Mr. Platt's pages, the study of which we cannot too highly recommend.

Of "Morality," to which we purpose referring more at length on some future occasion, suffice it to say, that, like the two former of the trio, it contains much novel and original matter, and cannot but benefit those who give it attentive perusal.

Modelling in Clay. Simpkin, Marshall & Co., London.

Mr. A. L. Vago has published a little book of instruction in the art of modelling, which, within the compass of sixty pages, gives the beginner a very good idea how to go to work upon a piece of clay in order to produce a work of art. Mr. Vago is a believer in phrenology and physiognomy, and he tells us that "French artists, who do not hesitate to recognise physiognomy, excel on that account in the art of portraying character in their busts." Anyone wishing to know how to take the first steps in the art of modelling, cannot do better than procure a copy of this work.

The Children's Corner.

HOW TO MAKE A NEEDLE.

There was once a little boy who very much wanted to be something—he hardly knew what; and so he sat day by day on a little hollow stone by his mother's door dreaming and longing, longing and dreaming, and never doing anything but that. He ate his breakfast, he ate his dinner, and he ate his supper, and grew every day bigger and bigger, and still he sat there wondering what he should be and do. People called him "Sleepyhead."

One day an old man came and asked Sleepyhead if he might sit and rest on his mother's door-step, as he was very tired.

"Yes," said Sleepyhead, "you may if you like. But what makes you tired?"

"O I've been a long way, and have had nothing but disappointment."

"Tell me all about it," said Sleepyhead.

"Well, you see," began the old man, "I've had a notion this many and many a year that I should like to do something that would cause me to be known as long as the world should last; and so I've been going about, now in this country, and then in that, trying to hit upon something to do that would make me a great man."

"And have you succeeded?" asked Sleepyhead.

"Not yet," said the old man; "and I'm afraid I never shall. Still I must try. Good-bye!" and away he went.

Sleepyhead fell into a brown-study, but was presently waked up by

the approach of another old man, this time one of venerable appearance.

"Will you allow me to sit on your mother's door-step, little man?" asked the stranger.

"Yes, if you like," said Sleepyhead. "What have you been doing to make you so tired?"

"I've been trying to do a great work," replied the old man.

"Oh, have you?" said Sleepyhead, thinking of the one who had gone before. "Tell me all about it."

"Well, you must understand that in a valley hard by, across which thousands and thousands of people have to travel day by day, there are a number of dangerous rivers and pathless wastes; and I thought if I could make a fair track through one of these wastes, or throw a stout bridge across one of those streams, I should have done something to benefit my fellow-men, and maybe to cause me to be remembered by them."

"Good!" said Sleepyhead. "What then? Have you done so?"

"Not yet," replied the greybeard. "I've had a try at a good many, but something unfortunate has always turned up to stop me. I'm just going to look at another, however, and I have no doubt I shall succeed this time, if my life be spared a little longer. Good-bye!"

"Good-bye!" said Sleepyhead, and once more fell to his day-dreaming.

Again, after a little while, he was disturbed in his musings. This time it was by a little, wrinkled old man, with tiny bright eyes and long wavy hair.

"Well," exclaimed Sleepyhead, "you are a funny little fellow! I suppose you want to rest on my mother's door-step, too?"

"Not I," said the little man, with a laugh, "I have something else to do."

"What do you do?" asked Sleepyhead.

"Oh, I go about the world, seeing all I can; there are some rare things to be seen."

"Are there?" said Sleepyhead. "Have you seen anything rare lately?"

"I should think I have. Only an hour ago I saw a wrinkled little dame enjoying a bit of a dance in front of her cottage all by herself."

"That was funny," said Sleepyhead. "What did she dance for?"

"I went up and asked her," said the stranger; "and she showed me a bright little needle, and said that five years ago that was a harpoon, which her father had left her when he died; but a harpoon was no good to her, and she wanted a needle, so she set to work and rubbed it on a stone until she ground it down into a needle. 'Now,' said the little dame, 'I can mend my good man's clothes, so that he need not go ragged.' That's what I call going the right way to do a thing."

"So it is," said Sleepyhead; "but—"

But the funny little man had gone.

"Well!" exclaimed Sleepyhead, after he had had another good think; "that is an amusing fellow! I should have liked to ask him more about the little woman. Although she only made a needle, I like her plan better than the other two's. I'd rather finish a small thing than be always trying big ones, and do nothing after all."

So he went to work, and people never called him "Sleepyhead" again. He became famous for the many great things he did; and, when he died, they put up a monument to his memory, on which was carved, by his own wish, the picture of a little housewife rubbing down a harpoon into a needle!

S.

Answers to Correspondents.

A GENTLEMAN OF NORTHAMPTON asks if there is any other cause, besides a deficiency in the organ of Colour, that would incapacitate a person from judging of colours correctly. "I have a friend," he says, "who cannot distinguish certain colours at a moderate distance from him; he has to bring them close to his eye before he can see the difference. An optician told him that not one in ten had so good eyesight. He says he enjoys looking at flowers." Taking the above statement as an accurate description of the case, we should explain the peculiarity as follows. The retina consists of ten different layers, and that which lies farthest away from the source of light is called the layer of rods and cones. It is now pretty well established that this layer is concerned in the conversion of waves of ether into sensations of light and colour, the perception of light being more especially a function of the rods, and that of colour being rendered possible exclusively by means of the cones. If, therefore, in the case in point, the cones of the tenth layer were less developed than the rods, it would account for the general eyesight being good, while the perception of colours was less perfect.

AMATEUR writes:—"In a recent examination, I found an unusually well-developed brain, the moral region splendidly exhibited, intellect very fine, and the social organs good, with a well-balanced motive and vital temperament. I read according to such appearances, but was much surprised to find the man was in no way remarkable for what I had said of him. On further inquiry, I learned he was a stupid, common-place character, rather well disposed, but quite without pretension or capacity. Could you explain this apparent anomaly?" Amateur must bear in mind that size is not always a measure of power. Tone, quality, and *texture* of organisation are highly important. But it is possible that, in the case referred to, there may have been some arrest of mental development through disease or something of the kind.

Several communications have unavoidably to be deferred until next month.

THE
Phrenological Magazine.

MARCH, 1880.

PROFESSOR NORDENSKIÖLD, THE ARCTIC
EXPLORER.

We have this month selected as a phrenological study the portrait of the now celebrated Arctic explorer, Nordenskiöld, and, as he may not be well known to some, it may be as well to preface the Character Sketch with a few biographical particulars.

Professor Adolf Erik Nordenskiöld is now forty-seven years of age, and is a native of Helsingfors, the capital of Finland; but is by preference a Swedish, instead of a Russian, citizen. Having received a scientific education, and gained some repute as a mineralogist, he was appointed to join the private expeditions of Otto Torell in 1858 and 1861, to examine the geology of Spitzbergen. The Government expedition of 1864 was placed under the personal direction of Nordenskiöld. In 1868 he tried to reach the Pole by sailing due north from Spitzbergen, and proved that it could not be done. He, however, reached the highest north latitude (81 deg. 42 min.) yet attained in the seas immediately north of Europe. In 1870 the intrepid explorer visited the coast of Greenland, and in 1872-3 he again made an attempt to reach the Pole due north from Spitzbergen; this time, however, by proceeding over the packed ice in sledges, carrying also boats, with which to cross intervening spaces of water. Though the object of the voyage was not attained, a large amount of valuable information was collected.

In 1875 and 1876 Professor Nordenskiöld made voyages along the coast of Siberia, as far as the Siberian river, Jenissej, gaining in these two trips the experience that led him to suppose that a north-east Passage was practicable.

His last successful voyage is generally known, so far as particulars have yet come to hand. Leaving Gothenburg on

the 4th of July, 1878, in the "Vega," Professor Nordenskiöld sighted Nova Zembla on the 28th, and anchored on that day off a village on the Samoyed peninsula, at the entrance to the Kara Sea. On the 1st of August the little steamer proceeded very slowly eastward, dredging and sounding continually, and in five days was safely anchored in Dickson's Haven, which, according to the Professor, is destined to be in future years one of the chief exporting ports of Siberia. On the 10th the "Vega" resumed her course, and, threading her way through unknown islands, reached a fine harbour situated in the strait between Taimyr Island and the mainland, and called, because of the number of actinia dredged up, Actinia Haven. Leaving the latter place on the 18th, they coasted north-east, and next evening came to anchor in a bay off Cape Chelyuskin, or Severo, the most northerly point of Asia, being the first time the formidable headland had been turned. This notable promontory stands in 77 deg. 41 min. N., and 104 deg. 1 min. E. Professor Nordenskiöld here found a variety of animal and vegetable life, very surprising to those who had hitherto considered the shores of the Arctic Ocean a frozen wilderness. Geese, ducks, sandpipers, and other birds, were seen on the coast; while walrus, seals, and the white whale sported in the sea. On the 21st the voyage was resumed, and in the course of a few days the "Vega" reached the mouth of the Katanga river. On the 27th the little vessel headed northwards for the Siberian Islands, after having passed the estuary of the River Lena; but the ice prevented the thorough exploration of the wonderful group. Nordenskiöld now turned southwards again, and passed the mouth of the Kolyna, and immediately afterwards the most serious difficulties of the voyage began. Every day the ice thickened, until, on the 28th of September, it was found impossible to proceed further, and preparations were accordingly made for wintering. They had by this time reached Koluitchin, one of the easternmost islands of Asia. For 264 days the explorers remained ice-bound; but at last the floes began to thin and scatter, and on the 18th of July, 1879, the "Vega" once more floated, and on the 20th steamed through Behring's Straits, arriving safely in the Japanese harbour of Yokohama, on the 2nd of September.

A full account of this successful voyage, from the pen of Nordenskiöld himself, is eagerly looked forward to by scientists and others, as the richest results are anticipated—not only in regard to geography, meteorology, natural history, mineralogy, and geology, but also with reference to ethnology.

PHRENOLOGICAL CHARACTERISTICS

The accompanying engraving of Professor Nordenskiöld indicates a superior physical and mental organisation. He partakes strongly of the peculiarities of both father and mother,



resembling the former in neck, nose, chin, ears, and bulk of brain; and the latter in evenness of development, fineness of texture, tone of organisation, and regularity of features. Masculine strength and comprehensiveness are combined in

a remarkable degree with feminine activity and susceptibility, giving, of course, more than ordinary variety to his mind.

His brain is as large and vigorous in proportion as his body, so that his physical and mental powers are by nature well balanced. He is equally well qualified for either physical or mental labour, or physical or mental endurance. Few persons are so well balanced in this respect. He appears to have no constitutional ailments, and must have come from a superior stock, on both the paternal and maternal sides. There is, too, a happy blending of the natures of both parents in his.

The leading feature of his organisation is, that all his powers work correctly and harmoniously together. He seldom has to reverse his judgment, or undo what he has done. His brain is fully developed in every department.

The breadth of his head from ear to ear, the largeness of the entire base of the brain, together with the firmness with which his head is set on his shoulders, indicate great force and energy of character, and a strong hold on life.

He is terribly in earnest, and is capable of putting forth effort equal to the task he has to do. He has by nature a good appetite and equally good digestive power.

The whole head is broad and full at the sides, which indicates great versatility of talent, much conservative power, and ability to use all his resources to a good advantage. He is far from being prodigal, yet will spend freely, if necessary, to accomplish his ends. His large caution and intellect combined should give him great forethought and capacity to foresee and provide for coming wants. He is seldom at a loss for means to accomplish his ends, for such a brain must have many resources.

The frontal lobe is high, broad, and full, indicating that all the intellectual faculties are well developed. The perceptive faculties are all large. The breadth between the eyes indicates a correct perception of form and outline. Order and Calculation are large, giving great power to organise, systematise, arrange, and plan; they also attest more than ordinary mathematical talent. The forehead being high, indicates strong reasoning powers and a comprehensive mind, ready wit, a strong sense of punctuality, much versatility of talent, and ability to contrive and devise ways and means. These powers, combined with his large Ideality and Sublimity, give him superior taste, sense of perfection, fondness for art, love of the sublime, and capacity to solve difficult and complicated problems.

The head is high as well as broad and full. This makes him a man of principle and influence. He is naturally inclined

to a steady and uniform course of life, and to fixed rules of conduct; will maintain his position with great tenacity, and show not only a very positive mind, but great perseverance and power of application.

The moral brain, as a whole, is large, indicating strong sense of obligation, hope with reference to the future, reverence, respect, and a kind and considerate disposition.

Another prominent quality of the Professor's mind is its receptivity to new truths and its openness to conviction. He has also great power of adaptation, and can easily suit himself to new work, manners, and circumstances. As an artist he would readily copy, imitate, or work after a pattern.

It is very seldom that we find blended in one organisation so much physical force, courage both moral and physical, so much conservative, restraining power, with such will, perseverance, and application; such versatility of talent, ingenuity, taste, and imagination, combined with so much mathematical ability and power to plan, organise, and systematise; such correct perception of material objects, together with the capacity to make all knowledge available and useful; and, lastly, so high a degree of refinement, susceptibility, and delicacy of feeling, with such a strongly masculine, mental, and physical organisation.

L. N. FOWLER.

A CHAT ABOUT OBJECTORS.

There are two classes of people—those who believe, and those who disbelieve. Every important subject having a special bearing is rejected and found fault with by some. Believers have the advantage over sceptics. It is healthy to believe, but not healthy to disbelieve; and it is safer to believe too much than to disbelieve what is true. Man is still a student, and new truths are continually unfolding; and it is wise to have a mind open to this fact.

Every conceivable objection has been brought against phrenology, as though it were something to be shunned as morally bad and scientifically impossible. Some say it is not true, and, at the same time, say that its tendencies are bad. If it is not true, there can be no objections to it; for there is nothing of it. If it is true, it is so because it is a fundamental principle in nature, and to object to such a fact is unreasonable. Phrenology belongs to the same family of truths as physiology, chemistry, and natural philosophy, and why it is taken exception to more than another it is difficult to under-

stand. If one is from the hand of God, they all are. To oppose phrenology, therefore, is to oppose a truth in nature.

Either phrenology is true or it is not. If true, it is a fixed fact, and cannot be done away with ; for it is in the nature of things, and extends through all sentient existence. Where there is brain, nerve, and mind, there is phrenology. It may be true, and yet not easily understood or applied by everyone. Some men want a new truth that requires much investigation to be as plain as the nose on the face, or they will not admit it ; and, because all points are not cleared up at once, it is rejected. This was particularly true in the first years of the development of phrenology. Many objections that were at first brought against the science are now seldom, or never, mentioned, especially the once much-made-of moral objections. Anatomical objections, that were formerly paraded everywhere, still occasionally crop up under the hand of some half-informed person.

But the chief objectors to phrenology are those who are not only ignorant of the subject, but quite unwilling to look into it. It seems to be their life to disbelieve, for they persist in their disbelief until conviction actually overwhelms them : then they make tardy acknowledgment of their error. It is not pretended by any intelligent phrenologist that the science is perfect. All that they maintain is, that there are some facts in it so palpably true as to convince any honest and intelligent mind that looks into the subject, and that those who deny without investigation are not candid seekers after truth.

Many years ago a great theologian and very zealous Christian was bitterly opposed to phrenology and to me as a phrenologist, and said I was in league with the devil in promulgating error and irreligion ; and when once we were thrown together in travelling, he would scarcely speak to me. He denounced phrenology as teaching dangerous doctrines and bringing about bad results. I asked him if he knew anything about the science. He said : " No," he did not, nor did he want to. I then said : " We are strangers ; we have never met before ; do you mind my examining your head, to see if I can tell your character ?" He replied, that as we were strangers and alone, he would allow me to make the examination. He was astounded when I had made the examination, and said I had told him his character exactly, hitting upon things that no one knew but himself. He said he could not understand how I did it. I told him the explanation was simple : it was because phrenology was true. He said he would look into it. After attending a course of

lectures and a class for instruction in the science, he publicly stated at my closing lecture the position he had taken against phrenology, and the objections he had had against it; but now that he understood it, he not only had no objections to it, but considered it a handmaid to Christianity, and advised all to study and apply its principles.

This was in New Orleans in 1836; and from that time he has been a firm friend to phrenology and myself. His name is Dr. Warren, and he is of New York. He told Dr. Hood, who was a professor of anatomy in a medical college of Philadelphia, that he was converted to phrenology. Dr. Hood laughed at him, and said: "I can take phrenology in one hand and anatomy in the other, and demonstrate by the latter that there is no truth in phrenology." He challenged me to a discussion on the subject. I accepted the challenge. We met. He said: "Come, now, here is a man direct from the North, whom you have never seen before and can know nothing about, whereas I know him like a book. Tell me his character." I did so; and he admitted it was all true; but asked: "How did you do it?" "Because phrenology is true," I replied. "Well," said he, "tell my character; you don't know me." I did; and he said it was astonishingly correct, and said that none of his friends, not even his wife, could have done it so well; but added: "I do not see how you do it." I said I would show him. We were together for three months after that, and I took every opportunity to explain phrenology to him. At one of my lectures he took the brain in one hand and a marked bust in the other, and said: "Once I had strong anatomical objections to phrenology, and thought I could prove anatomically that there was no truth in it; but I see how it is now that I understand phrenology. I now see there is no anatomical objection to the science."

A reverend gentleman of the name of Smith, a Scotchman by birth, with a brain twenty-five inches in circumference, a Doctor of Divinity and an author and editor, was once invited to attend my lectures, and write such a notice of them as he saw fit. He replied, that he did not believe in the science, but would test me. If I would go to his house and examine his children and describe their characters correctly, he would give me a favourable notice; but if I failed, he would come down upon me without mercy. I agreed to his proposition, and examined his family, the result being that he gave me one of the best notices I ever had; and he remained a friend to the day of his death, which occurred in Dundee, Scotland, a few years ago, as American Consul.

These three are typical cases out of a host of others I could draw from an experience in connection with phrenology extending over some forty-five years. Disbelief can conjure up any number of objections to this or any other science; but directly the sceptic begins to investigate, if he is honest and has a mind broad enough for the reception of all truth, his doubts about the truth of phrenology vanish like mist before the noonday sun.

L. N. F.

MEMORY.

Most people speak of memory as if it was a special faculty, in this respect following the metaphysicians; whereas there are as many kinds of memory as there are distinct powers of mind. Each faculty does its own remembering, and its retentiveness of impressions depends, *ceteris paribus*, on the size and activity of the organ through which it is manifested. Thus large Cautiousness gives a good memory of dangers passed; large Alimentiveness, a good memory of things eaten; large Benevolence, a good memory of charitable acts; Ideality, a retentive memory of things that have struck the æsthetic sense, and so on with the other mental qualities.

It is only on this principle that we can account for the different form memory assumes in different persons. Thus, taking the intellectual powers, we find that one person has a good memory in one or two respects, but a poor or indifferent one in others. It is rare to meet with a memory good in all particulars. One person remembers faces, the forms of things, proportions, and so on, while another has the greatest difficulty in recognising an individual but recently introduced; and there are persons who never perceive the likeness in a portrait. A defective memory in this respect arises from a lack of the phrenological organs of Form and Size; but such a person may be perfectly well able to remember events, anecdotes, and history generally, or to recall thoughts and ideas, the order and arrangement of things, and so forth. It is common for persons even to be able to remember the features of others, but not to identify them by name: there is memory of form and shape, but not of words; Form and Size being large, but not Language. So we find people who have most wonderful powers for remembering figures, for recalling tunes, or for reproducing from memory exact pictures of landscapes; but they may not be able to repeat a single line of poetry, or to tell a thing in the exact words in which they heard it. Why

is this? Because each power of intellect does its own remembering.

Everyone must have noticed how easy it is for some children to commit to memory—that is, to learn to repeat words, and how difficult it is to others. To some the learning by heart of a whole chapter of the Bible is mere child's play. The Rev. H. C. Adams states, in his "Wykehamica," that boys used to say by heart 13,000 and 14,000 lines; that one repeated the whole of Virgil; and that another was able to say the whole of the Bible by rote: "Put him on where you would, he would go fluently on, as long as anyone would listen." This kind of memory is generally strongest in youths, and declines in riper age, although there are striking instances of its retention to a more advanced period of life. For instance, we are told that the late Lord Macaulay was able to repeat the whole of "Paradise Lost" and the "Pilgrim's Progress;" but in this case other faculties were brought into play besides mere verbal memory. To the majority of people, such a feat would be quite impossible, and yet they might have exceedingly retentive minds in other respects; for instance, of their own experience, of the facts of history, of machinery, of objects in nature, or what not.

When we come to analyse memory in this way, we begin to understand what a wondrous power it is. Let us try to estimate the number of impressions that an ordinary individual—say even a person with a "poor memory"—can, and does, ordinarily retain in the mind, and the result is almost astounding. First, there comes his own experience, including thousands on thousands of single events; then the lives of maybe hundreds of persons, his relatives or friends; then the impressions of hundreds of places he has visited, and in each place hundreds, even thousands of details; then the various aspects of nature, the forms, colours, sizes, seasons, qualities, &c., of natural objects; then the results of education and study, the details of business, the thousands on thousands of heterogeneous facts, thoughts, impressions, and imaginations that crowd themselves upon the mind from day to day and from year to year—and all these impressed in some mysterious, inscrutable way on the tablet of the brain, stowed away, hidden from view, forgotten, as it were, until the moment that they are wanted, when they shine forth like phosphorescent writing in a dark chamber. Well has the mind been likened to a row of pigeon-holes, each filled with notes and memoranda, carefully laying away until they shall be wanted, the pigeon-holes being the different faculties of the mind, each having its store of impressions to remember; each doing its work according

to its size and power; and each, moreover, acting independently of the others, although all, or most, having a sympathetic connection one with another.

That this is no mere imaginative idea is shown by the fact, that the memory may be lost in regard to some things, and yet retained in full strength in regard to others. Disease may impair one faculty and leave the rest intact. It is perfectly well known to physiologists that a diseased state of, or an injury to, a certain part of the frontal lobe, known to phrenologists as the organ of Language, causes a loss of memory of words. The person so afflicted can quite well understand what is said to him, but cannot put his thoughts into words. A curious instance of the kind was recently reported in the French newspapers:—

“A painter, who was visiting a friend at Sceaux, was standing on a balcony on the second floor, when he overbalanced himself and fell to the ground. Everyone rushed downstairs, expecting to find him dead; but he quickly picked himself up and seemed unhurt. When, however, he turned to address his friends, he could not remember their names. He had forgotten his own, and, to his utter astonishment, he also found that he could not recall a single substantive. He can pronounce, one after the other, the letters of which the names of his wife and daughter are composed, but he is unable to unite them into one word.”

Since writing the above a still more striking instance of the partial loss of memory has come under my notice. It is recorded in a letter written by a Mr. A. T. Ormond, of Pennsylvania, to the *New York Weekly Tribune*, and has reference to the uncle of the writer, the Rev. Marcus Ormond, a minister in the United Presbyterian Church, and a man of considerable scholastic attainments. In the spring of 1878 he was stricken with paralysis of the brain, brought on by the shock to his system, consequent on returning from a lecturing tour to find his house burnt down and his family homeless. For a time he was quite unconscious; but gradually “struggled back into dreamy consciousness.” Speaking of himself he says: “My memory was not a blank; on the contrary, in many respects it was as strong as ever; but there were large blank tracts in it. I knew my family well enough, but could not name them; and when their names were repeated to me I could not retain them, but would either forget them altogether or get them mixed up—calling Jennie, ~~Minnie~~ or Minnie, Flora. Even yet I have some difficulty names right.” At first he could neither talk,

read, nor write, and had to go over the ground of learning again like a child.

His nephew, summing up his state of mind, says :—

“He has lost all he had acquired by what is technically called study; but, on the contrary, retains all, or most of what he had acquired, by the general exercise of his faculties. He knows and recognises most of the persons and places with which he has been acquainted, and is perfectly cognisant of all the leading events of his past life. I know from personal observation that his memory is as sound in this respect as it was before his illness. The link that binds the past to the present appears to be as bright and strong as ever. There is no absolute break in his consciousness; but a large segment of it seems to have dropped out entirely. How a man can thus lose the fruits of the special cultivation of his faculties while he retains the fruits of their general culture intact is a question for both philosophers and physiologists. It is worthy of note in this connection that while my uncle's memory for persons and places is good, he is generally unable without much difficulty to recall their names. When the name is suggested he recognises it, however, and after a few trials succeeds in remembering it. He encounters a verbal difficulty of the same character in repeating anything by rote. He says: ‘I can ask a blessing before meal if I limit myself to a short form with which I am very familiar. But if by chance I get a single word wrong or out of place I break down: my memory is unable to leap the chasm made by the disarrangement or omission of a single word. My only remedy in such cases is to start again at the beginning.’ His difficulty here is evidently weakness in power of verbal association. In fact, the linguistic faculty appears to be the seat of the trouble, for while his power over oral and written language has been in a great measure destroyed, he still retains his ability to compute numbers. He can perform all the numerical operations involved in an ordinary business transaction, but whether he would be equal to the task of solving a complex problem I cannot say, but rather think not. The strain of prolonged attention required would, perhaps, be too heavy a task for his powers. For some months after his illness his counting faculty was of little use to him, for he had lost all conception of the value of money. But one day in Pittsburg it all flashed suddenly into his mind, and from that time forward he was as capable of transacting business as he had ever been.”

The narrator goes on to say that his uncle retains his general mental balance, and is in the strictest sense sane and

rational. He sees things in their natural relations, and draws correct conclusions from the data of observation. "He is," says the writer, "naturally rather bold and adventurous, and his affliction has somewhat intensified this trait, so that his actions sometimes border on rashness, but observation has led me to the conclusion that this is due not to any lack of judgment, but to defective memory." In conclusion, we are told that morally he is unchanged, and that he possesses the same feelings of personal responsibility, the same degree of conscientiousness, the same religious sentiments and convictions that constituted his moral and spiritual character before his illness. In other words, his memory in respect to moral matters is intact.

Is it possible for any system of mental philosophy to account for such a state of mind save that of phrenology? I venture to think not. Here paralysis, that at first affected the whole brain, gradually left to the majority of the organs their wonted vigour, but continued to affect others, more particularly those he had been straining in a prolonged lecturing tour, to wit, Language, the perceptive faculties generally (but more particularly, perhaps, the more central ones, including Eventuality, that have to do with scholarship), Cautiousness, Combativeness, and Destructiveness.

Both phrenology and physiology teach us much in regard to the proper cultivation and strengthening of memory, but reference thereto will have to be reserved to a future article.

J. W.

SPINSTERS: THEIR PAST, PRESENT; AND FUTURE WORK.

(First Article.)

There is no subject at the present day more frequently discussed than woman's proper and legitimate sphere. In the past she had to contend with opposition from prejudice and superstition; now it is acknowledged that she possesses a soul, a brain, and intellect worthy of culture. It is positively painful to recall the time when there was no law to protect her from degradation and slavery; when she was supposed simply to exist physically; when the boon and light of education were denied her. In the East, even to-day, the babe, if a girl, is not considered worthy of culture; while if a son, a tree is planted in its honour, and there is much demonstration

of joy manifested. But Christianity, that numbered women among its first converts, is doing much for her in the East, as its enlightened influence has done throughout the world. Women used to be employed only in menial service, such as the hewing of wood, the drawing of water, and the tending of flocks, because she was not supposed to put thought into her work. Even now, in some parts of the Continent, women may be seen yoked to the plough with an ox, or drawing a cart with a dog. Still there has been a decided advance in regard to the estimation and treatment of woman, although society has not yet altogether got away from the idea that knitting, needlework, dancing, and music, represent the utmost that can be expected of her in the way of intelligent work. She must be a mere drudge, or only an ornament—at least, such is, practically, the position in which she is, as a rule, placed. She is expected to attend to man's material and temporal wants, and minister to the comfort of the household, and with these her duty ends.

There are, however, increasing signs that the day is not distant when woman will stand by the side of man as his co-peer and helpmate, even in matters of science, literature, and religion. Many, indeed, have already taken that position. All through the centuries she has been struggling forward to that goal, and, in spite of impediments on every side, she has won step by step. In view of the moral courage she has shown, the faintest opposition ought to have been dumb. In the sublimest moments of a nation's needs, women have shown a heroism worthy of the highest example. To take but one instance: Israel was four times rescued from its enemies' hands by women—namely, by Joel, Deborah, Esther, and Judith. The student of modern history can match these with equally striking instances of feminine bravery and fortitude: yet, in spite of ever-recurring evidences of her native equality with man, how long had she to struggle, even for the boon of permission to educate herself?

Not three centuries ago, in France, a young girl asked her father's permission to learn the alphabet. Her father asked four doctors of law in the town if such a thing might be permitted. They decided that it was demoniacal work for girls either to learn or teach the alphabet. She was therewith stoned by the men of the town for having such a thirst for knowledge. Compare this fact with the result of the recent School Board election, and the advance that has been made in female education will be at once perceptible.

One of the main considerations now-a-days is how much education shall be given to a girl, and, among a great many,

the fear is lest they shall give her too much and make her "strong-minded;" and so the consensus of opinion appears to be that she shall be made superficial—learn something about everything, but much about nothing. What would have been the result if women had not somewhat taken the matter into their own hands, it is hard to say. But there is a something in woman's nature—something in her phrenology, perhaps, that has always, throughout the centuries, made her take the shaping of her destinies pretty much into her own hands, let man "rough-hew them" as he will. She has said, practically, if not in so many words: "Why should I be brought up to be a drudge only, or be educated merely to dazzle in the circle of fashion, or to win a husband? Supposing that a few so-called accomplishments are enough for a wife, they are not enough for the large number who cannot be wives, and do not want to be if they could: for those who, as spinsters—old maids, if you will—have to earn their livelihood, to take their place in the world as single individuals, and to show that they are not useless encumbrances." And she has answered the question by literally storming the strongholds of the sterner sex, the places of learning, and showing that she can hold her own with him. But there is yet much ground to be won and much prejudice to be overcome. It takes a long time to drill into some minds the fact that a girl possesses as many faculties as a boy, and that the only difference is one of degree, and that that degree is sometimes in favour of the one, sometimes of the other. The physiological motto is: Educate a man for manhood, and woman for womanhood—both for humanity; and until that is done thoroughly, woman, who holds and controls the destiny of mankind, will fail to reach that ideal of beauty and power which shall make her a crown of glory and a tower of strength to the universe.

"As woman," says Wendell Phillips, "cannot be abolished, it is impossible to destroy her influence." And it is the recognition of this influence that to-day has become of such vital importance to the self-supporting spinster, not only by giving her a higher social status, but by enabling her to engage in work more congenial to her taste. This result has been largely due to the magnanimous interest shown by such men as Huxley, Darwin, Fawcett, John Morley, Lord Shaftesbury, Carlyle, Dr. Richardson, and others. These leading thinkers of the day see the advantages derived from Newnham Hall, Girton, and University Colleges; and are encouraging the educational scope and fields of labour for young women. Doctors of Medicine, Doctors of Law, and Preachers of the Gospel, who, a few years since, doubted

the advisability of allowing ladies the necessary college-training requisite for the above spheres, are now everywhere welcoming women into the front ranks.

In 1877 the Senate of London University passed a resolution in favour of admitting women into its privileges. There is a medical college for women now open at Covent Garden; besides the freedom of hospital studies, King's and Queen's Colleges in Ireland confer medical degrees upon women.

The medical fraternity, as a whole, has gracefully surrendered to the innovation, and ladies of the New Medical College in London will be taught by nearly all the physicians and surgeons of the London hospitals. Professor Friere-Marreco says that if ladies go to college as real workers, then he sees no reason why they should not be admitted on the same footing as other students. The passing of the Russell Gurney Bill has greatly facilitated this advance.

In America, where the grooves of society are less strictly defined, and where the child from the cradle is taught self-reliance and independence of character, a greater progress in the profession of medicine has been made by women. High encomiums have been given by the professors of Vassar and Wellesley Colleges; also by Boston, Cleveland, Michigan, and Chicago, testifying that the influence of the sexes is mutually beneficial, and that the women average as well as the men. At the Medical College of Chicago last year the best paper on Surgery was written by a lady, so says the professor of that college. Even Harvard, one of the oldest colleges in America, has decided, upon the completion of a new building, to admit women to the medical school as an experiment for a period of ten years. The requisitions for admission, the course of study, and the examinations, will be identical with those of the male students.

The Continent has not been backward in favouring medical opportunities for women. As early as 1861 Paris opened her medical colleges to women. In 1864 Zurich followed her example, and so great was the success in Switzerland, that in 1873 there were eighty-three lady students in her colleges. In 1870 Vienna and Holland opened their medical doors to women, and shortly afterwards the prize for operative surgery was given to a lady student. In 1873 women were admitted into all the schools of medicine in Russia and Sweden. In 1876 fifteen universities were opened to women in Italy. These facts show what woman's future position as a medical practitioner is likely to be; for, from the large number of entries in the above-named colleges, and from the increasing demand for lady physicians in the treatment of their own sex

and children, we have every reason to believe this medical education for women will bear good fruit.

The practical experience and valuable services shown by such ladies as Miss Florence Nightingale, Miss Barton, Miss Irby, and others, might still be greatly enhanced by their successors in the army hospitals, if they were to add to their skill and devotion in nursing some knowledge of surgery and medicine. Dr. Richardson says: "I want strongly to enforce that it is the women on whom full sanitary light requires first to fall. I have been brought, indeed, by experience to the conclusion that the whole future progress of the sanitary movement rests for permanent and executive support on the women of the country."

SOME THOUGHTS ON HEREDITY.

On the recently much-debated question of heredity, phrenology has an important word to say. Just as it is impossible to get roses off thorns, or figs off thistles, so it is equally impossible that a high type of humanity can come from low and depraved organisations. There are some obscure points in respect to heredity, but as to its main features, they are written in broad and indelible lines on the face of society. There is no truer saying in the Bible than that the sins of parents are visited upon their children to the third and fourth generations. It is true in phrenology as it is true in physiology. If a man or a woman does that which injures the health and weakens the constitution, children born of them are sure to suffer the effects thereof. Consumption, scrofula, gout, and many another and direr disease, are some of the physical ills that descend from parents to offspring.

But there are even worse things than physical ailments that one may be forced to inherit. There is insanity; there is idiocy; there are criminal propensities—all of which, or the tendency thereto, are inherited, as the result of what may be termed bad mental-physiological conditions in parents. Dr. Maudsley tells us that the criminal class is, physiologically and psychologically, a class apart, as distinct from the more moral class of men "as a black-headed sheep from all other sheep;" and, broadly speaking, there is unquestionable truth in the assertion. Criminal tendencies are the result of a degraded, or imperfectly-developed, mental physiology, as surely as bodily disease is the result of organic weakness or lesion.

Where the brain is large in the base and at the sides—the seat of the lower impulses and propensities—and small in the upper, or moral and æsthetic, region, even though Intellect be well represented—there must necessarily be an absence of high motive or endeavour; and the proneness the other way will be just in proportion to the development of the animal impulses and the non-restraint of the higher faculties. This is the criminal type; and those who have seen most of the class know how almost invariable the characteristics are. I say *almost*, because there is sometimes present with the prevailing features—here a better form of intellect, there a larger development of the moral brain. But in the one case it only adds ingenuity and adroitness to criminality; in the other, more or less frequent fits of repentance and remorse.

It is not meant to be implied that there is no reforming such persons. The reformation of evil-doers is of frequent occurrence, but it is seldom that the one who, as it is put, "returns to the paths of virtue," is of the strictly criminal type. An American moralist tells us that many a saint is a sinner who has never really worked down to the bottom of his character. But the converse would be a truer statement—that many a sinner is a saint who has never worked up to the summit of his nature: for there is nothing truer in psychology than that the mind may be in a state of partial activity. One portion of the brain may be dormant while another is super-active. The self-protecting faculties and animal impulses may be keenly alive, while the intellect or the moral feelings may never have been roused to action. The individual is under a psychological bias. His environment has not been such as to call forth the better qualities of his mind. He has grown up among low and grovelling natures; has never seen a generous action, or been taught a noble thought; he has lived only in his appetites and passions. Perhaps he has but been awakened to a consciousness of his higher self by the shock to his nature consequent on having come rudely to the lowest depths of it. A person living such a life, existing only in the lower grades of his being, using only the lower functions of his mind, and leaving fallow the superior faculties, will inevitably impart a lower organisation to his children born while he is in this state. And such is the invariable beginning of a gradual descent. The habits of thoughtless, drinking, licentious parents never fail to tell on their offspring in one way or another. The great French physiologist, Flourens, was of opinion that alcohol acts essentially upon the cerebellum, stimulating the passions, and by sympathy, therefore, the lower nature generally. It never stimulates the in-

telleet or the moral sense, and hence the child of the drunkard suffers in these respects. Medical men who have to do with lunatic asylums and workhouses well know how many insane persons and idiots are the result of drunken habits; and, not to go to these failures, one is constantly meeting, in the ordinary walks of life, with persons of weak intellect, of low moral organisation, and of imperfect character generally, who are a burden to themselves and their friends, because they have inherited the results of parental ill-doing.

So in other ways the mental constitution may be stunted, and depraved conditions be transmitted to children. The too great absorption of the parent's mind in business, that is, in money-getting, may beget in the child a desire for unrighteous gains. The too much thought for self in any way, either in scrambling for what are considered the prizes of life, position, fame, show, etc., or in seeking mere animal gratification, is sure to tell adversely on offspring. Many a bias like these is given to children by otherwise pious parents, who are much at a loss to understand the resulting unfortunate dispositions of son or daughter.

This is but one phase of what has been called heredity, or the transmission of qualities; but it is an important one—not merely to individuals, but to society as a whole: for, as Herbert Spencer says, “there is no greater curse to posterity than that of bequeathing them an increasing population of imbeciles and idlers and criminals.” Phrenology throws much light on this subject; and its use, therefore, in judging of the capacity of organisation, cannot be over-estimated by those who have an eye to the world's improvement, which, it need hardly be said, should rightly begin with initial conditions.

NEVER DESPAIR.

If the path before you darkens,
If you lose your weary way,
Still have courage, and remember—
After night-time comes the day.
Struggle onward through the darkness,
Try the right path to regain;
Don't forget the wholesome proverb,—
“Sunshine always follows rain.”
Don't be conquer'd or dishearten'd,
Do not say, “Oh, let me die!”
Only wait till clouds pass over,
And there is a clearer sky.

HOLLAND CROMPTON.

ONLY HALF A HERO.

A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER II.

During the first few weeks after the outbreak of war Frankfurt was in a state of intensest excitement, and with good reason. It was commonly reported, and believed, that the old Free City would be the first important place struck at by the invading army. Nor was the rumour without grounds. It was surmised that a city which had but a few years before been free and independent, and which had good reason still to remember the excessive harshness with which the Imperial City was treated by its Prussian conquerors in 66—a harshness which caused its burgomaster to commit suicide—might possibly regard the coming of the French in the light of a liberation.

That there was reason for such an apprehension those who knew the place in 1870 are well aware. The weight of Prussian militarism and officialism was yet a new and unaccustomed burden, and after the freedom and unrestraint of the old system, was galling enough. But though such feeling prevailed, and prevailed largely, it was not given utterance to openly, for the very walls were endued with Prussian ears. It is nevertheless a fact that a very large number of Frankforters, at the outset of the struggle, wished for the success of the French arms, hoping thereby to secure a return to the old state of things. This feeling, however, did not prevent them from dreading the disorder which would result from their becoming possessed of the town, should such an event come to pass. The old Napoleonic wars, with their wild riot and license, were still in the memory of the people, and though many of the inhabitants would fain have hailed the French soldiery as deliverers, they shrunk from the price that would have had to be paid for deliverance.

Those, therefore, who could afford the expense, sent their wives and daughters to remote and out-of-the-way parts of the Fatherland, or even beyond its borders, so that they might be out of danger should the enemy come within their gates.

Jessica Bechstein was one of the household treasures thus translated for a season. Her uncle and guardian decided, while it was yet uncertain what turn events would take, that his womenfolk should take a trip to Silesia, where some

near relations of the family resided, and remain there until the storm should have blown over. The preparations for departure, the journey, which occupied two days, and the strangeness of everything about her new temporary home, distracted for a time the little maiden's mind from the one subject of all-absorbing thought. But after the first novelty of the change was over, she began to brood with sickening anxiety of the youth who had won her love, and then, by what seemed a most adverse fate, had been doomed to take his chance in a terrible war, in which it was but too sure many a wife, mother, and sweetheart, would have to grieve for the loss of loved ones. Brave as she had at first been, she now felt, with a touch almost of envy, how happy were those women who had not to try to feel heroic with husband, son, or lover compelled to risk life and limb in the conflict.

Jessica's position was the more agonising because of the quietness of their life. Their new temporary home was a large country house on the outskirts of a small town or large village, near to Marwitz, the scene of one of the Great Frederick's victories. At Pappelheim they saw little company, and heard next to no news. The fields and woods were very beautiful; but what are beauty and loveliness when your heart is strung on tenterhooks? Fair surroundings afford but little comfort to a soul in distress—unless it be a very shallow one. There is a legend of a young bride who was consoled in the unavoidable absence of her bridegroom with a pot of jam. She was one of those, doubtless—and there are not a few of the species—the way to whose hearts ends in the stomach.

How much better, thought Jessica, it would have been in dear old Frankfort, with its life and stir, even with the danger incident to a storm and sack, than in this dull place, where they seemed to be out of the world and forgotten of it. Her cousins did not complain much, because their thoughts were entirely given up to the search for eligible husbands, and it so happened that there were two or three cousins or half-cousins of the male persuasion of marriageable age at or in the vicinity of Pappelheim, who paid sedate court to their stout and aimable relatives and their prospects.

When Fraulein Bechstein became aware of the existence of these undeveloped swains, she came to the conclusion that the selection of Pappelheim as their place of refuge had not been made altogether without a secondary object in view. She knew that Mama Durer—like many another mama besides—had now only one object in life, and that was to get her daughters married; and that for several years past she

had taken them first to one Bath, and then another, and there exposed them, duly labelled with their "expectations," of course, for—let us say selection; but in vain; and it was not a little amusing to Jessica to think that now the ever-broadening demoiselles had been brought to "set their caps" at the uncouth cousins of Pappelheim. But Jessica was a demure little maiden, and did not tell all she thought.

This tedious bucolic life was not destined to last long, however. They had barely finished their third week at Pappelheim ere, one bright morning, the postman brought startling intelligence. They would have heard it before had they been almost anywhere but in this sequestered Silesian village, which was as yet innocent of such a thing as a telegraph office. The intelligence was none other than news of the battles of Weissenburg and Woerth, which, as everybody knows, were the first in that long series of disasters that befel the French arms. This was the more agreeable news that it was unexpected; and it sent an electric thrill through the hearts of all in the house at Pappelheim, as it did, indeed, through all hearts from one end of the Fatherland to the other. It even moved the bosoms of the stolid cousins and suitors of the Fraulein Durer; and one of them, Hans, drank so much Rhein wine at night on the strength of the victories, that he started to sing:

Sie sollen ihn nicht haben,
Den freien deutschen Rhein—

but sank down with a huge hiccough before he had concluded the first stanza.

"There!" exclaimed the younger of the sisters, Dorothea, "he has gone and drowned his wits in Rhein wine, the stupid youth!"

"One would not think there was much to drown from the ease of the operation," said Jessica, with a merry laugh.

Everybody laughed at this sally, even Mama Durer, though the latter checked herself as soon as she could, and told her niece, reprovingly, that she was a little too saucy.

The joy communicated by the news of the victories of Weissenburg and Woerth was not without a pang for Frau Durer; for her son, she knew, was in one of the regiments forming the Army Corps under "Fritz," to whom these successes were due, and she would, necessarily, be anxious until she heard how he fared. The next day's post brought bad news; but not the worst she had dreaded. Her Gottlieb had been seriously, though not mortally, wounded. This intelligence came in a letter from Herr Durer, who, since there was now no more danger to be apprehended, gave directions that

they should return home as soon as possible, as it was likely that Gottlieb, when strong enough to be removed, might be sent home to be nursed.

The prospect of being soon back again in Frankfort was a joyful one to Jessica, to whom this banishment was a severe trial, and for more reasons than one. In the first place, it had taken her away from her ideal world, or, rather, the patch of earth inhabited by her ideal world, and this transportation had altogether dislocated her political system, and turned her growing cosmos into a chaos. But worse than this, it had destroyed her chance of hearing a word of her soldier-lover.

It had been arranged between her and Gustav that he should write to her whenever he could through Sanchen; for it was conceived that it would be easy for the latter to hand Jessica any note sent under cover for her; but when the unexpected removal to Pappleheim took place, there was an end to this little plan; since, if Sanchen forwarded a letter to her, the whole secret must at once ooze out—a result which, for many reasons, it was undesirable should arrive.

These reasons for the young lady's joy at the prospect of a speedy return home was supplemented by another—a sincere anxiety about Gottlieb, of whom she was very fond; partly because he was an easy, good-natured fellow, who had been her playfellow and protector from her earliest childhood, and partly because she had been obliged to give him the "basket"—an elegant euphemism, dear reader, in maidenly language, for a refusal.

With many women it is a weakness, that if they cannot love a man enough to become his wife, their pity for him under his disappointment almost turns to love; just as, in other departments of nature, we find some things transforming themselves into the semblance of others out of some inherent sympathy therewith. So it was in Jessica's case. She had a real sisterly affection for her soft, brave, bibulous cousin, and it was mellowed and deepened by a compassionate regard born of the knowledge that, in his easy kind of way, he loved her dearly, and would, if desired, go to the end of the world for her.

Three days sufficed to land them safely again in dear old Frankfort, with its narrow, quaint, tortuous streets and sunny promenades. But how changed in a few short weeks! What a life was there! For the first time the Prussian uniform was looked upon with glad eyes. Anything in the shape of that livery was fairly hugged. Wherever you went you saw heroes from the battle-field, and, strange to say, they were mostly young men—some of them almost boys; but they had

borne themselves right bravely, and must needs now show themselves and be *fêted*, and tell how they got their wounds, how the enemy ran, and all about it. These were they who had got but slight hurts; but in the hospital on the Pfingst-weide, hard by Jessica's home, were others who had no heart for congratulations and felicitations, with whom it was a struggle betwixt life and death. All through the day vehicles were passing the Durer-house, conveying wounded to the hospital; and since Jessica could do nothing else for them, she set to work to make lint. That, and mourning for the dead, is woman's share of "glory."

Several days passed before the little lint-maker saw Sanchen. She could not make it out; she watched the Shappel-house almost from morning till night, and kept her ears sharpened to catch the slightest murmur, but of Sanchen she caught neither sight nor sound. Could she be ill? Could she have left? Was that houseful of pinched and withered lives too much for her exuberant nature when Gustav had gone? The conclusion that the buxom maiden had quitted her place, and perhaps gone to some distant part, at length forced itself upon Jessica's mind, and she began to anticipate grave and unforeseen troubles, when, sitting one afternoon at a window facing the Anlage, who should she see loitering under the trees on the opposite side of the way but Sanchen herself. Her heart gave a great bound, and she had almost uttered a cry, when she recollected that Mama Durer was in the room. She therefore kept very still, but at the same time became very hot, and feared lest she should betray her emotion to her aunt. Withdrawing quietly, she went to an upper window, and gave Sanchen a signal that she would join her presently.

Like a veritable daughter of Eve as she was, Jessica readily framed an excuse to get out for a little while; and so within half-an-hour she had joined Sanchen, and retired with her to a quiet spot, well shaded with shrubbery, of which there are many about these promenades, not unknown to lovers.

"I've been watching about the house, in order to get sight of you, for the last week," said Sanchen.

"And I've been watching for you even since we came home," replied Jessica; "but I suppose you have been looking at the front, and that's how you have missed me."

"And I suppose you've been looking out at the back."

"Yes, of course; I had no reason to suppose you had left your place."

"Certainly not," replied Sanchen; "but I could not stand the house with all its ailments and crotchets after Gustav Riese had gone, and so I took occasion to have a squabble

and leave. But I'm forgetting that I have a letter for you, which I have no doubt you are anxious to see."

Jessica was indeed anxious, but she controlled her feelings, took the proffered letter and put it into her pocket, and quietly asked Sanchen where she was now.

"Oh, I have got no place yet, and I am in no hurry," she answered. "I am staying with a cousin for a bit."

"Don't take anything then until you see me again," said the young lady, an idea striking her. Mr. Gottlieb, who has been wounded in the war, will probably be home in a day or two, and then aunt will be sure to want more help. So wait a day or two."

Sanchen promised, and went her way with a bound and a laugh.

Had not Fraulein Bechstein been in such a hurry to read her first missive from her soldier sweetheart, she would probably have lingered to enjoy the almost sylvan beauty about her, for strolling along these shady walks and embowered avenues one can almost fancy oneself away in the country. It is only here and there that, coming upon a group of merry children diligently delving into a sand-heap (specially provided for their enjoyment by the City Fathers), one is reminded that this fair expanse is only a verdant girdle dividing an old city from its suburbs.

Jessica, however, was too much occupied to think of these things now. She made all haste to get to her room, where, we may be sure, she did not long delay perusing her letter. It was very brief. Writing from Mayence, Gustav simply said his regiment had been ordered to join Prince Frederic Charles's division. It was written in a very cheerful mood, and concluded with the assurance that his beloved was ever in his thoughts, and that, knowing she had a tender regard for him and would not forget him, he should be happy whatever fate befel him.

These few affectionate lines from the young soldier made Jessica inconceivably happy—with a happiness, too, undashed by thought of the dangers to which he was exposed.

Two days later poor Gottlieb was brought home with his arm and head bound up. He was very thin and pale, but was progressing favourably towards recovery. In spite of his sufferings, however, he was the same soft-hearted, good-natured Gottlieb. During the whole of the next day and that following he was but indifferently well, and someone had to be constantly in attendance on him. It was consequently found necessary to have an additional maid servant, as Jessica had surmised, and she accordingly managed, by a

little scheming, to install Sanchen in the place. No wonder the little diplomatist looked upon this as the first strategical point gained in love's campaign!

After the first week succeeding his return Gottlieb mended rapidly and was soon quite convalescent, though his accustomed strength was longer in returning. He spent most of his time in the garden or sauntering about the promenade. This suited his humour admirably, and when he could get Jessica to be his companion he was doubly happy. In the evening he generally joined his "circle" at one of the cafés. His mother and Jessica were afraid this would do him no good, and tried to get him to stay in at night and retire early. One evening when Jessica had pressed him more than usual, he replied he would eschew the "circle" for once, if she would accompany him to the Palm Gardens for a couple of hours. She agreed, and they went. It was a delightful summer evening. The gardens were in their best array, the music was charming, and they enjoyed themselves greatly. When it was about time to be thinking of returning home, Jessica said to her companion who had suddenly lapsed into a pensive mood, somewhat unusual to him:

"I'm afraid you've not enjoyed yourself as you would if you had gone to your circle."

"Oh, yes, I have—more," replied Gottlieb.

"I thought, perhaps, I was too quiet for you."

"Ah! you don't know me, Jess," replied Gottlieb, with a deep, almost passionate, fervour in his voice; "I'd rather have you for my companion than all the gay fellows in the world. I don't care much for that kind of thing—for conviviality and the like—at least, not as much as people give me credit for; but a fellow cannot always be eating his heart out."

Jessica saw she had touched a sore point, which she did not intend. She hardly knew what to say; but stammered out: "I did not intend to be unkind, Gottlieb; I—"

"I know you did not; but—" Then, after remaining silent for a minute or two, he leaned closer to his cousin and said in a low tone:

"Jessica, you know what I asked you a year ago?"

"Yes, Gottlieb." She knew what was coming, and would have given a world if she could have made him happy.

"I have not changed one bit in my feelings since then, save that you are more dear to me than ever. Can you say to me different to what you did then?"

Jessica took his large hand in both hers, and sobbed as she pressed it.

He waited until the paroxysm was over, and then said, gently, mistaking, perhaps, the drift of her feelings :

"You can, perhaps, say 'Yes,' then?"

"I would," she said; "but I have given my promise to another."

She felt that, though her love for him was but a deep sisterly regard, she would at that moment have sacrificed herself to spare him the pang she must give.

He made no reply; but presently said: "Come, Jessica, we will go home."

Nothing more passed between them on the subject that night or the next day. He seemed quieter and a little paler than usual—that was all. At night he went as usual to his club, but was home earlier than was his wont, and Jessica heard him pacing his room, which was next hers, late into the night; for she, too, was restless.

The next day Gottlieb announced his intention of at once rejoining his regiment. His mother would fain have kept him at home a little longer—altogether, in fact; for she thought he had taken his share of risk, and that it was now others' turn.

Herr Durer said nothing either one way or another. He was a man who, if he felt emotion, never showed it, being above such weakness. The Fraulein Durer, on hearing the announcement, observed: "La, so soon!"—that was all. Jessica's eyes were full of yearning, but she said nothing.

"Jessica," said Gottlieb, the evening before his departure, "I want to have a few minutes' talk with you before I go. Will you walk in the garden with me?"

Jessica assented, and they went out together. Without delay or preamble Gottlieb plunged in *medias res*.

"I wanted," he said, "to have a word or two about our conversation of the other night. You told me you have plighted your troth to another: I simply wanted to say that I shall think none the less of you for preferring another to me, and to ask you to think of me in your old sisterly way; and if ever I can be of service to you, to ask it of me as you would of a brother."

Jessica's heart was too full for utterance.

"I was prompted to say the latter because of my being on the eve of returning to the army, and because I imagined, from the fact of your going over the lists of killed and wounded so carefully, that your lover is at the front."

"Who would ever have thought that Gottlieb could have seen through a woman's secret so cleverly?" said Jessica, smiling through her tears. "You are right, dear Gottlieb, my

sweetheart is in the field, and I suffer for him all the time. I cannot tell you who he is ; but if you can serve me, may I write to you ?”

“Certainly you may, and command me to do anything.”

“Thank you.”

“And now may I ask you one question, little cousin ?” asked Gottlieb.

“Twenty if you like.”

“Well, then—pardon me—but he is not a Nichtsnutz (good-for-nought), your sweetheart ?”

“No, not that—only poor.”

“Ah, little sister !” responded Gottlieb, caressing her dark locks, “you a descendant of the race of Israel, and can love a poor man ? Fie, Jessica !”

Jessica knew it was play, and she replied in the same strain :

“Has not that poor thing they call a heart led me to do a terrible thing, Gottlieb ?”

“Most terrible !” he replied, then added with much earnestness, “But since it is so, do not fear ; and if he be worthy, and I live, you shall not want for one to stand by you.”

(To be continued.)

The Children's Corner.

THE VALENTINE MAKERS.

St. Valentine's day is past, but for all that one may tell a story of three little valentine makers. They were little girls, and lived in a far country, about half way between the North Pole and the Equator. The eldest of the three was named Louisa. She had only seen some twelve summers ; but she was, nevertheless, quite a little matron in her way, and superintended the games of her younger companions, and who were her sister and her cousin. The two sisters were spending the winter in the country with their aunt, and, along with their cousin Florry, had some rare times—snowballing, building snow-houses, making snow-men, and what not.

But when January began to draw to a close, and February to approach, they hit upon a plan, from the carrying out of which they anticipated great fun. But the carrying out of it was to be a great secret, and so arrangements were made accordingly.

The first thing that the good aunt and the other members of the family—not in the confidence of the three children—noticed, was that the budgets, from the city where Louisa and Witch's—so called from the elvish pranks she played—parents lived, became suddenly more frequent, and also more bulky than usual. They cast knowing glances at one another, but said nothing.

The next thing they observed was, that there was much secret consultation of the three girls, one with another, and that they needed less looking after.

Harry, who was a tease, as boys always are, said, "They're up to something. I'll bet you don't find three girls with their heads together like that, but some mischief follows; I shall look to my things."

But aunt, who was as shrewd as half-a-dozen lads like Harry, said, "Leave them alone."

Presently, about a week before the 14th of February—the day when postmen become so over-burthened with the love they bear for the world, that it is a marvel they don't sink under it—about a week before this day, the three companions became suddenly and secretly industrious. They contrived, with aunt's permission, a workshop in one corner of the room, by placing a table there, and pinning a shawl about it.

No one was allowed to see what was going on within that charmed precinct; and the sounds that were overheard conveyed no information to those without. There was a rustling of paper, a snip, snapping of scissors, and occasional sounds of suppressed laughter.

An inquisitive eye that could have peeped over the curtain would have seen heaps of coloured labels off prints, calicos, and the like. They were of the most varied patterns, some displaying hearts, some birds, some coins, and so on. These were being arranged according to different designs by the little workers, and pasted on sheets of paper. The placing was chiefly done by Louisa, the cutting-out by Witch, while Florry patiently wielded the paste-brush. You would have thought they worked for a livelihood.

Their industry soon began to produce visible fruit in the shape of rows of valentines. Here, one displayed a large heart, which a tiny bird was making pretence to carry; there, cupids in gold and silver were playing the pranks they never seemed tired of playing; on this, money was the prevailing idea; on that, "the good things of the table." The latter, one would have thought a little satirical, had it not been the design of children. But perhaps satire is not unknown even to them!

Presently all the material was worked up; and now an unexpected dilemma arose. How could they finish their valentines without some lines of poetry? In none of the three had the poetical gift as yet been developed. What was to be done? After some earnest deliberation, it was decided to let a fourth person into the secret, and a curly head straightway peeped out from behind the curtain, and beckoned Harry, who was the bard of the family.

Harry felt the importance of his "call," and at once set to work to produce the desired verses. It required some anxious rubbing of that part of the head which those who know all about the "bumps" say poetry inhabits, to obtain the desired results, but it was finally obtained to the satisfaction of all, and especially to Harry, who walked forth again with quite an air, as though he would say: "Did

you think those girls could bring anything to an issue without the aid of a lad?" But that's just like boys, and men, too, for the matter of that.

The valentines were now finished, and all that was necessary was to put them in envelopes, direct them, and carefully label them with old stamps and distant post-marks. This done, they were duly placed in Harry's charge, whose duty it was to fetch the letters from the post office.

How anxiously his return was looked for! Long before he could possibly arrive, two noses were flattened against the window-panes in eager anticipation of the coming fun; and every now and again they whispered one to another, "I wonder what So-and-so will think of his, and So-and-so of hers?"

Anon Harry came with his bundle, and then what surprise, and what laughter! The secret was out. Most surprised of all, however, were the valentine makers themselves, for they, too, each received a valentine made like the rest.

So that, if you want to get all the profit and enjoyment you can out of a thing, the best way is to do it yourself—even to the extent of making your own valentines.

IOLA.

Facts and Gossip.

CONSIDERABLE interest has been occasioned during the past month by the fact that a lady, Miss Charlotte Angus Scott (daughter of the Rev. Principal Scott, B.A., LL.D., of Lancashire College, Manchester), has passed an examination, which, but for her sex, would have placed her in the position of Eighth Wrangler. The mother of the young lady, in a letter to the *Times*, stated that she had always shown a taste for arithmetical and mathematical studies. In a recent issue of the *Graphic* a portrait of Miss Scott is given, which compares, so far as organisation goes, very favourably with those of certain so-called "beauties" now being exhibited in Bond Street. We should have no hesitation in saying to which type of woman the world will owe most.

Miss SCOTT's phrenology agrees with her intellectual developments. The frontal lobe is long, high, and particularly broad in the upper forehead, where the reflective organs are situate. The long eyebrow indicates good perceptive powers, and the fully-developed outer angle thereto a special development of the organs of Order and Calculation. But the power of Miss Scott's mind comes from the general harmony of her organisation, both of body and mind. Her very high head in the coronal region indicates strength of character and elevation of mind, as well as an impressible, emotional, and imaginative nature. She has strong will-power and moral sense, which, together with her large intellectual brain, particularly in the reason-

ing faculties, give her considerable grasp and comprehensiveness of mind and power to understand principles and the relations of cause and effect. To these elements she joins great ability to arrange, systematise, and apply facts and ideas. But her success as a student depends not a little on her unusually great application and power to concentrate her mind.

A CORRESPONDENT suggests that we should do well to republish Gall's works (which are out of print) in the MAGAZINE, giving four pages each month until their completion. It is desirable that the said works should be reprinted; but, considering that they comprise six large volumes in all, it may be imagined how weary a student would become before he got to the end of them.

By way of supplement to the remarks on the relative size of the heads of men and women in our last issue, it may be stated that the relative size of the head in children is still less marked. Up to twelve or thirteen years of age the heads of girls are pretty nearly equal in size to those of boys. It is after this age, chiefly, that the difference begins to manifest itself. The question therefore arises: "Is it not a matter of development?" The training, education, and stimulus given to boys is one to increase mental calibre, whereas, in the case of girls, an almost reverse system obtains. We have a number of measurements of the heads of children which clearly show this, and which we purpose publishing shortly.

THE celebrated craniological collection of Dr. Bernard Davis, of Hanley, Staffordshire, has been purchased by the Royal College of Surgeons, and will henceforth find a more commodious and convenient home in the museum of that Society in Lincoln's-inn-Fields than was afforded it under the virtuoso's roof in the metropolis of the Potteries. The collection comprises some one thousand, eight hundred crania, gathered from all parts of the world, and includes specimens from nearly every tribe known to the ethnographer. Dr. Davis, who is now advanced in age, was not merely a collector, but a man of great and varied knowledge in his particular branch of science, and his "*Thesaurus Craniorum*" will long be known as a rich repository of information about skulls.

SOME additional facts with reference to the Henderson Trust for the Advancement of Phrenological Science may be interesting to our readers. The legatee, William Ramsay Henderson, died, aged 30, in the year 1832, leaving a trust deed dated 27th May, 1829, with codicils dated 1830, and 1832, making over the whole of his estate, including a sum of £5,000, to George and Andrew Combe and others, as trustees to carry out his wishes. They were empowered to dispose of the sum of £5,000 as they should think best for the advancement and diffusion of phrenology, and particularly for its practical application. The trustees were bound, upon accepting this

trust, to nominate two or more persons, who should be esteemed enlightened phrenologists, and free from all religious bigotry and narrow-minded intolerance, as successors, with equal powers in the application of the residuary funds. Various trustees have since been appointed, and from time to time cheap editions of Combe's works have been issued by them. They also purchased Spurzheim's collection of skulls, casts, &c., and more recently, they have erected a fine museum for the storage of phrenological specimens. Once, if we mistake not, the trustees endowed a professorship of phrenology in the University of Glasgow, but from lack of interest it collapsed. In Jan., 1879, the estimated capital of the trust was £9,785 2s. 7½d.

Reviews.

The Education of the Feelings. By CHARLES BRAY. (Third Edition.) London: Longmans & Co.

Mr. Bray is one of the firmest supporters of the new system of mental philosophy based on phrenology, and in this little book, which is more particularly designed for schoolmasters, though it is equally valuable to parents, he analyses the various feelings and impulses of our nature, and shows how they may be best cultivated and most wisely directed in children. The idea of the book is to supply a want in our educational system which is too exclusively one of training the intellect, whereas "the formation of the disposition, or the cultivation of the feelings, is of equal, if not of more, importance." Few will deny this, especially those who have seen their own or others' sons grow up well educated intellectually, but with uncultured feelings and emotions. It would be hard for anyone to read the book without interest or profit, while to those who have to do with children it cannot but be of the greatest service. We marked a number of pithy bits for quotation as samples of style and contents; but one must suffice. "Manners," says Mr. Bray, "ought to be merely the outward and visible sign of the inward and spiritual grace. Each faculty, or inward grace, has its natural language or outward sign in the person; and if the inward feeling begets the outward expression, so, in a minor degree, will the outward expression beget the inward feeling. Hence the great importance of manners. That which was mere seeming at first, put on in deference to mere conventional usage, in time becomes the real thing itself—the virtue of which it was the mere outward form."

Phrenology Vindicated. By A. L. VAGO. London: Simpkin, Marshall & Co.

In this little work the author replies to an article by Dr. Andrew Wilson, entitled "The Old Phrenology and the New," which appeared in a magazine a few months ago. Mr. Vago shows himself quite a master of his subject, but we hardly think the enemy was worthy of his steel. A worthy antagonist should always be met with courtesy

and fair argument, but the best answer to a pretentious ignoramus is silence, and that the writer of the article in question is such would be plain to any tyro who had read an A B C book of phrenology. There is no doctrine which the phrenologist reiterates more frequently, or with greater emphasis, than that size is a measure of power, *other things being equal*, as, for instance, quality and texture or that the direction of power is in accordance with the particular form of development which the brain assumes; in other words, that it will take a high or low direction according as it is developed predominantly in the occipital, parietal, or coronal regions. And yet we have Dr. Wilson repeating the oft-rebutted argument that "various great men have had large brains; but cases of great men possessing small brains are equally common, as also are instances where insanity and idiocy were associated with brains of large size." A doctor and a physiologist, and does not know that insanity arises from disease of brain; that an idiot may, and often has, all the powers and functions of the mind, save the intellectual, strongly developed; that a small active organ may be equal in power to a larger and more sluggish one! To such objectors, "Phrenology Vindicated" is a clear and sufficient answer. In a second edition, however, we would recommend Mr. Vago to correct a few verbal inaccuracies that have crept into his work.

Answers to Correspondents.

D. C. W.—When it is said that we ordinarily do our mental work with the left hemisphere, it is not meant that the right hemisphere has nothing to do. We work ordinarily with the right hand, but the left is not therefore quite idle. A careful examination of the head will frequently show a lack of symmetry between the two sides, to the same extent, at least, as there is a lack of uniformity between the arms. The difference between the right and left arms is usually one of density rather than size, and the same may be true of the brain. The whole question will, however, be treated shortly in an article on the Physiology of the Brain.

E. R. L.—The objection that the external surface of the skull does not correspond with the internal, and therefore with the surface of the brain, is one which is always raised by pseudo-scientists. The most that can be said is that there are certain "processes" which interfere with an exact judgment of the amount of brain at those parts, but the fact no more militates against the truth of phrenology than difficulties in the way of other sciences upset their fundamental principles. We only know of Mr. Fowler's phrenological collection in London that can be inspected. Your other questions we are not able to answer.

INQUIRER.—It is our intention to have articles on phrenology for the use of students of the science, but we cannot get at everything at once. A series of articles on physiognomy will also be commenced in an early issue.

THE
Phrenological Magazine.

APRIL, 1880.

CHARLES DARWIN.
A PHRENOLOGICAL DELINEATION.



To say that Mr. Darwin is a remarkable man, is only saying what everybody knows. It is also known that he descended from a family of note, his father being a man of talent.

VOL. I.

H

Mr. Darwin has a remarkable organisation. He has great constitutional power. This combination of physical powers favours great activity and endurance. His vital power is sufficient to generate all the force that is necessary for an active, energetic life; but he has no surplus of vitality, probably because he is disposed to lead an active life. Besides, he has so much bone, muscle, and nerve power, that he is disposed to use up his vital power as fast as he generates it. He would be one of the most unhappy of men if he were so situated that he could not be employed.

He is peculiarly organised both in body and mind. He is not smoothly, evenly, and harmoniously developed, but has many very strong points, and some weak ones.

According to the laws of nature, there must be a peculiar and striking mental manifestation where there is an uneven physical structure, especially if the brain be unevenly developed.

The shape of his brain is most peculiar, more so than that of any other distinguished man in England. Some of the phrenological developments are so very large as to make other organs appear smaller than they really are, compared with the same organs in other men. His head indicates four marked mental peculiarities. That which first strikes the eye is the mountain of Firmness over the ears, in front of the crown of the head. Few men measure so much from one ear over to the other, according to the size of the head, as he does. According to phrenology he ought to be very tenacious, determined, and persevering, and incapable of being turned from his purpose. He would pursue an object to the ends of the earth rather than not have it. Difficulties and opposition would only make him all the more determined. Such firmness stops at nothing short of accomplishing its ends.

He would exercise this faculty along with his other stronger faculties, one of which is Self-esteem. This faculty gives him self-reliance, individuality of opinion and character, and a desire to have his own way and pursue his own course. Such a man would think for himself and be satisfied with his own opinion. He would not compromise in order to please, or because he placed a higher value on the opinion of others. Nothing but undeniable facts would make him swerve one iota from his preconceived opinions.

His very large Firmness and Self-esteem united give him an individuality of character few men possess. They make him thoroughly satisfied with his own course and investigations and enable him willingly to take the consequences of his own opinions. If his views differed from all the rest of mankind,

and he knew that they would make an entire revolution of opinion in the world, he would not alter his course one whit ; but would, like Senator Benton of the U.S.A., say, " Solitary and alone have I set this ball in motion." It is the most uncompromising, self-relying, independent cast of mind, as indicated by organisation, that I have seen. Fashion, custom, public opinion, formalities, and flatteries he cares very little about, and is not influenced by them. It is possible for his large Firmness and Self-esteem to bias him too much, and make him too contented to see only through his own mediums of investigation, and not be sufficiently influenced by the investigations and opinions of others.

These two great powers of his mind, acting with his very large perceptive faculties, make him an indefatigable student of nature. His eyes are everything to him, for he has an insatiable desire to see everything that is seeable.

Elihu Burritt was almost the only man who approached him as a student of nature. Mr. Darwin has all the perceptive faculties very large, and their action give him a very great range of observation, and enable him to become acquainted with all sides and departments of nature. With such powers he has a curiosity to open every book of nature and know something of every phase of life. It is very seldom that any one man has all the knowing, observing powers so large as he has. As a traveller he would see hundreds of things on the same road that others would not. One of the largest of his perceptive organs is Order, which gives system, method, power of arrangement, and the disposition to classify. Hence, he sees everything with a classifying eye, and is disposed to make the most of his observations. All orders and arrangements of nature he would be quick to see. In a trip for the purpose of research, he would be able, on his return, to write more books and to deal with a greater variety of subjects than most men. He has a special aptitude for the study of botany, being not only very precise and definite in his observations, but remembering all he sees. He can also describe accurately years afterwards what he has seen. His knowledge is superior to his power of expressing it in words. Hence he can express himself more fully in writing than in speaking. His memory of all that he sees—of places, of associations, and of the relation and position of one thing to another—is good.

It will be more easy for him to acquire knowledge and gather facts than to weave a philosophy or theory out of them. He has an almost purely scientific, fact-gathering mind. Like Agassiz, he is a student of nature, only more so. Few men could cover a wider field of science than he.

Mr. Darwin has scope of mind and a fair amount of imagination and sense of perfection. The restraining powers of his mind are not great. He is prompt and off-hand, and acts on the spur of the moment. Such a form of brain is liable to be hasty in drawing conclusions and in deciding upon a course of action.

He has a physical and mental organisation that indicates great energy and industry; he labours with a definite object in view, and pursues that object with a single and unwavering purpose, as though his life and salvation depended upon it.

With his cast of mind he will not be liable to trouble himself about theology, doctrines, ceremonies, or any of the religious machinery of the day. He would not be likely to concern himself much about remote consequences that had their foundation in faith. He acts upon the principle that "sufficient unto the day is the evil thereof." He is disposed to teach but not to preach, and would be disinclined to join societies and associations for any other purpose than the investigation of science or the promotion of knowledge.

According to his phrenological developments, then, he should be known for possessing very great firmness, perseverance and tenacity of mind; for his great self-reliance, independence, and individuality of character and opinion; for his remarkable powers of observation and ability to acquire knowledge from the external world; for his talent to arrange and systematise his knowledge, and put in definite form the facts he has acquired; and for possessing more than ordinary industry, force of character, and activity of mind—as well as for ambition and general sensitiveness of mind, and the desire to act in strict accordance with his notions of right and duty.

Altogether it is one of the most remarkable heads to be found, and it ought to be a decided proof for or against the science of phrenology.

L. N. FOWLER.

THERE is speaking well, speaking easily, speaking justly, and speaking seasonably; it is offending against the last, to speak of entertainments before the indigent; of sound limbs and health before the infirm; of houses and lands before one who has not so much as a dwelling; in a word, to speak of your prosperity before the miserable: this conversation is cruel, and the comparison which naturally rises in them betwixt their condition and yours, is excruciating.—*La Bruyere*.

THE BRAIN AND THE SKULL.

(First Article.)

There are a number of popular fallacies in regard to the brain and its protecting sheath, the skull, which are continually being raised as objections against phrenology. It is proposed to treat some of the principal in this article; and in the first place it may be premised that the intelligent phrenologist does not pretend that there are no *difficulties* in the way of phrenology; he simply protests against what are merely difficulties being for ever brought forward as fatal objections to the science.

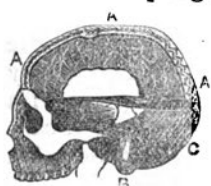
Phrenology is based on two or three simple principles. The first is that the brain is the organ of the mind, and this fact is almost universally admitted. The second is that the brain is a congeries of organs, each having a special and distinct function to perform; and the third, that, when other conditions are the same, the larger the brain the more powerful it is, and the larger an organ the stronger is its manifestation. For a long time the *organography* of the brain was denied by physiologists, who stoutly maintained that the brain as a whole did the work of the mind as a whole. Now, however, they are beginning to discover that special parts of the brain are allocated to do special work, or in other words have particular functions. But of this we shall have occasion to speak in an article on the Physiology of the Brain. The objectors it is desired to meet in this article are those who, granting these primary principles, ask, "But, supposing this to be true, how do you know that the external shape of the skull agrees with the shape of the brain? A soft substance like the brain cannot shape a hard substance like the skull. Besides the brain does not touch the skull;" and so on and so forth.

The simplest way to meet all these objections will be just to state what the skull is, and in what relation it stands to the brain. During life the brain is encompassed throughout its whole peripheral extent by a thin transparent membrane called the pia mater, which sinks down into its convolutions or furrows, and serves to convey the blood-vessels to its different parts. Immediately above the pia mater are two layers of a still thinner membrane, called, from its resemblance to a spider's web, the tunica arachnoidea. It covers the surface of the brain without passing into its folds. A fluid secretion takes place from the opposed surfaces of this membrane, by which they are prevented from adhering to each other. Above

this there is a thin but strong and opaque membrane called the dura mater, which embraces the outer surface of the brain above the membrane last mentioned, and which lines and adheres strongly to the inner surface of the skull. The brain, enclosed in these membranes, exactly fills the interior of the skull, so that a plaster cast of the interior of the skull exactly represents the brain covered by the dura mater.

There is much misconception with reference to the skull. The popular opinion is that it is a hard, unyielding barrier, confining the brain within specific limits, whereas the truth is that, though a strong, it is a changeable covering, and that while it shields it from injury, it accommodates itself to the exigencies of growth and development. It increases in size as the brain increases, and alters its shape with every change of the encephalon. When, moreover, the cerebral mass suffers diminution in size, as happens not unfrequently in old age and disease, the skull diminishes. A number of cases of the kind are on record. A process of absorption and deposition is constantly taking place in its substance, so that if the brain presses from within, the renewing particles arrange themselves according to this pressure, and thus the form of the brain and of the skull in general correspond. In cases of hydrocephalus the skull is sometimes enlarged by this process to enormous dimensions.

Most parts of the skull consist of two plates, called the outer and the inner table. They contain between them a cellular or sponge-like substance, called the diploë.



The annexed figure represents a skull with the two sides cut away, down nearly to the level of the eyebrow, leaving a narrow ridge in the middle of the top standing. A A A is the edge of the skull, resembling an arch. It is represented thicker than it really is in nature, in order to show the diploë. From the centre depends the delicately-veined membrane, which separates the two hemispheres of the brain. It is a continuation of the dura mater, and is called the falciform process. The two lobes of the brain are completely separated, as far as this membrane is seen to extend downwards in the engraving. Below it they are connected by a bundle of fibres, called the corpus callosum. On reaching the point C, the membrane spreads out to the right and left, and runs forward so as to separate the cerebellum, which lies at BC, from the cerebrum. B represents the mastoid process, or bone to which the sterno-mastoid muscle is attached. It lies immediately behind the ear, and is generally hit upon by

the uninstructed as an important organ; but it is simply a bony projection, and does not indicate development of brain at all.

As the diploë—except in the parts hereafter to be mentioned—is of almost uniform thickness, it follows that the outer and inner tables of the skull are nearly parallel to each other. The internal table, it is true, bears some slight impressions of blood-vessels, glands, and the like, which do not appear externally, but these are so small as not to interfere with phrenological observations. “The departure from perfect parallelism,” says Combe, “where it occurs, is limited to a line, one-tenth or one-eighth of an inch, according to the age and health of the individual. The difference in development between a large and a small organ of the propensities and some of the sentiments amount to an inch and upwards, and to a quarter of an inch in the organs of intellect, which are naturally smaller than the others.”

Portions of the temporal bones are much thinner than other parts of the skull; but as this is the case in all heads, the phrenologist is not misled by it. Every skull, moreover, is thick at the ridge of the frontal bone, and the transverse ridge of the occipital, and very thin in the middle of the occipital fossæ. It was a fact observed by Dr. Gall, and since by many phrenologists, that the skulls of very stupid people are exceedingly thick. In savages, too, the skull is often thick. Herodotus mentions that the skulls of the Egyptians were very thick, whereas those of the Greeks were thin. He accounts for the former being thick by their not wearing head-coverings.

The integuments which cover the external surface of the skull are so uniform in thickness as to exhibit under ordinary circumstances its true figure. The muscles lie somewhat thicker upon the temples and the occiput than upon the other parts, and the phrenologist makes allowance for this fact in making his observations.

Thus the obstacles to the discovery of the shape of the brain from the contour of the skull are in general but slight. This fact has been recognised by some of the best physiologists. Magendie says that “The only way of estimating the volume of the brain in a living person is to measure the dimensions of the skull; every other means, even that proposed by Camper, is uncertain.” Sir Charles Bell also states that “The bones of the head are moulded to the brain, and the peculiar shapes of the bones of the head are determined by the original peculiarity in the shape of the brain.”

There are, however, some difficulties in the way of arriving

at an accurate judgment as to the amount of brain present in all parts ; and these, by opponents of phrenology, have been made the most of. The sutures, for instance, interrupt the absolute parallelism of the interior and exterior tables of the skull. Only one of them, however, the lambdoidal (so called from its resemblance to the Greek letter lambda Λ) presents any difficulty to the student. In some individuals it presents, at the part where it passes over the organ of Concentrativeness, a bony excrescence, which may be mistaken for a large development of that organ ; but the projection is generally sharp and angular, whereas the contour presented when the organ is large is one of fulness and roundness. The sagittal and frontal sutures, extending longitudinally from the back part of the crown of the head forwards and downwards, sometimes to the top of the nose, occasionally present a narrow prominent ridge, which is sometimes taken for development of the organs of Self-Esteem, Firmness, Veneration, and Benevolence. It is easily distinguishable, however, by its narrowness from the fuller and broader swell of cerebral development.

The mastoid process—in anatomy projecting bony points are called “processes”—has been referred to. Another process, called the spinous process of the transverse ridge of the occipital bone, is sometimes mistaken for the organ of Philoprogenitiveness. But its sharpness and angularity are such that it need present no difficulty to anyone. It is generally sharply developed in those who are active on the feet.

The only part of the skull where any real difficulty exists in judging exactly of the size of the subjacent parts of the brain from external configuration, is in the frontal bone immediately above the top of the nose. Here a divergence from parallelism is sometimes produced by the existence of a small cavity called the frontal sinus. The annexed cut shows the position of the sinus. It is sometimes larger, but generally smaller, than the proportion here represented. It is formed between the two tables of the bone, either by the outer table swelling out, or by the inner table sinking in a little. In such cases of course the external surface does not indicate the exact degree of brain development beneath. This sinus has been made a bugbear to deter persons from studying phrenology, many opponents going so far as to argue that the existence of a frontal sinus presents an insuperable objection to the science in general. Intelligent phrenologists never attempt to blink the difficulty of the frontal sinus ; all they contend is that, granting that it presents an obstacle to ascertaining the development of the



organs over which it is situated, in ordinary cases, it interferes with but a few, namely, Individuality, Form, Size, Weight, and Locality, though it may in some cases extend to Order ; but that, even though it should at times include all the percepts, it no more stands in the way of an accurate estimate of the other organs than the occultation of Sirius prevents our seeing all the other stars in the firmament.

Phrenologists acknowledge the difficulty of the frontal sinus, but the most experienced assert that by practice the difficulty is reduced to a minimum. In the first place it is not everybody who has a frontal sinus, and those who have it is easy to discover. Combe says that "below the age of twelve or fourteen the sinus, if it exist at all, rarely extends so high as the base of the frontal lobe of the brain." In adults, he says, it often occurs to the extent represented above ; while "in old age and in diseases such as chronic idiocy and insanity it is often of very great extent, owing to the brain diminishing in size, and the inner table of the skull following it, while the outer remains stationary."

These cases are not difficult to judge of. "A skilful phrenologist," says Mr. Fowler ("Objections to Phrenology"), "can generally judge when it is developed by an observation upon the condition of the general system, as accurately as the physician can decide upon the state of the stomach of a patient. We rarely see it in the skull of a woman, unless she is very masculine in organisation. When it does exist we regard it as the exception rather than the rule. A person who has a clear, sharp, shrill voice, that can be easily heard and distinctly understood, has but little of the frontal sinus ; and, so far as my observations upon thousands of heads have gone, I have usually found that those men who have a heavy frontal sinus have manifested the perceptive faculties in their character, and hence I conclude that it is a portion of the brain that has protruded the skull in the direction of the sinus."

THAT the different colours of the spectrum have an influence on vegetation, has long been known. Plants grown under green glass soon die ; under red glass they live a long time, but become pale and slender. Mr. Yung of the University of Geneva has placed the eggs of frogs and fishes in similar conditions, and found that violet light quickens their development ; and blue, yellow, and white also, but in a lesser degree. Tadpoles on the contrary die sooner in coloured light than in white light. As regards frogs, Mr. Yung has ascertained that development is not stopped by darkness, as some have supposed, but that the process is much slower than in the light.

PHRENOLOGY IN THE FAMILY.

What has phrenology to do with the family? What aid can it give to parents? Much in every way.

The family is the basis—the foundation and beginning of society. As is the family, so to a very great extent is society. The imperfections that exist in society at large exist also and have their origin in the family. In order to improve and perfect society, therefore, we must begin with the family, and with the individuals forming it. As the perfection and beauty of a piece of rock-crystal depends on the perfection of each separate crystal, so the amount of harmony in society is in direct proportion to the harmonious development of each of its individual members. Hence the importance attaching to the proper training of children.

The child's mind grows and expands according as it is inclined or bent—the same as the twig of a tree grows as it is inclined when young and tender, and continues to grow in the same way through life, unless some great pressure be brought to bear upon it. It is a noticeable fact that the language children use and the habits they form early in life cling to them through youth and manhood into maturity. A child that is treated roughly is very liable to grow up with rough ways. When a lad is allowed to grow up dirty and ragged, his mind becomes hardened against everything clean and nice; he will often mar the beautiful in order to have things in harmony with his own state of mind. He will spoil the looks of a fine, fresh bill upon the wall by throwing mud upon it. He will soon tear and wear his new books at school, and if disobedient at home, he will be noisy and boisterous at school. If he learns to talk ungrammatically at home, and does not receive a thorough discipline and education, he will continue to use slang and incorrect language.

If children, however, are properly trained and disciplined at home, and taught to put away their things, and encouraged in habits of cleanliness and correct language, they will require but little teaching on these points as they grow older. Many parents leave all the teaching and the training of their children to the teacher, and then frequently undo at home the work that has been accomplished at school. Some parents delight to teach their little ones to say naughty and saucy things, because it seems so cunning, and they think it denotes a sign of "smartness" in the child; but when he is older and says the same pert and saucy things, he is punished for doing

so. A great many parents do not know or feel the vital importance of early training up their child in the way it should go. They allow it first to go astray, do wrong, violate the laws of life and health, form bad habits, and then endeavour to lead it aright afterwards, and wonder they do not succeed better in managing it.

Phrenology teaches us very many important lessons about the proper discipline of children, especially in relation to their minds. It shows us the absolute necessity of starting right at the beginning of life. It also endeavours to make parents better acquainted with the natural dispositions, tendencies, and capacities of each individual child, even before the child is old enough to show them; as well as to explain the different powers of which the mind is composed. Every parent should know about the various faculties of the mind, and then through the help of practical phrenology find out what powers predominate and what are deficient. By this means the parent will be able to call out all the faculties according to their natural action, and at the same time encourage the development of the weaker organs and guide the strong ones, so that they will not become perverted.

Parents should inform their children about these different faculties, by showing them for what purpose they were given and how they are to be used. When children are correctly instructed in these matters, they will do much towards rectifying and building up their own characters, just as when they are told about the different organs of the body and their use, they will learn to take better care of themselves physically. All children cannot succeed equally well in the same callings with the same education. When a lad has no special talent, then it does not much matter what work he does, provided he does something. When, however, a youth has a combination of faculties, that could make him master of a certain kind of trade or calling, the earlier those faculties are set to work and acted upon the better. Every child should be taught to do something well.

Phrenology aids the young to understand their own minds better than they would if left to find out all the workings of the mind by themselves. Without the aid of phrenology we know ourselves positively only as faculties are called into action, while with the aid of phrenology we are forewarned and forearmed.

As parents value the welfare and success of their children, and want them to rise up and call them blessed, and do them honour, they should do everything in their power to set them on the right track; and help them to understand as early as

possible how to use their powers to the best advantage. If they understood phrenology they could account for many of the peculiar traits of character their children show, especially if they unite therewith a knowledge of the known influences of heredity.

Two children were brought to my rooms to be examined: brother and sister. I described the boy to be like the father, and the girl like her mother. Contrary to the general rule, the girl was wanting in Veneration, inclined to be disobedient and disinclined to say her prayers. The boy was large in Veneration, was obedient, serious, and worshipful, and disliked to be disturbed when he said his prayers, which his sister was fond of doing. The parents said the remarks were perfectly true. I then examined both parents, and found the father to have an inferior base to the brain, with strong reasoning and moral faculties, and especially active Veneration. The mother possessed a strong executive brain, and business turn of mind, a practical intellect, a great amount of worldly ambition, and small Veneration. The husband said to me, "The greatest difference between us arises from our different opinions about religion. I want family prayers before breakfast, but my wife says, 'What is the use of having a cold breakfast every morning?' and she objects to having them afterwards, for she wants to go directly and wash up the dishes, and get the work out of the way; or in fine weather to be out in the garden, and see how the crops are getting on in the fields. I could not understand before why she and her daughter were lacking in respect and reverence for sacred duties; but now I see that it is through having a strong practical business turn of mind, and not sufficient Veneration to give moral balance. That makes her say: 'Do up your praying when the weather is too bad to be out of doors.'"

Phrenology explained to him what, if he had known before he married, would have enabled him to select a mate more congenial to his religious opinions; as it is he will be annoyed during life by an irreligious wife and daughter.

Another similar case that came under my notice was that of a gentleman who possessed a high, broad forehead. He married a fine-looking young lady, large and well-developed in body, with apparently a finely-formed frontal lobe, with a large and bony arch to the eyebrow, giving large perceptive faculties. Her youngest son had the same form of forehead as his mother. He is now thirteen years old, and is very backward in his studies. He is unable to understand a subject or comprehend a principle or the meaning of things. He can only pick out his words slowly, and has

shown no aptitude for anything. His parents came to ask me what to do with him. I told them that he had two defects—a want of application and connectedness of ideas, and a want of Causality, which gives power to understand and think. I also said that these deficiencies were inherited from some of his mother's ancestry. Therefore the child was not to blame, and they must treat him according to his organisation. I advised them to take him out of school and put him to some simple kind of business that required observation ; for this power of his mind was quite prominent, also order and capacity to retain and repeat what he saw.

If the husband had understood phrenology he would have selected a lady with a higher degree of the nervous temperament and less of the vital—one with sufficient Causality to have good judgment. If the teacher had understood phrenology and physiology he could have taken advantage of the child's greater vital and physical temperament and small mental capacity by educating him with the hand and eye, by blackboard illustrations, pictures, and maps ; for this is the only way such organisations can learn.

A mother brought her daughter, twenty-two years of age, to find out how she could earn her livelihood. The mother said she had no control over her mind, and her thoughts, though bright and distinct, had no connectedness about them. She was excessively nervous and undecided, and could not make up her mind upon anything, set herself to work, or finish work she had commenced. I asked the mother if she could account for this deficiency of intellect by referring to her own state of mind and health previous to the birth of her daughter. She said she could not. I then asked if her husband was intemperate. She replied, "Yes, very ;" and at once took the hint and left without further conversation.

A little girl three years old, was brought to me to ascertain whether she would be crazy as she grew older, for it took one person's whole time to look after her. She had no fear or distinct observation, and did not care where she went or what she did, and yet she was affectionate and respectful. Her Veneration and Friendship were large. I asked as to the cause of her state of mind. The ladies who brought in the child said they could not tell, and the mother of the child was dead. I asked if the father did not drink to intoxication ; the ladies looked at each other knowingly and said, "Yes, he did."

Such children are not in the ordinary groove, and cannot be treated like others, either in school or in learning a trade. There ought to be schools and asylums expressly for the children of parents who have *fated* them by their intemperance.

There is a cause for all imperfect, deranged, and crazy children, and that cause needs to be understood before the mind of the child can be acted upon correctly.

A girl was brought to me to see what could be done with her. She was sixteen years old; was dull at school, and more so at home. She had no spirit to set herself to work, and did nothing but sit still and appear indifferent to what was going on around her. Her father was a strong, physical working man, with not a high type of mind. Her mother was feeble, and this was her last child. The girl had a low tone of mind, a weak nervous system, a feeble pulse, an inferior quantity of blood—and that not very arterial or vitalised by full respiration—and soft muscles that easily wearied. She had a fully-developed forehead, large Benevolence, and large Conscientiousness. Her affections were not developed, and she lacked Self-esteem and Firmness, Hope and Destructiveness. She was kind and tender-hearted; but lacked pride, decision, enterprise, and energy. Such children cannot be forced to do anything, but should be helped by encouragement. Such characters never get started in earnest till they get in love with something or somebody. They must be worked up from within, and called out by the interest they take in something adapted to a strong faculty of their minds. In this case it would be Benevolence or love of children, or, possibly, reading some entertaining book, calculated to stimulate the imagination, that would call her out of herself.

The more we study character and organisation the more strongly are we confirmed in the views embodied in the above—perhaps somewhat disjointed—remarks and instances. If children are depraved, wayward, slow of development, or altogether enfeebled, they are the result of conditions that human thought and foresight might have obviated. These are failures resulting from pre-natal conditions, and nothing can much improve them. But for children that have started with better organisations, training can do much, and nothing aids the parent and the teacher so much in directing and developing the youthful mind as a knowledge and application of phrenology.

L. N. F.

CHARACTERISTIC OF HEROISM.—The character of a genuine heroism is its persistency; all men have wandering impulses, fits and starts of generosity. But when you are resolved to be great, abide by yourself, and do not weakly try to reconcile yourself with the world. The heroic cannot be the common, or the common the heroic.—*R. W. Emerson.*

A NOVEL THEORY OF THE BRAIN.

In a recent number of the *Morning Light*, a Swedenborgian organ, there appeared an article entitled "The Brain and its connection with the Soul and the Body." The author, Mr. R. L. Tafel, states that his object is to make known some of the leading theories which have been set forth by Swedenborg in Part III. of his great work on the Brain, which has recently, for the first time, appeared in an English translation. The article is so curious and suggestive, apart from the interest attaching to it as representing the views of a great and original thinker, that we give it nearly entire, omitting only a few paragraphs that do not interfere with the sequence of the argument.

The fundamental principle of Swedenborg's presentation is that the soul is the cause of the body, and that the soul, by the brain, produces the body. As the soul, however, is invisible to the eyes of the body, so he holds that those parts of the brain-substance into which the soul immediately flows are likewise invisible to the eyes of the body. These invisible parts of the brain-substance which receive the influx of the soul, Swedenborg holds, are the inmost principles of the grey or cortical substance which under the microscope appears as vesicular, or glandular, and the greater part of which is lodged on the exterior surface of the cerebrum.

This grey substance, however, exists in great abundance, not only in the cerebrum and cerebellum, or in the larger and the smaller brains, but also in their appendages in the medulla oblongata, or in the marrow of the head, and in the spinal marrow, where it forms the central axis; wherefore the primitive form or the primitive germ of man, according to Swedenborg, consists of this grey substance. By the influx of the soul into the grey substance, little threads or fibres are pushed forth from that substance, and these fibres, when massed together, produce the white or medullary substance of the brain and of the spinal marrow.

From this white substance of the brain, which consists of mere threads or fibres, are produced the nerves and the blood-vessels of the body, and out of the fibres which compose the nerves and blood-vessels the whole texture of the body is formed in time.

The generation of man, therefore, according to Swedenborg, is analogous to the creation of the earth.

In the creation of the natural earth there is the formative spiritual sun, acting with its full power on every particle of the natural sun, and causing it to generate from its bosom atmospheric vessels containing within them the solar fire in the form of the solar rays.

The analogue of the sun in the human form are the little round vesicles or glands of the grey substance of the brain, and as the spiritual sun presses upon every particle of the natural sun, with a

view of creating by its means the planetary system, so the soul in man acts with its full power on every particle of the grey substance for the purpose of producing the human body.

And as the sun, by the energy of the spiritual sun pressing upon it, generates from its bosom atmospheric vessels which bear within themselves the heat and light,—the life-giving principle of the natural sun,—so every particle of the grey substance throws out vessels or fibres which contain the life-giving essence, which is elaborated in the grey substance of the brain.

According to Swedenborg, therefore, every fibre of the body is a most minute and refined vessel or tubule, containing the life-giving essence which is generated in every vesicle or glandule of the grey substance.

Each of these little vesicles or glands of the grey substance, however, is different from every other little vesicle or glandule, even as every star in the natural universe differs from every other star in size and in intensity of light and of strength. And yet, as all the stars gravitate towards one another, and mutually hold one another in their respective place and position in the heavens, so also the various particles of the grey substance in the brain and in the spinal marrow are related to, and conjoined with, one another, and they form together the natural substratum of the infinite number of spiritual forces which constitute the human soul. As the human soul, however, is a unit, so also the immense number of vesicles of the grey substance form a unit, and a compact whole, although each of these little bodies is separated in space from every other little body or vesicle, even as the stars are separated from one another in space.

But why are these little vesicles or glands separated from one another in space? Because each of them is a little diminutive brain by itself, and because it must have room wherein it may perform its vital motion.

For, as the natural sun is in a state of highest commotion and activity, and as by its own activity it throws off its rays invested with atmospheric sheaths or envelopes, so also every particle of the grey substance is in a constant state of motion, and by this motion throws out of itself that vital essence which it constantly generates in its own bosom, and which is received and carried to every part of the body by the vascular sheaths of the fibres.

On this account Swedenborg calls every one of these little particles of the grey substance a *corculum*, or a little heart, because it not only has an expansive and constrictive motion like the heart, but also a vital essence, which it forces into the fibres, just as the heart drives its blood into the arteries.

As there are, however, two sets of blood-vessels,—the veins and the arteries,—of which the former convey the blood to the heart, and the latter carry it away from it, so also there are two sets of fibres, each of which is filled with the vital essence of the grey substance, and in one of these the vital essence rushes back to the grey substance, while in the other it flashes forth from it. Those fibres by which the vital

essence is carried away from the grey substance terminate in the various muscles of the body, and by the constant expansive and constrictive motion of the grey particles vital essence is conveyed by these fibres evenly to all the motive organs of the body. Presently, however, the soul, which dwells in the inmost principles of these grey particles, wills that the body should perform a certain action, and then the will of the soul enters into those particular grey particles, the fibres of which terminate in those muscles which are required to act, and the muscles are stirred into action by the extra amount of vital essence which is forced into them from the grey substance.

Those fibres, however, which tend towards and terminate in the grey substance, and in which the waves of the vital essence rush backwards towards the grey substance, and not away from it—these fibres, which are softer and of a more passive nature, emanate from the various organs of sense,—from the eye, ear, nostrils, tongue; and from the skin all over the body,—in order to convey sensations to the grey substance. For it is not the eye which sees, nor the ear which hears, nor is it the nose which smells, nor the tongue which tastes; but all these sensations are received by the soul, which resides in the grey substance of the brain, and the soul receives these sensations by the fibres of the various nerves which lead from the various organs of sense to the grey substance of the brain.

So, for instance, on reaching the eye, the optic nerve is broken up into its component fibres, and these fibres, each of which leads to a different particle of the grey substance, are rooted in the retina. When the retina receives an image consisting of various shades of light and darkness, each of these little fibres is affected by the light and shade in a different manner, and this difference it imparts to the vital essence within the fibre. By this, as well as by the vibrations of the sheath of the fibre itself, this variation of light and shade is telegraphed to the grey particles of the brain. On these particles, which correspond to the various forces of the soul, these impressions remain stereotyped, and out of the general state of all the grey substances which have become affected by the image of the retina the soul gathers up and reconstructs an exact likeness of this image.

As the optic nerve on approaching the retina is resolved into its constituent fibres, so when it enters the white or fibrous substance of the brain, it is likewise resolved into its constituent fibres, and each of these hastens to its native grey substance, in order to report there what it has seen. As each of these fibres, however, is in a state of tremiscence or vibration, it communicates on the way its tremiscence to all the fibres with which it comes into contact, and as in the white substance of the brain these fibres are wonderfully interlaced with one another, the impression which has been received by the retina is by-and-by communicated to all the host of fibres in the brain, and carried by them to every particle of the grey substance, so that the whole grey substance is affected by every impression of the senses, no matter by what organ of sense it may have been received. This, however, by no means excludes the idea that each sense centres in a particular province, or in a particular convolution of the brain.

You see, therefore, the important part which the vital essence in the fibres has in the production of action through the motory fibres, and in the production of sensation through the sensitive fibres, and I think you will be curious to know what modern science says concerning this vital essence of the fibres. Modern science, as distinguished from the science of the last century, doubts whether there is any vital essence of any kind within the fibres. Until recently modern science refused to acknowledge altogether that the fibres of the brain and of the nerves are hollow; now it speaks of nerve-tubules. It therefore admits that some of the fibres are hollow, but it still is in doubt and uncertainty about the nervous force contained within them.

Dr. Todd, in his treatise on the Brain, says that "the nervous force is a polar force, resembling electricity in the instantaneousness of its development and in the rapidity of its propagation, but differing from it in several important features." Yet this idea of Dr. Todd is by no means generally accepted by the men of science.

Among the organs of the body there are some over which man has complete control, and again there are others which carry on their economy entirely independently of man—that is, so far as his volition and his consciousness are concerned. Such organs are the heart, the stomach, and the various viscera of the body. The fibres of which these organs are composed, according to Swedenborg, are all derived from the cerebellum, or from the spinal marrow, which is the vicegerent of the cerebellum in the body, and the fibres which terminate in these organs report their impressions and their condition to the spinal marrow and cerebellum, and through the grey matter of the cerebellum to the soul—that is, to that portion of the soul which governs the natural functions of the body.

In order to analyse the function of the cerebellum, Swedenborg carefully followed up the direction of its fibres, noticing clearly into which nerves they entered, and then he drew his conclusions.

Modern science depends on vivisection. It slices off portions of the cerebellums of living pigeons and hens, and from the fact that pigeons and hens after the excision of the cerebellum lose the control over their motions, modern scientists declare that the function of the cerebellum consists in "the faculty of *combining* the actions of the muscles in groups" (Carpenter, § 550). This is all that modern science has to say of the cerebellum.

The cerebrum or large brain Swedenborg defines as the organ of volition and conscious sensation, and he holds that the interior operations of the human understanding, such as thought, judgment, willing, and intention, are carried on in the interior principles of each vesicle of the grey substance of the cerebrum.*

But the whole of the grey substance of the cerebrum or large brain is not devoted to sensation and volition. These operations are mostly carried on in the anterior and superior lobes of the cerebrum, and in an auxiliary capacity they are also carried on by those organs of the cerebrum which are called the *corpora striata*, or the streaked bodies, and the *optic thalami*, or the chambers of the optic nerves. Through these bodies the cerebrum despatches those

of its fibres which are sent to the eye and nose, to the ear and tongue, and to all the organs of motion of the body. And these fibres for the most part are derived from the anterior and superior lobes of the cerebrum.

Yet in the lower part of the cerebrum there are a number of organs which directly have nothing whatever to do with sensation and volition. These organs are situated around the various ventricles or cavities of the brain. For in the bottom part of each hemisphere of the cerebrum, or large brain, there is a large cavity called the lateral ventricle, and in the middle between the two lateral ventricles there is a third ventricle which terminates in a kind of funnel, yet without a visible outlet. From these cavities or ventricles a passage called the aqueduct leads towards the cerebellum, between which and the medulla oblongata there is a fourth ventricle; and between the aqueduct and this fourth ventricle a door is placed, so that no liquid can pass from the cerebrum to the cerebellum. Near the entrance of the aqueduct there is a mysterious body called by the anatomists the pineal gland; and another enigmatical body called the pituitary gland is below the funnel-shaped body underneath the third ventricle.

If you ask modern science what is the use and purpose of these organs, it will acknowledge that it can tell you nothing; for it admits only two functions of the brain, those of volition and sensation; and with these two operations, it frankly confesses, these organs have apparently nothing whatever to do.

Swedenborg alone solves the use and purpose of these organs, and he defines them as the *chemical laboratory* of the brain: there, he says, the spirituous or living essence of the blood is prepared, to which the blood owes its liquidity, and its power of being resolved into minute, transparent, white particles; in fact there is the workshop of the transparent white particles, into which each red blood-globule may be divided. The workshop of the *red* blood-globules is in the heart and lungs; but their constituent white particles to which the blood owes its life and power are manufactured in the chemical laboratory of the larger brain.

The chemical retorts where this precious fluid is prepared are the two lateral ventricles. These ventricles are surrounded by solid white bodies composed of fibres from the posterior part of the brain and its lower surfaces; these bodies are called the corpus callosum or the opaque body and the fornix or the vault; and from these bodies, especially the latter, the fibres empty their spirituous contents into the lateral ventricles; as the liquid of the fibres, however, is spirituous and hence gaseous, it requires to be fixed, so that it may not evaporate; wherefore we find in each of the lateral ventricles a wickerwork of arterial vessels, called the choroid plexuses, out of which there constantly trickles a pure lymph. This lymph seizes upon and embraces the spirit of the fibres; yet in order that it may do so effectually the ventricles require to be in a constant state of commotion, just as is the case with the heart. Wherefore it is a

fundamental principle of Swedenborg's theory of the brain, that just as every particle of the grey substance has an expansive and constrictive motion, so also the brain at large, formed of these millions of throbbing little bodies, has likewise an expansive and constrictive motion. By this motion, which is synchronous with the motion of the lungs, the spirit of the fibres in the lateral ventricles is married to the lymph of the blood, and by foramina or holes, which are partly ignored by modern science, this precious liquid is conveyed into the third ventricle in the middle; and hence through the invisible pores of the funnel it is forced into the pituitary gland at the bottom of the brain; from this, finally, through the so-called petrosal sinuses it is conveyed to the jugular veins, and thence to the heart.

The course of analysis by which Swedenborg establishes the existence in the brain of this chemical laboratory of the purer blood is simply marvellous.

This same expansive and constrictive motion of the brain which Swedenborg calls animatory, prevails in the cerebrum, cerebellum, medulla oblongata, and spinal marrow. And this same animatory motion is of the greatest importance in the economy of the whole nervous system; for, as acknowledged by modern science, each nerve, upon being dissected, is found to consist of strands or fascicles, and each of these fascicles is composed of primitive fibres, that is of those fibres which are generated from the particles of the grey substance.

Now in order that these fibres and nerve-strands may not coalesce or concrete, and that they may be able in freedom to undergo their tremiscence or vibration, they have to be bathed in a pure lymph; and the lymph which bathes the nerve fascicles or strands, according to Swedenborg, is derived from the cerebro-spinal fluid, which is secreted from the blood-vessels in the brain, and which fills up all the interstices of the brain both on its outside and also in its interior; and this fluid through the medium of the fourth ventricle, or of the ventricle of the cerebellum, receives its necessary supply of vital essence from the fibres of the cerebellum, so that it may be forced without the least difficulty through the intervals in all the nerves of the body.

The cerebro-spinal fluid, according to Swedenborg, fills especially the cells and passages of the arachnoid membrane which floats around the whole brain and spinal marrow, and through the agency of this membrane which Swedenborg calls the lymphatic coat of the brain, this cerebro-spinal fluid is derived between the interstices in the nerves.

The active power, however, by which this fluid is thus forced through the interstices of the nerves is the expansive and constrictive motion of the whole brain.

This animatory motion of the whole brain is entirely ignored by the modern text-books on physiology; and yet no scientist dares to deny it; on the contrary, its existence is proved beyond the possibility of confutation. But why do they pass over it in silence? Be-

cause this animatory motion of the brain is inconvenient to them. For if they admitted it frankly and honestly, the next question would be, Why is this motion? Because everything in the body serves a definite purpose. The only purpose, however, which an expansive and constrictive motion of the brain could serve is to force a refined liquid through the body. But the existence of such a liquid modern science doubts; nay, it still doubts that the fibres and the nerves are hollow.

Yet the fact that the cerebro-spinal fluid, the existence of which is admitted in general by modern science, is actually forced into the interstices between the fibres of the nerves, is most satisfactorily proved by the researches of two of Swedenborg's countrymen, Dr Axel Key and Dr. Gustaf Retzius, whose labours on some functions of the brain are most praiseworthy, and who in their plates drawn from life, prove most unmistakably that there is a fluid forced by the brain through the interstices of the nerves.

According to Swedenborg, there is therefore a compound animatory motion of the brain. There is a motion of the individual vesicles of the grey substance, by which the animal spirits are driven through the fibres of the brain and of the nerves; and there is a general animatory motion of the whole brain, which on the one hand is instrumental in conveying to the heart the purer white blood manufactured in the chemical laboratory of the brain; and which on the other hand forces into the interstices between the strands of the nerves the cerebro-spinal fluid, which is the genuine nervous juice.

SPINSTERS: THEIR PAST, PRESENT, AND FUTURE WORK.

(Second Article.)

Phrenology clearly points out that the brain power of woman is equal to that of man. "How can that be?" you ask. It is an acknowledged fact that man's peculiar power lies in the superior size and force of his brain, and what is lacking in refinement is made up for by size. Woman's dominant power lies in the quality of her brain, the compactness of her organisation, and the intensity of her temperament, and what is lacking in size is made up for by refinement. According to the evidence given by the most eminent phrenologists and physiologists, the power conferred by refinement of organisation and quality of brain, is of a higher order of power, more purely intellectual and more akin to the spiritual than power conferred by force, size of brain, and constitution,

It is the object of this article to examine the results achieved

by this refinement of intellect, and to see if it can cope with man's superior size of brain. The question has been asked, "Will it be worth while for women to enter the lists with their brothers in competitive examinations?" In answering which I will say, that female ambition in matters of collegiate competition—as in every intellectual sphere—must of course be based upon mental capacity; where that capacity exists—as in the case of Miss Scott, of Girton College—let women be tested with their brothers. If it had never been necessary for women to support themselves, if they had continued to believe that, for one half of the human race, the highest aim of civilisation is to cling to the other, as ivy clings to the wall, she would still be possessed of the right, nay more, a divine compulsion to cultivate the intellect and powers God has given her; and if she ought to cultivate them then it must be conceded she ought to turn them to some good account. At the present day it has become a moral sin for capable women to devote all their time and energies to the massacre of Old Time by pricking him to death with the crotchet hook, strumming him deaf with piano-playing—not music—and cutting him up with morning calls. The time is coming, says a contemporary, when the work of life will be re-distributed; and it is because we see such a large proportion of the human race—women—thrown entirely upon their own resources, that we hail the day with interest.

Strictly speaking, a person's proper sphere comprises the whole range of his duties, but, until quite recently, woman's sphere has not done this, for she has very many duties in common with man besides the household requirements peculiar to her as a woman.

"If marriage, happy and prosperous, were the ultimate of every woman's career, then might she lean upon her husband for support, who would vicariously atone for her ignorance and indifference by doing public duty for two; but so long as domestic calamity and bitter battle with the world for bread is a woman's lot as often as it is a man's—as long as marriage cannot come honestly and happily to all, and as long as responsible burdens and business toil are so often thrown upon her—she should not be denied the privilege to educate herself as far as possible for the probable necessities of the future. Man is less capable of judging the proper adjustment of women's place or sphere than she is for herself. In truth, this entire notion of regulating the position of woman by conformity to the old-established ideal of womanly character, is almost without the bounds of sober argument, and happily is fast going out of date.

But what can women do for their support besides, as being housekeepers, governesses, clerks in business-houses and post-offices, shopwomen, and so forth? The fitness and success of women as doctors have been so positive as to fully answer the question of their need in the profession of medicine. But in the study and practice of the law the woman-element is comparatively new. So little has been accomplished in this respect by women in the East as scarcely to be discerned; but in the West, where the grooves of custom are less strongly defined, enough has been accomplished to merit the name of a respectable beginning. In this, as in every profession, women are not seeking to establish a monopoly, but to break one down, that she seeks to enter the remunerative spheres so well guarded for ages by the sterner sex.

Still we read in ancient times of women being learned in Mosaic law. Roman history speaks of women chancellors; while, for a later Italian State, Shakespeare created Portia out of his fertile brain. To-day the progressive spirit of American women has penetrated the Courts of the States, so that in Wisconsin, Illinois, and Ohio, women are studying and practising at the Bar. There are, I believe, a few female attorneys in England who are commencing the pioneer work of opening the way for greater opportunities to women in this profession. Miss Lavinia Goodnell is one of the most successful woman-lawyers in the States. She is a shrewd, quick-witted, and studious young lady, fond of humour, and quite argumentative. She prepared a bill that was sent to the State Legislature, providing that no person should be refused permission to plead at the Bar on account of sex. A petition, asking for its passage, was signed by the circuit judge and every member of the Bar in the county of Wisconsin, Miss Goodnell being held in such high repute in Janesville by all the lawyers. The bill was passed; so that Miss Goodnell and her partner, Miss Angie King, were admitted to the Supreme Court of Appeal throughout the country.

Miss Kate Kane is an example of the success women have won in the Milwaukee Court. She possesses great spirit, intuition, and grip of mind, an unimpeachable moral character, and indomitable will. She was received with the utmost cordiality and kindness by all the lawyers, the sheriff, and judge of the Rock County Bar.

Among the Washington lawyers not the least clever is Mrs. Lockwood. She is particularly sharp in her analysis of subjects, clear in her criticisms, orderly in her style of thinking, and readily sees how different minds can be controlled.

In the States of Ohio and Illinois Miss Agnes Scott, Miss

Perry, Miss Martin, and Miss Macdonald are in successful practice. In Chicago Miss Alta Healet was admitted to the Bar at the early age of nineteen. When she had reached her twenty-third year she had attained considerable eminence and a well-deserved reputation, with a practice amounting to £120 a year. Her own testimony was, that in her efforts to qualify herself for the profession, she had experienced no discouragement—only help. She was never known to take a case unless she believed it to be right. When she died, the legal profession of Chicago at a public meeting alluded to her estimable character and career, both as a woman and as a lawyer. The day cannot be far distant when the moral claims of women to practise law will be universally recognised; and when that day dawns we may expect to see our legal profession elevated and morally strengthened. Humanity can ill afford to lose a particle of wise and true influence in her Courts, whether this influence emanate from a man or a woman.

In literature women have a longer history to relate, and for the last three or four centuries they have been successful competitors in fiction, as writers of books of travel, as talented biographers and historians, while a few have written ably on physiological and psychological subjects. In fiction such names as Mrs. Cowley, Hannah More, Mrs. Barbauld, and Lady Wortley Montague formed perhaps the first school of female novel writers during the Georges' reigns. Their dramatic and lucid unravelling of plots, their quick intuitive perception of human nature, combined with vigorous composition, attested their ability for the work they undertook. These writers were followed by Miss Baillie, Miss Austin, Miss Mitford, Eliza Cook, the sisters Brontë, and A. Procter; while still later by George Eliot, Browning, Hemans, Martineau, Mulock, Jean Ingelow, Sigourney, Stowe, Jameson, Miss Thackeray, and others.

Have not women made their influence felt by means of the pen in the cause of health? We might mention the writings of Miss Nightingale, giving hints to nurses in the sick room, and other similar works; Miss Sedgewick and Maria Edgeworth, who have both contributed much to the education of the masses, while Miss Martineau's contributions in *Once a Week* carried considerable weight with them in sanitary reform; and I am sure many thanks have been tendered to Miss C. Beecher for her excellent "Letters to the People."

In education women taught the following branches six centuries ago at Bologna:—Mathematics, the classics, natural science, philosophy, the civil and canonical law, anatomy, surgery, and medicine. Yes, taught when sometimes they

were obliged to veil their faces, lest the thought of the student should be distracted from the beauty of the subject to the beauty of the speaker. Who has not heard of the learned women of Bologna? Teaching is a grand calling when it inspires a person's intellectual and moral faculties, and raises the occupation into the ideal above the hum-drum of mere mechanical work. No sphere is capable of deeper or wider influence than this. Yet it is so often looked down upon, especially when women are forced to occupy places as governesses, pupil-teachers, &c. When *collegiate training*, *scholarships*, and *honours* become equally participated in by men and women in the universities, then, and not until then, will women's talents be fully recognised.

In America women can raise themselves to a higher position by teaching than in England, because the universities, colleges, and high schools in the former country have longer yielded greater advantages to women; but great praise is due to the progress made during the past few years in the scholastic facilities for learning here in England.

In 1870 about seventy-four per cent. of all the teachers in the United States were women. Horace Mann, who is an authority upon the subject, considers it a great reform, believing women to be much better adapted to the work. The exception in years gone by is now fast becoming the rule, for the salaries of teachers doing the same grade of work to be identical, whether the teachers be men or women. Teaching is an occupation, however, the most draining upon vitality, and should be highly remunerative. Many teachers who, after years of close confinement in class-rooms find the bloom of life fast ebbing away, might take a timely precaution, and turn their attention to out-of-door work, which can be made both profitable and enjoyable with proper management. One example will suffice to support the above suggestion. Failing health prevented a young lady out in California from keeping her position as principal of Clarke Institute. She thereupon turned her attention to superintend a farm of eighty acres; and last spring set 600 fruit trees with the aid of one man. She has carried her systematic, planning brain from collegiate work into garden matters. Picture 28 acres of raisin grapes, 300 apricot trees, 100 nectarines, and 400 prunes, besides the ordinary fruit trees, and you can realise somewhat her situation. But fruit does not absorb all her time. The leading magazines and papers cover her cosy parlour table, while she graces her work by charming conversation. No one watching her at this work thinks her "unsexed." She is modest and unpretending, while liberal and free-thinking; and in a physical sense this work of hers has become her salvation.

Much might be said of woman's success in the Arts and Sciences; at present we must give but a cursory glance through the long vista of her achievements in artistic and scientific pursuits. In science, the names of Somerville, Mitchell, Herschel, and Lewis are all well known. In art, the list is greatly increased, but such names as Hosmer, Rosa Bonheur, Foley, and Thompson stand prominently at the head. The two first mentioned ladies overcame mountainous difficulties in obtaining necessary tuition in anatomy when commencing their studies. The one has proved to be of no ordinary type of genius for animal painting, the other has produced grand and effective works of art in sculpture. We forget sex altogether when gazing upon the works of these artists, so complete and masterly are they. There is nothing weak or effeminate in their portraits, whether they be upon canvas or chiselled from the block; all but the life to make them move is there. The King of Spain, we learn with pleasure, has conferred on Mdle. Rosa Bonheur a Commander's Cross of the Royal Order of Isabella, the first distinction of the sort ever granted to a woman. This is a happy augury for female recognition and reward for the future. Rosa Bonheur stands at the head of female artists of every age and country, but, according to statistics published in the *Gazette des Femmes*, the lady is only one in two thousand one hundred and fifty who have exhibited in the Paris Salon.

A short time ago, there was some talk that the Royal Academy proposed to throw open the honours of their Institution to women, with the direct object of conferring a degree upon a lady well known to fame. But, while the Academy is still in debate, the ladies have cut the Gordian knot by establishing a life-school of their own. The question must sooner or later be answered—If women are deserving of honours and rewards why should not such distinctions be conferred upon them? South Kensington is yearly sending out her *débutantes* in art in all its branches.

I need say but little about woman's success in the art of vocal and instrumental music. The facts of the day stand out too plainly to need repetition here. As singers, pianoforte and violin players, they stand side by side with their brother competitors. This profession has certainly become a lucrative one, and will in time become more so as the mind and ear of the people become better educated and attuned to the harmony of sounds and to the true appreciation of good music. The stage is another sphere in which women have achieved great success, and the list of celebrated and clever actresses compares well with that of eminent actors. While Patti, Titiens, and Nillson have taken us away and beyond

the real, by their enchanting strains of music, Ristori, C. Cushman, Miss Bateman have held us spell-bound with amazement and emotion by their wonderful representations. Miss E. Blackwall, Willard, Becker, Anna Dickenson, Mrs. Fawcett and Livermore have struck the true chord in our hearts by their eloquent speeches. In conclusion let me say to those who have followed me point by point, that I trust woman's sphere will in the future appear to their minds—as it appears to mine—to be wheresoe'er she findeth work to do of the kind in which she can excel the best, without becoming in the least less womanly or more masculine. Grace Greenwood says that among its other manufactures New England produces the best educated girls, the truest wives, the noblest mothers, and the most glorious old-maids in the world, and that is no small boast.

J. A. F.

COMMERCIAL MORALITY.

Two letters have been received from correspondents on this subject, both of which ask the question—whether the lax state of morality in trade, which has been so markedly prevalent during the past few years, arises from a growing deficiency of the organ of Conscientiousness amongst Englishmen generally, and among tradesmen in particular. One of them complains of the difficulty of meeting with strictly conscientious tradesmen, either in a small or large way of business. He certainly has, according to his statements, been very unfortunate in his experiences with shopkeepers and others; but there may be a large number of dishonest men connected with trade, and yet it may not follow that the average conscience of society is on the decrease. We should be sorry to think that such was the case, and yet the fact cannot be overlooked that something like commercial immorality on a large scale has been making itself manifest with startling frequency of late. Our second correspondent puts his question in the somewhat broader form:—"Are men less moral to-day than they were a generation ago?" and he wishes us to answer, "Yea" or "Nay," as to whether there is a lower development of the moral brain now than then.

It need hardly be said that to answer the question in this form is simply not possible. To get at the average moral calibre of society as a whole, one would have to examine the cranial developments of society as a whole, which, to say the least, is scarcely feasible. Judging from the observation that is humanly possible, however, we should say that con-

science is not on the wane, but that there is a lack of earnest thought in what regards business. Men see others get on, or as the more common way of putting it is, *succeed*, by following certain "shady" ways in business; and they are only too willing to accept it as an axiom that "business cannot be carried on on too-particular lines," and that consequently some latitude must be allowed. Men fall into the way of acting on this principle who would be horrified at the merest hint that dishonesty attached to their actions. Conscience only makes us act up to the right as we know it, and so men, who come to look upon business transactions as matters outside morals, get into the habit of acting in a way that they would scorn to do in other relations of life.

We need to look upon business more in the light in which Mr. Jas. Platt, himself a tradesman, looks upon it.—"What a scathing satire" he says "upon humanity and our institutions is the general opinion, 'that an honest man cannot succeed;' but I denounce it as an insult to the Creator to entertain such a thought. Firstly: what is meant by success—wealth, or a higher and purer nature? A man may rise, yet not succeed; succeed, yet not rise. When they tell you a man cannot honestly succeed, they mean, cannot accumulate money as fast as he wishes to, unless he does 'dirty acts.' I deny such successful men to have risen. . . . They have fallen from their manhood, and degraded themselves to the lowest faculties of their nature. . . . But I go further and say, if men were properly trained, the greatest success is to be obtained by honesty—a success that will satisfy not one, but all the faculties of the nature."

In the book from which we quote, "Morality,"—one which we cannot too highly recommend to young men who have their business principles yet to form—Mr. Platt expresses the opinion that there is apparent "a decay in the fibre of the national moral character." Whether this be so or not, one thing is certain, that lax ideas of morals in regard to trade cannot long prevail before it begins to sap the very foundations of the moral constitution. An act that is in one man merely an imitation of that of another, without a thought of conscience about it, may become in his children a lack of the actual fibre of conscience, and so the descent begins. Although, therefore, we cannot answer our two correspondents, as to the actual average development of Conscientiousness and the moral brain generally in this generation, we are fully alive to the great necessity there is for a keener sense of right and wrong being introduced into business transactions, which, instead of being outside, are the very foundation of morals.

E 7.

ONLY HALF A HERO.

A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER III.

Meanwhile the German armies had been marching from victory to victory. The battle of Weissenburg took place on the 4th of August, and that of Woerth, at which Gottlieb was wounded, two days later. On the same day, at the extreme right of the German line of invasion, took place the battle of Forbach, or Saarbruck, which resulted in the almost complete destruction of the army corps of General Frossard, and led up to those terrible days of carnage about Metz, which culminated in the shutting up of General Bazaine in that stronghold, and led a week or two later to the downfall of the Second Empire at Sedan.

Riese received his "baptism of fire" a few days after the battle of Saarbruck. It was only a skirmish he was in; but it was sharp while it lasted, and he was heartily glad when it was over. Then came the terrible days of the fourteenth, the sixteenth, and the eighteenth of August, when so many a brave son of the Fatherland moistened the vine-clad heights of Lorraine with his blood. It was on the concluding day of the triad, at Gravelotte, that Gustav came nearest seeing his last of sublunary things. In the very thick and heat of that sanguinary fight, when, for the first time, the battalion of which he formed part was hurled back by the impetuosity of the French onslaught, he stopped behind to assist the Captain of his corps, who had fallen pierced by a shot. He managed, by half-carrying, half-supporting the wounded man, to get him to the rear of the repulsed line, but it was done amid a perfect hail of chassepot bullets. Providentially, however, he was not hurt, though one shot came with a sharp thud on his pickelhaube. Having placed the wounded officer in the hands of the Knights of the Red Cross, Gustav quietly fell into his place in the ranks again, and a little later entered with his regiment the village of St. Privat, over roads and fields littered with dead and dying. Here and there thick swaths of gory corpses marked where the struggle had been the fiercest. Many a glassy eye and pale quivering lip implored help of the passing soldiery, to which they had to turn an unheeding ear. One incident the young soldier witnessed which often gave him occasion for subsequent thought. In a spot where there had been a keen hand-to-hand conflict, a Frenchman and a German had fallen

close together, and were seen in death with their right hands clasped one in the other. They had mortally wounded each other in a quarrel that was not their own, and, dying, had forgiven each other for injuries they could not help.

Well might Gustav wonder at the number of men falling by each other's hands, who, had they known one another, would have inspired mutual affection and esteem, but who, because of dynastic ambition, were brought to regard each other as foes.

But there was no time for such thoughts now, for there was still toil enough before the day's doings were finished; and when the frugal supper was at length eaten, and the hard earth-bed sought, frail nature was so wearied out that even the thought of a far-off loved one was not potent enough to bear up the bars of sleep for a little preliminary dreaming. So sound was Gustav's sleep that he hardly once changed his position, and when at an early hour the *revellé* resounded, he dreamed that it was the Frankfort fire-horn, and that he was so tied down to his bed that he could not get up and run to give help. At the second blast, however, he made a supreme effort, thinking he saw the Durer-house in a blaze, and the start awakened him.

"I dreamed that I saw a house on fire," said Gustav to his comrade Hans Quint.

"Did you?" responded Hans. "Then you will hear of something surprising before the day is out."

And sure enough he did, for on parade Riese was publicly commended by his Colonel for the bravery he displayed in succouring his Captain on the field of battle. It had not occurred to him that there was any particular bravery in the act. It was done, as he afterwards explained to Hans Quint, in a moment of forgetfulness, and therefore could not have much credit about it.

His comrade laughed at him for his explanation, and said he wished he could forget so; but he could not—he had too vivid a consciousness of the bullets. "But," he added, "I suppose we might as well take our risks coolly and cheerfully. If it is our doom to die before our prime, our fate would have found us out if we had been permitted to stay at home just as well as on the battle-field."

"I don't know about that," said Gustav; "for my part, I wish I were at home, for if I am to die before my prime, as you say, I would rather my fate overtook me peacefully on my bed than in the midst of all this slaughter."

"That is not a heroic sentiment at least," observed Hans Quint with a smile.

"I dare say it is not ; but I don't profess to be heroic, and I don't care for glory."

"There is not much glory for the common soldier," said Hans. "He has to be thankful if he can see the White Rose, and get home with whole limbs."

"What do you mean by 'seeing the White Rose'?" asked Gustav.

"Have you not heard the story?" exclaimed the other. "It is on everybody's lips."

Riese said he had not, whereupon Quint told him how, the day before, when an officer of a Berlin regiment of the Guards was preparing to go into action, a white rose was placed in his hand, by whom he did not remember, but he thought by a woman, who at the same time charged him to "wear it in the fight, and then give it to another;" how, an hour later, one of the adjutants of the same regiment, Count Pfeil, received the same from a captain named Waldersee, with the words: "Bear the rose and pass it on;" how he thought no more of the incident until the village of St. Marie aux Chênes was taken, and he and his troops advanced towards St. Privat, when he found that he had lost the flower-token; and, finally, how, later in the evening, the subject of the White Rose was mentioned, and it was remarked that nearly all the officers living and unwounded who had taken part in the battle had had the mysterious flower in their possession at one time or other during the day. Whence it came, or whither it went no one knew.

Hans narrated this legend—around which a nimbus of superstitions gathered for the rest of the campaign—with a good deal of circumstantiality; and, as even the hardest-headed Teuton has a strong love of the marvellous in his composition, Gustav listened to the story with lively interest, and took occasion to tell it to Jessica in a letter which he wrote to her on the following day.

A fortnight later, as everybody knows, befel the Sedan disaster. On that memorable day Riese again had the good fortune to distinguish himself, and this time to win for himself the honour of the Iron Cross. A strategic point in one of the villages surrounding Sedan had been attacked and occupied for a short time; the Prussians being then obliged to fall back before a spirited onset of the enemy. Gustav's regiment, however, speedily rallied, and was once more led to the assault. The hamlet was again stormed; the black and white flag was seen waving from the height, and there was a lusty cheer; but suddenly the flag was missed, the officer bearing it having been shot down, and for a brief space there was a wavering in

the ranks. It was a critical moment—when a mistake would have been extremely fatal. Gustav was in the second rank of the assailing party. The front rank was some yards ahead, led by the officer who had borne the flag. When he fell, the advanced column seemed to become paralysed, and quickly fell back, threatening to throw the rear rank into disorder. Gustav saw the danger, and, rushing forward, seized the fallen flag and raised it aloft. The act was spontaneous, and had an electric effect. There was a shout and a rush, then a shower of bullets, and the position was won. But it had cost a lot of lives, especially of officers' lives, as was the case throughout the war.

Riese's presence of mind was witnessed by a staff officer, and he was commended for his gallantry on the field of battle, and the next day had the satisfaction of being told that it had pleased His Majesty, Koenig Wilhelm, to award him the Iron Cross for intrepidity before the enemy.

Gustav was naturally greatly pleased at the distinction he had won; but for some time did not fully realise its value. He was a very simple youth, and was quite unsophisticated in the ways of the world; indeed, had he not been, he would hardly have become one of the chief actors in a story like this. It was only when his friend Hans Quint suggested to him that he might possibly be made *Fahnreich*, that he began to look at the thing in the light of possible promotion. The suggestion led to a train of thought.

"Possibly," he mused, "Jessica might be pleased to learn that I had been made an officer for good conduct." The thought that she would be gratified by such an eventuality made him desire it; but otherwise he had no ambition for the distinction.

"Gustav," said Hans, interrupting his meditations, "have you got a sweetheart? But I think you have; for when you write a letter to *someone*, you write very carefully, and there is something in your eyes then that is not in the eyes of other men of ours when they write home."

"You're a cunning fellow, Hans," said Gustav; "very little escapes you, even though you cannot forget the bullets."

"That's just it—I see everything, and can be unconscious of nothing. Other men can dream, and can do things dreaming; I can't. I believe that is what makes the difference between clever men and fools."

"And I suppose the dreamers are the fools?" said Gustav.

"No; just the other way," replied Hans. "Look at *Hammelfleisch*, for instance. Was there ever so forgetful a man, except yourself? Just consider that day at Gravelotte.

While we were sheltering behind that wall, before we were ordered to advance on St. Privat, and shot and shell were falling about us like hail, only hotter—what did he fall to doing? To scratching Hebrew or some such unnameable roots on the wall, to keep his memory in, as he said! And when a bullet caught the spike of his helmet and knocked it over his eyes, you should have heard how he confounded those French for interrupting his studies. We could not help laughing, serious as the situation was."

"It was very droll, certainly," replied Gustav; "but Hammelfleisch, you know, is a great scholar. They say he knows more about the ancient Eastern languages than any man in his university, and that if he lives to return to his studies he will become a famous man. I don't wonder he strives to divert his attention from the horrors about him by his scholarship; it must be a great consolation."

"But when you write to your sweetheart, as I suppose it is, you are just as much absorbed as he is. You appear to be right away in a dream, and seem to feel neither cold nor wet. I suppose loving must be a kind of scholarship to have such a similar effect. But tell me about your sweetheart."

"I don't know that I have one, Hans—that is, I don't know that I ought to call her by that name, although it is someone I love very much."

"Why? have you never spoken to her?"

"O yes!" replied Gustav; "and she has promised to be true to me; but I have serious doubts whether I ought not to get shot, or die of fever like others of our regiment, so that I shall never go back again."

"Now you're joking me," said Hans.

"No, I'm in real earnest."

"I don't understand; it seems to me very much like foolishness," responded straightforward Quint.

"Why it's just this. She is rich, you know, and of a good family, and educated, and I am poor and without special instruction, and it seems to me that I ought not to stand in the way of her marrying one of her own rank—one who would know how to make her happier than perhaps I should."

"I see," said Hans, "you are placed very much like me, only a little different."

"I did not know you had a lover?"

"Neither have I," responded Hans, "that is, a real one. It happens in this way. In our town there is a rich cooper, who has an only daughter, and she is very pretty, and will have all the old man's money when he dies. She has hair the colour of his golden ducats, and sings so sweetly in church,

that I became a cooper and attended church regularly because of my love for her. But she never took any notice of me, and perhaps hardly knows of my existence. If I live to go back to Muhlheim—that's where I come from, Westphalian Muhlheim—I suppose I shall go to church again to hear her sing, and to admire her golden hair, and she will pass me by as coldly and as unconscious of my liking as ever."

"I should not have taken you to be so bashful a man as all that," said Riese. "Is it the young lady's golden hair that overawes you so?"

"That and her father's Friedrichs d'or. There is nothing that awes the peasant like gold, and I am peasant-born. That's my weakness, and I can't overcome it. What's bred in the bone, you know, is not easily got out of the flesh. But if, now, I could win the Iron Cross like you, the Herr Knoblauch and the Fraulein his daughter would hear of it, and she would think of me, because I am of their town, and should be talked of."

"I wish I could help you to win the Iron Cross if that would make you happy," said Riese; "but surely you don't think that would make the Fraulein love you?"

"No, not exactly that," said Hans thoughtfully, "but it would give me a place in her mind, and a place in a maiden's mind is half way to her affection. Then, being a cooper, and having the Cross, would recommend me to the father."

Gustav laughed.

"Why do you laugh?" queried Hans.

"Because you are about the most knowing man I have ever met, and I hope you will get the Iron Cross, or, at any rate, the golden-haired Lena."

"The latter would be enough," said Hans.

"You are right, good Hans Quint," put in Diedrich Hammelfleisch, the scholar, who had approached unobserved, "the golden-haired Fraulein would probably prove cross enough for one. What say you, Riese?"

"I have heard," responded the latter, "that marriage is kreutz-zug (crusade, cross-bearing) enough for most men; but Hans is quite a philosopher. And then I don't suppose the maiden would be like the ordinary run of women, given to scolding and that kind of thing. What do you think, Hans?"

"O, as for that," said the interrogated, with a quiet chuckle, "I daresay she is pretty much like the generality of her sex; she is only unlike in being the only daughter of a rich father."

Riese and Hammelfleisch laughed, and the latter observed, in his quaint, kindly way—

"Ah, the good Hans Quint, I see, is well grounded in philosophy. He has no illusions like some of us, and I hope

he will be spared to have his life well seasoned with the Herr Knoblauch's* good things, including both his gold and his golden-haired daughter."

"To that I say 'Amen;' 'tis a strong seasoning, but a good," quoth Hans Quint.

The subject then dropped; but the Westphalian's worldly calculations set Gustav's mind revolving in the same channel. He wondered what effect his having won distinction would have on his prospects in regard to Jessica. No doubt occurred to his mind as to her constancy, but he knew the difficulties standing in the way of their ultimate union, and he knew, too, that patience and devotion equal to hers had been broken down ere then by the opposition of worldly views and material considerations. The cogitation brought him no comfort, and he finally gave it up in deep gloom.

A day or two afterwards the post brought him a letter from Sanchen, containing one from Jessica, in which that young lady expressed her pleasure at the honour he had won. "You are talked of with the others who have distinguished themselves," she wrote, "and sometimes I fear people will discover my secret from the joy I manifest on hearing you praised. At the same time I cannot help thinking that it is somewhat invidious to select a few for special praise when all show such bravery." The letter concluded with a hope that her lover would not unnecessarily expose himself to danger in his desire to win honour; "for," she added, "I would rather have you back, when the war is over, without distinction, than know you died in a halo of glory—so selfish am I."

Riese wrote a very unheroic reply. He had, he said, no thirst for glory, and he could willingly leave the honour of brave deeds to those who sought it, if he might but quit the ranks and hear no more of war; still if his Jessica would continue her kindly thought for him, he was content to soldier it on to the end, and accept the fate that awaited him, even though it were a grave on some bleak hill-side, or in some miserable weed-covered ditch,

"Unknell'd, uncoffin'd, and unknown,"

as had been the end of so many others who had marched and fought by his side. He did not exactly quote these words, but something similar, and closed with a verse from one of the last of Heine's inimitable songs:—

"All is one—for here or there
Heaven shall bend around my bed,
And at night, like funeral lamps,
Stars shall gleam above my head."

* *Knoblauch* means garlic.

The Children's Corner.

JIP'S TRIALS.

In the olden times, before this island of ours had grown so full of large towns and cities, and consequently before the fairy folk had been obliged to seek solitudes in remoter lands, there lived an old witch, who had become possessed of an unquenchable desire to eat an elf. Her name was Badwil, and, like most of her wicked race, she had but one eye.

So one day the old crone hobbled away to a quiet moonlit hill, where she knew a colony of fairies dwelt, and knocked on the hill-top with her crooked blackthorn stick, and cried out in a tiny voice, not at all like her usual one,—

"Jip, pretty little Jip, come and see the sack of cherries I have brought thee—so red and sweet!"

Badwil had often seen little Jip playing in the starlight, and had said to herself, "What a toothsome morsel he would make!"

So, knowing that fairies were fond of cherries, she brought a sackful to tempt him.

The little elf rushed out in eager haste.

"Ha! ha!" said Badwil, as she pounced upon him, and put him into her bag, "Take care the stones don't stick in thy throttle, my little dear."

On the way home old One-eye had to visit a place some distance from the road, and so left Jip, the fairy, in charge of a man who was cutting faggots. No sooner was her back turned than Jip persuaded the woodman to let him out, and they filled the bag with thorns. When Badwil returned, and got her treasure, as she thought, she hobbled homewards in a gay mood, thinking what a dainty supper she would have. And when she felt the thorns pricking her back, she merely exclaimed:

"Ay, ay, my lad, I'll trounce thee when I get thee home for stinging me with thy pins and needles!"

Accordingly, on reaching her hut, she belaboured the bag with her stick till she thought she had broken every bone in the little elf's body; and when she found that she had had all her labour in vain, her rage knew no bounds.

The next day she went again with a bag of cherries to the fairies' abode, and simulating the voice of Robin Goodfellow, cried out:

"Ho! ho! my little Jip! here are rare cherries for thee!"

Out came Jip, and again he was bagged by the wicked old hag.

On the way home she left him in care of a man who was breaking stones by the roadside. Jip prevailed on him to let him go as before, and they filled the sack with stones.

"Thou little rogue!" cried the old crone, as she perspired under the burden, "I'll soften thy bones for thee!" But guess her disappointment and rage when she found the bird was again flown.

Badwil's appetite was only whetted by her repeated failures, and

despairing of again nabbing her prey in the same way as before, she assumed the shape of a pedlar, with a churn on his shoulder, and contrived to meet Jip in the wood.

"Ah, Master Redcap," quoth she, "Look alive, my little man, the fox is after thee! See! here he comes! Hie thee into my churn, and I will shelter thee. Quick! quick! or thou art done."

In jumped the elf, and "Ha! ha!" exclaimed the witch, "Thou hast scent of the fox now I'll warrant thee."

This time she went straight home, and gave Jip to her daughter, with strict orders that she should cut off his head and boil it.

When the time came for preparing supper, One-eye the Younger led her captive to the chopping-block, and bade him lay down his noddle.

"How?" quoth Jip. "Please show me how."

"Like this to be sure," cried the damsel, placing her one-eyed poll on the block.

Instantly the fairy seized the hatchet, and served her as she had intended to serve him. Her head rolled on to the floor like a big turnip. Then, picking up a good-sized pebble, Jip climbed up the chimney to see what would turn up next.

As he expected, Badwil presently made her appearance, and came up to the fire to see how her delicacy was going on. But no sooner had she lifted up the lid of the pot than "plop" came Jip's pebble right into the midst of her only eye, and put out the light of it for ever.

Then Jip skipped from his hiding-place and made his way home, glad that he had saved himself, and put an end to one bad thing in the world.

A.

Review.

Field-Marshal Count Moltke, by PROF. W. MÜLLER, of Tübingen.

London: W. Swan Sonnenschein & Allen, 15, Paternoster Square.

As one who has had an immense deal to do with the destinies of Europe during the last twenty years, Moltke is a figure, the history of whose life and development cannot but be interesting alike to the one who wishes to become thoroughly acquainted with the events of his own time, and to the student of history generally. One of the two or three foremost men who have made Germany a united empire, and Prussia a leading power, and who have done it almost exclusively by sword-might, his system of waging war is of the deepest importance. His masterly conduct of the Austro-Prussian war of '66, and his display of no less striking qualities during the Franco-German war, won him the title of the greatest strategist in Europe. How this reputation was earned is ably told in the work before us. It gives us an insight into the great soldier's clear, calculating, far-seeing mind, and shows us how, by planning, and taking into account every knowable circumstance, he was able to bring about such vast results. The

chief interest of the book lies in the account it contains of the two wars above mentioned, which are viewed from the standpoint of Moltke's directing mind, rather than sectionally and in detail. We are shown how, in the hazardous game of war, nothing was left to chance that could be calculated, and with what precision even chances could be provided for. The author's style is clear and concise in the extreme, and he has found a capable translator in Mr. Percy E. Pinkerton, and an able editor in Capt. H. M. Hozier. A capital portrait of the subject of the memoir faces the title-page.

A Manual of Anthropology, or Science of Man, by CHAS. BRAY.
London: Longmans & Co.

Mr. Bray is one of the few scientific men who have taken the pains to investigate phrenology, and have had the courage to avow their belief in its truth; and in the above work, which is an attempt to view man in all his relations, he regards the discoveries and deductions of phrenology as the only true basis of mental and moral philosophy. It is not a recent publication, and therefore we do not purpose reviewing it in the usual way, but simply wish to notice it with a view to making our readers acquainted as much as possible with the newest results of thought and research in the domain of mental science. Mr. Bray shows himself to be thoroughly "posted" in the views of the most advanced physiologists and thinkers, and his book, consequently, is full of matter and argument; and we can heartily recommend it to those who are fond of getting hold of new ideas, even though, like ourselves, they may not agree with him on all points. The chapters on "Man" and "Morality" are especially good.

Facts and Gossip.

MR. H. LOBB, a well-known London doctor, recommends as a soporific a breakfast-cup of hot beef-tea immediately before or after getting into bed. That made from half a teaspoonful of Liebig's extract he says is the best. It may be a fact worth knowing to those who are given to sleeplessness, more especially to those who suffer from what in London is known as "brain-fag," that a handful of grapes eaten just before retiring are generally equally efficacious in inducing sleep.

WHEN the famous Lady Mary Wortley Montague was on one occasion undressing for a Turkish bath, at Constantinople, one of the native ladies present, on seeing her stays, exclaimed to the others, "Come hither, and see how cruelly the poor English ladies are used by their husbands. You need not," said she, turning to Lady Mary, "boast of the superior liberty allowed you, when they lock you thus up in a box!" Regarding these same Turkish ladies—there were about two hundred of them at the bath—Lady Mary declares that many of them were "as exactly proportioned as ever any goddess

was drawn by the pencil of Guido or Titian," and that "they walked and moved with the same majestic grace which Milton describes our general mother with." No Milton or Titian would take the "wasp-waist," so prevalent at the present day, as a model, beautiful as some appear to think it.

A CONTEMPORARY says that, having taken some trouble to inform itself in the matter, it can state, on the testimony of a leading Court milliner, that the desire to have the slenderest possible waist, has for some time past amounted almost to a mania among fashionable women. It is said to be next to impossible to compress the waist sufficiently to satisfy the rigid demands of those leaders of society who carry on a regular rivalry among themselves in this practice of deforming their bodies. We laugh at Chinese women, but after all they only torture their feet,—a far less grave offence. How, encased as they are, many of our West-End fashionables are able even to breathe properly, much less to take wholesome exercise, is a mystery. It would appear also that the votaries of this mischievous fashion are by no means restricted to the young, but that married women, from whose ripe years one might look for something more sensible, are more imperious and exacting in this respect than even their younger sisters.

It is to be hoped that the Henderson trust will now be allowed to rest. An appeal against the decision of the Lord Ordinary was made to the higher Court, and after being argued for two days, was finally decided in favour of the trustees, on the 25th of February.

IN a paper read before the National Academy of Sciences at Washington, Mr. Le Conte states his views on the "Glycogenic Function of the Liver," and the way in which it disposes of waste. He thinks that "physiologists do not even yet sufficiently appreciate the function of the blood as a reservoir. The blood must be regarded as a reservoir not only for oxygen and carbonic acid, but also and still more for *food*, for *fuel*, and for *waste*. The tissue food of to-day is not used for building to-day; but the blood is drawn upon for materials for this purpose, and resupplies itself from albuminoid food. The amyloid food of to-day is not burned to-day; but the blood is drawn upon for fuel, and resupplies itself from the liver; while the liver in its turn resupplies itself from the amyloid food. So also waste tissue of to-day is not mainly burned and eliminated to-day; but the blood is again drawn upon for fuel from this source, and resupplies itself from the liver, and the liver from the tissues." According to Mr. Le Conte, the three sources of vital force and animal heat are (1) the combustion of the whole of the amyloids; (2) the combustion of the combustible portion of albuminoid food excess; and (3) the combustion of the combustible portion of waste tissues. Therefore, he observes, the function of the liver is to prepare all the fuel of the body, and this fuel is only liver-sugar.

Poetry.**TO AN EARLY DAISY.**

Thou constant, red-rimmed daisy,
 I feel inclined to praise thee,
 Beyond each other flower ;
 For thou dost ever cheer me,
 When winter, cold and dreary,
 O'er all the land doth lour.

Thou faithful flower and humble,
 When coming tempests grumble,
 Dost only close thine eye ;
 And when they're overpast, thou
 Dost raise again thy fair brow
 To th' fretful, wounded sky.

When fields are all forsaken
 By bird and flower and brecken,
 And all is lone and wild,—
 And man goes forth in sadness,
 The only look of gladness
 Comes from thine eye so mild.

We may, perchance, neglect thee,
 When, o'er the proudly deck'd lea,
 So many a fair compeer
 Is flaunting forth in beauty,
 Whilst thou, as is thy duty,
 All lowly dost appear.

But when all these have left us,
 And we are quite bereft, us
 Thou cheereest with thy ray,
 Like one true friend, when trouble
 Hath driv'n from us the rabble
 That throng'd our prosperous way.

No parasite of fortune
 Art thou, to aye importune
 Thy cheer in days of joy,
 But e'en dost bless us meekly,
 When winter glooms so bleakly
 All other bliss destroy.

Answers to Correspondents.

W. A. C.—It is a very difficult matter to judge correctly of the quality of the brain. We can only assume that it partakes of the same quality as the other parts of the organisation, so that if the general tone and texture be fine, we presume that the brain is likewise. We shall be referring to the subject in an article on Temperament shortly.

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LONDON, E.C., *March 25th, 1880.*

MR. FOWLER begs to inform his numerous friends and patrons that he has removed to the above commodious premises adjoining Ludgate Hill Railway Station, in order that he might have room for the extension of his publishing business, which has grown to such dimensions as could not be conveniently carried on in his former rooms. All his own works will henceforth be published by himself; and in addition, he has been appointed sole agent in Great Britain for the works published by S. R. Wells & Co., Phrenological Publishers of New York, which in itself necessitates an increase of staff and accommodation.

Mr. Fowler has also made arrangements for the publication of works coming within his province, and he hopes that from time to time there will be issued from his house such works as will sustain the good repute which the name has ever borne in connection with Phrenology.

In making his selection of premises, Mr. Fowler has had in view the possibility of arranging his extensive cabinet of skulls, busts, &c., illustrative of Phrenology, to a better advantage than he has hitherto been able to do. There has long been a felt want of a Phrenological centre in London, where the literature of the subject could be procured, meetings held, and a kind of museum concentrated.

Mr. Fowler takes this opportunity of thanking his friends and supporters for their many years of patronage, and cordially invites them, when in London, to visit his collections.

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THE
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MAY, 1880.

DEAN STANLEY JUDGED BY HIS PHRENOLOGY.

There is no manifestation of mind except through a medium and that medium in the body is the brain. In proportion as the brain is perfect is there a perfect manifestation of the mind ; and though the mind of man is a gift, it is subject to, and dependent on, certain conditions for its weakness and



From a Photograph by Mr. S. A. Walker, 64, Margaret Street, Cavendish Square.

vigour. Some of these conditions are under the control of man, some are influenced by circumstances, and all are subject to laws beyond the control of man's will. But sometimes, from causes not known to man, the brain is too large for the body, or the body is too large for the brain. This is true in

speaking of the body as a whole, and equally true in speaking of the brain as the medium of mental manifestation. There is great harmony between the mind and the particular organs upon which it depends. A part of the body gives life, a part gives action, a part gives sensation, and a part gives mentality. The original stock from which anything arises has much to do with its offspring, its progeny: this is true throughout nature. When there is variety in the stock there will be a corresponding variety in succeeding generations. We shall have perfection of organisation, or the want of it, in proportion as there is a right adaptation of the laws of nature, for all things in nature are conducted on the principle of cause and effect.

Dean Stanley is a marked man among men. He has been surrounded by many favourable circumstances and conditions that others have not enjoyed. His hereditary influences have been particularly favourable for brain and nerve power. He belongs to the higher rank of society, and especially to nature's aristocracy. He has had favourable surroundings for culture and guidance. He is not perfect, is neither a giant nor a dwarf—neither a complete genius nor a man below the average. His body is good, what there is of it, and there is enough to enable him to develop his spiritual and mental powers; but the animal forces of his nature are not well developed. He is healthy, comparatively strong, free from disease, takes good care of himself, lives within the bounds of his constitution, and hence he accomplishes more than men do with greater vitality than he has. His life has been a successful one because he has made the best use of the best powers of his nature, and directed his labours and sympathies to the best interests of all departments of society. Some men have a storey-and-a-half brain, others a two-storey brain while a few have a two-storey-and-a-half brain, and act accordingly. Dean Stanley has a three-storey brain, and the rooms in the upper storey are better furnished and cared for than those in the lower storeys; in other words, he has a high brain, and an equally high moral nature, and he lives under its controlling and guiding influence. The base of his brain is only strong enough to be a safe foundation to build upon, and it is used mainly as a foundation.

His mind works clearly and quickly, because he has so much brain power and so little impediment from his physical organisation. The brain has the monopolising power, and has its own way without friction. He has no surplus vital, animal propensity to give such temptations as require great strength of will or moral force to check; hence he lives in a more pure and elevated atmosphere than most men, and is prepared to

sympathise with and encourage the highest aspirations of those who are struggling to come up higher. He talks because he has something to say, and not because he has a great command of language. His words are but a feeble expression of the abundance of thoughts he has in his mind ; and he crowds so much into his deliberative utterance, that the listener is captivated with the matter, and takes but little notice of the manner. He is so prolific in what comes from his moral brain, that those who listen are eager to hear more from the same source. In that consists his oratory or eloquence, if one can call it by that name. The outlet to his mind is not equal to his power to generate ideas. He is the Moses of the present day. The Lord tells him what to say. If He had also endowed him with the talent of an Aaron, he would be more fluent and copious in diction, but the organ of Language is not large. As a teacher he is both theoretical and practical, but he would not have succeeded as an outdoor business man. He is able to acquaint himself with the various sciences by reading and thinking, but he has not an equal power to reduce them to practice. The reasoning faculties are larger than his perceptive, hence he is more theoretical than practical, more philosophical than scientific. His mind expands rather than contracts as he dwells upon subjects as they unfold to him.

The high, broad, full forehead, especially the upper part of it, indicates an abundance of thought, great originality of mind, ability to think, explain, and elucidate even a complicated subject. It makes him prolific in thought, and all the more so because the mental temperament predominates. He easily absorbs a whole subject, takes it all in, and sees it from beginning to end. His large Order, aided by careful training, gives him great power to arrange systematic work and present his ideas and plans in a methodical manner. His sympathies are for men and mind rather than for money and manners. He lives more for others than for himself. He is too full of sympathy, liberality, philanthropy, and charity to be selfish and narrow-minded. If he had been in any other position in life, and lived temperately and honestly, he would then have shown a higher type of mind than most men ; but, having given his entire life to moral culture and progressive movements, he has excelled in these departments. As Saul was head and shoulders above the rest of his people in stature, so Dean Stanley is a modern Saul in moral excellence. He is a Samson among thinkers, and a Solomon for his wise sayings. He has none too much personal pride or vanity, yet he has great moral dignity, and is ambitious to do

his best every time, and is never careless or indifferent as to whether he succeed or not. He places a high value upon himself because his standard for man is high, and because he values mind and immortality. He is honest because he has no disposition to be dishonest, and because it is his nature to be so. His love is mental and conjugal; he values woman from an intellectual, moral, and elevated standpoint, and enjoys her company as a mate, companion, and friend.

It is easy for him to practise what he preaches. He is as eloquent in his life and example as he is in his speeches. He has prudence, forethought, and circumspection, rather than shrewdness, selfishness, and worldly wisdom. He has more talent than taste, and he reads and thinks more than he looks and talks; is better acquainted with mind and philosophy than with matter and science; is more sound and philosophical than showy, brilliant, and dazzling; is more slow and sure than prompt and spontaneous; is more deliberative than impulsive, and more loved and respected than feared and dreaded. His defects help to magnify his excellences, and his virtues aid to hide his defects. He is like a diamond light to guide others, and not a flicker of a tallow candle. He excels others principally in having more pure blood and sound health, in possessing more elevated mental and moral force, and a more available and versatile intellect; in being more liberal, large-souled, tolerant, progressive, modest, unpretending, and less sectarian, selfish, and bombastic—less inclined to talk about himself, and what he is doing and has done. He can, if necessary, adapt himself to the ignorant and lowly, but he belongs to the cultured class. He can go about doing good to the poor and ignorant, and is equally at home with royalty. He has all the qualities to make friends, and few to make enemies, and if he displease some, it is because he desires to please all as far as he possibly can.

PROFESSOR Virchow, Dr. Cohn, and Dr. Almgvist show that the Colour-sense is very well developed in uncivilised races—such as the Nubians, Lapps, Tschutksches,—though they may be deficient in words to express the different shades. It will be remembered that according to the view put forward by Magnus, Gladstone, and Geiger, a lack of accurate colour-names indicates a want of accurate colour perception. A knowledge of phrenology would have convinced them that the accurate naming of things depends on Language, which is not generally largely developed in semi-civilised races.

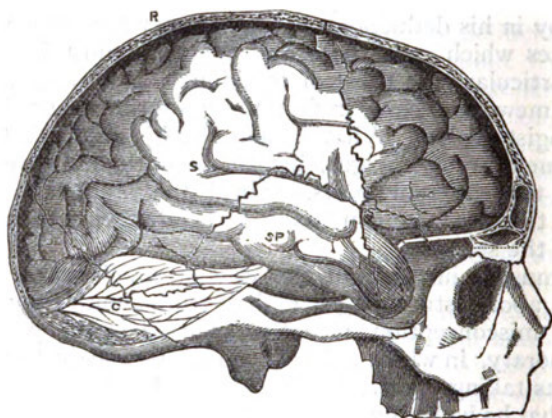
THE BRAIN AND THE SKULL.

(Second Article.)

A correspondent asks: "How, in examining a man's head, is it possible for the phrenologist to form an accurate judgment of the length and breadth of the frontal sinus?" and adds that he thinks it "impossible to judge accurately of the size of Form, Order, and Calculation particularly." In all cases where there is a marked development of the frontal sinus or of the bony processes, the appearance presented is very different from that of brain development, which is invariably round and even. There is a ridginess and angularity about mere osseous excrescences which is not easily mistaken. It is an error often fallen into by those who give a little superficial attention to the science, to think that what the phrenologist is guided by in his deductions as to character are the small protuberances which exist here and there on most heads, and more particularly on those of individuals possessing a strong bony framework. Now, in fact, these are the very things the phrenologist avoids. What are actually his guides as to brain development are the height, length, breadth, and general fullness of the different parts. Until the student has fully grasped this idea, he can make no headway in the practical study of the science.

An amusing instance of the way in which some persons flounder about, stumbling over half-truths, until they land in absolute misconception, recently occurred in the pages of a contemporary, in which a discussion on the subject of phrenology was taking place. One writer on the subject, after promising that he had "investigated the matter fully and exhaustively," proceeded to say that the "bumps" "can be seen . . . to be merely due to local and osseous thickenings; so that, in many instances, the fine 'bump' which excites the phrenologist's admiration, far from being indicative of any special intellectual development, is merely the existence of 'a thick head' at that particular locality." Now here is a case where a man takes upon himself to pass judgment on phrenology after dabbling in the subject probably for a few days, or, if for more than a few days, certainly bringing to bear intellects of the poorest description. All that his study—if study it may be called—of phrenology has done for him has been to give him a misapprehension of the stupidest kind. It is better not to attempt to study anything at all than to give just enough attention to it to get an erroneous notion of its scope and pretensions.

If phrenology be worth studying at all, it is worth studying enough to get to the bottom of it, and that cannot be done in a week, nor yet in a year. Those taking up the subject, therefore, would do well to bear this in mind, and not give it up after a few weeks' examination, because of the cropping up of a few difficulties which, to a mind new to the subject, are apt to appear insuperable objections to the science. By going a little further, looking at both sides of every question, and allowing the mind time to take a complete view of the subject as a whole, the minor objections against the science that usually present themselves sink into insignificance before the overwhelming amount of evidence in its favour, while the real difficulties in the way of an accurate phrenological judgment—for there are such—fall into their proper place and assume no more than their due importance.



Some of the actual difficulties in the way of an accurate estimate of brain-development from the shape of the skull we will now proceed to notice. First, let us take the superciliary ridge, respecting which a doubting correspondent writes: "The skull in this region is evidently too thick to indicate accurately the size of the supra-orbital organs, even in those cases in which there is no sinus." The part of the skull forming the superciliary ridge is undoubtedly somewhat thicker than at other parts, and consequently makes it more difficult to judge of the quantity of brain behind; but observation nevertheless attests the fact that the brain shapes the skull even where it is thickest, and that a very near approximation to the actual amount of brain at a given part may be made by judging from the external surface. Let anyone

Take an ordinary healthy skull, and compare the internal surface with the external in the region of the supra-orbital organs, and he will find, if not an actual parallelism, a very close approach thereto between the two surfaces. The accompanying engraving will give a good idea of the brain and its sheath, the skull. It will be seen that the lower surface of the frontal lobe is about on a level with the eyebrows, and it is there, therefore, that the perceptive organs manifest themselves, not half-an-inch above the superciliary ridge, as a student objects that it does. The table of the skull invariably shows hollows and grooves where the convolutions have bedded themselves, as it were, into it; those organs that were the most active exhibiting the greatest hollows, and the skull, moreover, often showing the greatest thinness at those points.

The same thing often happens with regard to the other organs. Where there has been an active organ the skull will be found to be only half as thick as in others, showing that the exercise of the brain has worn down the skull, or, it may be, prevented its growth. This organical activity accompanying thinness of skull, may be detected in all but the very thickest crania by the greater heat of the part, and sometimes by the throbbing of the brain beneath.

Thickness of skull, it should be observed, is invariably a sign of stupidity; and if in such cases a thick head is an impediment to a just estimate of the underlying brain, no great mischief is done, for there is not much activity of brain anyway, and therefore but little mentality to estimate.

One other difficulty presents itself to the student, or, at least, very often does. It sometimes happens that there will be a larger manifestation of an organ on one side of the head than on the other. For instance, the organ of Sublimity will be larger on one side than on the other. Sometimes the whole of the organs on one side are larger than those on the other, because one hemisphere of the brain is more concerned in the production of mentality than the other. It is the left hemisphere that is generally the more active, just as it is the right side of the body (with which it corresponds) that is the stronger; and, in accordance with this peculiarity, we generally find the head is larger on the left side than on the right, though it is not always so, and seems to depend somewhat on activity and vigour of mental constitution.

But cases sometimes occur when this uniformity does not prevail—where, for instance, Ideality may be larger on the left side than on the right, and Conscientiousness larger on the right side than on the left. Anomalies of this kind do not often happen; but that such a case should present itself once

is to some minds an insuperable barrier to accuracy of phrenological judgment. One querist, who has fallen across an uneven head of the kind, asks: "How is it possible to judge the size of an organ when the same organ may be much larger on one side of the head than on the other? How is it possible to know which organ indicates the power and activity of that particular faculty?" Why, the larger, of course. If the organ of Philoprogenitiveness be developed more on one side than the other it is safe to judge of its power in character by the larger development; just as, in judging of a man's strength from the muscles of his arms, we should be justified in being guided by the larger development of the right arm. As to the causes of these differences in the size of organs in the two hemispheres,—that question will be best treated in an article we hope to be able to give next month on the Physiology of the Brain.

The question is being repeatedly asked, whether the skull can grow, or, in another form, whether the skull grows after a certain age. With some persons the hardest thing to believe in connection with phrenology is that the skull can increase in size; and we even find individuals with pretensions to anatomical knowledge who seriously aver that skulls attain their maximum size in early youth, and that any subsequent enlargement of the head depends simply on the growth and fattening of the outer integuments. Persons who make such assertions simply attest their own ignorance. Although the brain, and consequently the skull, have generally attained their maximum dimensions at the prime of life, instances are by no means infrequent where they go on increasing in size to a much later period. A case in point came before our notice very recently, in which the head of a gentleman over eighty years of age had grown perceptibly within a few years past. It is rare, however, to find mental activity and vigour continuing to so advanced an age, without which, of course, there can be no brain growth.

THE following facts, taken from an American journal, are strikingly illustrative of the law of heredity. "Elias Phillips, of Freetown, Mass., who recently appeared as a witness in a burglary trial, having turned State's evidence, is a great-grandson of the notorious criminal Maltone Briggs, who was in prison with seven of his sons at one time. Briggs's ancestry is traced back to a noted pirate in the time of Earl Bellamont, and his family has for over a century furnished notorious criminals in every generation."

PHRENOLOGY AS A GUIDE TO A TRADE
OR PROFESSION.

The crucial test of a science of mind is its practical utility. There was a time when philosophy was pursued for its own sake, and its application to the affairs of everyday life was deemed a profanation. Not so at the present day. The first question that is applied to every branch of science is : What is the use of it ? or, How can we turn it to account ? This is particularly the case with reference to phrenology. What can we do with it ? how can we apply it to the problems of life ? can we turn it to practical advantage ? are questions that are every day put by persons brought in contact with the subject. To show one way in which phrenology can be practically utilised is the object of this article.

There is a growing desire for each individual to get into the sphere for which he is best qualified. The world is out of joint to-day because so many men are in the wrong place, and so many women, too, for the matter of that. They get placed, and, to a great extent, settled in life before they really know what they are fit for ; and then comes chafing, dissatisfaction, and too often failure as the consequence. It is very important, therefore, to know whether there is any method whereby a youth's capabilities in respect to a trade or profession may be determined with more certainty than the haphazard system now in vogue. Intelligent parents may readily perceive the bent of their children's minds by observing their sayings and doings, and by testing them in various ways, as they have every opportunity of doing. Very few parents, however, pay any attention to indications of native ability in their children, or try their powers in any way. Nor do they give the boy or girl the opportunities that are within their grasp of testing their own talents. And so they grow up, and arrive at the age when it is necessary for them to be put to a trade or profession, without knowing anything about their various powers. The result is that they are put to this or that calling without reference to ability. In cases where there is no special bent either in one way or another, no great harm is done : the individual would be a failure anyway. But when the same random method is adopted where there is special aptitude in one direction or another, the results are often very unfortunate. Take the case of Sir Isaac Newton as an instance. He was taken from school at the age of fifteen, and put to farming, to which he was as little adapted as the chimpanzee to billiard-playing. In his case circumstances

favoured his following the bent of his mind ; but in how many instances are there no such favouring circumstances ? the consequence being that perhaps a bright genius is condemned to a life-long drudgery in a sphere for which he is totally unfitted, as Burns, for instance, to gauging beer ; while another, who ought to be at the plough-tail, is put to doctoring or legislating.

It is a moral wrong to children to let them grow up in this way without an effort being made to test them, in order to place them in their right sphere. It ought to be the duty of both parents and teachers to watch their tendencies, and mark and foster any dawnings of talent ; and no pains should be spared to find out any aptitudes they may possess. Teachers, by close observation, may perceive not only the strength and weakness of the mind of a child, but his genius, if he has any. Family physicians, too, long acquainted with the household, with their knowledge of physiology, are generally able to give substantial advice about the physical, if not the varied mental, capacity of growing children ; for the vocation of a physician requires that he should study the whole organisation as much as possible.

But something more is required than the unaided observation of either teacher or doctor can give ; and, after forty-five years of practical work and study in connection with phrenology, I think I am justified in claiming for it an importance in this respect that cannot be gainsaid, and ought not to be overlooked. There are those who assert that a parent's judgment of the capabilities of his child is better than that of a phrenologist, however clever. I do not wish to deny that a parent is enabled to make a very close observation of the natural bent of his child's mind, but he can do it better if aided by phrenology. And for those who do not wish to, or cannot, consult a practical phrenologist, it is always open for them to take up a manual of phrenology, and study the subject for themselves, with a view to becoming better acquainted with their children's minds, and seeking out their adaptability in regard to a trade or profession.

An instance of the use of phrenology in this respect came under my notice a week or two ago. An American gentleman, an inventor, brought his son to be examined. In the course of subsequent conversation, he said that his father had taken up the subject of phrenology and studied it thoroughly, in order to be the better able to train his children, and fit them for the spheres for which their mental and physical organisations qualified them, and that he had found it of inestimable advantage as a help in that direction.

Where a parent will take this trouble, he is better able to judge of his children's talents than anybody else. But it is not everyone who has the time, if the capacity, to study phrenology sufficiently to come to a sound judgment; hence the advantage of being able to consult one who has made the subject his special and lifelong study. The phrenologist makes it his business to understand the body as well as the mind, and is therefore able to estimate the youth, or man, as a whole. Sometimes there is such a lack of harmony between the body and the brain, that one is adapted to a certain sphere of life while the other is not.

There are few children perfect in both body and mind: if the body is all right the mind is not, and if the mind is all right the body is not. When children are the result of proper selection, design, and preparation, there will be greater harmony and perfection of organisation. In nearly all callings or professions bodily qualities are to be considered as well as mental.

Two boys, A and B, may be equally qualified, so far as their phrenological developments are concerned, for an artistic or mechanical calling; but A has a strong, bony, and muscular organisation, which qualifies him for harder and rougher mechanical labour, like a builder, mechanical engineer, or sculptor; while B has a greater degree of nerve-power, not so strong a frame, or so much of the bony and muscular structure; hence he is better qualified for drawing, engraving, carving, and work that requires more brain and less bodily strength. A good substantial muscle, however, is quite essential to carving and engraving, for it assists in carrying a steady hand.

The influence of the body on the mind is great, and very much depends upon the training of the body as well as of the mind. The mind cannot be very refined or highly cultivated with a coarse uncultivated body. The mind is more slow, steady, and reliable where there is a strong, bony, and muscular structure—more quick, clear, spontaneous, and wide-awake where there is a predominance of brain and nerve-power; but the latter kind of minds are not so reliable, as the former.

The qualifications for an inventor will first be spoken of, as they are of the most importance, and are at the foundation of all mechanical progress. A very necessary educational qualification for an inventor is a thorough knowledge of chemistry, mathematics, and mechanics. The more perfectly the temperaments are balanced, the more perfect his health, and the more elliptical and fully developed his brain, the better and

more successful will a man be as an inventor ; for a complicated invention requires all the powers of both body and mind.

Nineteen out of twenty inventions are of no use ; either because they are too premature, too late, or too imperfect. One man in London had, up to his death, taken out over twenty patents ; but not one of them was put into use. His head was very imperfectly developed, and it is presumable that his inventions were also. Another has taken out forty-five patents, and, although he is unable to make drawings or models of them, his inventions are in his line of business, and he makes them available.

I am well acquainted with two very successful inventors in America, and their heads are similar. One is Fowler Ray. As a lad he ran out of a blacksmith's shop and stopped me in the street to ask me what he could do best. I examined his head and told him his best gift was for invention. He replied that he was only a lad. I said that he would soon grow up to be a man. He answered that he had no money. I lent him five dollars to start with, which he afterwards repaid. Some thirty years after our first interview I saw him and asked him if he had succeeded as an inventor. He said he had, and added that he had taken out thirty-three patents and that every one of them worked and paid. He said, however, that he was not going to invent any more, but apply himself to his last invention, which required him to employ five hundred men. I asked him how it was that he was so successful, and what plan he adopted to produce his inventions. He said he made up his mind to produce such and such machinery, or chemical combinations, and he stuck to it until he succeeded. His Firmness was the largest organ in his head ; but he had a fully developed brain in every department, with very large Order, Calculation, Constructiveness, and Comparison, and large perceptive faculties generally.

The other inventor was the late Honourable Erastus Bigelow, of Boston, Mass. Forty years ago when visiting Lowell, a gentleman brought a young man to me to be examined, and among other questions, he asked me : " Will he make a mechanic ? " I replied that he would not only make a first class mechanic, but that he had superior talents to invent. He then introduced the young man to me as Mr. Bigelow, the inventor of the machinery to weave carpets. After that he invented very many machines, and established works where the whole village were employed in working his machinery. He rented his machines for a certain percentage, and thus became immensely rich. Years afterwards I was

talking with him, and asked him by what process of mind he invented. He said, "I want, for instance, to invent machinery to weave coach lace, which is now all done by hand. I take up one principle that is required to do one part of the work, and work it all out in my mind, so that I understand it clearly; then the second, then the third, and so on, until I have taken everything into account, and have all those principles and their movements as clearly in my mind as my fingers before my eyes. Then I sit down and make my drawings and models, and send them to different places to be made and cast, and the parts come home, and I put them together, and they work just as I expected they would."

That process of mind required all his powers without a weak spot, and especially large perceptive faculties—very large Order, Eventuality, Comparison, Constructiveness, Calculation, Continuity, Firmness, and Spirituality—all of which he had. His head, as a whole, was one of the most perfectly developed I ever saw. All the central organs from the root of the nose over to the occipital spine were very large. His head was quite elliptical in form, being full at the sides: for he was as good a calculator and financier as he was an inventor, and was also a safe and successful politician and statesman.

Mr. Green, the inventor of the ink-eraser, composed of sand and indiarubber, is a very successful inventor in chemical combinations; and he is particularly large in Eventuality, Comparison, Intuition, and Spirituality. All great and successful inventors I have found to have the organ of Spirituality large.

This organ, too, is invariably large in discoverers—that is, those who strike out new ideas, open up new grooves of thought, and develop new principles, like Hahnemann, Swedenborg, Channing, and others. In another article I shall have something more to say about this class of men, as also of artists, writers, scientists, and others.

ONE of the newest scientific devices is M. Trouvé's *Electrica Polyscope* for illuminating the interior of the body. This invention was shown at the Annual Meeting of the Physical Society of Paris. It was placed in the stomach of a fish, which, as it swam about apparently unconcerned in the aquarium, was a veritable animated lantern—the light radiated through the fish's body being equal to that of an ordinary candle.

TREES IN TOWNS.

The attention of sanitary reformers has for some time past been directed to the subject of the health-giving properties of vegetation, and many experiments have been made in regard to the improbability of the sanitary condition of towns by the planting of trees. The result has invariably been one to encourage. Not only is the direct effect on health particularly manifest, but beneficial results are also produced by the cheering influence of improved surroundings. The moral and æsthetic influence of flowers and trees is too well known to need enlarging upon here, but it seems to need something to appeal more directly to the senses of those who have to do with the sanitation of towns, to get them to move a hand in the direction of improving urban districts by the planting of trees.

We are not in most things a backward people,—at least Englishmen generally would feel insulted to be told they were; and yet to compare the majority of our towns with Continental cities in respect to this one matter of arborescent adornment, one would think we were a century behind our neighbours. Not only Paris, Vienna, Geneva, Hamburg, but nearly all the large towns of the Continent are made, as it were, to clasp hands with the country by the growing of trees and the keeping open of verdant spaces. To any one having enjoyed such luxuries, the change to some of our English manufacturing towns is like a descent to Inferno. Reek, grime, smoke, dust—dirt of every description reigns supreme; and those whose duty it ought to be to remedy such a state of things are the chief cause of it. They are the manufacturers; and seeing that they can go and live out of town, they don't mind much how they curtail the happiness of those who must live in town.

The time may come when better feelings prevail, and we shall find urban authorities vying with each other to make their towns so fair and habitable that rich and poor alike will have pleasure in dwelling in them. But education will have to make considerable progress before that day arrives. The Press needs to take up the subject and educate public opinion thereon. Up to the present time it appears to have been afraid to do so. In several manufacturing towns attempts have been made to inaugurate a move in the right direction by starting associations for the planting of trees along roadsides and in public places; but they have invariably failed from the lack of general interest in the matter, arising no

doubt from ignorance of its importance. And yet the subject has been discussed sufficiently to have made a decided impression on the public mind.

Dr. Phrené, in a paper read at the Social Science Congress at Manchester, on the "Sanitary Results of Planting Trees in Towns," stated that he had found the very best results proceed from the planting of trees in several streets, after the style of the French boulevards, in a neighbourhood which, though at a low level, was shown originally to have been quite salubrious, but in which a number of small houses had for a long time back been the haunt of fever and diseases of various kinds. The result of his experience was, that quite independently of the condition of ill-health which often prevailed in some of the neighbouring districts, from which the occupants of these planted streets were free, the same thing applied to periods of epidemics, when the large and wealthy neighbourhoods around, but further removed, were also seriously affected. He did not attribute the whole of the difference to the trees, and yet during thirty years he had not been able to trace a single case of fever or small-pox in any of the streets planted, even when the epidemics were most serious around him, including districts occupied by the wealthy classes.

We are yet far from possessing anything like a complete knowledge of the way in which vegetation affects the health. Scientific experiments have proved the powerful oxygenating property possessed by trees—a property so striking that they cannot but have the most beneficial results on the atmosphere of urban districts. Experiments, too, on the most extensive scale, with the Eucalyptus, have proved its wonderful sanative properties. A number of other trees and plants might be instanced which have produced immediate and very surprising effects on the healthy conditions of districts where they have been planted. In Switzerland firs are planted, because experience has shown that the agreeable odour exhaled from their foliage is highly beneficial to health. The sunflower has been found to correct certain malarious influences when planted in large quantities.

Dr. Phrené gives a list of trees which he has found grow well in London, some of the most beautiful being those which grow with great rapidity and little attention. They are *Acer pseudo-platanus*, *Ailanthus glandulosa*, *Catalpa syringifolia*, *Fraxinus Europea*, *Gleditschia*, *Populus alba*, *Populus nigra*, *Populus Canadensis*, *Quercus cerris*, *Rhus typhinum*, *Robinia pseud-acacia*, *Tilia*, *Ulmus campestris*; also the common ash, oak, elm, pink chestnut, copper beech (a fine specimen of which is in the Rectory Gardens, Chelsea), mulberry, thorn—

white and red, common and Oriental planes; and of shrubs, *Ilex ovata*, and other hollies; lilac, common and Persian; *Euonymus*, various; almond and wild plum, privet, aucuba, &c.

All of these would not probably thrive equally well in the smoky atmospheres of manufacturing places. But there are some that do not seem to suffer greatly under the most disadvantageous conditions. The following is a list of trees and shrubs, kindly compiled by the registrar of the Hanley Cemetery, who has given a great deal of attention to this subject:—

The lime, elm, horse-chestnut, Norway maple (occidental), *Arca theophrasta* (tree of heaven), thorn, sycamore, poplar, planes (*Orientalis*, same as on the Thames Embankment), *laburnum*, *Aucuba Japonica*, box, hollies, ivy, laurel, *auricaria*, *Thuja Lobbii*, *Retinospora Plumosa aurea* (one of the best golden foliage) shrubs, and rhododendrons. It may be added that if these trees and shrubs will grow in the Potteries district, with its atmosphere of soot and sulphur, they will grow almost anywhere. Those who are in a position to try any of these or other trees in towns, would do well to do so. By this means public opinion would gradually be educated, with the result that, perhaps, in another generation, dwellers in towns may live under very different conditions to what many of them are doing now.

E. P. M.

BALANCE OF POWER.

The great defect in the human race is the want of balance of power. A watch may be ever so costly and well made, but if the balance-wheel and regulating power are imperfect, the watch cannot be depended upon for giving the right time. So of machinery: if the balance of power be wanting, the working of the machinery is liable to do more harm than good. In like manner, when a nation has lost its regulating power it begins to fail. The same is true of all bodies of men, corporations, societies, churches, institutions, and families.

There are but few perfectly-balanced men in the world, and they are the ones that "succeed" in the true sense of the term. All out of balance are liable to fail, and if they do not fail, it is because they are sustained by some outside force independent of themselves.

In what, then, does balance of power consist? it will be asked.

A watch is made of a certain number of wheels, large and small, variously made, and adapted one to another, and con-

nected with them is a mainspring and a regulating power, all encased and carefully protected. Just so it is with the body: it is made up of a certain number of organs, adapted to certain functions and their operations. In proportion as these organs are of the right size, quality, and strength is their harmony of bodily proportion and beauty of form; and with proper training, there would be ease and grace of motion and balance of physical power. But very few are thus made, and a still less number are properly trained and disciplined to action. Society is made up for the most part of those who have too much or too little brain—of poor, or good quality; too much or too little body for the brain; too much or too little bone, muscle, nerve, blood, or digestive power, and with many of these in a diseased or deranged condition. The consequence is, that society is about as much out of balance in every way as people are in their make-up.

But what throws society out of balance more than anything else is the vital force and propelling power. The working or locomotive power is frequently more harmonious than the propelling power. When the body is out of balance, the mind is quite sure to be, and when the mind is unequal the life is. As it is with the body so it is with the mind. There are no more organs and functions of the body than are necessary for use; so there are no more special faculties of the mind than there are positive demands for; and when a man has all the mental powers fully developed and equally active, the operations of the mind will be equal, and the result will be success.

But our habits and education, our varied modes of working and doing business, warp the mind and break up harmony of action and balance of power. I have the section of a tree where a knot was tied in it when a tender twig, and the knot still remains. So it is with the mind. A strong, distinct awakening of the feeling, a sudden turn in the life, any passion or emotion strongly acted upon, or a powerful stimulus or motive for action, make impressions that are never eradicated, and the whole course of life is affected thereby. A serious mistake or a wrong act becomes a part of the mind; a failure has a crippling influence; a success is a stimulus that is never lost sight of. Many are born wrong, fed wrongly, educated wrongly, turn the wrong corner, go into the wrong company, form wrong habits, are guided by wrong motives, get into the wrong business, and hence never fairly succeed in life.

Parents give only what they have. If they have weakness they give it, if strength they give that, and few parents are so fully developed in all their powers as to give a fair representation of them to their offspring; for those powers that are by

nature the strongest, or are the most active in the parents, are the most manifest in the child, and the reverse is equally true. When a child starts with a radical defect, it is a life's work to make up for the defect either by culture or offset of any kind, and the time spent in overcoming a defect is so much time lost for general improvement.

Some children are starved while they are growing and being educated, which has its deleterious effects; while others are over-fed and stimulated with injurious effects of a reverse nature. Many are early led astray in sensual directions, and derange and weaken nervous force and vital stock, and so suffer from that pernicious influence all through life. Many men cannot account for the failures they make in study, invention, or business, when the fact is they are failures themselves.

It is a source of extreme pleasure to see a complete man or woman, full and healthy in every part, with no leakage in the constitution, no weakness of organs or functions, no warped condition of body or mind, no unhealthy or morbid impressions, no habits that weaken the body or hold the mind in check, no biased education that cramps the mind into a narrow, sectarian groove, not inflated with the notion that because born to rank and title, with a silver spoon in the mouth, they are superior to all who did not happen to be so born, nor yet filled with vanity from the idea that because they are better looking than others they are better in every way, and so ought to be allowed more liberties in society on that account; but complete in all the bodily requirements, without a weak or starved organ or function, and with all the faculties and powers of the mind harmoniously unfolded, the whole nature rightly exercised and guided by high and pure motives and principles, living with as much reference to others as themselves, and for another life as well as for this. Such individuals are rare, but as the world develops and comes nearer and nearer perfection, the number will increase and multiply.

It is the balanced man or woman as a whole that succeeds as a whole. Those who succeed only in one or two directions are only partly developed. In all ages there are a few balanced men whose saving influence to society is like salt to meat. They show what humanity can do when balanced and harmonious. Their names go down through many generations as samples of humanity to be imitated. Such were Daniel the prophet, Joseph the son of Jacob, Washington, and a number of others whose names will readily occur to the reader.

L. N. F.

MORAL IDIOCY.

To those who are in the habit of studying character and morals in the practical way that phrenology enables one to study them, the condition of development which I have chosen to designate moral idiocy is quite well known and understood. The absence of efficient intellectual organs, or organs of the intellectual faculties, constitutes ordinary idiocy, and as it is by no means of rare occurrence to find an idiot of this class who is endowed with those higher feelings or sentiments which we denominate moral,—as benevolence, veneration, justice, &c.,—so it is far from uncommon to meet with persons of the reverse type,—that is, who are well developed intellectually, but deficient in the organs of those faculties which constitute what we know as the moral sense,—who are, in short, moral idiots; for a good intellect does not necessarily presuppose sound moral principle, nor, by a parity of reasoning, does it follow that intellectual training develops the moral faculty.

All that we know of mind is what is manifested through brain. Where there is no brain there can be no manifestation of mind, and in proportion to the development of brain is there manifestation of mind. Comparative physiologists now recognise this fact; but they are beginning to recognise more: they are beginning to recognise the fact that a different form or quality of mind is manifested according as there is a predominance of brain in one or another region of the head. Such men as Huxley grant that there is a correlation between the size of the frontal lobe of the brain and the manifestation of intelligence; while Ferrier confesses that the coronal region seems to have to do with the production of the moral feelings. The phrenologist has no doubt of these facts. There may be a difference between his method and that of the anatomists,—who, by the way, cut and carved the human body for centuries without discovering the circulation of the blood,—but his method is, nevertheless, as scientific as that of the other, and if his facts are at variance with the others' theories, well, so much worse for the theories. In the end it has always been found that theories have had to square themselves with facts, and not facts with theories. We may safely place our reliance on the facts, therefore.

The phrenologist has found that the moral sense is in proportion to the development of brain in the upper or coronal region of the head. The fact has been proved by the examination of thousands of heads, and may be verified any day by those who will go to the trouble. A person who has one part

of this coronal region large will be conscientious; if he has the central part prominent, he will be worshipful and reverential; if the fore part, he will show benevolence and sympathy. The anatomist may not be satisfied of this fact until he has been able to take the upper part of the skull off someone and to apply the electrode to the brain, and see if by so doing he can get the manifestations of conscience, prayerfulness, and kindness. That is his method. But what constitutes it a more scientific method than that of the observer who takes note of man in his normal state? Can he deny that those faculties which we designate moral are absent in the lower animals, and that there is a lack in them of that upper portion of the brain which is so characteristic a feature of the human head? Can he deny even that there is not some sort of a relation between the coronal development of savage or semi-barbarous races and their moral status? Have not those races which have proved themselves to be the most advanced always the largest domes to their heads, as well as the largest frontal lobes? To put it in another way, has any race or nation risen to the highest grade of civilisation that has not first developed a good upper storey to the brain, or, in other words, that has not first developed a good degree of moral sense? Not only will this be found to have been the case, but it will also be seen that peoples that have degenerated have first begun to descend in the moral scale. So it will be found in families. Indifference in parents to moral principles manifests itself in children as lack of a due amount of brain fibre, and this downward progress, if unchecked, may, in the second or third generation, result in moral idiocy.

The process can be traced in families with unerring certainty. The first step, perhaps, arises from a yielding too much to appetite or passion, a giving way to indulgence, perhaps in the form of intemperance; the result is a slight indifference to moral principle. In the child born under this influence the lower propensities are specially active, while the higher faculties are weak. This degenerating tendency is intensified in the next generation, and again in the next, until we finally arrive at a deficiency of moral brain.

Sometimes, as the result of some specially depraving cause, as intemperance, the result is arrived at in a single generation. A striking instance of the kind came under the writer's notice some years ago. He had apartments in the house of a widow, who had several children, the eldest of whom, a lad of thirteen or fourteen, was a terrible affliction to her. He was sharp and clever, but had no more moral sense than the veriest monkey, and was continually in trouble. He delighted in the lowest

of company and the worst of habits, and half of the poor woman's time was spent in alternately chastising and praying with him, for she was exceedingly pious. The father of the youth had been of a low moral type and intemperate into the bargain, and the lad inherited from him active passions and propensities with a striking deficiency of the superior brain.

The annals of crime would furnish abundant instances of this description if fairly investigated; but we need not go to the *Newgate Calendar* for examples. They are to be met with in plenty in the ordinary walks of life. Who is there that does not know someone in whom neither example, nor education, nor experience has been able to awake any scintillation of moral sense? They are like instruments in which the higher notes are wanting, and from which, therefore, no response can be obtained.

In some this moral idiocy is only partial. Perhaps only one or two notes in the higher octave are wanting. It may be that there is no chord to respond to the sentiment of justice. From what Madame de Staël tells us of the first Napoleon we must conclude that he was one such. If there was one thing that he could not comprehend, she says, it was the circumstance of a man acting from purely conscientious motives. He seemed to be equally incapable of comprehending the sentiment of justice, and lying was one of the pillars of his political system. Men of his type, giants in intellect and in force of character, can be perfect demons if not held in proper check. Those imperial brutes of later Roman days are examples, and the class is not wanting in specimens of a more recent date.

A typical case of moral idiocy came before the writer's notice a week or two ago. A youth of about fourteen or fifteen was being sent to sea as a last resort. His parents were in a good position and tried to give him a good education, but from every school he was put to he was dismissed for bad conduct,—stealing, lying, depravity of every description. The last thing he did was to let himself down from his bed-room window at school, make his way home and take money from his mother's desk, go off to London with it, and after he had spent it all return home. He seemed utterly incapable of any moral impression, and had no sense of shame. His head showed the animal passions and propensities enormously developed, while the moral faculties were very deficient.

Such cases are by no means of rare occurrence, and when they spring up, as it were, in the midst of moral surroundings, born of moral and religious parents and have every advantage

of proper training and education, that are a surprise to everybody. And yet they should not be, for they are the result of causes that may be understood, and they are in the domain of human prevention.

CHILDREN AT SCHOOL.

After long years of neglect of the education of the young, we seem now to be rushing to the other extreme, and endangering the health of children by subjecting them to a system of cramming and forcing. Taken from their mothers' sides at the earliest age, they are set to the drudgery of life while they ought still to be as free and unconscious of care as the birds of the hedgerows, developing their limbs and their intellects in that natural manner which is common to the young of every species. This is called education—a bringing out of the powers. It is, in fact, just the opposite; it is a stunting and warping of their powers. Not only are their physical natures prevented that free play so necessary to their development, but the intellect is unnaturally forced and weakened. Education is made a matter of overloading the mind with a lot of knowledge (so-called) which it cannot assimilate, and must inevitably be forgotten before it can be made available. Thus both body and mind are injured.

Our system of education, especially that with reference to children, is entirely wrong, and must have increasingly injurious effects until improved. Its fault is that it is not natural, and a greater fault it could not have. Hardly anything is more painful to anyone who has studied the nature of children than to see them being led in troops to school, where for hours together, in the bright, sunshiny weather, they must be herded together by the score, often by the hundred, in close rooms. Their natures are repressed in every possible way. They must not speak; they must not move their feet, hardly their fingers; but must sit or stand in long rows, looking as demure as whipped cubs.

The first unnatural thing about childrens' schools is that they are too crowded. Too many children are put under the charge of one person; to keep them in order is such a task that the mistress would be more than human if she did not feel the strain, and show the effects on her temper; the result is that some of the kindest-hearted women become termagants as school-teachers. An infant-school should resemble the family in constitution; that is, it should be formed of small

groups of from eight to a dozen, rarely more, each under the charge of a competent person. A teacher having such a charge is able thoroughly to manage it; there is no strain in keeping order; she at once gets the sympathy of the children, and where there is sympathy and love, instruction is easy. By such an arrangement as this, too, the teacher has a moral influence she cannot have when her charge is too large.

In this we have another great defect in the present constitution of schools. Their influence, morally, is often bad rather than good, because being so large there cannot be that direct moral influence of the principal and the teachers upon the pupils that there should be, and any form of instruction without a constant moral influence is never so conducive to good as it otherwise would be. There is more good to be done in regard to a child's future by exciting in it a love of knowledge for its own sake, and of the beautiful and perfect in life and nature, than by cramming it with dry facts, which too often, as disjointed parts of a skeleton, lie in the brain like so much lumber, without connection or purpose. But the latter constitutes education as generally understood. The child is made to learn a lot of facts by rote, just as a performing dog, or canary, is made to do certain things that have no necessary connection with them and their naturally related circumstances. In other words, the child is forced to fill its mind with things for which it has no present need, and of which it can conceive no use. The natural disposition of the child-mind is to look, to examine, and by every possible means to make itself acquainted with the external world. Then follows the desire to inquire into the relations of things, and the why and wherefore of their existence. This surely suggests the natural method of instruction, which, if properly carried out, would, during the first few years of their school life, bring children in actual contact with the out-door world more than with books. Their primers should be natural objects, and their school-room as much as possible the garden or field.

Fröbel has probably done more towards elucidating the subject of the proper way to train and educate children than any other man. His system, or perhaps we should say his explanation of it, is not without its errors; but that he has rightly estimated the child-nature, and the way to develop it, no one who has given any attention to his method can gainsay; and it is difficult to understand how a world made up so largely of parents has hitherto been so indifferent to it. There are, however, signs of its making headway. In America it is making striking progress, and probably now that public attention is being directed to the defects of the present educa-

tional system, Fröbel's method will come in for the consideration it demands.

We have before us a recent publication on the Kindergarten,* the authoress of which was personally acquainted with the originator of it, and who is therefore able to explain his system in a manner that he himself could not do. The book is one which cannot but be profitable to anyone reading it with thought, even though they should not fall in with Fröbel's ideas on all points. To mothers especially it ought to prove suggestive in many ways. It shows how education may commence from the very cradle, and that without any undue restraint being put upon the child. It indicates, too, how, in many a beautiful play, both the physical structure and the feelings and intellect may be trained and developed in a way that the child responds to spontaneously. Instead of repressing physical activity, Fröbel's system recognises the full importance of corporeal training, and insists on its necessity from the very first months of existence. Thence follows the training of the sense of touch, of taste, and so on. How much the existing system fails in all this everybody knows. We have not yet arrived at a sensible system of gymnastics for schools. The best we have so far been able to introduce into boys' schools is an insane imitation of soldiering.

No one who has given attention to the defects of the existing system of education doubts that a change will have to be made; but the fear is lest, in making the change, due thought should not be given to the constitution of body and mind, and from one error we should rush into others. At the present time, therefore, a book like that above mentioned is doubly valuable, which, if not based on phrenological principles, approaches very nearly thereto.

E. P. M.

"EXPECTANT ATTENTION."

The following remarkable instance of animal intelligence from an article on Mental Physiology in the *Edinburgh Review* will be interesting to students of Psychology:—

"The well-known astronomer, Dr. Huggins, had a four-footed friend dwelling with him for many years as a regular member of his household—a mastiff of noble proportions, who bore the great name of 'Kepler.' This dog possessed many rare gifts, which had secured for him the admiration and regard of a large number of scientific acquaintances, and amongst these was one which he was always ready

* "Child and Child-Nature." By the Baroness Marenholtz-Bülów, translated by Alice M. Christie. London: W. Swan Sonnenschein, Paternoster Square.

to exercise for the entertainment of visitors. At the close of luncheon or dinner Kepler used to march gravely and sedately into the room, and set himself down at his master's feet. Dr. Huggins then propounded to him a series of arithmetical questions, which the dog invariably solved without a mistake. Square roots were extracted offhand with the utmost readiness and promptness. If asked what was the square root of nine, Kepler replied by three barks; or, if the question were the square root of sixteen, by four. Then various questions followed, in which much more complicated processes were involved—such, for instance, as 'Add seven to eight, divide the sum by three, and multiply by two.' To such a question as that Kepler gave more consideration, and sometimes hesitated in making up his mind as to where his barks ought finally to stop. Still, in the end, his decision was always right. The reward for each correct answer was a piece of cake, which was held before him during the exercise; but until the solution was arrived at, Kepler never moved his eye from his master's face. The instant the last bark was given he transferred his attention to the cake.

"This notable case of canine sagacity, however, in no way militates against the remarks which have recently been made in reference to the ideomotor character of the quadrupedal mind. Dr. Huggins was perfectly unconscious of suggesting the proper answer to the dog; but it is beyond all question that he did so. The wonderful fact is, that Kepler had acquired the habit of reading in his master's eye or countenance some indication that was not known to Dr. Huggins himself. The case was one of the class which is distinguished by physiologists as that of expectant attention. Dr. Huggins was himself engaged in working out mentally the various stages of his arithmetical processes as he propounded the numbers to Kepler, and being, therefore, aware of what the answer should be, *expected* the dog to cease barking when that number was reached; and that expectation suggested to his own brain the unconscious signal which was caught by the quick eye of the dog."

THE MOTH.

Why didst thou dare
The ruddy glare
With such infatuate flight?
Alas, the torch
Thy wings doth scorch,
That thou didst seek for light!
Death soon will ease
Thy agonies,
Poor martyr to thy love!
But far too late
Thou learn'st the fate
Of who too daring prove!

ONLY HALF A HERO.

A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER IV.

Meanwhile, the Second Empire having crumbled to pieces after the jar it received at Sedan, like a frail fabric of sand, the Germans suddenly found themselves face to face with a formidable power which arose out of its ruins—the Government of National Defence; and whereas many thought that, after the defeat of Napoleon's last army, the war would naturally cease, it was now evident that the end was still far off. Thoughts that after the last great battle had turned anticipatively homewards, were compelled to take their flight Paris-wards, whither it was now the order for the legions of the Fatherland to converge.

It is needless to follow Riese through all the adventures incident to the march on the French capital, which was fraught with hardship and peril enough. Suffice it to say that Hans Quint's anticipations proved true, and that Gustav was promoted to the rank of sub-lieutenant. It was not an altogether pleasant change, for he suddenly found himself thrown into the society of young sprigs of aristocracy whose superciliousness towards those of "mean birth" made them anything but agreeable companions in the mess-room. Their capacity often seemed limited to the training and twiddling of huge moustaches, to the drawling out of yard-long oaths, and the potation of endless seidels of beer. Had they borne on their brows a God-given sign and seal of nobility, instead of the patent of intellectual poverty, they could hardly have carried such haughty fronts; and yet with all their conscious superiority and unconscious imbecility, they were, almost to a man, as brave as Vikings, and as indifferent to death. Bravery, too, in others, won their hearty admiration, and was the surest passport to their esteem.

Hence Gustav's uniform coolness and gallantry in action, together with his quiet, unpretending manners at all times, gradually won him a place in their regard. Nevertheless he missed the spontaneous frankness and genial good nature—albeit mixed with much that was rude and uncouth—of the humbler men of the ranks, and would often fain have shared the rough fare and rougher quarters of his former companions, in place of the more comfort and less friendship that now fell

to his lot. But Sub-Lieutenant Riese was, as we have already had occasion to remark, of a philosophical turn. He had learned, young as he was, to regard much that pertains to this every-day life of ours as inevitable evil, or, if not exactly that, not undiluted good. It has to be put up with, and therefore the more equanimity that is brought to bear the better.

This sensible way of accepting his new position, and the fresh duties and chagrins it brought along with it, made his task much lighter, as it would all our tasks if we would but take the same common-sense way of looking at them. It may be trite, but it is worthy of constant remembrance, that more happiness grows out of a patient devotion to duty than out of an eager pursuit after pleasure, which, like the famed mirage, has a knack of eluding the grasp of the souls that are for ever thirsting after it.

The German army corps were now gradually closing around the devoted capital of poor down-trodden France like an iron girdle, or, with perhaps a fitter metaphor, like the folds of a gigantic anaconda. The process was slow and difficult, but sure. Again and again the French, with their Army of Defence, tried to hurl back the beleaguering columns, and to prevent the tightening of that grip, which, like the hand of some huge Polyphemus about the throat, threatened strangulation. But every such effort was vain, and by Christmas the doomed city was quite cut out from communication with the outer world, save by balloon and pigeon-post. The success, however, was attained by almost unheard-of labour on the part of the besiegers. Day and night they had to be on the alert, and often no sooner had the weary soldier laid his head on the pillow, or what served as such, than the alarm was sounded, and he had to jump up, seize Zundnadel and helmet, and rush to his post. Add to these hardships the rigours of winter, which early descended upon them, and the frequent scarcity in those early days of the great siege, of provisions, and some idea may be gathered of what the sons of the Fatherland had to put up with. Yet, notwithstanding these drawbacks, they managed to enjoy a thorough German Christmas. Christmas trees were set up and adorned, and rough soldiers with faces bronzed by exposure to the weather, and often in addition scorched and seared with powder and lead, gazed upon them and their burdened branches with unfeigned joy; and as they opened the well-made-up packages that had been sent them for the occasion by dear ones at home, unsoldier-like moisture welled up into their eyes which they tried to hide with laugh or jest. Then they sat about the trees, and drank healths, and swore life-long brother-

hood, their bearded lips sealing their vows with Teutonic effusiveness.

The rank and file of Gustav's company made quite an effort to get up a fair Christmas show; and they sent a message to their officers saying it would give them pleasure if they would step in and look at their tree. So the officers went in and drank a health to them and their loved ones at home, and to the beloved Fatherland, and then, after a few minutes' chat, left them to enjoy themselves in their own way.

Gustav exchanged a few words with Hans Quint. He asked him if he, too, had received a package from home.

"No," he said, somewhat ruefully; there is no one to think of me; or send me anything." The next moment his face brightened up, and he added, "But someone there would receive a present from me, I hope."

"Ah!" exclaimed Gustav; "the golden-haired Lena, I suppose."

"Guessed!" responded Hans.

"With what did you inscribe your present?" asked the other. "'From your ever-adoring Hans Quint, sometime cooper of Muhlheim'?"

"No—no name; only 'From one at the war.'"

"I offered to write him half a ream of sonnets to the fair Lena of Muhlheim to enclose with his present," said Hammelfleisch, joining in the conversation, "but he scornfully rejected my assistance."

"Not scornfully," said Hans, deprecatingly.

"You are right, good Hans Quint," replied Hammelfleisch; "it was not scornfully you did it, but manfully. What think you he said, Sub-Lieutenant Riese?"

"I can't guess."

"That it were waste time to woo a maiden with verse who could be better won with prose, and bad generalship to cast away numberless feet of good poetry when an ell of gay ribbon would answer the same purpose."

"It was well said," replied Gustav.

"Your way of putting it, however, Herr Hammelfleisch," said Quint, "is about as like mine as the wooden popinjay we used to shoot at in our village was like the real bird."

"And yet the resemblance is there, is it not, Hans Quint?"

"Truly."

"We two will wish you success with the ribbon-loving master-cooper's daughter, will we not, Lieutenant Riese? And they say that sometimes a thought like that can travel far, and leave an impress on the mind it is meant for, like a ray of sunlight on the photographer's sensitive plate."

"If that be so," put in Hans, "you may as well try to impress also the Herr Father, for if I could make sure of him, I should feel pretty secure of the daughter."

A hearty laugh greeted this sally, with which the three separated.

Gustav was much interested in Hans and his love affair, which, little romantic as it was, and savouring as it did of fortune-hunting, was yet as disinterested as very much that passes current in these days for the tender passion. He thought of the mixed object of the quaint soldier's worship, and wondered how much of his affection was set upon the sweet-voiced Lena and how much upon her father's riches. The transition from this train of thought to his own love affair was easy, and it was not pleasant to think that, should his secret become known, he, too, would be accused of fortune-hunting.

The thought, however, did not annoy him long : in the first place because he was not given to magnifying troubles, and in the second because he had just received a missive from Jessica, which was a potent charm against doubt, and distress, and low spirits. In it, too, was a talisman against danger of every kind. It took the form of a white rose beautifully worked in silk, and was to be worn, according to the directions most minutely given, on the breast under the uniform. Had anyone else suggested to Riese the wearing of such a thing as a charm against peril, he would have laughed at the suggestion, but everything is accepted in faith when dictated by love, and so, when Jessica wrote to him that the legend he had told her of the White Rose of Gravelotte, and its reputed protective virtues, impressed her so much that she had worked him a rose as an amulet, which she begged him to wear for her sake, he unquestioningly obeyed her injunction, and suspended the innocent little token about his neck.

A few days later an occasion presented itself for the talisman to exercise what power it had. The occurrence arose as follows. The battalion of which Riese's regiment formed a part was stationed near a village on the south side of Paris at a point where the links of the iron cordon were the last forged, and where, almost up to the last, supplies were driven into the beleagured city. His company held an outpost at a farm a little distant from the village.

One afternoon towards dusk the station was attacked by a large body of French. Gustav was the only officer present at the time, and he soon found the farm almost surrounded by the enemy, and his communications cut off. His men held their ground gallantly, in spite of the vigorousness of the

attack ; but he did not know how long they could do so if opposed by such overpowering numbers. He decided, therefore, to send off a messenger to the head-quarters at the village, and chose Hans Quint for the duty.

"Hans," he said, "would you like to have a chance of winning the Iron Cross?"

"Yes, sir," said Hans ; "if I may win the Cross and save my skin."

"Well, then, take this billet to Col. Ganzhaut at Vernez. You will have to get past the enemy as best you can, and run the risk of being knocked on the head."

"Very good, sir," replied Hans, and away he went.

For nearly an hour the attack was kept up with great vigour ; indeed, so closely was the little company pressed, that Lieut. Riese thought at last the game was up. One section of the farm buildings had been taken, and it did not seem possible to hold the other ten minutes longer, when suddenly there was a sharp fusilade and a brisk cheer, and Gustav knew that assistance was at hand. This infused fresh courage into the little band, and they held on gallantly, until the French found it expedient to withdraw.

Hans had carried the missive all right ; but he had not come off scatheless. After passing safely the first line of the enemy, he came upon what appeared to be a large body conveying a train of provisions. He managed to scramble into a tree before he was seen, and lay there watching the convoy pass for about a quarter of an hour. Then the coast seeming to be clear, he descended carefully to *terra firma*, and proceeded cautiously on his way. He had not gone far, however, ere he was challenged with "*Qui va ?*" He thought there was nothing for it but to run, and so he made the best use of his heels. A volley of shots rattled after him in the dark, and he suddenly found himself tumbled over into what appeared to be a shallow water-course. He heard voices and footsteps about him ; but lay perfectly still until everything was quiet, which happened in a very few minutes, and then clambered out of the ditch as best he could. It was not an easy operation ; for not only was he wet to the skin, but when he got on to his feet he found that something was the matter with his left leg, which gave him great pain. It did not take him long to find out that he had been wounded there, and that the wound was bleeding profusely. With the aid of his gun, however, he managed to get along somehow. But when at length he reached Col. Ganzhaut's quarters, he had only strength enough left to hand Lieut. Riese's billet to the orderly on duty, and having done so, he sank down exhausted.

The firing in the direction of the outpost had been heard from Vernez ; but as it was known that an attack was to be made on one of the enemy's positions somewhere in that direction, the fusilade was mistaken, and little notice was taken of it. On the receipt of Riese's message assistance was at once hurried forward, and arrived, as we have seen, just in time to save him and his little company.

The French having been repulsed, it was thought that a portion of the convoy of supplies might be intercepted by a brisk pursuit. Gustav accordingly dashed forward with as many of his men as he could get together. They had not gone far, however, ere they came upon what appeared to be a formidable support. A retreat was instantly ordered ; but before it could be effected, Riese saw half his men shot down. Flight now became almost precipitate, and the little party thought they were nearly out of danger, when a shot struck Gustav in the shoulder, and he fell. He rose to his feet again quickly, and was about to run to rejoin his men, who had got some little distance in advance, when he was confronted by two French soldiers, both of whom pointed their bayonets at his breast. His right arm was useless from the wound he had received, and so defence was out of the question. He felt that his last hour was come, and, with a feeling of half-bitterness, half-despair, he shut his eyes, so as not to see his own death-blow. But he had hardly done so ere there was a rush, a clash of arms, and a fierce cry. He looked around and saw his two assailants writhing on the ground, and a young officer and several soldiers at his side. Then everything swam before his eyes, and he remembered no more.

The fight being over, Lieut. Riese, along with others who had been wounded, was taken in charge by the ambulance and conveyed to the farm, where he was speedily put under the hands of the surgeon. On being stripped of his tunic and vest, in order that his wound might be dressed, Jessica's rose-talisman was discovered ; but, instead of being white, it was now red with his blood.

An officer was standing by when Gustav, still unconscious, was being examined—the officer, in fact, who had struck up the Frenchmen's bayonets and so saved his life. The surgeon, who was of a rough though good-natured sort, called his attention to the young lieutenant's talisman, and observed with a smile :

" You would hardly have thought an officer capable of such weakness, would you ? One expects to find such folly among the common soldiers, but not in officers."

Had the surgeon looked up at the officer to whom he ad-

dressed this remark, he would have observed that he started perceptibly, and that a slight blush overspread his brow.

"Many a clown," continued the surgeon, "I have known carry a charm to protect him from sword and bullet, but this is the first time I have known an officer do so."

"It may be some love token," replied the officer, who quickly regained his composure. Then stooping down he examined the trifle carefully. Had the surgeon possessed sufficient penetration he would have noticed that, when the young man walked away, a strange shade, as of chagrin, had overcast his brow.

An hour or so later, when the officer reached his quarters, he retired to his room, and, unbuttoning his vest, drew forth a worked silken rose, the counterpart in every respect of that he had seen on Gustav's breast, save as regards the blood-staining of the latter.

"Exactly alike," he muttered, gazing on the talisman. Then replacing the rose, he paced slowly to and fro in deep thought. There was the same troubled look on his brow and in his eyes which had appeared when his attention was called by the surgeon to Lieutenant Riese's amulet. The cloud seemed to darken and darken, until he finally quitted the room in deep agitation, and strode out into the open air.

The night had turned out clear and sparkling. Scarcely a sound was to be heard; one would hardly have thought that within gun-shot of each other two vast armies lay armed and ready to spring the one against the other in deadly enmity.

The young man met several brother officers, one after another, but he only greeted them and passed on, seeming to shun society. Walking quickly, he soon arrived at a desolate spot, a little apart from the village, whence a wide view could be obtained of the dark landscape around—of the Prussian lines near at hand, and beyond the distant gleam of the gay capital, now anything but gay.

Seating himself on a large stone, and drawing his military overcoat about him, he seemed to become so absorbed in thought as to lose all consciousness of what was going on about him; and like one in an agitating dream his emotions unconsciously shaped themselves into words, which might have given a clue to his distress had any been there to overhear.

"He!" he muttered. "And that I should have been the one to strike up the bayonets that would have ended him! . . . Why should I see his danger and rush to save him? . . . But he may not recover. . . The wound is indeed slight, but many have succumbed to as little. . . Oh that he might—! Ah,

Gottlob ! Gottlob ! . . . Is this bearing in mind your promise to Jessica ?”

Captain Gottlob Durer—for it was he—rose to his feet with a shudder, partly the effect of the cold, which was biting, and partly the effect of a strong revulsion of feeling.

(To be continued.)

Poetry.

LULLABY.

The day is declining,
 The sun sinks to rest ;
 And each little warbler
 Is snug in its nest.
 The bee from its labour,
 The ant from its play
 Have ceased, and now slumber
 The dark hours away.
 Lullaby, lullaby, close thine eyes now,
 Like the sweet blossoms that sleep on the bough.

The bubble of labour
 Is silent, the street
 Resounds with the echo
 Of weary feet ;
 And the bright little stars
 Are twinkling aloft,
 With a glimmer so loving,
 So holy, and soft.
 Lullaby, &c.

The moon in pale splendour
 Is sailing the sky,
 Like a watcher so faithful
 With weariless eye,
 As though guarding you wee ones,
 As peaceful ye sleep,
 While angels around you
 Unseen vigils keep.
 Lullaby, &c.

A.

Reviews.

Chit-chat by Puck, from the Swedish of RICHARD GUSTAFSSON by ALBERT ALBERG. London: W. Swan Sonnenschein & Allen, Paternoster Square.

This is a neatly got-up and prettily illustrated little volume of tales. They are written more particularly for the amusement and instruction of children, but there is a quaint flavour and freshness about them which will go down with older people, if not too much wedded to the three-volume form of literature. Each story points its moral, but not in the "goody goody" style, which so many of us were only too well acquainted with in our youth. Gustafsson is nearly as well known in his own country as a story-writer for children as Hans Christian Andersen in this and others. His style is simple, and easily understood, while he manages to throw an amount of thought into his tales that cannot but leave a strong impress on the minds of those who read them. The value of the book is enhanced by the charming vignettes of Miss Sibree, well known for this class of work.

Alice, and other Fairy Tales for Children, by KATE FREILSGRATH-KROEGER. London: W. Swan Sonnenschein & Allen.

The authoress states in the preface, that these "fairy dramas," like most plays of the kind, were originally written to supply a "home demand." To the three original plays is added a dramatic version of Mr. Lewis Carroll's charming story of "Alice," so deservedly popular. This and the other tales are exceedingly well dramatised, and show a particular aptitude on the part of the authoress to adapt herself to the child-mind. The dialogue throughout is as natural as the talk of children, and as delightful. The plays are also so simple in construction, that they present hardly any difficulty to performance by the young folk at a family gathering. "Jack and the Princess who never Laughed" is particularly amusing, being, in the language of Peter Quince, a "most lamentable comedy," well calculated to move to tears, but tears of laughter. Each play is accompanied by appropriate music, original and adapted, and embellished with cuts by Miss Sibree.

Brain and Mind. By H. S. DRAYTON, A.M., and JAS. McNEILL. New York: S. R. Wells and Co.

This is a useful work, and may be perused with profit by those who wish to review the subject of phrenology in relation to the most recent researches in physiology. The chapters on "General Principles" and "The Structure of the Brain and Skull," together with a couple of chapters at the end of the volume treating more particularly of the position of modern physiologists in relation to

phrenology are the most valuable ones, and show the writers to be well acquainted with the latest literature on the subject. With regard to the more purely phrenological part of the work one criticism suggests itself. After the organs of Sublimity, Conjugality, Human Nature, and Agreeableness have been accepted as established by the foremost living phrenologists, it seems a little odd to find the latest work on the subject treating them as "probable." Caution, in scientific matters especially, is an excellent thing; but we have never yet met a phrenologist of any répute whose observations did not tend to the confirmation of the generally accepted function of these organs. Apart from this criticism we can give hearty commendation to the work which is well got up and profusely illustrated.

Famous Girls. By J. M. DARTON. London: Swan Sonnenschein and Allen, Paternoster Square.

Further commendation of this work is hardly necessary than to say that the edition before us is the seventeenth. That it has had such a sale is the best possible proof of the acceptance that has been accorded to it among those for whom it was principally written—"the daughters of England." The volume is almost doubly interesting from the fact that more than half of the "famous girls," whose biographies we find here, are, or were within a year or two past, still living. Among the number are the Queen, Harriet Martineau, Mrs. Beecher Stowe, Frederika Bremer, Miss Marsh, the Princess of Wales, the Princess Louise, Mrs. Balfour, the Baroness Burdett-Coutts, Laura Bridgman, and others. These are the subjects which the authoress has chosen as models "to stimulate," as she says, "the minds of the daughters of England to courses of action as noble and intellectual as those which have made famous the heroines of my volume." The biographies are well written, and quite adapted to the minds of those for whom they are intended. Not the least interesting of the sketches to readers generally will be found that of Laura Bridgman, who, with no other sense but that of touch, nevertheless learned almost to supply with that the lack of all the others, developing through it an intelligence truly wonderful. A more appropriate gift-book could hardly be chosen for a young lady.

The Children's Corner.

THE WEEPING WILLOW: A FABLE.

A weeping willow grew on the bank of a stream, which it overshadowed from bank to bank. Its boughs drooped sadly down; it shook mournfully in the breeze, and sighed continually.

A nightingale sang. All nature was silent, enraptured at the melody. "Ah!" said the willow, when the song was ended, "why

am I not a nightingale, that I, too, might sing such delightful strains?"

A swan came swimming down the stream. It moved gracefully from bank to bank, it passed under the branches of the willow, and floated on and on, until it was lost in the far distance. "Ah!" sighed the willow, "would that I were a swan, to float like it at will upon the waters, and win the admiration of all by my grace and beauty!"

A noble horse galloped past, bearing a warrior on its back. The sparks flew from underneath its feet; its speed was like that of the lightning, and the sound of its iron hoofs was like thunder. "Ah!" said the willow, "wherefore am I, too, not a warrior's steed, to fly thus across the plain?"

An eagle was flying in the sky. It soared heavenwards towards the sun, upon which it alone could gaze with unshaded eyes. "Ah!" said the willow, "would that I were an eagle, to wing my flight through the air, and make my home in the clouds!"

The brooklet heard the willow's sighs as it passed by. It paused a moment in its course, and said, "Cease to sigh, beautiful tree. The good Creator has given some gift to each of His creatures, and to whom has He given more than to thee? Be contented with thy lot, and cease to envy the gifts of others."

The willow listened to the words of the stream, and for a while, as it gazed upon its own beautiful form reflected in the mirror of the waters, forgot to sigh.

J. A. STORY.

AN OLD FABLE RETOLD.

An aged man, bent down with toil
And years of sorrow,
Once wearied and foredone with moil,
Threw down his load and called on Death
At once to ease him of his breath
And cares to-morrow.

All in a trice grim Death was there;
Ah, how the poor old man did stare,
And how his reins did stir!

"O dear good sir,"
Quoth he, "I've dropt the bundle down
That I have got to take to town,
Pray help me pick it up again,
And soon I'll hurry o'er the plain."

And so he did—
Death chuckled meanwhile and him hid.

C. N.

Facts and Gossip.

THE newest thing in science comes from the land which Madame de Staël said had the "empire of the air"—Germany. At the last Congress of German naturalists and physicians a certain Professor Jäger propounded the hypothesis that the soul of every man and animal is to be found in the specific odour emanating from each. The material of which, according to this theory, the soul is constituted he calls "Psychogen." The Berlin *Gegenwart* contains a report of some alleged experiments made by one Dunstmaier to test the accuracy of this hypothesis, and which gave an affirmative result, even to the isolation of such elements as timidity and courage dissolved in glycerine. According to this theory, therefore, it will be possible for the "man of the future" to keep in his cabinet specimens of the dissolved souls of his ancestors.

THE French papers record a fact which will be doubly interesting to students of Phrenology. A lad of eleven was recently found begging in the streets of Marseilles, who has caused not a little astonishment in scientific circles, and will probably cause still more. His name is Jacques Inaudi; he was a shepherd boy in the province of Côme, and he can neither read nor write. He is, however, able to count, and that in such a manner as to strike with amazement a body of learned men recently assembled at the house of M. Camille Flammarion, the eminent astronomer, at Paris. After receiving a number of marvellously accurate replies to difficult mathematical propositions, M. Flammarion asked the boy, "How many births will take place in a century at the rate of one every second?" The instant reply was, "3,153,600,000." This not corresponding exactly with the result obtained by the amphictryon, they suggested, "Have you taken the leap-years into account?" "No," he replied; "taking them into account you have 3,155,760,000 births." If Phrenology is true Jacques Inaudi is largely developed at the outer angle of the eyebrows.

A GOOD idea never comes out of season, and though the time for coughs and asthmas is pretty well over, there is always a liability to take cold, and a hint, therefore, how not to take one is valuable. A medical contemporary says that "the man who resolves not to take cold seldom does," and there is much truth in the remark. A cold invariably takes one unawares. The theory advanced is that "taking cold" is the result of a sufficient impression of cold to reduce the vital energy of nerve centres presiding over the functions of certain organs; that sneezing and shivering are efforts of nature to rouse the dormant centres, and enable them to resume work and avoid evil

consequences; and that there is no more potent influence by which to restore the vital energy than a strong and sustained effort of the will. Those, therefore, who feel a cold "coming on," should in the very beginning fight against its approach with vigorous determination: for if once the enemy gains a foothold it is not easily dislodged.

A FRENCHMAN, M. le Bon, in a memoir recently crowned by the Academy of Sciences, shows that the differences in the cranial development of individuals of one and the same race becomes greater the higher the race rises in the scale of civilisation. Hence, he argues, instead of tending towards equality, men tend, on the contrary, towards increasing differentiation.

ACCORDING to Dr. Parrot the right hemisphere of the brain is the earliest developed. Contrary to what holds good in the white race, in the negro the posterior part of the cranium is the earliest to become ossified.

Correspondence.

CONCENTRATIVENESS, INHABITIVENESS, AND MIRTHFULNESS.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—Will you allow me to say a few words on the site and functions of the above named organs? In 1835, being well read in our standard works on Mental Science, and greatly prejudiced, knowing nothing of it, against phrenology, I was at last induced to read a book upon the subject. The system seemed to me so simple and practical as compared with those with which I was acquainted that I heartily wished it might be true. To test it I had my own head shaved (quite unnecessarily however, as I afterwards discovered) and had a cast made of it by Deville. I also purchased of him 100 casts in which the organs were supposed to be both large and small. I went to work, examining every head I could get at where the character was marked. In my own head in the space allotted by Combe to Concentrativeness and by Spurzheim to Inhabitiveness I found the *upper part* large and the *lower* small. Now, in my character the function of Inhabitiveness is powerful and Concentrativeness weak. I therefore inferred that both Combe and Spurzheim were right, and that there were two organs in that locality. But mark! Inhabitiveness was top and Concentrativeness below and not *vice versa* as is now marked on all the American casts. In 1838, Mr. Combe was staying with me and I pointed this out to him, and his observations and mine have since, I think, confirmed the above view, as you will see, as far as Mr. Combe is concerned, in the fifth

and last edition of his system of phrenology. Messrs H. S. Drayton and James McNeill have just published in New York what appears to me to be on a superficial view, for I have not yet read it carefully, an excellent and well-timed work on Phrenology, called "Brain and Mind." In this work, on p. 151 there is an illustration of Concentrativeness large. Now, I should say that in that head Inhabitiveness is large, but Concentrativeness *decidedly* small. These American gentlemen say "that many of the most illustrious men in science and letters do not indicate a fulness in the region bordering on the lower margin of Self-esteem, but the contrary." This is quite true, for that region belongs to Inhabitiveness.

I will mention one fact bearing upon the function of Concentrativeness, as it includes other points of interest. I had an exhibition of phreno-mesmerism in my drawing-room, in the presence of several sceptical medical men. The subject was an ignorant servant girl who had been mesmerised once before; she knew nothing of phrenology and had never attended any lecture on the subject, so that she knew nothing of what was expected of her. She was mesmerised; and upon Self-esteem being touched we had a very striking manifestation. The operator was then requested, in writing, that the girl might not know, to touch Philoprogenitiveness; he did so, as he thought, but he could get nothing but the manifestation of the previous feeling. I found, on examination, that the hair being knotted behind prevented his putting his fingers on Philoprogenitiveness, and that he had his finger on the part *immediately above*. When the hair was let down we had a very pleasing exhibition of Philoprogenitiveness; the girl's countenance changed, and it became refined and beautiful as she nursed the sofa-cushion. This indicates, I think, two things—the site of the organ of Concentrativeness, and also that the subject mesmerised is not under the influence of the mind of the operator, as he was evidently expecting an action of Philoprogenitiveness. I agree with Mr. Nicholas Morgan that the organ called Concentrativeness had better be called Continuity, for although it is an essential element in Attention, its function would appear to be to keep a feeling in the mind till an association is formed with other thoughts and feelings. It is one of the most important organs in the head: for as the simplest action of the body cannot be performed without the combination of many muscles, so in the brain this organ is needed to produce a combination of its parts. It is found to be very deficient in many cases of madness. It is small in my head and was very large in the head of my brother-in-law. I can scarcely finish a sentence without being diverted and turned aside to something else; but if he was warmed in argument on any subject we could never get him to leave off, and he would break out hours after everyone else had done with the subject.

Again, what is ordinarily called "Mirthfulness" is not a feeling or sentiment at all, but one of the highest of the reasoning or reflective faculties, and it ought to be called "Congruity." In the reasoning powers we have Comparison, which discriminates between true and

false analogy, Causality, which judges between mere coincidence and real natural law or sequence, and Congruity, which points to congruity or purpose in the order of nature, *i.e.*, to what is commonly called design. Wit is incongruity, and induces mirthfulness in other organs. Pure wit, proceeding from the intellect only, is pure incongruity; but we seldom get it in that form, but mixed with imitation, secretiveness, and other feelings, when it is often changed from wit to humour.

I shall read "Brain and Mind" with interest and attention at my leisure, when, if I have any further remarks to make, you shall have them.

I may mention, for the help and guidance of investigators, that my great difficulty with organology or craniology was: in what would appear to be the simplest part, viz.—the forehead. I found high and broad foreheads with comparatively very little intellect, and this was particularly the case in women. I mentioned my difficulties to Geo. Combe, and we proceeded to cut open some skulls together, horizontally, and he showed me that the part of the brain connected with the intellect is that which lies on the supra-orbital plate, and that this was often not correctly indicated by the expanse of forehead. I cannot here give the correct rules for its estimation, but in many men the hair goes back to the middle of the head, and in women with very shallow intellect, the feelings above the reflective faculties show as part of the forehead. It is strange and lamentable that many of our leading men, the late G. H. Lewes for instance, A. R. Wallace, Dr. Andrew Wilson, and others, take the intellect to be measured by the *general* size of brain, and *instruct* the public *against* Phrenology accordingly.

—Faithfully yours,

CHARLES BRAY.

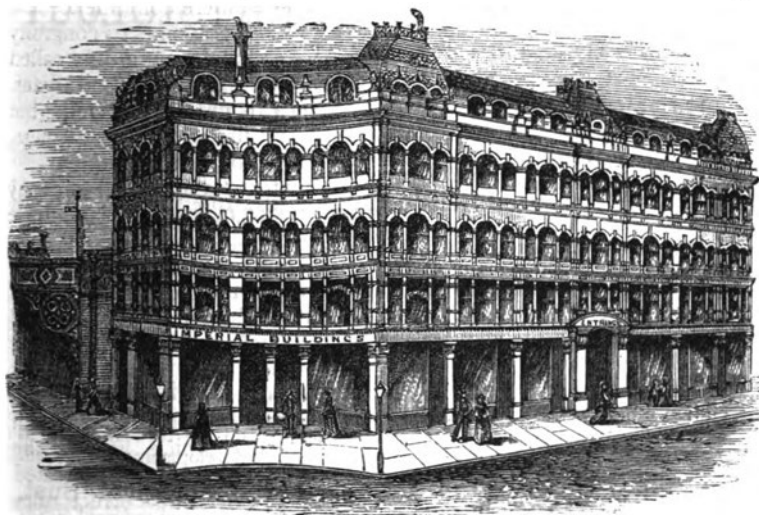
Coventry, April 13th.

Answers to Correspondents.

H. W.—The work you mention is one of no authority. The conjectural organs therein described were never, that we know of, recognised by any phrenologist of note. "Sophistry" could not be a primitive faculty; it is a perversion. The space above Comparison and Causality is occupied by the organs of Human Nature and Agreeableness. The definition given to "Space" agrees with the function of Sublimity. None of the pretended organs indeed will bear scrutiny.

J. S.—In due course.

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In the first place, he has a predominance of the mental temperament, with a distinct degree of the motive and a fair amount of the vital. His animal, vital powers by no means predominate. His brain is of full size and of peculiar shape, being long, high, and narrow. His forehead distinctly represents the perceptive faculties as large. Form is very large—it is very seldom that even good mechanics or artists measure so much from eye to eye. This very large Form gives him ideas of shape, countenance, expression, likeness, resemblances; and with such a highly cultivated mind anything in art out of shape or where a proper expression is not given must be a source of extreme annoyance to him. He is equally large in the organ of Size, giving fulness to the corner of the eye, next to the nose. This enables him to judge correctly of proportions and the fitness of one size to another. It aids him to measure by the eye, to take a perspective view of a landscape or picture. With his large Individuality and very large Form and Size he is able to focus objects at a great distance, and take in a large range of vision. Weight and Colour also appear large, and

* From photographs.

must have a distinct influence in connection with his other perceptive faculties. Order is very large, and Calculation full. They would dispose him to arrange, systematise, and work according to some rule or plan, and to reduce everything to system. They are so large as to dispose him to be fastidiously particular, and to criticise mere details. Their combined action incline him to make up estimates, and look at everything in the light of profit and loss, waste and supply. He would quickly see where things were done to a disadvantage, and what savings could be made if such-and-such plans were adopted.

All the perceptive faculties being large give him great range of observation, and enable him to acquire a vast amount of information. They, together with other faculties, give him about an equal amount of talent for science, literature, or art. The central brain, from the root of the nose upwards, over the top of the head to the back, is large. Eventuality makes him conscious of what is going on around him, and disposes him to take an interest in the life and doings of the day. He can not only gather a vast amount of information, but can retain it and use it to a good advantage. It should also render him very fond of history, and all kinds of movements and experiments, especially chemical ones.

His very large Comparison gives him great powers of analysis and criticism, and joined to his large Language and vivid imagination endows him with superior descriptive powers and ability to present his ideas in a distinct and striking light. His clear, sharp, and active brain renders him capable of being exceedingly direct, pointed, and appropriate in what he says.

Intuition, situate between Comparison and Benevolence, is very large. This aids him to see the truths in nature and the fitness and harmony of things, and disposes him to decide on all truths, or supposed truths, as they do or do not harmonise with what he knows to be true in Nature; for with such developments Nature would be his guide. He has much more ability to criticise, analyse, combine, compare, arrange, classify, estimate, reduce to practice, and perfect an operation than he has to create, originate, and discover. He can reply in the debate better than he can start or open a debate. His large Language, as indicated by his full projecting eye, enables him to express himself correctly and copiously, and gives him the ability to be a good conversationalist.

His narrow, yet high, head indicates that he is living for some other purpose beside making and hoarding property, or acting the part of a conservative, reticent man. His restraining powers are none too strong—more would be an advantage to

him. The ruling faculties of his mind are in the coronal brain, and the largest of these is Benevolence, as seen by the extreme height of his head above the forehead ; all his likenesses show it to be very large, and it is all the more influential because of the weakness of the selfish brain. Were it not for a fair share of Self-esteem he would be tempted to make unnecessary personal sacrifices from a pure desire to benefit others. His



From the "Leisure Hour," by Permission.

sympathies are liable to lead him to forget himself while he is ministering to the wants of others. This faculty, joined to his large Veneration, would lead him to value humanity for humanity's sake and to strive to raise the lowest objects of humanity as high as possible. His sympathies would be with the inferior and lonely in proportion as these two faculties had the ascendancy.

A high forehead and large Benevolence and Veneration indicate a philanthropic state of mind, and the disposition to do the greatest good to the greatest number, and at the least possible expense.

His benevolence, or sympathy for the mass of mankind, would be liable to detract from the vigour of his social nature; hence he would value his friends, whether male or female, in proportion as he respected them for their intellectual and moral qualities. The range of his thoughts are higher and less selfish than those of most men; hence he will have the sympathy and co-labour of the comparative few. There is, besides, a quality of his mind which will appear to some to render his views and efforts a little impracticable. He has very large Hope, and he works with reference to a future—far it may be, but distinct. Hence to those who have a “weaker eye of faith,” his schemes seem somewhat visionary. Yet at the bottom his ideas will be found to be based on fact, and not on mere theory. His Utopia, if he planned one, would be built upon an actual, not an imaginative, human nature. His imagination is distinctly under the control of his common-sense faculties, so that he is not one to be carried away by the marvellous or wonderful.

His Conscientiousness is a distinct and ruling quality. It may make him somewhat censorious at times; for anything of the nature of, a lapse from the path of duty or right annoys him the more, because his large Continuity makes him dwell on a subject for a long time. This protractedness of mental operation is quite a characteristic of his mind. He cannot easily give up a process of thought; he must continue it until completed and expressed. It is as if, like the “Ancient Mariner,” he was obliged to utter his thought; and this he will do, if it seems necessary, even though he should give offence thereby; for he is more mindful of doing and saying that which is right than that which would merely please and make him popular, Approbativeness not being specially large.

Society could do with more of such men, even though it had them at the expense of a few of the worldly and selfish type.

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In younger days, in morning I rejoiced,
At evening wept: now since I'm older grown,
The day begin I doubting; ne'ertheless
Its end to me is holy and serene.—*Hölderling.*

PHRENOLOGY AS A GUIDE TO A TRADE OR PROFESSION.

That human capacity differs in strength, quality, and kind, as well as in amount, both in regard to body and mind, is a fact so palpable that it cannot be denied. Phrenology and physiology explain this difference, and one of their chief uses lies in that they enable us to judge of men as to give each the work to do for which he is best qualified by organisation. Human nature is so flexible that where there is good quality and fair quantity of power, a person may be educated to do tolerably well in a line of business he is not particularly adapted to; yet not nearly so well as if the same amount of effort were given to the calling he was best fitted for. It is not to be supposed that Nature works with special reference to callings, and that it says, Now, we will make a songstress of this one, a poet of this one, or an orator of this; but it so happens that, from the blending of the powers of the two parents, such and such gifts are the result. Sometimes one parent gives the genius of the child, but it is always more perfect when it is the result of the combined natures of both, especially if active and educated.

The development and upward march of the human mind require that particular kinds of work, and that of a more and more perfect and delicate nature, should be done. The savage and barbarian can live by the application of simple rules and principles, but as the mind unfolds, and the faculties are more combined, more complicated work is required, and educated minds with genius are better fitted for the work.

There are grades of capacity in the same line, for genius is less perfect in one than in another. The capacity of one is only equal to making a wheelbarrow, while that of another is equal to the construction of a lord mayor's carriage. One can draw the rough outline of a house that is square; another can limn and paint a piece of mountain scenery, with sky, water, animals, men, all skilfully represented. One can tag together rhymes, while another can write poetry full of sentiment and soul. One can compose a song—a simple melody suited to the rustic ear; another can give the world a sonata, an opera, or an oratorio, in which the most cultured take delight and find a stimulus to their higher natures.

Quality, as well as quantity and kind, must be taken into account; and there are grades from the most stupid, dull, un-intellectual, and undemonstrable, up to the highest degree of susceptibility, and the most complicated, refined, and culti-

vated mind. No one, however gifted, is able to throw himself into his career without preparation; all are obliged to begin at the bottom and work up. Some are so constituted that they develop rapidly, while others advance slowly, and then often do not get beyond the rudiments of their calling. Men are like other things in nature. Some kinds of metal, wood, or stone will take a high polish, so as to cast a reflection, while others will not take the slightest polish. Yet the latter, as well as the former, are serviceable in their way. So some men cannot be developed beyond a rudimentary point, while others continue to unfold, and expand, and show fresh powers of mind year by year until an advanced age.

A man's organisation, when properly understood, will reveal his quality and kind of talent and power. Certain qualities of mind and conditions of body are necessary for an engineer, whether mechanical or civil.

For mechanical engineering a strong, muscular, and bony structure is quite essential, joined to a full development of the nervous temperament, and a full, or large, and well-balanced brain, together with a marked degree of executive power and resolution, great determination, self-reliance, forethought, and presence of mind, requiring the action of Combativeness, Destructiveness, Cautiousness, Self-Esteem, and Firmness. He also needs good perceptive powers, good mechanical contrivance, and the capacity to understand principles and combine their actions, so as to produce harmony in their application. Individuality, Form, Size, Weight, Order, and Calculation should be fully developed and in active exercise. Constructiveness also should be large, and a fair amount of imagination is necessary to give versatility of conception, while Causality, Comparison, and Intuition are essential to comprehend and apply the principles involved. Imitation assists greatly in giving ease and versatility in the use of tools.

All distinguished mechanical engineers will be found to have a long arch to the eyebrow, a large outer corner, a full, high, and broad forehead. They are also generally full in the temples, broad from ear to ear, and high above the ears, with a strong frame and a good stomach. For civil engineering a higher degree of the mental temperament, more vivid imagination, with a special development of Form, Size, Locality, Eventuality, Causality, and Comparison, joined to a high degree of mental activity, are indispensable. The ability to do varied kinds of mechanical work requires more or less of the above-named organs and physical conditions.

The qualifications for art are a grade higher than those for

a mechanic or engineer. Architectural talent is more on the plane of the artist than of the engineer, though it is a matter of quality or culture more than of phrenological development, for in both cases the same organs are in use, only some are more used in art than in common mechanical work. To go from ordinary mechanical work to the highest art is like ascending a hill. As it requires more nervous susceptibility for a civil engineer than for a mechanical engineer, so there is a greater tax on the nerves and the imagination in the practice than in civil engineering. In either case rules have to be of art applied, and rigidly applied, but there is more scope for the imagination, and more occasion for nice finish, and a more perfect application of rules, in art than in mechanics. Engineering requires more knowledge of mathematical principles and the adjustment of lines, angles, proportions, and the application of mechanical principles, while art requires the power to see the perspective of objects, the effect of sky on water, and the reverse, and the general effect of both on the landscape. More grouping—and that of a more complicated nature—is necessary in art than in mechanics and engineering. Besides, every part has not only to be as accurately drawn according to mechanical proportions in art as in engineering, but has to be more highly finished; there is also much more detail in art than in engineering. The difference between mechanics and engineering and art is that a man might make a good mechanic who would make but a poor engineer, and a worse architect; or he might be a good engineer, while he would turn out a poor architect and still worse artist. So he might make a good architect but a poor artist, with the same amount of discipline.

In some callings the mind requires more freedom of action, less controlled by the body than in others. In art the mind requires more freedom and to be less subject to bodily influences than in mechanics. It is an art to straighten ramrods with the hammer, but it requires only Form, Size, Weight, and a good muscle; while to paint a rainbow, Form, Size, Weight, a good muscle, and Colour, Order, Locality, Imitation, and imagination are necessary. To be a good blacksmith requires Form, Size, Weight, and Constructiveness; but to paint a landscape the same organs are necessary, joined to great range of vision, much scope of mind and exaltedness of feeling, together with great impressibility of mind. It does not require much imagination or Colour to make a waggon to draw manure; but to make a State carriage requires the highest order of skill and imagination, and in addition no small amount of talent to finish, polish, and

paint it. A man who can make a first-class Royal carriage can also make a good cart; but many a man who could make a good cart could not make a carriage for Royalty, and very few who could make a Royal carriage could paint it and put on the Royal coat of arms. I know of two sculptors: the one can make a perfect bust in marble, in every respect like the original—all but the life-like expression; he lacked the imagination and Imitation necessary for that; while the other was as accurate in making a bust in proportion, but could also put such a life-like expression in the face, that it seemed ready to speak. He had large Form, Size, Imitation, and Ideality, together with vivid imagination.

Ambitious parents who do not understand the difference would think that their boy, clever in the use of tools, would make a good mechanic, when he would only make a good carpenter or blacksmith. Many good blacksmiths are spoiled by trying to make artists of them. As a general rule, a lad had better learn that trade that he can do the best, even if it be only straightening ramrods or making shoes—for a good shoemaker is better than a poor artist. We had better do that which we can be first-class in rather than be second or third class in a trade for which we are not so well fitted, even though it should be what is called a "superior calling." It is not the trade or calling that makes the man, but the ability to excel therein. In all cases it is well to consult a phrenologist; for even though he should not decide with perfect accuracy, a talk with an experienced professor of the science will aid parents very much in deciding what course to pursue. If the phrenologist can do no more he can suggest to parents ways of testing their children's capacity. To get many lads into their right places, where they can do their best, a certain kind of pride must be put into the background, and let native ability display itself where it can to the best advantage.

L. N. F.

ACCORDING to the researches of Dr. Brush, the milk of ruminants, when swallowed, is coagulated by the acids of the stomach into a hard mass. Hence calves, lambs, kids, &c., who have taken no food but the milk of their mothers, always chew the cud. Animals which do not ruminate consequently find a difficulty in digesting the milk of a ruminant species. On the other hand, human milk, and that of mares, asses, and other non-ruminant animals, coagulates into small glandular or flocculent masses, which are easily digested. Hence it is concluded, it is not a natural food for man, nor for any non-ruminant creature.

THE SOUL : WHAT IS IT ?

Concerning the constitution of man there are three distinct theories. The first regards him as composed simply of a body, actuated for a time either by the ordinary forms of energy or by some modification thereof not yet recognised, and as losing at death his personal individuality. The second and more popular view acknowledges in him a double nature, comprising, in addition to the palpable, ponderable, and visible part or body, an invisible and immaterial principle, known promiscuously as "soul" or "spirit." But there is yet a third theory, which considers man as a threefold being, made up of body, soul, and spirit. It is no part of our present purpose to define the exact sense in which these last two terms are used. It may suffice to say that by the ordinary advocates of the triplicity of human nature the "soul" is supposed to be the purely immaterial element, whilst the "spirit" forms a connecting link between the two, and, if not purely incorporeal, possesses none of the ordinarily-recognised properties of matter.

An author* whose speculations we are about to examine exactly reverses these two terms, and looks upon spirit as a something absolutely immaterial and transcendent, whilst the soul, the seat of the will, the passions, and emotions, is perceptible by one, at least, of our senses, and is even capable of being experimentally isolated and obtained in solution.

We well know that the orthodox method of treating such an announcement is either by contemptuous laughter or by the "conspiracy of silence." We, however, hold that Science has nothing to lose, and may have much to gain, by a dispassionate examination even of the wildest theories. By so doing she will probably fare as well as did the fabled brothers who, in searching for a supposed buried treasure in their estate, marvellously enhanced its fertility.

We find ourselves confronted by a number of facts, hitherto without explanation and without connection. Among these must rank the phenomena of sympathy and antipathy as between different individuals, human or brute. On first meeting with some person of whom we have no previous knowledge, we often experience a strong liking or a violent dislike, for neither of which we can render any definite reason. As a rule, women and children are more frequently impressed in this manner than are adult men. It very often happens, too, that if we suppress and overcome these sudden prepossessions,

Professor Jäger.

we find in the end that they were justifiable, and that second thoughts were not best. What is the key to that strange personal ascendancy which some men seem to possess over their associates? This mastery is not necessarily connected either with physical or intellectual superiority, nor certainly with rank or position. There are characters who are obeyed, even by their official superiors or their employers. There are others who cannot uphold authority over inferiors without incessant punishments.

Further, the emotions and passions of men assembled together are infectious, passing from one to another more rapidly than bodily diseases. From one or from a few energetic individuals enthusiasm may be diffused through a senate, a regiment, or a ship's crew. On the other hand, a few terrified or bewildered persons may spread a panic among thousands. It is commonly said that emotions propagate themselves, but we wish to know in what manner and by what means this is effected.

Again, domestic animals very often display a sympathy for some persons, and a hatred for or a fear of others, which are very hard to explain. We have known men who could approach the most ferocious dog without any fear of injury, whilst others can scarcely walk along a public thoroughfare without being barked at by every cur they meet. Why will a horse obey implicitly one stranger and become unruly and refractory if touched by another? Why will cows or oxen, when driven along a road, make a rush at some one passenger, after letting scores of others go by unharmed? The reasons commonly given for these differences of behaviour will not bear close inspection. Dog-worshippers, forgetting such cases as that of the robber and assassin Peace, insinuate that their pets have an instinctive repugnance for a man of bad character. Others assert that dogs attack only the timid. We knew a gentleman, exceptionally courageous, who was a particular object of the ill-will of these animals. He was often first made aware of the presence of a dog by a volley of yelps and snarls close behind him, so that the attack cannot have been provoked by any demonstration on his part. It is said that animals fawn on such as like them, but flee from, or, if strong enough, attack such as view them with dislike. We can contradict this assertion from personal experience. We are by no means fond of cats, yet these creatures approach us without hesitation, spring upon our knee, rub their heads against our face, and can scarcely be made to understand that such attentions are far from welcome. A very remarkable fact is the influence which some men possess over horses, and

which seems rather a personal peculiarity than any secret that could be communicated to others. It is said that such men have been known completely to subdue a vicious horse by blowing into his nostrils.

We find, again, sympathies, and especially antipathies, which may be traced between entire species of animals, and which some of us seek to explain by the indefinite and long-suffering word "instinctive." If a dog has been stroked with a gloved hand, and if the glove is then held to the nose of a young kitten, still blind, the little creature begins to spit in anger. How is this fact to be explained? The kitten has never yet seen a dog, but by the mere odour it recognises a hostile element. Heredity? True, but how is the antipathy handed down from generation to generation? By what sign does the blind animal detect the presence of an enemy? Very similar is the dread or disgust felt by mice in the neighbourhood of a cat. If one of these animals is kept in a house no matter how lazy and sleepy she may be, the mice generally withdraw to safer quarters. Shall we suppose that they have all seen or been chased by this enemy, or that those who have fared thus spread the news to their companions?

There is still a further phenomenon which may be looked on as a heightened antipathy—fascination. We all know that very intense fear instead of prompting to flight may paralyse.

It is said that certain rapacious creatures, especially serpents, have the power of producing in their intended victim a kind of torpor, so that it helplessly and passively awaits certain destruction. We never had the good fortune to witness an incident of this kind, but Knapp, in his "Journal of a Naturalist," gives a case as from his own observation.

We come next to a class of phenomena on which accurate observation and careful experiment are still more needful. It is asserted by popular tradition, and is half admitted by Dr. O. Wendell Holmes, that certain animal secretions if introduced into the body of some other animal of the same or of a different species may have a strangely modifying action upon the individual thus inoculated. This is said to have occurred in cases where the bite of a rattlesnake has not proved mortal.

Taking a general view of all these phenomena, in so far as they are actually established, it would seem that animals, including man, must throw off from their surfaces some emanation capable of acting upon other animals and men with whom they come in contact or in near proximity. This supposed emanation may vary in its character in one and the same individual, according to its psychical condition. If the vapours or gases thus emitted by two animated beings are in

harmony, the result is sympathy or attraction. If they disagree, the consequence is antipathy, showing itself as hatred in the strong and as fear in the weak. This, it will be doubtless admitted, is a possible explanation of some of the phenomena above noticed; but is it the true or the only one? Do such emanations really exist? It is, we think, certain that many animals become aware of the presence either of their prey, of an enemy, or of a friend, by the sense of smell, even at very considerable distances. Our lamented friend, Thomas Belt, was led to the conclusion that ants are able to communicate with each other by means of this sense, and have, in fact, a smell-language. Unfortunately, the sense of smell is so weak in man that it becomes very difficult for us to decide.

Professor Jäger holds that certain decompositions take place in the animal system in strict accord with psychic changes. All observers, he tells us, agree that muscular exertion effects but a very trifling increase of the nitrogenous compounds present in the urine. On the other hand, Dr. Boecker and Dr. Benecke* have proved that intense pleasurable excitement effects a very notable increase of the nitrogenous products in the urine, derived, as a matter of course, from the decomposition of the albuminoid matter in the system. Prout and Haughton have made a similar observation concerning the effects of alarm and anxiety. Hence, therefore, it would appear that strong emotion involves an extensive decomposition of nitrogenous matter, and in particular of its least stable portion, the albuminous compounds. But does the whole of the matter thus split up reappear in the urine? Professor Jäger thinks that a portion escapes in a volatile state, forming the odorous emanations above mentioned. This portion he considers is the soul, which exists in a state of combination in the molecule of the albumen, and is liberated under the influence of psychic activity. Hence his soul, like the body, is not a unitary entity, called once for all into existence, but is a something perpetually secreted, and as perpetually given off. It pervades the entire system. Each organ has its distinct psychogen, all of which, however, are merely differentiations of the one primary ovum-psychogen. Further modifications take place from time to time, in accordance with the mental condition of the man or other animal. It will here be remembered that, according to Haeckel ("Die Heutige Entwicklungslehre in Verhältnis zur Gesamtwissenschaft"), all organic matter, if not matter altogether, is be-souled. Even the "plastidules"—the molecules of protoplasm—possess souls.

* Pathologie des Stoffwechsels.

In support of the assumption that a volatile something is given off from albumen, Professor Jäger gives the following delicate experiment: If we prepare, from the blood or the flesh of any animal, albumen as pure as possible, and free from smell and taste, and treat it with an acid, there appears a volatile matter which is perfectly specific, differing in the case of each animal species. But this odour varies according to the intensity of the chemical action. If this is slight we perceive the specific "bouillon odour" which the flesh of the animal in question gives off on boiling. On the contrary, if the reaction is violent, the odour given off is that of the excrement of the species. Here, then, we have the two main modifications of psychogen, the sympathetic and the antipathetic form.

Dr. O. Schmidt, Professor of Chemistry and Physics at the Veterinary College of Stuttgart, has repeated these experiments upon the brains of animals. The odoriferous principle is here evolved much more easily than from egg-albumen. Immediately on the addition of an acid an offensive odour appears, which vanishes as rapidly, and cannot be caused to reappear. Nor has it been found possible to elicit from brain the more agreeable odour.

It will doubtless be granted that certain, yet unexamined, specific odours are given off by living animals; that these odours may be repulsive or attractive to other species; that they may be liberated more abundantly under mental excitement. But where is the proof that these odours are the soul in any condition? May they not be regarded merely as an effect which psychic emotion, along with other agencies, produces in and upon the body?

We will therefore, though not without misgivings, quote an experiment to which Dunstmaier attaches much importance. He placed in a large wire-work cage a number of hares, and allowed a dog to run round this prison, snuffing at the inmates and attempting to get at them for about two hours. It need scarcely be said that the hares were in a state of great terror. At the end of that time the dog was killed; his olfactory nerves and the interior membranes of the nose were taken out with the least possible loss of time and ground up in glycerin. The clear liquid thus obtained contained the souls of the hares, or at least portions of them, in an intense state of painful excitement. Every animal to whom it was administered, either by the mouth or by injection under the skin, seemed to lose all courage. A cat after taking a dose did not venture to spring upon some mice. A mastiff similarly treated slunk away from the cat. Now we are here confronted

by a serious difficulty ; if a second dog was rendered timid by merely a small portion of this extract of fear, how is it that the first dog, after snuffing up the whole, did not suffer the same change and become afraid of the hares ?

Other experiments, we are told, were tried with analogous results. Thus a glyceric extract of courage was obtained from a young lion, the olfactory nerves of a dog being again used as the collecting medium.

A difficulty which must make us hesitate before ascribing animal antipathies to some disagreement in their souls, making itself known by their specific emanations, is the following : the animals of uninhabited islands when they first come in contact with man entertain no antipathy for him, until his propensity for indiscriminate slaughter is learnt by experience. Can we assume that his emanations have changed in the meantime ? Again, a colony of mice had established themselves at the bottom of a deep mine, doubtless in order to prey upon the provisions, candles, &c., of the workmen, and had flourished there for many generations. One of them, being captured, was brought up, placed in a cage, and shown to a cat. The cat prowled around and tried to get at its prey, but the mouse gave not the least sign of alarm. Why should the emanations of a cat be less alarming to this mouse than to any other ? Is the tiger, our natural enemy,—which, according to Professor Jäger, bears the same relation to us which a cat does to a mouse,—any more offensive to us than certain animals which never prey upon man at all, such as the polecat or the skunk ? If the timid man tempts the dog or the ox to attack him, on what principle does he diffuse panic among his fellow-men ?

In short, Professor Jäger's theory is beset with many and serious difficulties. Nevertheless, or rather the more we consider it entitled to a careful examination, both as regards its conclusion and the phenomena upon which it is based ; the science of odours has yet to be constituted, and we are convinced that it will amply repay the needful trouble.

One of our author's favourite ideas is that the social split between Jews and Christians, between Aryans and Negroes, &c., depends on the want of harmony in their specific emanations. The conflicting odours of races and nations play a great part in the history of mankind.—*Journal of Science.*

LITTLE can be expected from a woman who does not know how to express her thoughts with correctness and how to be silent.—*Fénelon.*

THE FACE AS INDICATIVE OF CHARACTER.

CHAPTER I.

Ever since man began to study Man he has been led to regard the face as in some measure "the mirror of the mind." We have the authority of Shakespeare that "there is no art to find the mind's construction in the face:" but we have no reason to suppose that the immortal bard intended that opinion to be final on the matter. We may take it as signifying that in his day—as is the case in ours—character-reading from the face was not yet reduced to an art. Many attempts have been made to formulate rules for discovering mental peculiarities from the countenance, but none, so far, have been very precise or trustworthy. Theophrastus in ancient times, and Lavater in modern, are the names most indetified with physiognomical research. Both are credited with having possessed uncommon ability in regard to the discrimination of character. The latter, especially, became one of the most noted men of his day, on account of his keen insight into character. Neither he nor Theophrastus, however, could communicate their art. Lavater's system of Physiognomy contains some most valuable hints and suggestions relative to facial indications of character, but with few exceptions his rules for deducing characteristics are not to be relied on.

Since Lavater's time there have been a number of workers in the same field, and various attempts have been made to systematise the results obtained, some of which we shall have occasion to mention in the course of these articles, and may-be to offer some criticisms on them. The aim had in view in introducing the subject into these pages is more to call attention thereto than to formulate any new system. What we have to say, therefore, will be said in a chatty and discursive way, rather than arranged on any set plan. It will be for the reader to say, when the series is completed, whether there are any grounds for believing that there is, or ever will be, a physiognomic art.

The first step in the study of physiognomy is to get a thorough knowledge of the temperaments. The full importance of this will be fully seen in the sequel, so that it is not necessary to stop to make it manifest at present.

Temperament may be defined as the condition of constitution resulting from the predominance of one or other parts or functions of the organisation. The ancients divided the temperaments into three: the Sanguine, the Phlegmatic, and the

Melancholic, based on the relative preponderance of one or other of the so-called "humours" of the body. A later division recognises the influence of brain and nerve on temperamental condition, which was not done before. This classification was adopted by the early phrenologists, and is, indeed, largely in vogue to the present day. According to this division there are four temperaments: the Lymphatic, the Sanguine, the Bilious, and the Nervous, dependant respectively on the relative development of the stomach, the lungs, the liver, or the brain and nervous system.

This classification has been abandoned by many for one that is generally adopted in America. It is based on the broad physiological generalisation that the body is composed of three distinct systems of organs, that is, the Motive or Mechanical system, the Vital or Nutritive system, and the Mental or Nervous system. Hence we have three temperaments:—the Motive, the Vital, and the Mental. For physiognomical purposes it does not much matter which division is followed, so long as the proportional influence of the various bodily conditions are properly estimated in relation to the manifestation of character. As being somewhat the more practical, we shall prefer generally in these articles to use the latter classification.

To begin with the Motive. This temperament is determined by the bony framework of the body, modified by the muscular fibres and cellular tissues which cover it. It constitutes the mechanical and locomotive apparatus, and, of course, where predominant, has an influence in accordance with its nature. A good development of this temperament is an invariable accompaniment of great force of character and power of constitution. There are two forms of the temperament—the muscular and the osseous. The former is indicated by rounder forms, and gives a predilection to almost restless activity. Where the bony framework preponderates—indicated by greater ruggedness and angularity of outline—there is often a predisposition to extreme lethargy. It takes a great deal to fully rouse persons so constituted, but when they are got into motion it is quite as difficult to stop them. Men of this type are often extremely awkward in their movements; they are also not unfrequently uncouth in their manners. When there is more harmony between the development of bone and muscle, the utmost grace and agility are often combined with great strength.

The influence of the Motive temperament is to give vigour, force, and endurance. These qualities it communicates to all mental operations, whether emotional or intellectual. When

in excess it is not unfrequently accompanied by coarseness and harshness, together with incapacity to receive much culture. The world owes much to men of this type. They may not be the thinkers, the originators, the poets, the philosophers, but they are the explorers, the pioneers, the workers in every branch of industry. They discover new lands, cut out colonies in the wilderness, tame the wild beast and the



Fig. 1. Motive Temperament.

wilder man—battle with nature everywhere. They are conquerors in the physical sense. Livingstone was a good specimen of the Motive temperament, with a high degree of the Mental super-added. So was the subject of our engraving (No. 1); John Brown, executed in America for the part he took in instigating a rebellion to free the negro slaves. Mr. Gladstone and Prince Bismarck* also possess a marked degree of this temperament, as indicated by the bold and somewhat rugged outline of their physiognomies.

The Vital or Nutritive temperament is dependent on a predominance of those functions of the system which chiefly contribute to the nourishment of the body. They consist of those performed by the organs contained in the thorax and the abdomen. In the former are the heart and lungs, on which depend the functions of respiration and circulation; in the latter, those organs that are mainly concerned in the absorption and assimilation of nutriment. The organs of the chest, when large, give that constitutional bias which, in the quadruple classification of the temperaments, was called the sanguine (from *sanguis*, the blood), and which Mr. George Combe describes as "indicated by well-defined forms, moderate plumpness of person, tolerable firmness of flesh, light hair, inclining to chestnut, blue eyes, and fair complexion, with ruddiness of countenance. It is marked by great activity of the blood-vessels, fondness for exercise, and an animated countenance. The brain partakes of the general state, and is active."

Persons with a marked development of this form of the Vital temperament generally possess a great deal of excitability and impulsiveness; and from the ardour and vivacity of their

* See the January and February numbers of the *Phrenological Magazine*.

dispositions, they are prone to excess in the indulgence of the more animal propensities.

When there is a predominance of the abdominal organs, there is a predisposition to that form of the Vital temperament known as the Lymphatic. This habit of body, Mr. Combe says, "is distinguishable by a round form of the body, softness of the muscular system, repletion of the cellular tissue, fair hair, and a pale skin. It is accompanied by languid vital actions, with weakness and slowness in the circulation. The brain, as a part of the system, is also slow, languid, and feeble in its action, and the mental manifestations are proportionally weak."

A person who has a predominance of this form of the Vital temperament is not favourably constituted either for physical or mental vigour. It gives a tendency to lethargy, laziness, indifference to active exertion of any kind, and from the stagnation it induces, and the over-indulgence of appetite, is liable to result in actual disease. When, however, a person has a good development of the Vital temperament as a whole,



Fig. 2. The Vital Temperament.

that is, of both the abdominal and thoracic portions of it, as in our example (Fig. 2.) there is a good deal of general vital stamina and constitutional power. The animal functions are active, and there is an active sympathy with the physical, but with a fair development of brain, the tendency that way is not controlling. Such persons make good doctors, and are often natural healers, as is the case with the subject of our cut, from the amount of vital magnetism they possess.

A good share of the Vital temperament is also essential to the orator, for without it the emotions are not lively and spontaneous, and there is not that capacity to get hold of the sympathies of an audience that is necessary to draw the speaker out and, at the same time, to give him the power to rivet the attention of his hearers. Mr. John Bright is a good type of this temperament, combined with a high degree of the mental. The portrait of Professor Nordenskiöld (see the March No. of the MAGAZINE) indicates a fair, though not a predominant, development of the Vital temperament; while Darwin (see April number) exhibits rather a deficiency of it.

The Vital temperament is generally predominant in children,

as indicated by the round and full outlines of the infantile face and form. It is also generally the prevailing temperament, in combination with the Mental, in women.

RONDEAU.

"I can't get out!" sang Yorick's bird,
By freedom's longings inly spurred:
So human souls, with yearnings deep,
Pine 'neath restraints that constant keep
Their weary feet from bournes preferred.

O who, mid earthly hopes deferred,
Hath not at times felt strongly stirred
To worry like the starr, and threap
"I can't get out"?

For life a cage is, and oft heard
Are pæans from without—a word,
A line—that 'luring swell and sweep,
And oftentimes make the spirit weep,
Complaining like the prison'd bird,
"I can't get out!"

T.

OUR province is virtue and religion, life and manners, the science of improving the temper and making the heart better. This is the field assigned to us to cultivate.—*Bishop Butler*.

THE power, whether of painter or poet, to describe rightly what he calls an ideal thing, depends upon its being to him not an ideal but a real thing. No man ever did or ever will work well, but either from actual sight or sight of faith.—*Ruskin*.

THE IMPORTANCE OF EARLY TRAINING. — Children must be made to feel that they are loved for their good qualities, and not for their outward appearance. They are too apt to hear themselves praised as the "pretty child," the "beautiful child," to have their clothes admired, &c. The attention of many mothers is exclusively taken up with their children's dress. "What will people say if you make your frock dirty, or crumple your hat?" and so forth, is the ordinary talk of nurses. Thus the child grows up with the idea that people pay more attention to its outward person, and value it more for this than for its real merits. Outward appearance is, indeed, the standard of the many. Whatever the children see their parents value or despise they will value or despise themselves. If ever a time is to come when appearance shall no longer rule the world, or at any rate when reality shall have a humble place by its side, children must be supplied with a proper standard at the beginning of life.—*Child and Child Nature*.

ONLY HALF A HERO.
A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER V.

It was a fine bright morning in January when the news of the action in which Lieut. Riese was wounded reached the inmates of the Durer-House, in Frankfort. Houses, trees, roads, and everything were covered with a vesture of crisp, glittering snow, and the whole outside world, as a picture, looked charming. So thought Jessica, as, standing at the open window fronting the Anlage, she gazed on the clear, white landscape. She had been feeding the bevy of birds which every morning, as regularly as sunrise, came and tapped at the casement for the daily fare they were accustomed to receive at her hands. There was a larger number than usual this morning, because the frost was unusually hard. Some of these little feathered pensioners, as the blackbird and the thrush, were content to remain on the ground and pick up the crumbs thrown to them; but the little robin flew on to the window-sill, and, with head askance, cast sidelong looks into the warm room. Jessica stepped at one side to give the little creature confidence to hop in. By so doing she was enabled to see a woman standing outside, who had hitherto escaped her attention. At first the poor creature did not perceive that she was noticed; she was busy watching the recipients of the young lady's bounty, and Jessica had time to observe her closely. Thinly and meanly clad, her face pale and shrunk, and with a deep esurience in her eyes, her appearance rivetted Jessica's attention. When the poor creature perceived that she was observed, she blushed and made a movement as though she would go away; but then, as if reassured by the kindly look of the young lady, she stepped a pace or two nearer, and said, in a low, diffident tone:

"Mademoiselle, I, too, have nothing—"

She seemed unable to say more, and stood, trembling. Jessica put her hand into her pocket to get her purse, and in doing so said to the woman:

"Have you no one to help you—no husband?"

"He is gone to the war, and I have a little boy lying at home sick."

Jessica took all the change she had in her purse; several gulden in all, and put it into the woman's hand, a tear the while stealing down her cheek.

The poor woman eyed the money with a half-doubting look; then clutched it tightly in her hand with a choking "God bless you!" and hurried away. Jessica would have bade her come again, had not her attention been drawn in another direction by a voice behind her, exclaiming:

"Whatever are you doing, Jessica?"

It was Frau Durer who spoke.

"I have been giving that poor woman an alms," replied her niece.

"But you gave her quite a handful of money."

"Well, she needs it; her husband is at the war, and she has a sick child."

"Suppose she has, my child—why should you give so much? She would have been just as thankful for a trifle—a few groschen—as for all that."

"But, aunt," replied Jessica, "it would not have done her as much good, and I have no need of the money."

"Well, well, child," responded Frau Durer, patting her niece on the shoulder; "you have a good heart; but you must learn to be prudent. Your father did not get his money by giving away to beggars like that."

"But surely he would give to the needy?"

"Yes; but he was not one to overlook the fact that God has created the poor as a part of the moral order of the world, and that to try to do away with poverty by an abuse of charity is to go in the face of Providence."

"Oh, surely we ought not to look at the thing in that light!" exclaimed Jessica. "I don't think there will ever be true religion in the world so long as some are allowed to want, while others have in abundance."

"That is talking foolishness," said Frau Durer, who, though inclined to religion, did not consider it necessary to materially forego any of her comforts, or to retrench in any way for the sake of bringing about an ideal state of society."

"Well, I may be a foolish thing, aunt—I daresay I am; but surely you don't think it was very wrong to give a few gulden to a poor woman whose husband has been obliged to go to the war. We ought to have more than ordinary sympathy for one another at these times, when we have all got loved ones in the ranks."

The last sentence was uttered with so much feeling that Mama Durer cast a searching glance at her niece, but said nothing. Her daughter Dorothea, however, who had entered during the conversation, was not so reticent. She burst out, in her usual exclamatory way, with—

"La! Jessica! one would not think you need say much on

that score, when you sent poor Gottlob away with his heart half-broken."

This outburst simply took Jessica's breath away. She stood there, turning alternately hot and cold, and not knowing which way to look, until Dorothea, who was soft-hearted enough at times, seeing the effect her words had had, put her arm about her, and said :

"I was a bit cruel—wasn't I?"

"Oh, women can be cruel!" exclaimed Jessica, freeing herself, and going to the window for air.

Dorothea left the room, and Frau Durer went up to her niece, and said resolutely, as if she thought now or never was the time to speak :

"But why, Jessica, did you refuse Gottlob?"

Jessica faced round, and there was a fire-flash in her eyes as she asked :

"Did Gottlob, then, tell you what took place before he went away?"

Frau Durer felt that somehow the honour of her son was concerned in the reply she should give, and she answered :

"I knew from his manner that something had occurred, and when I asked him if you had refused him again, he said : 'Say no more about it, mother ; what you want cannot be.' That was all I could get from him."

Jessica's expression softened, and a gleam of tenderness glistened in her eyes. She would have opened her heart to her aunt and told her all, and asked for her counsel and advice, had the latter not checked her by adding :

"Why should you refuse Gottlob, Jessica ? Is he not good enough for you ? He is not clever, I know ; but he has no need to be with the money his father will leave him. Any woman might be happy as the wife of a man with his good nature and the money he will have."

"Even if she did not love him, aunt?"

"It is not always love that makes marriages," replied Mama Durer, somewhat tartly.

"I know it is not ; but it ought to be. There would not be so much wretchedness in wedded life if people married more for love and less for money."

"You talk like a girl : if you ever have daughters of your own you will change your opinion."

"I don't think I could ever change sufficiently to be willing to sell a daughter, supposing I had one, for money."

"No one is talking about selling," said Frau Durer, shortly. She then added, in a conciliatory tone : "Love with poverty is like an April moon. That is what the old folk know and

the young don't ; and so you think they are mercenary and I don't know what besides, because they want love to grow where it will thrive, and not fly out of the window, as the proverb says, because poverty comes in at the door."

"But you know, aunt," said Jessica, with a smile, "there is another proverb that says a dower of love is better than a dower of land, or something like that."

"Oh, I have no patience with such stupid proverbs. I don't know what people are doing to let them get about to mislead those that have no better sense. They ought to be put a stop to."

"Would you have Solomon's put a stop to, aunt?" asked Jessica, with a malicious twinkle in her eye, "for he has some of the same nature."

"I would not let young people have the reading of them, anyway, for if there is anything foolish they are sure to fill their heads with it in preference to something that would do them good."

"You have not a good opinion of young people, I fear ; and yet you were once young yourself."

"Yes," replied Frau Durer, quickly, "and I was as sentimental and lackadaisical as any of them, and should have been as foolish as someone else I know if my parents had not put a bit of wholesome constraint upon me."

"Thanks. That means that I am foolish because I won't consent to marry your son for his money," said Jessica, with spirit.

"Oh no, not at all ; that is where girls won't see. What I mean is that by getting rid of some fancies and a good deal of sentiment—"

"And proverbs, aunt."

"Yes, and silly proverbs, too, and looking life straight in the face, you would see that it would be wise to make up your mind to love Gottlob and join your fortune with his, which would make a nice thing, and enable you to hold up your heads with the best in the city."

Mama Durer was sometimes inclined to think the Mischief himself was in her niece, and she certainly thought so now, when, with an arch look, she began quietly to sing—

"Du hast Diamanten und Perlen,
Hast alles was Menschen begehrt," etc.

"I wonder when you will be serious and reasonable, Jessica," said Frau Durer.

"When I have daughters of my own, perhaps—or marriageable nieces," laughed the young lady.

"You are altogether incorrigible," exclaimed the matron, not knowing exactly whether to laugh or be cross; "I will give up trying to arrange for your happiness and welfare; I get nothing but ingratitude for my pains."

"I'm sure I don't want to be ungrateful, aunt," pleaded Jessica, "and I would mar—love Gottlob if I could, and make you happy by joining our fortunes."

"You could if you would," replied Aunt Durer, appealingly; "I thought I should never like Herr Durer at first, but when I saw I must, I found it was not so hard, and our marriage has been as happy as that of most people."

"Which is not saying much," added Jessica.

Frau Durer cast a searching look at her niece, and then said, while she examined the pattern of the carpet:

"It is not to be expected that marriage is perfect—nothing is in this world."

"Nor do I believe it ever will be so long as parents and guardians teach young people to put less worthy motives in the place of affection. You know how much has to be crushed——"

"I know nothing," interrupted Frau Durer, rising hastily, her face colouring deeply, but whether with anger or emotion it would be difficult to say; "I know nothing but that you are an ungrateful girl."

With these words she left the room, and Jessica turned to the window, wishing she had left her last words unsaid. It troubled her to think she had perhaps caused her aunt pain; for, young as she was, Jessica knew that Frau Durer's life had been anything but one of unalloyed happiness. Wedded to a man who thought about as much of her as of any of his household effects, who spent but little time at home, and whose thoughts—if thoughts they could be called—were entirely of the funds, married life did not present many bright streaks to her. True, she was herself to blame in great measure for this state of things, for she had been contented to take the husband of her parents' choosing, although she loved another. Receiving it too implicitly as gospel that the beloved one should be sacrificed for the rich suitor, she soon learned to her cost that wealth alone could not fill the heart; and yet the grievous thing was that she was prepared to wreck another's happiness on the same rock whereon her own had foundered. There was not so much perversity in this as infatuation. Human beings are just as foolish as sheep in following a blind leader. Some stupid, wrong-headed bell-wether gets floundering out of the right track, and straightway the whole flock pursues the same course. Not a few of the customs so pa-

tiently observed by us mortals, generation after generation, owe their origin to an impulse as unreasoning as that which misleads the innocent sheep. Had anyone been able to make it clear to Frau Durer that she was morally wrong in trying to influence her niece to take an unworthy course, she would probably have felt some serious twinges of conscience; but there was no one to make such a revelation to her mind, and therefore she had no inkling that her proceeding was otherwise than right. She was acting up to the standard of ethics that custom had prescribed and sanctioned. What more could she do? It was not to be expected that she would strike out a new course.

There are some born, it would seem, with a bias towards new ideas, or to the trial of untrod paths. It is in the molecules of their brain. They begin to show the proclivity in youth—sometimes, indeed, as early as babyhood, and from thence onward—if they survive the measles, vaccination, and burial clubs, and the thousand-and-one pitfalls prepared for them by Providence, the doctors, and the “undertaker”—the unconscious end of life with them appears to be to show how differently everything can be done to the ordinary way of doing it. And well it is for us that there are such. Were it not for these eccentric geniuses coming now and again to break through our fixed orbits of custom, life would become a dead, dull monotony, as unvarying as the turning of a wheel, and man’s upward tendency would be checked once and for ever.

It is conceivable that the addition of a pound weight to the volume of a planet would tend to enlarge its orbit; so, in like manner, every accession of thought that enriches the human mind gives expansion to the common life,—in other words, enlarges its orbit. It is not often that the world is blessed with men of such intellectual or spiritual insight that we date a new era from their coming, and when they do appear they get but a small following; yet the heritage is universal, though the good trickles down to most so imperceptibly that they seldom stop to inquire whence it came.

It was to the influence of such a mind—on a small scale, perhaps—that the difference of opinion between Jessica and her aunt Durer was largely due, and it was to that mind that she now, in her loneliness and trouble, turned in thought, as if for sympathy and support.

While yet almost a child, she had dwelt for some time with a distant relative in a small town in Westphalia, where she was taken regularly every Sunday to a Lutheran church to hear a somewhat celebrated man in those parts preach.

Jessica was by nature thoughtful and imaginative, and the effect of the teaching of this devout, simple-hearted man, full of strange thoughts, that lost nothing by their rugged utterance, was to give an impetus to the growth of her mind in fields that are too often fallow in those of her age and sex. His style of thought, bold and even daring, plain practicability fired with imagination, was one calculated to start the dullest wits a-thinking. An anecdote will exhibit the character of the man. Once several notices had been placed upon the reading-desk, requesting the pastor's petitions on behalf of one or another who was suffering. He read them over until he came to one desiring the prayers of the congregation for a poor woman who was in want from lack of work. Putting the notice quietly into his vest-pocket, he said, "I think we won't trouble the Almighty with that now; it is a matter we can see to ourselves."

The good old pastor took a kindly interest in the little stranger that had come to sojourn in the town for a short time, and who never took her large, dark eyes off him from the moment he entered the pulpit to the close of the service, and the sympathy thus established was never broken. Jessica had not seen him for some years, her relatives who formerly resided there having removed to a distant part, but she had several times written to him, and received quaint, encouraging epistles in reply. Little difficulties that arose in her path had been solved for her by the logic of the plain-thinking Pfarrer, and in the dearth of other help she had come to regard him almost as her mentor. What more natural, therefore, than that her thoughts should turn to him now, when, in a critical crisis of her career, her notion of duty clashed with that of those about her? She almost reproached herself for not having written to him sooner, and told him of the new relation in which she stood to the world. But everything had happened so suddenly, and one event had hurried so on the heels of another, that she seemed to have had no time to collect her thoughts and realise her actual position.

Hitherto her life had been a kind of dream; and her falling in love seemed at first but a continuation of it. It was only the hurrying of her lover off to the war, and his constant danger, that seemed to thoroughly wean her from her dream-life. Love forged the link that united her, as it were, to every-day life; anxiety and sorrow deepened and intensified the connection. She was hardly the same being now she was a few months before. As plants are known oftentimes to grow more in the cold night than during the hot day, so human beings frequently develop more rapidly in the coldness of

sorrow and misfortune than in the sunshine of pleasure and contentment. It was so with her. She now made up her mind to write to the Pfarrer, tell him everything, and ask his counsel.

Jessica was still standing at the open window, so absorbed in thought as not to feel the cold, when the newsman arrived with the morning paper, and handing it to her through the casement, hastened on his way. Her eyes naturally turned to the telegram column to see what news there was from the front. Her glance had run over but a few lines ere it fell on the announcement of the "slight engagement," as it was styled, that had taken place two days before at Vernez, in which the name of Sub-Lieutenant Riese appeared first in the list of wounded, the word "dangerously" being added in parenthesis.

The shock was too much for her; she staggered to a chair, but before she could throw herself into it, she had fallen forward with a sharp cry of pain. Aunt Durer, who was in the next room with Dorothea, instantly rushed to her assistance, and found her extended on the floor, insensible.

CHAPTER VI.

It was some time before Jessica came to herself again, and when she did she found herself on the sofa, with Dorothea and Sanchen by her side. She looked first at one and then the other in bewilderment for a minute or two, and then, as if suddenly recollecting what had occurred, released her hand, which Sanchen was holding, and raised it to her breast. Her dress had been undone to give her air. Missing something she expected to find there, a quick flush overspread her pallid features, and she started up into a sitting posture. After another search in her bosom for what she had lost, she looked from Dorothea to Sanchen, and from the latter to the former, and finding something like a confession of guilt in both their faces, she said very quietly, but with a countenance from which every vestige of colour had disappeared :

"You have taken a letter from my bosom."

Neither of them answered; but Dorothea began visibly to tremble.

"Sanchen," continued Jessica, "I bid you tell me who has taken my letter."

The young lady had risen to her feet, and stood facing the two women with a calm, resolute expression that neither of them liked.

"Be calm," said Sanchen, tenderly; "you will make yourself bad again. Do sit down and be quiet a bit."

"Yes, do, dear," added Dorothea, in a soft, imploring voice, at the same time putting her large hand upon her as if to gently compel her.

The little maiden released herself from the hand with a terrier-like shake, and exclaimed, with an unmistakable flash in her eye:

"I want to know who has stolen my letter; and know I will. Sanchen, have you dared—?"

"No, Fraulein."

"Dorothea?"

"No, Jessica, dear, I did not touch it; Mama took it. Don't be angry; she will bring it back directly," said the stupid, frightened Dorothea.

Without uttering a word in reply, Jessica turned and took a step towards the door. At that moment it opened and Frau Durer entered, the letter in her hand. She halted, still holding the handle of the door, like one thunderstruck. Jessica was the first to speak.

"You have taken my letter."

"What letter?" said Frau Durer, trying to hide what she held in her hand. She was evidently not prepared for this turn of affairs, and hardly knew how to face it.

"Aunt, give me my letter," exclaimed Jessica, sharply. "I did not think you could have descended so low!"

This style of language nettled the matron, and she fired up.

"That is not the way to talk to me, miss. Supposing I had a mind to keep it and show it to Herr Durer, your uncle and guardian. Don't you think you would be ashamed of yourself?"

"No, aunt; not if you showed it to the whole world!" replied her niece, her sylph-like figure straightening up with conscious pride and integrity.

Was it that, away down in her woman's heart, she felt a responsive throb of admiration for the love that could dare anything for its own sake, that caused Frau Durer quietly to hand Jessica her letter and say—

"It would have been better if you had placed confidence in me."

With these words Frau Durer left the room. Jessica followed immediately and went to her own apartment. Her firmness was now all gone, and in a paroxysm of grief she threw herself down by her bedside and wept.

Sanchen tapped at the door several times, but there was no response, and she had to go away. Finally, after waiting for

some time, it was opened, and she entered to find her young mistress's eyes red and swollen with weeping.

"Don't take on so, dear," she said, taking the fairy-like form in her arms, as she would a baby, and stroking her hair with her broad, motherly palm. "He will be all right, and there will soon be peace, and he will come home to claim you for his bride. Don't cry, or else you'll make me cry too," continued the good-hearted creature, furtively mopping the waterworks of her own eyes.

"Don't you think," said Jessica after awhile, looking up through her tears, "that I might go and nurse him? It seems so awful for him to be left there without a mother or anyone to take care of him, and he perhaps—perhaps dying."

Thereupon followed another burst of tears.

"Don't you think I might, Sanchen?"

"Why, what good could you do that is not done for him by others better able and more experienced than you are? No; what you must do is to cheer up and be strong, and write a kind letter to him; that will do him more good than a whole apothecary's shop of physic."

"I'll do it at once!" exclaimed Jessica, brightening up.

"But it's downright wicked of those French," said Sanchen, bustling about the room and putting things straight, "to go shooting at such a *lieber Herr* as Gustav, when there are fellows like that Faultrager, the mason, who was always teasing me, and saying he would change nobody's name but mine, that it would be a mercy to have the world rid of. But, no; I'll be bound he'll come back without a scratch, to bother one to death again. It always is so."

"Did Faultrager, the mason, then, annoy you so much that you wish him to leave his body on foreign soil?" asked Jessica, looking up inquiringly at her companion.

"He was always teasing and bothering me," said the other, taking a vigorous rub at the pier-glass; "and yet for all that I think I could wish him well enough to have him come back without a hurt, especially as I hate to go past his yard and not hear the sound of his chisel; it sounds so lonesome."

When Herr Durer came home in the evening his wife followed him to his dressing-room, and disclosed to him the discoveries of the day. In brief it amounted to this: that Jessica had fainted, and while in her swoon a love-letter had been found on her; the name appended to the letter was the same as that of an officer which appeared in a list of wounded in the morning's paper, which she had in her hand when she went off, &c.

Herr Durer was a man of business, and his first inquiry

was for the paper. It was handed to him, and he read : "Sub-Lieutenant Gustav Riese (dangerously)."

"Um! In that case the fellow may die, and then the thing is off."

"But he may live," put in Frau Durer.

"Well, what then?"

"Why, you know, Durer, you have said many a time you should wish Gottlob to marry Bechstein's money."

"Of course I have; and I wish it still."

"But it won't be if this is allowed to go on."

"You leave that to me, my dear." Herr Durer always "my dear'd" his wife the most when he felt the least affectionate towards her. "Don't you interfere at all. Women, who are not brought up to business ways, which are like diplomacy, always spoil things of this sort, where a knowledge of human nature and the ways of the world is required."

This was a long speech for Herr Durer to make all on end, and having made it he subsided. His better-half waited a minute or two to see if he had anything further to say, and then stole quietly out of the room, afraid to make a noise for fear of ruffling the blunt humour of this lord of creation. She had scarcely passed through the doorway, however, before the stronger vessel uttered a short grunt. Frau Durer knew the meaning of it, and appearing within the door, awaited her husband's commands.

"I am going into the library; you had better tell your niece that I wish a word or two with her in private."

Frau Durer did as she was bid, sending up the message to Jessica by Dorothea.

Herr Durer was a short, paunchy man, with dewlapt cheeks, scant hair, and a retreating forehead. In anticipation of his niece's appearance, he lighted a very large cigar and threw himself into a position of easy indifference in his arm-chair. He was still mentally calculating the effect of his get-up on the mind of a susceptible maiden, when there was a gentle knock at the door and a hand on the handle.

"Come in, dear," said Herr Durer, in his most dulcet tone, mouthing his cigar; "take a seat," pointing to a chair close by him.

Jessica took the seat indicated, and waited for her uncle to open the conversation, calm, but resolute.

Herr Durer sucked his cigar and scanned the ceiling for inspiration; but his cigar would not draw and ideas would not come, and so he began to feel uncomfortable, and wished

he had left the matter to his wife. However, with a supreme effort, he plunged into the subject, saying :

"I'm happy to say funds are going steadily up, and I think we shall have peace soon."

"I hope we shall, uncle," replied Jessica, demurely.

"So this Sub-Lieutenant Riege—Rieve—what's his name?—has been wounded."

"Yes, uncle," answered the young lady, turning very red and feeling exceedingly uncomfortable.

"Who is he? what is he? where's he come from—this Riege?"

Jessica became still more uncomfortable under this gruff catechising. What could she answer? Her confusion was her uncle's opportunity—or so, at least, he thought, and he pursued his advantage.

"What's his position—prospects?"

"He is very poor, sir," said Jessica, with a quiet smile, thinking that in these words she had answered the gist of the whole interrogatory.

"Poor! and do you mean to say you would think of marrying a poor man?"

To tell the truth, the question of marriage had not occurred to Jessica in a very definite way as yet, but, put to the test, she answered resolutely :

"Why not, uncle?"

"Because he is poor."

"Is it a crime, then, to be poor?"

"Perhaps not; but I'd sooner see you wed an idiot than a poor man."

"Thank you."

"Well, what do you want to go and pick up with a fellow who has nothing but the clothes he stands in for? It's as easy to find one with money. There's Gottlob now. Why not make it up with him? He's a good sort of a fellow."

"Because I do not love him; at least not as one ought to love to marry."

"Love!—stuff! Money's love! Position's love! Stocks are love! Those are things that last; love never—at least, where there's poverty."

"Aunt has told me pretty much the same thing before," answered Jessica, quietly; "but I must differ from both of you."

"Then you throw over Gottlob?" said Herr Durer, brusquely, flinging his cigar into the fire.

"I have told Gottlob that I cannot be his wife, because I have given my promise to another."

The Children's Corner.

NITA THE VAIN.

Among the numberless fairies that inhabit Fairyland was one named Nita; and she was very beautiful. Throughout the whole realm there was not a more lovely pair of blue eyes than hers; nor among all the sweet bursting rosebuds was there anything so sweet as her pouting ruby lips.

Nita's home was in the hollow of a large white convolvulus flower that drooped from the branch of a tree about which the mother-convolvulus had climbed in order that she might always see the sun, which she loved very dearly. All her flowers—of which there were very many clustering about the tree and its branches—turned on their stems as the sun moved in the heavens, so that they might never lose sight of its beams; and when the great luminary went down and they could see it no more, they gazed for awhile on the golden glimmer its dying beams left in the western sky, and by reflection in the river that went whispering near; then they closed up for the night, and the fairies that inhabited them slept till morning, when the convolvulus again opened and they stepped forth once more to the day's enjoyment.

Now all mother-convolvulus's fairy daughters were beautiful, but Nita beautifullest of all. This she knew; a dewdrop had told her so one morning ere he leapt away to go a-wooing with a sunbeam. Many a time at the break of day she went to ask him if it was true, and he had told her so often it was that she had become quite vain, and would tell her sisters of her superior beauty, and refer them to Dewdrop for confirmation, which he was always ready to give them.

At length Nita got so enamoured of her own comeliness that she grew impatient of Dewdrop's long absence during the day, and chid the little Sunbeam for decoying him away from the blue-bell in which he was wont to spend the night. Sunbeam was annoyed at this and said:—

“If you are so fond of hearing your pretty face praised, why don't you go to the river there, that is so everlastingly babbling to itself: it is never tired of telling people how they look.”

Scarcely had Sunbeam finished speaking ere Nita had sped away over the velvety sward to the river's bank. At first she was afraid of its huge sliding volume, and nestled down among the grass at a distance, and looked and listened. She was quite charmed with the gentle prattle of the river, which seemed like the talk and laughter of myriads of little dewdrops; in fact, she was so delighted with its music that before she was aware how the time was going the sun had set, and her convolvulus chamber had closed against her for the night.

Nita had never been in such a predicament before, and at first she was naturally very frightened, and crouched down at the foot of the

tree round which the mother-convolvulus had clambered, and wept. But presently she heard the voice of the river, and it seemed to invite her back again to its banks; so she tripped thither, and laying herself down at the root of a large burdock, she fell asleep and dreamed that Dewdrop told her he would never go a-gadding with Sunbeam again, but would stay with her.

In the morning, when she awoke, although she was very stiff, the first thing she did was to creep right down to the margin of the stream and peep into the bright flood. The effect was wonderful; she was enchanted; never had she heard her beauty so commended. She resolved that she would never go back to live with her sisters in their convolvulus home; and in pursuance of her determination she immediately began to look about for a home-place. The fairy had not wandered far along the edge of the stream ere she lit upon a flower which she thought would suit her exactly. It was a beautiful large ranunculus, with broad leaves and big golden flowers, which the country folk call "butter-blobs."

Nita took up her abode in the finest of them—one that hung down almost to the water's edge and allowed her to peep into the flood by just putting her head betwixt its calixes.

When Nita's sisters of the convolvulus missed her, they searched high and low for her, and when they at length found her they implored her to come back with them; but she would not, albeit they supplicated her even with tears. She said they had never appreciated her, but were jealous of her good looks; whereas the river did put a proper estimate on her, and so she would stay with it. From this decision Nita would not be moved, and her sisters went home disconsolate.

When they had gone the vain little fairy was somewhat sorry for what she had said; she felt that she had been unkind to her sisters in upbraiding them so, after all their goodness to her; and she resolved that she would make a journey to the convolvulus-home one of these days to make some sort of amends. But day after day passed by, and still she did not go; every eve, as it descended on an unfulfilled resolve, she said: "I will go to-morrow," until it was too late, so spell-bound was Nita with the river's praise of her pretty face.

Several moons had thus come and gone, when one evening, as she lay snugly ensconced in her golden chamber, the river became louder and louder in its praise of her, and seemed to say, "O fair Nita! sweet Nita!" without tiring. At the same time she was rocked to and fro as in a cradle, and she thought how nice it was to have an admirer who would take such pains to please her. She would have peeped out of her chamber and thanked the dear river had not the butter-blob, as if jealous, closed his petals and calixes earlier and more tightly than usual. Nita was annoyed at him for this, and felt sure that the river was too, for presently she heard it roar as if in anger. She tried to soothe it by saying she would come down and talk to it in the morning; but either the river did not hear, or else it was too wrath to heed, for her flower-chamber rocked to and fro with

great violence, and she heard the large leaves of the plant flap and dash together in frantic collision; the trees around, too, moaned; then, after a lull, there came a great stormful gust, and it seemed as if the foundations of the earth had given way.

Nita felt herself tumbled violently together, and for a few minutes she was beside herself and unconscious with terror. Then she appeared to be falling—falling, as we seem to be sometimes in dreams; but after awhile, when she had collected herself a little, she knew that the good ranunculus had been broken from its root-hold on the bank, and was being whirled away by the mad current.

Such indeed was the case, and when the morning dawned and the sunshine kissed the closed lips of the butter-blob, so that they gradually unfolded and allowed the imprisoned Nita to peep forth from her golden chamber, she looked out into an altogether strange world. The river had grown broader and deeper, and instead of the sweet smile and pleasant babble of her friend of yesterday there was trouble and mystery in its look, and its murmur was in a language she could not understand.

Oh, how Nita now wished she were back with her sisters in their fair convolvulus-home, and that she had not spoken so unkindly to them! She thought, too, of little Dewdrop that had wooed her, and many a time said to herself—"He was a dear little thing, and would not have dragged me to my ruin like the river, with its soft, deceitful murmur!"

Day after day passed, and the river widened and widened, until there was no land to be seen. Then Nita said: "It is no good—I shall die," and cast herself down in despair; for the ranunculus was well-nigh dead, and the nectar in it had long been exhausted.

"Oh, if I could only tell my sisters never to be vain," she exclaimed as she felt consciousness passing away, "I should die happy!"

But it was a useless regret, for the remorseless waves bore ever on and on the dead ranunculus on which poor Nita lay.

Reviews.

Woman in the Talmud. By A. T. STORY. London: L. N. Fowler, Imperial Buildings, Ludgate Circus.

This brochure is particularly adapted to enlighten those who are interested in the early history of woman and her development. Its aim is to give a lucid description of the position Jewish women held and the influence they exerted prior to the Christian era, when the laws connected with every family and social tie were very strict. Many true and touching anecdotes are related, showing the necessity of many of the rules that governed society in those days, but which appear to us to have limited woman's sphere of usefulness. We gather from this little book that the Talmud forbids woman to meddle with learning; however, the prohibition has reference to

departmental science only, and not to general culture, for which many Jewish women were distinguished, combining a thorough knowledge of the Bible. We learn that it is not the æsthetic but the ethic power and importance of woman which finds recognition in the Talmud; not the graceful maiden, but the brave matron is it in whom the learned Rabbis found most for praise and admiration. Rabbi Stern—who is mentioned as an authority by the author—thinks the womanly ideal of the Talmud best expressed in the concluding lines of Byron's poem—

“The smiles that win, the tints that glow,
But tell of days in goodness spent;
A mind at peace with all below,
A heart whose love is innocent.”

He also truly says that the culture of certain times and lands mirrors itself in the relation it bears to the flower of creation—woman. It cannot be denied that the honour which is accorded to her in the Talmud betokens a high degree of ethical culture. And as the nature of that work cannot be better exemplified than in its treatment of woman, so the position of women in the Talmud cannot be more easily or clearly understood than by the perusal of this excellent brochure.

J. A. F.

Adams's Panorama of History. London: Page and Pratt,
5, Ludgate Circus Buildings, E.C.

It is difficult to give an adequate idea of this work. We should perhaps best describe it as a roll, or scroll, on which every device of the graphic art is employed to present to the eye the great facts of history from the Creation to the present time. A better contrivance for aiding the historical student could hardly have been imagined. The “Panorama” is upwards of 20 feet in length and 30 inches in depth. “Time” is represented by a long wavy line, divided into regular intervals of centuries, decades, and years. Running along this stream the eye encounters each notable event as it occurs—the rise, growth, and decay of each nation and dynasty, every potentate, and the events of his reign; and not only these, but all those events synchronological with his reign. At the birth of Christ, for instance, the “Panorama” shows that Herod has been thirty-seven years King of the Jews, while Augustus Cæsar has been thirty years Emperor of Rome; that, at the Crucifixion, Pontius Pilate is Governor of Palestine, while Tiberius Cæsar is the Roman Emperor. Every Emperor of Rome is plainly represented, as well as events that occurred during the existence of the Empire, such as the “Ten Persecutions,” the destruction of Herculaneum and Pompeii, the First Œcumenical Council of the Church, called by Constantine, &c. Then follows the downfall of the great Roman Empire, and the streams of Britain, France, and Germany, Spain, &c., begin, and passing the eye along, from century to century, the many changes, conquests, divisions, &c., are ingeniously wrought out,

clearly demonstrating how well the whole world's history has been unravelled in this production of Mr. Adams.

The chart is due to the ingenuity and industry of an American, and its success in the United States has led to its introduction into England. It ought to be on the wall of every school, and in the room of every student of history. The Hon. Wendell Phillips has remarked: "The daily sight of this map by a student of a class would be worth a month of study without it," and we can heartily endorse the opinion. We only need add that the work is a beautiful specimen of chromo-lithographic art.

Facts and Gossip.

DR. C. HÜTER, a German *savant*, of Greifswald, according to a contemporary, has devised a simple arrangement which demonstrates the circulation of the blood in the human body by making it visible. Dr. Hüter's method is as follows:—"The patient's head being fixed in a frame, on which is a contrivance for supporting a microscope and a lamp, his lower lip is drawn out and fixed on the stage of the microscope by means of clips, the inner surface being uppermost, and having a strong light thrown upon it by a condenser. When these preparations are completed all the observer has to do is to bring the microscope to bear on the surface of the lip, using a low-power objective, and focussing a small superficial vessel. At once he sees the endless procession of the blood corpuscles through the minute capillaries, the colourless ones appearing like white specks dotting the red stream. Dr. Hüter asserts that by taking careful note of variations in the blood-flow and changes in the corpuscles he has derived great advantage in the treatment of medical cases. This is the first instance of the flow of the vital fluid in one person being watched by another. It must be a delightful experiment for the person who is being watched.

M. NICATE stated, at the meeting of the French Society for the advancement of Science, that as one of the results of his examination of 3,434 eyes in relation to near-sightedness, this defect was observed far more frequently in light than in dark eyes, blue and gray eyes furnishing 18 per cent. and black and brown eyes only 11·27 per cent.

MR. C. W. SIEMENS, F.R.S., has supplemented his communication to the Royal Society on the effect of electric light on the growth of plants, by a demonstration of its effect in the ripening of fruit. He exhibited two pots of strawberries, which were started under precisely the same conditions: one had been exposed to daylight only in the usual way, and showed a bunch of green berries; while the other,

which, in addition to daylight, had been under electric light during the night, bore a cluster of large, ripe, well-flavoured strawberries. Thus, as Mr. Siemens remarks, "the electric light is very efficacious in promoting the formation of the saccharine and aromatic matter upon which the ripening of fruit depends; and if experience should confirm this result, the horticulturist will have the means of making himself practically independent of solar light in producing a high quality of fruit at all seasons of the year."

PROF. E. D. COPE, in a lecture on Evolution, delivered before the California Academy of Sciences, remarks, concerning the view that consciousness is a kind of force: "To the latter theory I cannot subscribe. When it becomes possible to metamorphose music into potatoes, mathematics into mountains, and natural history into brown paper, then we can identify consciousness with force." He also remarks that "Lines of men in whom the sympathetic and generous qualities predominate over the self-preservative must inevitably become extinct."

OUR remarks in last month's issue with reference to the forcing and cramming of children have called forth much approval. The subject cannot be too much discussed. The notice of a contemporary has been directed to an official letter from the Corresponding Manager of the Staines National Schools to the Education Department, reporting the death of a female pupil teacher from effusion on the brain, and the serious illness of another from a like cause. There is something radically wrong in this intellectual "forcing" process. Can anything be more repulsive than a girl-pedant? We want more men and women in the emphatic sense of the misused words, and let our Government Examiner remember the maxim that—*Non est vivere, sed valere, vita.*

THERE is now a general tendency to the more restricted use of alcohol. It is daily being proved that most men and women can enjoy as good health without it as with it. It used to be thought that alcohol was necessary for the soldier, to support his flagging strength under the fatigue of the march; yet actual observation has shown that the soldier bears these fatigues, even when exposed to the extremes of heat or cold, better without alcohol than with it. Actual observation has shown that coffee or beef-tea were far superior to alcohol under these conditions. The famous siege of Gibraltar has shown the advantages of rigid temperance to the soldier subjected to great privations. The practice of the experienced Swiss guides is worthy of note. They allow the use of very light wine, or else of no wine at all, when taking travellers across the glaciers. The hardest mental work, likewise, can be done as well without alcohol as with it, and this is shown by numberless instances.—*Henry Humphreys, M.A., M.D.*

Correspondence.

THE FUNCTION OF MIRTHFULNESS; CONTINUITY, &c.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—Being a strong believer in Phrenology, and having had some experience in examining heads and watching the manifestation of the mind for some years past, I may lay claim to some practical knowledge on the subject. My experience leads me to take a different view of Mirthfulness and Concentrativeness to those advanced by Mr. Bray in your last issue.

The power to control the mind, it seems to me, arises from quality and vigour of mind. All active and earnest men can control their mental power according to the vigour and tenacity of their minds, but not necessarily connect their thoughts and feelings or dwell continuously on one subject long at a time.

With reference to the latter, I think the name Continuity, adapted by Mr. Fowler (see his phrenological bust) best expresses the function of the organ. To my mind, too, the location of the organ above Inhabitiveness is the right one. At least, my experience has given me no reason to think differently. There seems also more appropriateness in placing Inhabitiveness next to the domestic feelings than in putting Continuity between them.

Can Mr. Bray have mistaken the location of Continuity? May he not be taking Independence—the lower part of Self-Esteem—(see Mr. Fowler's bust) for it? I have seen this done before now.

Mirthfulness, in my opinion, is a border-ground between the sentiments and the intellect, and partakes of the nature of both. Culture and the nature of the excitement determines which it partakes the most of.

The feelings are sharpened as the mind works farther towards the intellect, and the intellect becomes more emotional and genial as it merges into the feelings; hence it becomes a condensation of thought and feeling, but partakes more of the intellect than of the sentiments; at least, so it appears to me.

JOHN PRINGLE.

Manchester, May 9th.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—In looking over the last number of the PHRENOLOGICAL MAGAZINE I was much struck on observing the way in which your correspondent Mr. Bray defined the functions of Mirthfulness, which he prefers to call Congruity, and its two neighbouring organs, Causality and Comparison. Mr. Bray attempts to define the functions of three of the most important organs of the human mind, as he thinks, for the benefit of students. Why, Mr. Editor, I am little more—in fact we are all students, for the more we learn the more we

see we have to learn, yet I can easily discern a want of the faculty of Comparison as well as Concentrativeness in Mr. Bray's character, for it is very easy to see that he only uses different words of the same meaning to define the above three organs, or, in other words, all the powers which he accredits to the three different faculties are put forth by Comparison itself, leaving the other two to perform other important functions, which I will endeavour to describe for the benefit of those learners who may be led astray by Mr. Bray.

Comparison I take to be a faculty that prompts the other powers of the mind to put two things or subjects together and analyses and criticises them, and draws inferences therefrom, reasons from the known to the unknown, or, in plainer words, sees coming events from the shadows that are cast before them.

Causality is a faculty that prompts the other powers of the mind to seek the moving power, traces causes to effects, takes things at their ultimates, and traces them to their origin, adapts ways and means to ends, &c.

Mirthfulness is a distinct faculty from the preceding ones; it is a faculty that makes fun or enjoyment out of misery. The following illustration will perhaps best define its office:—Supposing anything inappropriate were presented to a person with large Comparison and small Mirthfulness, it would pain and irritate him and fill his mind with considerable dissatisfaction; but supposing the same thing were offered to a person with large Mirthfulness, he would turn it into fun and jocularly; hence, instead of an ill-timed remark making such a man angry, it only serves to amuse him. Mirthfulness, then, is a very important faculty, inasmuch as it has a soothing influence on the whole mind. It is not Mirthfulness, then, that perceives incongruities, as Mr. Bray would have it, but it is Comparison, and Mirthfulness enjoys it. Hoping you will enclose these few remarks in your next number.—Yours faithfully,

W^m Hampton, May 5th.

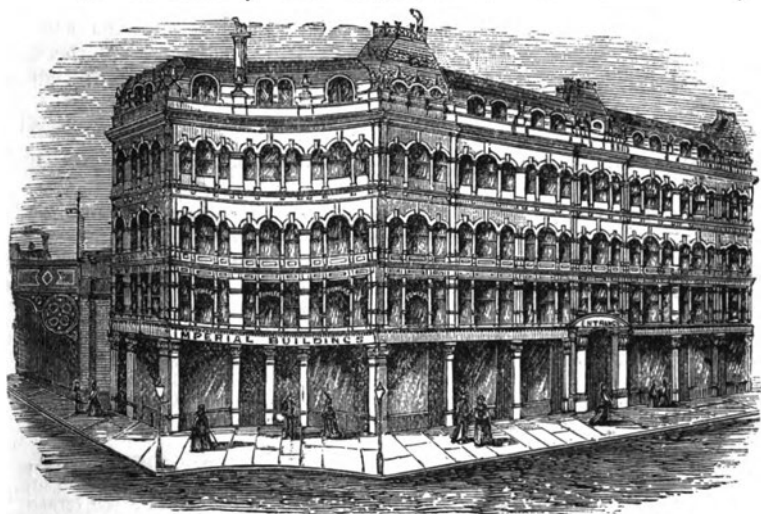
THOMAS HOWES.

Answers to Correspondents.

T. B. (Penrith).—We purpose having some remarks on Kleptomania in an early number of the MAGAZINE. We have examined the heads of many persons afflicted with this "disease," and have invariably found them possessed of large organs of Secretiveness and Acquisitiveness, the former generally larger than the latter. We shall be glad of additional facts—well authenticated—on the subject.

J. B. (Bristol).—We are giving practical lessons on phrenology in each issue of the MAGAZINE, and shall continue to do so. The articles on "The Brain and the Skull," "Memory," "Balance of Power," &c., are all "practical lessons" from which a student may gain much by a careful perusal.

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MR. FOWLER begs to inform his numerous friends and patrons that he has removed to the above commodious premises adjoining Ludgate Hill Railway Station, in order that he might have room for the extension of his publishing business, which has grown to such dimensions as could not be conveniently carried on in his former rooms. All his own works will henceforth be published by himself; and in addition, he has been appointed sole agent in Great Britain for the works published by S. R. Wells & Co., Phrenological Publishers of New York, which in itself necessitates an increase of staff and accommodation.

Mr. Fowler has also made arrangements for the publication of works coming within his province, and he hopes that from time to time there will be issued from his house such works as will sustain the good repute which the name has ever borne in connection with Phrenology.

In making his selection of premises, Mr. Fowler has had in view the possibility of arranging his extensive cabinet of skulls, busts, &c., illustrative of Phrenology, to a better advantage than he has hitherto been able to do. There has long been a felt want of a Phrenological centre in London, where the literature of the subject could be procured, meetings held, and a kind of museum concentrated.

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THE
Phrenological Magazine.

JULY, 1880.

THE RIGHT HON. JOHN BRIGHT.

A PHRENOLOGICAL DELINEATION.

It is in compliance with the wishes of many friends of Mr. Bright and of phrenology that we publish his phrenological character in this number of our magazine.

Many are desirous of knowing where the power comes from that has given him such a world-wide reputation as an orator, and how it is that he is able to present so many truths so appropriately put, so many facts so tellingly woven into his speeches, so much foresight and correct perception of truth, so much sympathy for mankind at large, so much charity for those who differ from him in opinion, and how it is that his speeches are so full of information, with no surplus of imagination, no excess of language, or extra talk for show or display.

Phrenology can answer many, if not all, of these questions satisfactorily. In the first place he has a highly emotional nature, having a predominance of the Vital and Mental temperaments, favouring warmth and ardour of mind, rendering him impressible, susceptible, and easily excited and animated by the subject presented to his mind.

In the second place he has a large brain, which gives comprehensiveness of mind and ability to take the whole situation into account, and to act with reference to general results.

In the third place, the quality of his mind is such as renders him quite alive to what is going on around him, disposing him to take a deep interest in whatever affects humanity; and this interest is greatly increased by his great sympathy and strong social and domestic affections.

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R

Fourthly, his observations are guided by his interest in mankind, and not by self-interest; consequently he is not only a sympathiser with, but also a student of, human nature, and knows not only the conditions but the wants of humanity. He has a fact-gathering cast of intellect, a tenacious memory of those facts, and a practical turn of mind to enable him to use those facts to the best advantage.

His powers of analysis and discrimination are great, enabling him to make nice distinctions, to draw correct conclusions, to have intuitive perceptions of truth, and to be able to present his ideas in the most telling and appropriate manner.

His intellectual powers are all available, and, according to their size, he can use them to the best advantage.

Order is large, which, with his studious and industrious habits, aids him in so systematizing and arranging his ideas as to enable him to present them in the most effective manner.

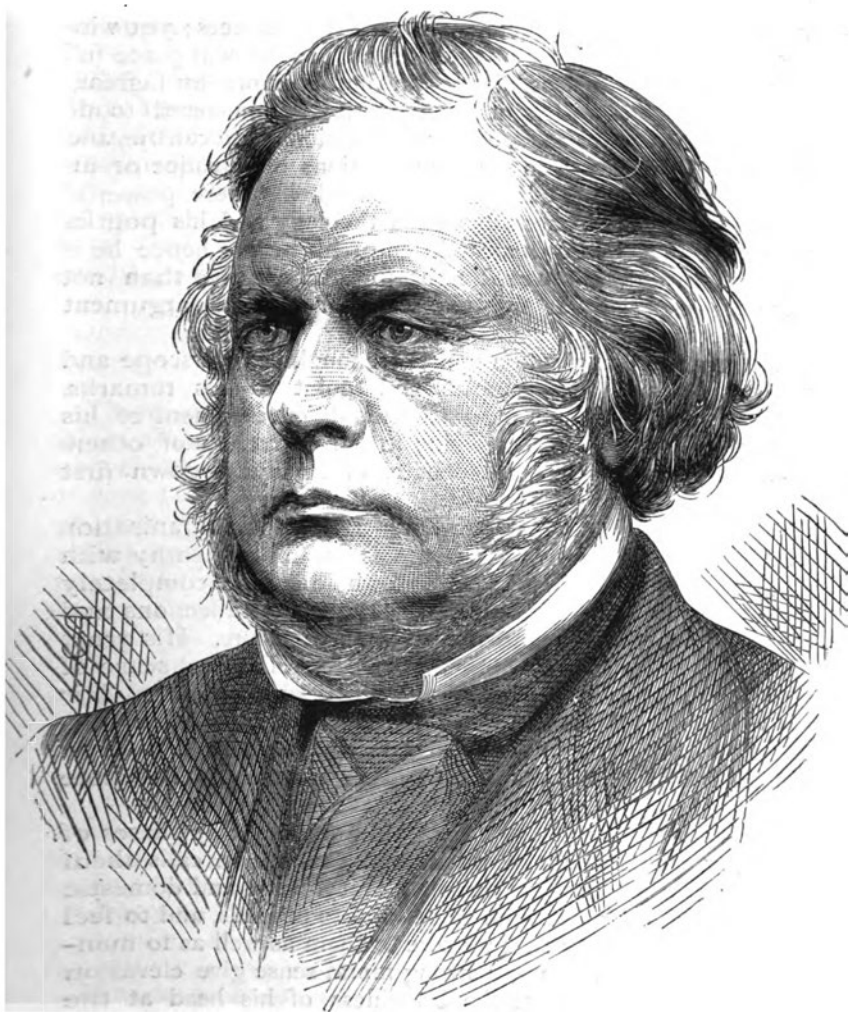
His organisation is not a selfish one as applied to property, or to gratify pride and ambition, for neither Acquisitiveness nor Self-esteem are large. He values property for its legitimate uses, and wants it as a necessity, yet has too well balanced a mind to spend it prodigally, or to be indifferent to economising and business obligations.

Self-esteem is not naturally strong enough to give any extra dignity, or to dispose him to take advantage of a responsible or official position to exercise any more authority than is necessary. He would be justified in the use of more of this faculty than he generally shows. In his political and official position he may show no lack of dignity or consciousness of the importance of his position and relation to others in office, but John Bright at home is modest and unassuming; still he will not cringe in the presence of others, as though he must pay extra attention to rank or station: for Veneration is not large, and he recognises superiority only where it exists in moral and intellectual worth. Hence he is not afraid either of thinking for himself, or of expressing his opinion before anyone without reference to the opinion of others.

Approbativeness is large. Hence he is ambitious, sensitive, easy in his manners, and mindful of the presence of others, and much prefers approbation to condemnation. Yet Combativeness, Conscientiousness, Firmness, are all large and active, and have a powerful influence on his character, giving him both moral and physical courage, and disposing him to maintain tenaciously the position he has taken, and to express his convictions without fear or favour. Possibly prejudice, affection, or aversion may help him to form his opinions, but

when formed, and his position taken, opposition only makes him hold on the more firmly to them.

All his executive powers are strong, so far as his brain and mind are concerned ; consequently he is terribly in earnest,



and expresses himself in a forcible and straightforward manner. His only failure in his efforts arises from the want of more of the Motive-muscular temperament to sustain him in his effort.

Cautiousness is large, which helps to make him prudent in what he does ; but not having large Veneration or Secretiveness he may not be so discreet in what he says.

Self-esteem and Veneration being only average, he is not in danger of over-rating men or mankind in general ; nor will he be carried away by ceremonies and appearances ; yet with his large Conscientiousness and Benevolence he will place full value on men, with less distinction than is shown by fashionable persons, and will want equal justice administered to all, without reference to rank, colour, or position. He can be, and is, liable to be severe in his denunciations of injustice or inhumanity to anyone. His Benevolence being more powerful than his Destructiveness, both his theology and his politics would be affected by this condition of his mind ; hence he is opposed to war, and would fight for peace rather than not have it ; especially if fighting with tongue and argument would secure it.

He has just imagination and wit enough to give scope and relief to his ideas, and pith and point to his remarks. Opposition is quite essential to the full development of his power. He is better in replying to the arguments of others than he is in starting the debate, or in laying down first principles.

Few show their character so distinctly by their organisation as he does ; for his whole nature is in full sympathy with what he is doing, and his mind, as a whole, is more completely developed than that of most men. His strong affections and domestic nature warm and vivify his whole nature. His great executive power stirs up his whole nature. His great sense of character and his ambition stimulate his whole nature. His great circumspection regulates his whole nature. His unbounded sympathy mellows his whole nature. His large central-frontal lobe gives point and definiteness to his whole character.

His combination of faculties would produce many phases of character, which would be manifested as occasion calls them out. His large Conscientiousness, Benevolence, and domestic feelings, would dispose him to be kind to animals, and to feel and enforce the duty that we owe to them as well as to mankind. His high brain and strong moral sense give elevation to his whole character ; the broadness of his head at the temples gives versatility and scope to his whole mental operations.

His large Order, and great literary industry, give discipline and system to all his mental efforts. The smallest organs of his head are Acquisitiveness, Secretiveness, Self-esteem, and

Veneration. The largest organs of his brain are Benevolence, Conscientiousness, Friendship, Approbativeness, Combative-ness, Cautiousness, Comparison, Observation, Order, Constructiveness, and Ideality; consequently it would be as easy for him to labour for the welfare of others as for himself; to make personal sacrifices for the sake of others; to follow duty instead of expediency; to instruct the people in his speeches rather than to tickle their imagination with rhetorical flourishes.

Under some circumstances his feelings might become so excited as to warp his judgment; but when the judgment is right, and the impulses are in harmony with it, he is a power for good, and no man is more honest in his convictions, or more true to his instincts than the Right Honourable John Bright. [Our portrait is from *Leisure Hour*.]

IS PHRENOLOGY A SCIENCE?

There are some minds that are for ever exercising themselves about something they call science, though of what that something consists they do not seem to have any very precise or even tangible notion. The word appears to be a shibboleth whereon they ground pretensions to somewhat above the ordinary run of minds. If you get into argument with them, you find they are as vague in their statements, and as unprecise in their generalisations, as the most "unscientific" of individuals. Moreover, it will be found that, instead of being, as simple inquirers after truth should be, content to follow facts, no matter where they may lead, they are most prejudiced, and too often ready to be guided by preconceived notions. One is constantly meeting with instances of the complacent denunciation of phrenology by such "scientists." An instance of the kind was not long ago afforded by a periodical styling itself *Replies*, which pretended to give trustworthy information on every known subject to needy inquirers. A question having (supposedly) been asked about phrenology, the editor, or one of his "scientific" assistants, proceeded to sum up "the pretensions of phrenologists" in a few sentences, concluding by setting down phrenology as dead.

Putting aside the question of the truth or falsity of phrenology, I would simply put the query,—whether, science being a matter of facts, of complete knowledge, a man can by any stretch of courtesy be called "scientific" who, writing about a subject, says it is dead, when those who believe in and investigate it are numbered, not by the thousand, but by tens of

thousands? A subject in such a position, however false, cannot be called dead.

But observe the prejudice, nay, the rank injustice, of these pseudo-scientists. In the article in question, the writer, speaking of the third frontal convolution, which is now acknowledged by all anatomists to be the seat of the faculty of speech, tells us it was discovered by Broca, though foreshadowed by Gall. To Broca is undoubtedly due the honour of having established the fact that disease or lesion of this convolution interferes with the power of language; but when Gall pointed out that the convolution situate at the posterior part of the supra-orbital plate caused the eye to project, and that persons with such projecting eyes were distinguished for verbal expression, he did more than "foreshadow" a notable discovery. And then note the consistency there is in first acknowledging that one of the facts "foreshadowed" by Gall has been fully established by later anatomists, and then complacently concluding that there are no foundations in fact for the assumptions of the phrenologists. The article in question was not worth the attention I have given it, except as a specimen of the kind of treatment phrenology gets at the hands of these pseudo-scientists.*

It is worth while to restate here what are the principles of phrenology. It asserts first that the brain is the organ of the mind—an assumption that few at the present day will be bold enough to deny. It further asserts that the brain is composed of a congeries of organs, each of which has a special function to fulfil. We have seen that the opponents of the science acknowledge that special portions of the brain have special functions, inasmuch as they recognise that language has its particular cerebral centre. "Oh, but," they say, "this is the new phrenology—not the old." The "old phrenology" is their *bête noir*—possibly because they have denied it and been unjust towards it; for there is nothing men hate so much as the person or thing they have been unable to appreciate.

The third principle of phrenology is that the brain shapes the skull. Now although it is as plain to intelligent minds as anything can well be that the brain-case is shaped by its contents, yet there is nothing about which so-called scientists have cavilled so much, and still in the long run they are obliged to acknowledge it. But, say they, as the writer of an

* It is worthy of remark that the publication in question (probably meeting with the support its ability merited) is now in other hands, under another name, and shows a better appreciation of actual facts than formerly.

article now before us does, "bumps" are placed "in regions utterly influenced by the growth of the brain." A man who can make a statement like that is open to one of two charges: he is either telling an untruth, or he has never properly examined the subject he treats of. I should presume the latter is the true explanation, as we generally find that those who write so glibly about "the collection of childish theories known as phrenology" have never taken the trouble to get other than the most superficial knowledge on the subject. Or, when every other ground of objection has been taken from under their feet, they come to the old block of stumbling—the frontal sinus—and tell us: "If you cannot measure in every case how much a man's frontal development is due to sinus and how much to actual brain, even to a hair's breadth, it's all up with your phrenology. How can you expect anatomists and physiologists to accept phrenology unless you can do this?" Physiognomically, the sinus presents a difficulty, but if the sinus were harder of estimation than it is, it would not disprove the truth of the science; it would simply present one of those difficulties which every science has to contend with, and which it is the pride of science that it gradually overcomes. There are no two astronomers that have given us anything like approximating estimates of the volume of the sun, or of its heat; some of their estimates are double and even treble those of others; but we do not for all that say there is no truth in astronomy. Or, to take another instance, how various have been the computations of geologic time, differing by millions of years, and yet we do not, therefore, decide that there is no truth in geology.

Is it necessary to be continually repeating that phrenology does not pretend to be a perfected science, but that there is still much to be learned with reference to it, and that there is consequently room for earnest investigators? One would think that common-sense would suggest this reflection; but the opponents of phrenology seem to lose this quality.

Phrenology claims to have collected together a mass of facts, and that, so far as they go, they help us to an explanation of the mind. A few years ago the whole of these facts were denied; but the further investigations are pushed into the anatomy and physiology of the brain, the more fully are the "assumptions" of phrenology verified. Even the writer of the article more particularly under review,* gives a number of facts which are strongly confirmatory of phrenological science. He is trying

* "Skulls, Brains, and Souls," by Thos. Dwight, in the *International Review*.

to prove that the brain is "the index of the soul," although all that he establishes is that there is a correspondence between the development of the brain and the manifestation of mind. The difficulty he has to contend with is that he does not take into account quality of brain, and the region in which it is developed, and so when he finds a man like "Jim" Fiske, Jun., possessing a brain weighing 58 ounces, "surpassing Daniel Webster, Chauncey Wright, Dupaytren, and a mathematician of the first rank," he cannot hide his surprise. Were he not so prejudiced he would probably seek an explanation of the apparent anomaly in phrenology, which would tell him that a brain may be large without necessarily being predominantly intellectual. Indeed the wonder is that the explanation did not suggest itself to him, for he tells us that "there is some reason to believe that the anterior lobes are the most intimately connected with intelligence."

All the way through the article he is confronted with this necessary solution to his difficulty; and yet he does not seem to have the sense to see it, or he is afraid of facing the *bête noir*. For instance, he gives us the result of a series of observations, recently published by Dr. LeBon in a paper which the Société d'Anthropologie has honoured with a prize. "Among other methods of investigation," he says, "he classified the circumferences of about twelve hundred heads, which he obtained from a fashionable Parisian hatter. He divided these into four groups, according to the social position of the persons measured. These were the learned (*savans et lettrés*), those of the middle class (*bourgeois*), nobles of old family, and servants. The mean size of the heads of each class was found in the order given. The nobles were but very little below the *bourgeois*, less than the *savans* were above them. The striking feature of the class of servants was the rarity of really large heads among them." After telling us that "the value of the classification is, at best, very doubtful," he goes on to say that "if not a demonstration, this series of observations is at least a strong suggestion that the brain increases with intelligence;" adding, however, a line or two below, "but it does not follow that in individual cases there is any rigorous relation between the weight of the brain and the degree of intelligence." Of course not; but does he not inform us on the next page that "intelligence is not the soul, but only one of its faculties, the will being another"?

Space will not permit me to examine fully the writer's criticisms with reference to measurements of the female skull. To one statement, however, I would offer a remark. He says: "Possibly it was anxiety concerning '*dulcis Amarylidis iræ*'

which induced Dr. Wight to assert rather irrelevantly that 'under similar circumstances of mental work and heredity the female brain would fully equal the male brain.' This looks more like a propitiatory offering than a scientific statement." Whatever it may look like, the assertion has strong support in fact, as every practical phrenologist well knows, and as the writer of the article, "Skulls, Brains, and Souls," will confess when he has as much practical knowledge about heads as a phrenologist ordinarily possesses. But the fear is that it is not fact with which this writer, and others of his class, is concerned, but theory. There is always some preconceived notion persons like him wish to support; and until they are willing to set such aside and be satisfied with the discoveries of science and the inferences they warrant, the cause of truth will not gain much at their hands.

J. W.

HOPE.

(From the German of Schiller.)

Men often talk and often dream
Of better days in store;
We see them after some golden gleam
Chasing evermore:
The world grows old, and again grows young,
And still the hopeful song is sung.

Hope ushers the infant into life,
It doth the boy enfold;
It spurs the young man to the strife,
It dies not with the old;
For when in the grave his hopes are lain;
There Hope—in the grave—takes root again.

It is no vision delusive and vain
Of foolish fancy born;
'Tis an inward voice that still and again
Bids us look for a better morn;
And the promise the heart from its depth hath spoken
Will ne'er to the hopeful soul be broken.

OUT-DOOR OCCUPATIONS FOR WOMEN.

When the fact is thoroughly understood that a large proportion of women are suffering to-day from disease and ill-health through the want of more out-door occupation, then, and not until then, will facilities be given to enable them to obtain thorough instruction in those pursuits which are not only remunerative but conducive to robust health.

That woman can do any *remunerative* work in agriculture or food cultivation is a point of conjecture in many minds: farming being considered one of the things to which they cannot attain. But we purpose showing that what has been done successfully in a few cases in this department of work by women, is rapidly becoming a more general vocation. We agree with the writer who says he sees no reason why women of capital, and women to whom land has descended or been suddenly left upon their hands, should not take to the work and carry it out with success.

Women are known to cultivate their gardens and superintend their greenhouses for pleasure; why should they not be able to do so for profit, and make it a serious pursuit for earning a livelihood? At the last census there were no fewer than 2,200 women farmers in England and Wales, some of whom took first prizes offered by the Royal Agricultural Society. Mrs. Millington is a worthy example of a lady farmer. She has shown, by the result of years of good management, that she possesses great energy, perseverance, and power of organisation, so that in 1870 she successfully competed and carried out the conditions of the first prize, which were—general management, with a view to profit, productiveness of crops, suitability of live stock, management of grass-land, state of fences, gate-roads, and general neatness. She is not the only example we could give, as one of the best farms in East Lothian has for some years been under the successful management of a lady.

There are but few departments in out-door work for which women cannot fit themselves if they chose, while there are many branches specially adapted to their patience, intuition, and keen sense of touch or "delicate fingeredness." Many women who believe that industry is the foster-mother of social virtue, who have found that Monte Christo's fortune is not showered upon all alike, have discovered that their motto must be "To work and win," and have made themselves Queens of the Meadow, by being early and late in the field and dairy. Travel north or south during the harvest, and

women are to be seen dotted up and down with implements in their hands working heartily.

It is a grave fact that so large a proportion of fruit and vegetables has to be imported into England to meet the demand of the markets. Mr. Gladstone is of the opinion that the growing of flowers, vegetables, and fruit might become lucrative industries in this country; industries pursued upon a considerable scale and capable of yielding a very large return. He says there are £1,704,000 worth of raw fruit—such as can be grown in this country—imported, and a still larger quantity of foreign vegetables consumed here; there being, in fact, over £5,000,000 worth imported, £2,386,000 worth being for potatoes alone. Mr. Gladstone recognises the fact that there is a natural taste on the part of the people to cottage gardening, and a vast deal of profitable industry might be set in motion by the extension of this cottage gardening, by the introduction of spade cultivation, even upon larger masses of land than are at the command of cottagers. It is gratifying to be able to quote such words from an authority like Mr. Gladstone, for they endorse the idea we so strongly wish to urge: that far more productive labour might be done in England through the cultivation of vegetables, fruit, and flowers. If women who are physically or mentally incapacitated for studious or sedentary occupations would but turn their attention to this department of labour, they would not only benefit their own health, but greatly diminish the sale of imported food, and relieve the crowded and ill-paid house and shop situations of scores of their fellow-creatures. Several beginnings in this direction have already been made in this country. One is the proposal to establish a Woman's Horticultural College. The idea is a capital one, and if carried out on the American or continental plan, cannot fail to become a national boon. Another step has been taken, by the formation of an Association for the Promotion of Food Culture among Women. This association already acts as an agent for those who desire out-door work; and as soon as the necessary fund of £2,000 is in hand, a school for general instruction in gardening, in poultry-keeping and stock-feeding, in dairy-work and bee-culture, will be established on a small and suitable farm: for practical training is as necessary in this work as in any occupation. As it is of paramount importance, that to thrive well everything should be under the personal superintendence of the owner, so ladies who undertake this work should know not only how to direct, but also how to do the work.

An able writer in the *Englishwoman's Review* sensibly

points out that there is a great deal of exaggeration in the dread so often expressed in regard to women engaging in agricultural pursuits, that they are too arduous, and expresses the opinion that they are really not more trying to the muscle or the constitution than the daily wear and tear in household work; beside, much of the work suggested by the Association for Food Cultivation for Women can, in inclement weather, be done under cover, such as the greenhouse work and stock-feeding. But while the idea of outdoor work for women in England is just commencing to receive attention, much scope has been given to the idea on the continent and in America, and therefore more progress has been made there. One of the chief agricultural schools of France is at Darnetel, near Rouen. The present school, which was started with a capital of one franc, is now worth £32,000. The establishment has grown to be of so much importance, that there are now over 300 occupants. The farm, entirely cultivated by women, is over 400 acres in extent. More than one medal of the French Agricultural Society has been awarded to this establishment, and the pupils are in demand all over Normandy on account of their skill. They go out as stewards, gardeners, farm-managers, dairy and laundry women, &c. The studies are sensibly divided into three parts. The first part comprises nine branches: 1st, the formation of a kitchen-garden and the culture of flowers; 2nd, the mode of preparing the soil; 3rd, the guanos and their application to different soils; 4th, the cultivation of early vegetables; 5th, instruction in sowing seeds and cereals; 6th, various modes of watering plants; 7th, tubers, roots, herbs, and seedtime; 8th, the harvest and the best modes of preserving produce; 9th, noxious plants and animals. The second course treats of special cultures and the best means of improving them. The third and final course is principally for women who are qualifying themselves to take the direction of large farmsteads. They are taught domestic arrangements, dairy and other farm work; while lectures are provided on hygiene, on the nutriment afforded by various kinds of food, &c. It will be readily seen that the scope of each department is broad and thorough.

In one of the cantons of Switzerland there is a normal school, in which pupil-teachers, both men and women, are taught agriculture, horticulture, and floriculture. Denmark also has her agricultural school for women. And although none of these institutions are as yet so complete as they might be, still they are precursors of greater things.

In America, where the idea of out-door work for women is

more universally entertained, we find schools dotted here and there for the advancement of practical knowledge in the various branches before alluded to. There is a capital school in New York State, which offers a thorough education in the theory and practice of horticulture, including the growing of fruit, vegetables, and flowers, both in the open air and under glass. Pupils who were delicate in health when they entered the school have all improved, and can do a fair day's work in the garden without any unusual fatigue. A full course comprises a period of two years, and further includes the art of canning and preserving fruits, arranging bouquets, &c. The State of Iowa also possesses an agricultural college, where classes range in various degrees according to the age and capabilities of the students. The senior classes embrace instruction similar to that given in the continental schools, which is enhanced by the best instruction in science, mathematics, and English literature; and it is intended that ere long the department of domestic economy shall stand abreast of these in thoroughness and efficiency.

Apiculture will be found by the feeble and weak in bodily strength to yield them profit and enjoyment. Women who lack vigour of constitution when they first commence this work can care for only a few colonies at the onset; but with proper care and thought, the work may be carried on during the hours when the sun is not at noon-day heat, and colonies need never be carried when full. Energetic thought, skilful planning, promptitude, and perseverance, make up for physical weakness in this department. The pure air, sunshine, and exercise, as they increase and improve health, enable the work of each successive day to become less arduous and fatiguing, and permit of a corresponding enlargement in the size of the apiary for each successive year. One of the most successful apiarists sought to regain her health by bee keeping.

We could give many examples of women who have become successful agriculturists in America, particularly in the Western States. Mrs. Longley is a noted farmer in Massachusetts. Upon the death of her husband she let her farm out in shares, but it gave her expense and not income. She thereupon assumed the management herself, the result being that the farm is now in good condition, and pays both in money and health. She has proved the truth of the old couplet—

“Whoso by the plough would thrive,
Himself must either hold or drive.”

The Princess Dora d'Istria, in her preface to *Ma lame Fol-*

liero's work on "Work for Women," points out the national value of agricultural pursuits. While she blames the conventional notions which lead the educated classes to give undue pre-eminence to the so-called liberal professions, she deprecates as not less hurtful to the social health the tendency of the working classes to crowd into the towns in search of amusement and a bare living, "*du pain et les jeux du cirque*"—a poor return for country work and fare.

Among the agricultural exhibits in the late Paris Exhibition were some interesting specimens of female workmanship. There were beautiful golden cocoons from the silk-growing departments, with exquisite samples of raw silk. There were also bees and the sweet food they make, and the most improved arrangements for apiaries; and among other specialities was the cultivation of fruit-trees and vines in pots for city and suburban gardens.

One lady sent from Christiana some wild flowers dried by a method which preserved both form and colour. They were artistically arranged, and appeared as if just gathered; they will, however, last for many years.

In conclusion, I would say, Let the women of England, and not only of England but of the world, take advantage of the privileges which have opened to them nearly every avenue of industry for the exercise of their mental and physical powers, and whatever they do, be it in the home circle or abroad in the field of competitive labour, let it be done so perfectly that the good results of their work shall verify the truth of the words: Women can do whatever they thoroughly fit themselves for, and then will cease the fears of those who are always repeating the cuckoo song, that woman's place is only in the house.

J. A. F.

THE FACE AS INDICATIVE OF CHARACTER.

CHAPTER II.

In the last chapter we described the Motive and Vital temperaments. We now come to the Mental or Nervous temperament. As the name implies, it is determined by a predominance of brain and nerve, or that portion of the system called into exercise in the production of mind as such—thought, feeling, sensation, memory, &c. It is not necessary for our present purpose to describe the constitution of the brain further than to say that it is composed, for the most part, of a mass of nervous matter, and that it absorbs more of the life-element of the blood in proportion to its volume than any

other portion of the system. It will be readily perceived, therefore, that a person with a large and active brain will use up more vitality than one with a smaller brain, and that, consequently, more nourishment, in proportion, will be required; or, if a proportionate amount of nutriment is not taken, that there will be less fulness and rotundity of form. In other words, there will be a tendency to thinness and leanness. This habit of body will have its parallel in the face, for the face is an index of the state of the whole system: not only its healthy, but its diseased condition are fully indicated in the face. Hence, where there is a predominance of the Mental temperament, the person is characterised by a frame relatively slight, a head relatively large, and "by fine, thin hair, thin skin, small, thin muscles, quickness in muscular motion, paleness of countenance, and often delicate health."

Persons with a high degree of this temperament are extremely susceptible to influences of every kind, are refined and delicate in feeling and expression, and easily disgusted with anything coarse or vulgar. They enjoy and suffer in the highest degree, and are subject to extremes of feeling. Their sympathies and antipathies are easily excited; and they experience a vividness and intensity of emotion, a clearness, promptness, and rapidity of perception and conception, and a love of mental exercise imparted by no other temperament. Such persons, consequently, are liable to overdo and prematurely exhaust their physical powers, which at best are none too good. The accompanying portrait of the Rev. R. Watson presents a good specimen of a highly mental temperament. A more susceptible type of organisation, combined with clearness of thought and intensity of feeling, could scarcely be found. The portrait of Mr. John Ruskin (see June number) indicates a high degree of the Mental, with a fair degree of the Motive, but less of the Vital. In Mr. John Bright we have a predominance of the Mental and Vital.



Fig. 3.

The Mental Temperament.

It need scarcely be said that a somewhat even combination of the temperaments is the most conducive to health and to efficiency. "A well-balanced temperament," says Mr. Fowler, "is by far the best. That most favourable to true greatness and general genius, to strength of character, along with per-

fection, and to harmony and consistency throughout, is one in which each is strongly marked, and all about equally developed." An excess of the Motive, with a deficiency of the Mental temperament, gives power with sluggishness, so that the talents lie dormant. The Vital in excess conduces to physical power and enjoyment, but detracts from the mental and moral, so that there is a tendency to coarseness and animality. An excess of the Mental confers too much mind for the body, and often leads to an excess of exquisiteness and sentiment. An equable balance of the three conditions gives an abundant supply of vital energy, physical stamina, and mental power and susceptibility. Persons with such a constitution unite cool judgment with intense and well-governed feelings; great force of character and intellect with thorough consistency; brilliancy with depth; rapidity and clearness of thought with mental and physical endurance.

But when we have described the temperaments and indicated their general influence or character, we have not exhausted all that must be taken into account in judging of disposition, &c., from the organisation as a whole. It is very essential, for instance, to take into consideration quality of organisation. By quality we mean something above temperament. Each of the temperaments may be of high or low quality. As all of them, however, take their character primarily from the brain, it will suffice to indicate the general form of cephalic development.

A large base of the brain generally goes along with an active Vital temperament, combined with the Motive. When this portion of the brain is developed at the expense of the higher faculties, there is a tendency to lowness of type; while in proportion as the head is higher and fuller in the frontal and coronal regions is the increase in quality manifest. In other words, quality of organisation depends very much on the direction in which the mind works. If to sensual gratification merely, the quality will be low; if to intellect, imagination, and morality, it will be higher.

A good idea will be obtained of our meaning by comparing the accompanying face (Fig. 4) with that above. In the case of the Rev. R. Watson the head is developed in the upper part, while it is narrow in the base. Hence, thought and



Fig. 4. Marat.

feeling being elevated, the quality is high. In Marat there is no lack of the cephalic (Mental) temperament, but, the brain being very largely developed in the basal and posterior regions, and being low in proportion, quality is not high; and Marat, although he exerted a most powerful influence on the course of the French Revolution, was noted for the lowness and vulgarity of his tastes and proclivities. We shall have occasion to return to this subject in the sequel.

It should be said here that, as a general rule, the amount of base there is to the brain may be judged of by the breadth of the face between the ears. If the face be broader at this part than above, it may be assumed that, *ceteris paribus*, there is a predominance of propensity over intellect. Where the lower part of the face is broad and heavy, the passions are generally active. That is, the posterior portion of the head is well developed.

Another important element to be taken into account in judging character physiognomically is the healthiness or unhealthiness of the organisation; for idiosyncrasy is often as much determined by physiological or pathological conditions as by inherent mental qualities. For instance, peevishness, sourness of disposition, vixenishness, despondency, melancholy, lethargy, irritability, &c., are generally the result of a low state of health, or of some constitutional excess or defect; while cheerfulness, hopefulness, energy, activity, and evenness of temper are caused by a constitution that works without extreme ups and downs. How much the smooth motion of the wheels of society and the world depends on good digestion! Many an unjust, unkind, or unpolitic act has been committed simply because the actor was suffering from a fit of indigestion, dyspepsia, or gout. In like manner, imperfect performances in other respects—in manual labour, in business, or in thought—often result from indifferent circulation, or from nervousness, consequent on too little exercise, or on sleeplessness.

The face is a perfect index to the state of health. Everyone knows a healthy face. It requires no expert physiognomist to point out the person who is enjoying robust health and the one who is suffering from ill-health; but when it comes to particulars the general observer is at fault. We shall be able to show, however, in the next chapter of this series, that the face indicates a great deal more than the general condition of health or the reverse.

To labour diligently and to contend is, says the son of Sirach, a sweet life.



ROBERT RAIKES.

Few men living in an humble sphere, and with humble means, have exerted the influence on society that the subject of this sketch has. The particulars of the life and labours of Robert Raikes are well enough known, and are at the present time in almost every one's thoughts. The peculiarities of his mind, however, or, in other words, the power wherewith he effected what he did, are not so well known, and may be interesting to many, the more so for the reason that they show in a striking light what may be done by thoroughly earnest, although not highly-gifted individuals.

In looking at the portrait of Raikes, the first thing that arrests attention is the placid genial tone of mind, as indicated by the ro-tund features and form. Harmony of mental action must have been the result of his even, uniform organisation. He has none of the indications of a Radical, an innovator, or revolutionist, and yet through the action of his strong domestic feelings, his love of children, his deep religious convictions, and his untrammelled sympathies, he was the means of introducing the most useful institution of the age—the Sunday-school. It was a suggestion almost accidental, but coming from a sense of the deplorable condition of the children of his neighbourhood, and the evil consequences of allowing them to come into manhood and womanhood in such a depraved and ignorant state. It was his interest in the moral and social well-being of children that led him to stop and pay attention to their condition, but it was his large perceptive intellect and practical talent, acting with the

interest he took in the welfare of children, that led to the inquiry, Can nothing be done to remedy the evil? and this led to the idea of a school on Sunday, which was a great innovation on the then mode of observing that day.

His Individuality was very large, and the central organ of his intellect, as seen by the great prominence of the lower central forehead at the root of the nose, between the eyebrows. This led him to be a close observer of men and things, and to gather knowledge from observation. The central portion of the forehead, from the nose upward, is large, giving him ability to gather facts, to remember events, to take note of the actions and conditions of society, enabling him to collect a vast amount of practical information, and to use it in the most appropriate manner. Comparison and Human Nature being large, aided much in giving him penetration, intuition, sagacity, and definitiveness of thought and discernment of character, thus disposing him to act, talk, and write with reference to definite results. With his sharp, high forehead, he could not easily become a mere visionary theorist or a speculative philosopher. Mirthfulness and Imitation were not large; from his genial nature he may have been easy in his manners, and from the strength of his sympathies and social feelings, pleasant and entertaining, yet he was much more in earnest than given to facetiousness and wit.

He had large Order and Calculation, which gave him ability to form correct estimates, and to do everything according to some plan. Language being large, joined to his large perceptive intellect, enabled him to express himself copiously and correctly. He had a favourable organisation for a speaker, writer, or teacher.

His head was rather broad in the region of Acquisitiveness, Secretiveness, and Cautiousness, giving him economy, forethought, and a due degree of reticence. He was high in the crown of the head, showing that he possessed self-respect, sense of character, and settledness of purpose; that he was disposed to deal justly with himself and others, and that he was more dignified and manly than ambitious or familiar.

His head is high, and fully developed in the coronal region, indicating an elevated tone of mind and a high sense of moral obligation, a strongly religious leaning, and a sympathy for and interest in the welfare of others, that modified his whole character. There is no indication either in his features or form of head of a low or gross tendency of mind, but on the contrary, he has all the indications of taste, refinement, imagination, and literary ability.

It was, then, his practical utilitarian turn of mind, joined to a deeply sympathetic nature and a keen interest in the welfare of the young, that stimulated Raikes to seek a remedy for the great evil that bid fair to ruin the rising generation of his day; and although it is not for everybody to set in motion operations that accumulate in influence, year by year, as the one he started does; yet everyone may feel assured that a good thing begun is never wholly fruitless, but sooner or later will have its due effect.

ONLY HALF A HERO.

A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER VII.

A few days after the action near Vernez, Diedrich Hammelfleisch, the scholar, was seated with two or three comrades in the cabaret of that village. It was anything but a cheerful-looking interior. The ceiling was low, and black with smoke and dust, while the walls were covered with discoloured prints depicting sanguinary battle scenes, and dismal pictures of dancing girls. Nor was the effect improved by the presence of the innkeeper, with his grim, uncomely face. It was like a battered copper kettle, and seemed made to express the accumulated woe of afflicted France; very different from the visages of his unwelcome guests, whose placid good humour possessed an infectiousness against which the gruffest natures were not altogether proof, and which occasionally caused even the fuliginous visnomy of Jean Guepe to relax and contort itself into a smile. This attested his humanity, for no creature except man ever laughs or smiles; although there are instances of dogs breaking into something very like laughter, which shows that they have improved by neighbourhood with man; and, indeed, there are not wanting other proofs that the canine nature has benefited by human companionship: for curs, too weak or cowardly to fight their own battles, have been known to get together all the mongrels they could force or induce to espouse their quarrel, and so to fall upon and despoil their enemy, very much after the manner of kings: they have only not yet learned to call the effects of their blood-thirstiness Glory, which shows that they have still much to learn. Jean Guepe's grins also attested his nationality; for nothing wrinkled his face into the semblance of a smile so quickly as the attempt of his amiable Teuton guests to speak the language of civilisation. Like the generality of his countrymen, he had the sublimest contempt for persons—no matter what their nationality—who halted in their French. To him there was no language but that he had learned from his mother, and those who could not speak it were as children in his eyes. He could no more comprehend how anyone could get on without knowing that language, than the Lancashire man translated to the French capital was able to understand a Parisian dog's ignorance of English.

If there was one man among his military guests for whom

Monsieur Guepe had great respect it was Diedrich Hammelfleisch, and that for the reason that the scholarly soldier could speak the French language with almost native purity, and because, too, he was a good listener. The cabaret-keeper liked to talk—liked to express the grief it caused him to see his country desolated by a foreign foe; to tell how much it galled him to have to minister to the wants of those foes, and how, had he been younger, he would have preferred to shoulder the chassepot and take his place at his risk in the ranks; but his fate had ordered otherwise. He not unfrequently wearied the young soldier with his dismal complaints, though the latter bore the infliction with philosophical equanimity; moreover, Hammelfleisch did not stand much on ceremony with his lugubrious host, and when he had had enough of him he would say—

“Now get thee gone, Jean Guepe, and send thy daughter hither, that I may talk to her.”

Jeanne Guepe was the very antipodes of her father; she was as opposite to him as day to night, as spring to autumn, as gay flower to blackened trunk, and was as fair and fresh and sweet as day and springtime and newly-opened flower. Everyone in the “Lion d’Or” felt better when she showed herself; the rough jest was left untold, the ribbald song unsung, and every lip broke into a smile as at the approach of a friend, or something better. The relationship between her and the unlovely dispenser of liquors she called “Mon père,” was one of those riddles Nature delights in; she being less his child than the child of a long line of ancestors, all of whose better qualities had been concentrated in her. Her peasant costume sat on her like a queen’s, and she seemed to shed an aroma around sweeter than the most costly of cosmetics. The grim, Tartar-faced, truculent innkeeper regarded her as the apple of his eye, while she hovered about him and threw a halo of affection around him, such as only a tender and devoted woman can. He seemed to have perfect confidence in her, and yet one day when Hammelfleisch asked after her, he said, in a half-minatory, half-apologetic tone—

“No trifling with her affections, Monsieur.”

“Hark thee, Jean Guepe!” answered the soldier, quietly drawing his pipe from his mouth. “I have taught one maiden how to love, and when she had learned her lesson she went and bestowed her affections on another. Think’st thou I would undertake the tuition of a second?”

The conversation, be it remembered, was in a tongue in which to address another in the singular second person comes more naturally than in ours.

"I know not, Monsieur. You seem to be an honest gentleman, and I would fain trust you ; but, you know, my daughter —"

The innkeeper's voice became husky, and he found it hard to proceed. Hammelfleisch watched him while he blew out a long whiff of smoke, and then said—

"Get thee to thy liquor-drawing, Jean Guepe, and fear not for thy daughter. Diedrich Hammelfleisch has chosen a mistress that is less fickle than woman."

On the evening in question the fair Jeanne did not show herself, and the landlord having enough to do waiting on his customers, Hammelfleisch sat in a corner by himself, diligently making tobacco-ash and smoke. His comrades had gone, and he had fallen into a brown study. His thoughts wandered to and fro, mingling the past with the present, and calling up the forms of those with whom he had been brought most prominently in contact. One of the faces that thus came up before his mind's eye was that of a fellow-student, with whom he had formed a close and pleasing friendship at Leipsic. As he sat there, with his eyes fixed on vacancy, or rather as vision lost itself in the volume of smoke arising from his pipe, the face of his friend fashioned itself to his sense with peculiar vividness. He could not think what it was that had brought up the image, and began to analyse the process of evolution, when suddenly the face showed signs of life very improper for a mental picture. Thinking he was the victim of an illusion, he waved his hand to disperse the smoke, and started to find that his supposed imagination was a reality. At the opposite end of the public room of the cabaret to where Hammelfleisch was sitting, a portion was screened off for the use of officers. One of the screens, however, was partially removed, allowing an end of the table to be seen. It was at this table, directly facing Hammelfleisch, that the young man was seated at whom he had been gazing, thinking it was a mental vision.

"Gott im Himmel !" exclaimed the young soldier, waving his hand to drive away the smoke. "It is he !"

The exclamation had hardly escaped the young man's lips when the officer rose from the table and prepared to leave. Hammelfleisch stepped forward to meet him, but still hesitated, as though undecided whether it was he for whom he took him or not. The officer, noticing the other's motion and hesitation, looked at him inquiringly, started, looked again, and then advancing hastily, exclaimed—

"Himmel ! Bist du es Diedrich ?"

"Yes, it is I, Gottlob."

It was as good as a salve to a sore heart to see how heartily the two young fellows embraced each other; especially in these days, when it is considered the proper thing to make friendship subservient to business, professional and other interests.

"But how you have changed," said Hammelfleisch; "I hardly knew you—at least I had my doubts."

"One cannot say that of you, Diedrich," replied Captain Durer—for it was he. "You are the same unmistakable—and I suppose inimitable—Hammelfleisch. Browened a bit with powder and the weather—that is all. But how have you fared so far in this war business? You look hale and hearty any way."

"Yes, whole in skin, but terribly sick at heart. I heartily wish the business were over. Now that we have thrashed the enemy I think we might leave them alone."

"Ah, I see where your heart is," said Gottlob. "You want to be back at old Leipsic with your books. They were very pleasant—those university days, with their *sans souci*; although I'm afraid they were not of much profit to me, so far as learning went. But, by the way, what has become of the little Fraulein—the fair Mina, to whom you used to write so many verses, polished at the expenditure of so much midnight oil?"

"Gone the way of all flesh," replied Hammelfleisch, dolefully.

"Not dead, surely?"

"No, gone to the altar" (with affected indifference).

"With whom?"

"A rich tailor."

"What a descent!"

"By no means; on the contrary, she rises a step. Nadelstich—you know Nadelstich?—he has very intimate relations with the Court. The courtiers, indeed, owe what they are to him and his art; without him they would have no advantages beyond those enjoyed by a rude Caffre. His *boutique* is a kind of ante-chamber to the Court, perfumed with something of the cast-off odour of royalty and nobility. Could she have a finer atmosphere in which to bring up her children?"

"Ah, Diedrich, I see you are as great a *farceur* as ever! But how about the *tendresse* we know someone had for her?"

"Died of a cold," laughed Hammelfleisch. "But I am on duty to night, and must go. Perhaps I may see you here to-morrow?"

"I will look out for you," replied Captain Durer; "I want to have a long talk about the old days. Farewell, till we meet again!"

The following evening saw the two young men seated together in Captain Durer's room. Some dry logs were crackling cheerfully in the stove, and though the wind was moaning dismally outside, everything looked warm and comfortable within. Durer had fallen into a reverie and was watching the flickering flames. Hammelfleisch was busy with his pipe, but regarded his friend attentively.

"Tell me, Gottlob," said the latter at length, "what it is that has changed you so in these two years? It strikes me you, too, have felt the gentle passion."

"Gentle, do you call it?" replied the other, without taking his eyes off the fire.

"Well, it is just as it happens," said Hammelfleisch. "It is like fever in children: some it takes so gently that its influence is hardly perceptible,—it increases the pulse a little—that is all; others it attacks so ferociously that it well-nigh tears them to pieces, and if they escape with life, they seldom do without a scar."

"And of which sort are you?" asked Durer, looking at his friend with a short laugh.

"Oh, I took love as I took the measles. I remember my mother saying she never knew a child go through them as I did—I was no trouble at all."

"Then the loss of Mina did not cause you much trouble?"

"Well, you see I have survived it. It cost me a few reams of foolscap, and probably half-a-gallon of ink, which is not much, seeing how you have sometimes to pay for medical treatment."

"You mean," said Durer, smiling, "that you worked off the fever in versifying."

"Just that," replied Hammelfleisch, "and a capital safety-valve it is. Besides, you may take your revenge by selling the product."

"Did you, then, take your revenge on Mina in that way?" asked the Captain, with a laugh.

"Well, you see, it happened thus. That cynic of the *Musenalmannak*, Grosskopf, purloined some quires of my foolscap, and before I was aware of the theft the effusion was in print. The first intimation I had of the fact was a copy of the periodical and a twenty-thaler note."

"Which I suppose you spent on tobacco, and so converted your flame into smoke," laughed Gottlob.

"Not a bad ending, either, eh?"

"It would seem not. But I wish, Diedrich, I could be a philosopher, and take things coolly like you."

"It is a talent not given to everyone," replied Hammel-

fleisch, who added, "I was right, then, in reading the effects of love in your altered expression?"

"In what am I altered so much?"

"In having a look of disquiet that you never used to have, and that no man has who is content with himself and the world."

"I am certainly anything but content with myself, and perhaps very little more so with the world. To tell you the truth, I hardly know myself since a few days ago. Whether it is love or hate that has made the change I cannot tell. I will leave you to decide when I have made my confession. You compel my confidence, Diedrich, as in the old days."

Gottlob thereupon narrated the story of his affection for his cousin Jessica and her rejection of his suit. "When she told me," he continued, "the night before I left home to rejoin my regiment, that her lover was a poor man, I felt—and promised—that I would do anything in my power to further her wishes. I experienced deep disappointment, but my brotherly regard for her overcame that feeling, and I felt capable of any sacrifice for her sake. Nothing tended to disturb that feeling until I was, a few days ago, confronted with the object of my cousin's love."

"A few days ago—here?" said Hammelfleisch with some surprise.

"Yes, truly," said Durer.

"Then you did not know him before?"

"No, and the discovery was quite accidental, as you shall hear."

Gottlob then related the incident of the rescue of Lieutenant Riese, and how he afterwards saw on his breast a white rose exactly like the one he himself wore, and which he had received from Jessica. "The sight of it," he continued, "seemed to turn my blood into gall. In place of the kindly feelings I previously had towards my cousin's unknown lover, I was consumed with hatred of him. I promised Jessica that if I could do anything for her she was to command me; but no sooner was I placed in a position where I might be of service than I betrayed my inability to befriend her by wishing his death, and cursing the chance that had made me his saviour. Can you understand such a character, Diedrich? I despise myself."

Hammelfleisch listened to this confession without interrupting the narrator. After it was finished he was about to speak when Durer suddenly exclaimed:

"But you must know this Lieutenant Riese, my rival; he is of your regiment."

"I do know him—well," replied Hammelfleisch; "and a better fellow never breathed."

"Is that so?" said Durer.

"Yes," answered the other deliberately, after carefully blowing out a spiral jet of smoke. "He and I have stood shoulder to shoulder on many a hard-fought field."

"Oh, then he is the man who was given the Cross and a sub-lieutenancy for bravery at Sedan, is he not?"

"The same."

Captain Durer cogitated for awhile, and then said: "Did he ever speak to you about his—about Fraulein Bechstein?"

"No, he is not one to talk about such things. The only time he mentioned her to me was the night before Sedan. He seemed a little downcast, and begged me, if he fell on the following day, to seal a letter which was in his knapsack, and see it forwarded to its destination. I tried to rally him out of his low spirits, and bade him be of good cheer, for he would doubtless live long enough to receive many a sound rating from the lips of his amiable Dulcinea."

"What did he say to that?"

"He smiled, and then said: 'Perhaps for her sake it would be better that to-morrow should close my account.' Our conversation was interrupted at this point, and the subject was never broached again."

"What do you suppose he meant," asked Durer, "by thinking it would be better that he should die?"

"I could not think at the time; but from what I have learned from you I suppose he was thinking of the inequality of the match, and the social ostracism to which Fraulein Bechstein would probably be subjected were she to wed him—a poor man."

"Do you know what his position was?"

"He was a clerk in a mercantile house; his parents are humble tradesfolk somewhere on the Upper Rhine."

"What is his education?"

"Not much beyond what is required for mercantile life, so far as I have been able to judge; but a gentler or braver man never looked the world in the face."

"Then my rival is not a Bursch?"

"By no means, if that is any comfort to you. But did you think that the Fraulein would be likely to bestow her affections on a clown?"

"Not exactly; but one reads that Amor plays such pranks at times; and you know your Mina went over to the tailor."

"And very properly too," replied Hammelfleisch, smiling. "I taught her to love learning and she judged of it by its fruits."

Could Diedrich Hammelfleisch, with his quill and his metres, cause the ducats to roll in like Nadelstich with his measuring tape and needles?"

"And yet I believe at least you are annoyed that she preferred Nadelstich," said Durer.

"Have I denied it? Am I not human? But what would you have, my dear Gottlob? Should I not try to be a philosopher? Can I not think, reason, understand? If she could not appreciate me, was it her fault? and if I have any affection for her, should I not rejoice that she has found someone with whom she can be happy? or, to prove my liking, should I go and cudgel him and make her miserable? If I am a philosopher I must be philosophical in all things. Nun, guten Nacht, Lieber."

In saying these last words the young soldier had thrown his military coat about him and prepared to go. His friend shook him warmly by the hand, and said in a low, earnest tone—

"You are better than I, Diedrich. I must take pattern of you. Adieu!"

CHAPTER VIII.

The day following that on which the conversation occurred between Gottlob and Hammelfleisch just recorded, the former received two letters from home. They were from his worthy male parent and Jessica respectively. That from his cousin Capt. Durer opened first, and he dwelt over it long and thoughtfully. It told him, simply and artlessly, what he already knew—that the man to whom she had given her heart had been grievously wounded, and though she doubted not, she added, that he would be well taken care of, yet if Gottlob would see him he might be able to be of service, and she would take anything of the sort as *so* kind of him. Knowing her cousin's good heart, she knew she had only to proffer her request. Besides, had he not the very last time they met promised to do anything for her or the one she loved.

"Yes," said Gottlob, throwing himself back in his chair; "but I did not know then what a rash promise I was making, and how hard of fulfilment."

The letter proceeded to explain the personality of his favoured rival; and there was a trace of excusable pride in the way in which the fair scribe told how her lover had gone into the war a simple private and had been raised to officer's rank for bravery in the field. The statement was necessary in order to describe who he was; but Jessica may have, and

doubtless had, a secondary object in view in thus explicitly making known his rank and position. She possibly intended it as a gentle reminder that, whatever scruples her cousin might have had about making the acquaintance of a man of no position, he could have none now, seeing that it had pleased the king to honour the one she was asking him to know.

If Gottlob would do this, Jessica concluded, she should ever regard him with the liveliest feelings of gratitude. She knew what she was asking of him, and to no one else in his position could she have made such a request, but she looked to him as to a brother—one who ever had, and she was sure ever would have, her happiness at heart, and now more than ever she felt the need of such a one, since at home all seemed against her because she had followed the dictates of her heart.

Gottlob read the letter over two or three times, and then paced up and down his chamber sunk in thought. It was not an enviable position to be in, and he felt it. Here the very man whom of all the world he wished in his heart of hearts were dead, he was required, by the very one, too, for whom he wished him dead, to succour, assist, watch over, report on, and in a measure give his love and friendship to. It was certainly a perplexing situation to be in, to say the least of it. The little cousin had set him a task almost too much for his strength. The little cousin had very little knowledge of the world, and of the men who formed so large a part of it, or she would have known that his promise, given under the circumstances it was, was hardly one payment of which ought to be required in full.

Thus murmured Gottlob to himself, as he paced to and fro in his chamber, with the troublesome letter in his hand, and perplexed wrinkles across his brow. At length he folded the letter up and stepped to his writing-case, which lay on the table, to put it in. As he did so his eye lighted on his father's letter, which he had forgotten. He took it up, threw himself into his chair, broke the seal with deliberation, and cast his eye over the contents. Gottlob had not much respect for his male parent; hence the lack of interest he showed in his epistle. Something unusual, however, was in its contents, or why should the expression of his countenance so suddenly change from one of indifference to one of lively interest, quickly passing into blank astonishment, then into something still more pronounced as, turning the letter about to get more light upon it, he read it a second and a third time in order to make sure of its import?

"Donnerwetter!" he exclaimed, rising to his feet, and casting the offensive missive from him as though it had been

something venomous, and stamping across the floor with clenched fists. Indignation was written on every feature. He paced the room for some time with heavy, impatient, strides; then, his anger having relaxed a little, he picked up the letter, laid it on the table, and re-read it, and as he did so the heightened colour mantling his brow told something of the storm of feeling within.

"Du liebes Jesska!" he murmured. Such is the hounds' cry after thee, and they would have me join the pack. But all my bitterness has not made me sink so low yet. Take to plotting, and murder, in order to win thee! Blitz—!"

It was some time before Gottlob's indignation cooled down sufficiently to allow him to think over the proposition contained in the elder Durer's letter that had occasioned all this outburst in a calmer and more collected manner; and even then, as soon as he began to revolve the matter in his mind, he again felt his breast swelling with anger and mortification. Had the elder Durer been able to witness the effect of this, his second attempt at diplomacy, he would probably have called his son a fool, as he did his niece when his proposals failed to meet her views. The fault of that worthy gentleman's diplomatic attempt lay chiefly in the fact that he did not make any allowance for the differences of human nature. To him all men and all women were simply Herr Durer seniors: some, perhaps, less perfect images than others, but all essentially alike. He could not imagine anyone influenced by less sordid motives than himself. An unselfish impulse he perhaps never felt; how could he, then, have any conception of such in another?

There are some men—we have often been reminded—born far ahead of their fellows; men whose duty it is to be, as it were, the torch-bearers of humanity, to make clear the path that succeeding generations must tread; nourished on some sacred tradition, or illumined, perhaps, by divine inspiration, they have seen with a clearer eye the mankind that is to be, and, striving after it, have upset some idol or made foolish some cherished superstition that was blocking the way, and so have made advance more easy for others. But if there are these gifted pioneers, there are also others who are ever on the rearward skirts of humanity, holding it back by the dead weight of their gross natures; in them is all the savagery, the barbarism, the animality of man in the brute stage of his being; for them religions and systems of morality have existed in vain; they are but one remove from the beast—but half-way up Lavater's scale from fish to man.

Such a one was Herr Durer; and he was doing no violence

to his nature, moral or other, when he suggested to his son, the advisability of clearing the way to the possession of his cousin Jessica's money and person by picking a quarrel with her chosen lover and killing him under the pretence of an act of honour. But the misfortune was that Gottlob saw in the duel scheme but an ill-disguised plot to murder, and was mortified in consequence, not only because his father thought him capable of such a crime, but because it exhibited that parent to him in a light infinitely lower than any in which he had yet regarded him, although from a comparatively early age he had learned to look upon him with anything but marked respect. The more he thought of the suggestion the more it aroused the susceptibilities of his nature—a nature impulsive and emotional rather than rational and philosophical; and by evening the subject had so wrought upon his mind that he resolved to write to his father at once and show him how far he had misunderstood him. The resolve was no sooner taken than executed. He told his father that, however much he might wish to have his cousin for his wife, he could not think of winning her by such a dastardly act as the one he suggested, which to his mind savoured of deliberate murder. He would, indeed, deem it the manlier part to assail his rival openly and slay him than to challenge him to a duel on a got-up quarrel with a view to putting him out of the way.

When Gottlob had written this epistle he felt better, and immediately took another sheet of paper and wrote a few lines to Jessica. He told her—what he had learned from inquiry during the day—that Lieutenant Riese was progressing favourably, and would probably in the course of a few days be quite out of danger; and concluded by assuring her that he would do all he could both for him and for her.

The two letters had scarcely been put into envelopes, directed, and despatched, ere there was a tap at the door, and Hammelfleisch entered.

"I just dropped in," he said, "to tell you that I have been to see Riese, but found him too weak to talk, though the doctors say he is getting on fairly well."

"I heard as much," replied Durer. "Sit down, I have something here I want your opinion on. Read that"—handing him Herr Durer senior's letter.

Hammelfleisch read it slowly, and handed it back to his friend with the comment—

"Humph! from your father, I see."

"Yes; what do you think of it?"

"It is a neat way to get rid of a rival."

"Is that all you think about it?"

"It is a pretty bit of parental advice; but I have heard of prettier."

"Prettier?"

"Yes, much. But do not ask me particulars; it hurts the soul to think of them. If I were you I would put this into the fire and think no more about it."

"Would you not answer it?" asked Gottlob, quietly.

"No."

"Why not?"

"It would do no good, and might do harm."

"I wish you had come five minutes sooner: I have already answered it."

"Then there is no help for it," replied Hammelfleisch.

"The only thing for you to do is to hope that the letter may miscarry."

It did miscarry; but in a different way to what the scholar meant.

(To be continued.)

Poetry.

TO THE OCEAN.

Rush, rush, thou ever-shifting ocean, on,—
 Rush, dashing, splashing, on the sand-strewn shore!
 Ye depths unseen, in your dark caverns moan,
 Ye mighty, never-resting billows, roar!
 Thou dreadful, fathomless, immense profound,
 That, with thy myriad arms, Briareus-like,
 Dost span the earth in close embrace around,
 And now, with furious rage, dost terror strike
 Into her,—now play round her like a child,
 In wanton merriment, with many a soft caress;
 Wondrous art thou, whether with aspect wild
 Thou rage sublime in awful restlessness,
 Or the glad sunshine on thy brow serene
 Lavish in quiet splendour his bright golden sheen!

J. A. S.

The Children's Corner.

NITA AND DEWDROP.

After the water-ranunculus on which Nita the fairy lay had floated on the tide for a long time, it was finally cast upon the sandy shore of a small island far out in the sea. In the morning the warmth of the sun revived the little fairy so that she awoke. Looking round in surprise, she at first saw nothing but sky above and beneath her, for the sea seemed a continuation of the sky, and the sky of the sea. But as the rays of the sun became stronger the mist scattered and displayed the sea in all its vastness and fearsome beauty, and Nita trembled and shut her eyes. After a while she opened them again stealthily, so as gradually to accustom herself to the sight of the great flood, which seemed vocal with a large and wondrous life. The first thing that met her eye was something on the calix of the butter-blob, which had been her ark of safety through many dangers, that made her throw up her eyelids in astonishment, and exclaim—

"Why, if it is not little Dewdrop!"

"That's my name," said Dewdrop with a sunny smile, for it was he. "I suppose you thought you had got rid of Dewdrop when you went on your voyage of discovery in this golden cup?"

"Pray don't tease," replied Nita; "but tell me how you got here."

"That would require more science than you at present can understand; I could better tell you why I came, if you were interested to know that."

"Of course I am," said Nita. "I suppose you came—on business."

This was said hesitatingly and with downcast eyes. Then, as no reply appeared to be forthcoming, the little fairy looked up shyly and said—

"Did you not?"

"Well, yes, partly, and partly for something else," answered Dewdrop.

"You do not want me to guess, do you? I never was good at guessing."

This was said with the slightest bit of a pout, and Dewdrop, who was a soft-hearted little thing, and liked nothing so much as smiles and sunshine, which made his eyes beam with delight, immediately said—

"Oh, no, by no means; I'm afraid it would weary you, and we have a long journey to make before we can reach Fairyland."

"Fairyland! home! Are we going home, then?"

Dewdrop said they were.

"Oh, you dear, sweet, darling Dewdrop!" exclaimed Nita, clapping her little hands on his cheeks, and drawing his face very near, in fact close to hers. "There!" she continued after a pause, "shall we start at once?"

"What a hurry you are in," said Dewdrop, "I should not mind staying here for good."

"Oh, dear, good Dewdrop, do let us go back at once to dear old Fairyland," implored Nita, "and then—and then I will never be vain and foolish again."

"Very well," replied Dewdrop. "I feel it is about time we were going. Now, just put your arms about my neck, and cling with all your might; and whatever happens, say nothing, but keep on holding fast."

Nita did as she was bid, and immediately it seemed as though wings grew out of Dewdrop's sides; indeed, as though he became almost altogether wing; until the soft and life-like airs, bore them up and wafted them across vast continents of cloud and wide reaches of sunlit sky.

To Nita it was more like a dream than a reality. Then it seemed as if she were falling, as one often does in dreams, though still in Dewdrop's arms, and for a little while she was afraid to open her eyes, lest it should all prove only a dream. But when she summoned courage enough to lift her eyelids, lo! she was back in Fairyland!

There was the old convolvulus home and the very flower-cups, not yet open, in which her sisters lived, and there, too, by her side the good, faithful Dewdrop. Nita trembled with joy, and the tears stood in her large blue eyes. She wanted to thank Dewdrop, but could not because something came in her throat. He seemed quite content, however, to see her happy. Presently the little fairy said:

"But you must be very tired after carrying me such a great way."

"Oh no," replied Dewdrop, "I'm as fresh as a lark; I could go and carry another such as you right off."

"But you must do no such thing!" exclaimed Nita, with sparkling eyes. "If you do——" But before she had finished her sentence she stopped, and said in a changed voice, "I don't know that I have quite got over my weakness yet, dear Dewdrop, therefore please stay with me and help me—always. Besides you want someone to take

care of you—you are so rash. So now, pray crawl under that large dock leaf, out of the sunshine, and have a nap; and when I have said 'good morning' to my sisters I will come and scold you so prettily you will say, 'Pray, Nita, come and scold me again and again.'"

All this happened a long time ago, but Nita never ventured far from her convolvulus home again, except when Dewdrop crept from under his dock leaf and carried her with him on a trip through the sky.

Reviews.

Woman's Work and Worth in Girlhood, Maidenhood, and Wifehood.

By W. H. DAVENPORT ADAMS. London: John Hogg, Paternoster Row.

Mr. Adams has produced an interesting and valuable work on a highly interesting subject. It is intended for girls and young women, and few better books could be put into their hands. If one were disposed to find fault with it, it would be to say that too much of the bright side is presented, and not enough of the dark; or, in other words, that there is plenty for encouragement, but hardly sufficient for warning. But one would not wish to urge this view too much, for after all it is best to present the possibilities of excellence rather than the reverse—to stimulate with a high ideal, than to deter by examples of failure. There is so much that is good and wholesome in the book that it could scarcely be read without profit. Turn to what page one will, something interesting, or instructive, or both, presents itself. Whether we read of woman as mother, as wife, as maiden, in the world of letters, in the world of art, or as the social reformer, we meet with noble examples of the sex. Perhaps the not least valuable chapters, practically, will be found to be the last two, on "The Higher Education of Woman," and "Employment for Educated Women." In the former, answering the question, "For what object is woman to be educated?" the author says: "The answer to these questions has hitherto depended upon certain assumptions: first, that woman was physically, mentally, and morally inferior to man—an assumption which in the preceding chapters we claim to have satisfactorily disposed of; second, that a wider education would render her unwomanly; third, that the performance of her domestic duties would leave her no time and energy for that literary and scientific culture which man enjoys. There is really as much difference, intellectually and morally, between man and man as between men and women. The convolutions of the ordinary female brain are said, indeed, to be less complex than those of the ordinary male

brain; but if such be the case, it does not appear as a fact that ordinary women are duller of apprehension than ordinary men. No one will doubt that the female intellect lacks something which the male possesses, and the male intellect probably lacks something which the female possesses; but the deficiency is not of a kind to render justifiable or necessary a separate discipline." This citation fairly represents the position taken up by Mr. Adams in regard to female education. It should be remarked, however, that the writer makes the common mistake of confounding the intellect with the mind as a whole. The chief differences between the male and the female mind are not differences of intellect so much as of moral and social feeling, together with will and energy; and it is more than probable that with equal chances for education and development there would be little or no appreciable difference between the mental calibre of the sexes. We can heartily recommend Mr. Adams's book, not only to those for whom it is more particularly written, but to those who are afraid that education and equitable chances for development are going to spoil women for the position they are more particularly designed to fill.

A Manual of Phrenology. By A. T. STORY. London: Fowler, Imperial Buildings, Ludgate Circus.

Both the price and the practical character of this work will commend it, not only to the student, but to the general reader who desires, at the cost of little time, to get at the gist of Phrenology. It possesses some valuable features which many recent works on the subject lack. In the first place, it contains the results of the latest investigations into the functions of the brain, and shows their connection with Phrenology; and in the second, it does not speculate with the science, or introduce novel theories, for the sake of being different from others. The author, indeed, has been exceedingly modest in presenting his own views, and shows little or none of that egotistic desire, usually so common, to rectify the opinions of all his predecessors; and yet there is no lack of originality in the work, and evidences are present of both thought and research. It has the merit, too, of being written in a clear, easy, and readable style, the use of technical words, such as are as Greek to the uninitiated, being avoided. Moreover, it tells just what the student of the science wants to know, without lumbering the mind with foreign matter; and he must be dull indeed who can read it without getting a correct idea of the fundamental principles of the science, and a good deal of practical knowledge on the subject besides. The illustrations, which are numerous, are well selected and admirably adapted to the purpose for which they are designed, namely, to indicate the form of head when such-and-such organs are prominent in development. Taking the book altogether, it is one I can heartily recommend to all who wish to make their first acquaintance with or enlarge their views of phrenology.

L. N. F.

Facts and Gossip.

THE late Professor Faraday was of opinion that the natural age of man is 100 years. The duration of life he believed to be measured by the time of growth. In the camel the completion takes place at eight, in the horse at five, in the lion at four, in the dog at two, in the rabbit at one. The natural termination is five removes from these several points. Man being twenty years in growing, lives five times twenty years—that is 100; the camel is eight years in growing, and lives forty years; and so with other animals. The man who does not die of sickness, lives everywhere from 80 to 100 years. The professor divides life into equal halves—growth and decline—and these into infancy, youth, virility, and age. Infancy extends to the twentieth year, youth to the fiftieth, because it is in this period the tissues become firm, virility from fifty to seventy-five, during which the organism remains complete, and at seventy-five old age commences, to last a longer or shorter time as the diminution of reserved forces is hastened or retarded.

PROFESSOR HAUGHTON, of Dublin, has published a second edition of his interesting and instructive work, "Principles of Animal Mechanics." His object is to show "the mutual advantages obtainable by anatomists and geometers from a combination of the sciences which they cultivate." "I have met," he says, "in the course of my investigations, with numerous instances in the muscular mechanism of the vertebrate animals, of the application of the principle of least action in nature, by which I mean that the work to be done is effected by means of the existing arrangement of the muscles, bones, and joints, with a less expenditure of force than would be possible under any other arrangement, so that any alteration would be a positive disadvantage to the animal. If, as I consider probable, this fact should prove to be of much wider occurrence in nature than these instances show, it may serve to give us some slight glimpse of the mechanism by which the conservation of species in nature is secured."

THE MUSIC OF FISH.—Few persons probably are aware that fishes are gifted with the faculty of producing musical sounds, and yet such is the case. In the bay of West Pascagoula, on the south-west coast of North America, a mysterious music is often heard, and has been described by those who have listened to it as being singularly beautiful. "It has for a long time," says Mrs. Child, an American authoress, "been one of the greatest wonders of the south-west. Multitudes have heard it, rising, as it were, from the water like the drone of a bagpipe; then floating away, away, away, in the distance, soft, plaintive, and fairy-like, as if Æolian harps

sounded with richest melody through the liquid element; but none have been able to account for the beautiful phenomenon. There are several legends touching those mysterious sounds; but in our day few things are allowed to remain mysterious." These strange sounds, which thus assume the beauty and the harmony of regular music, proceed from the cat-fish. A correspondent of the *Baltimore Republican* thus explains the phenomenon:—"During several of my voyages on the Spanish Main, in the neighbourhood of Paraguay and San Juan de Nicaragua, from the nature of the coast, we were compelled to anchor at a considerable distance from the shore; and every evening, from dark to late at night, our ears were delighted with Æolian music that could be heard beneath the counter of our schooner. At first I thought it was the sea-breeze sweeping through the strings of my violin (the bridge of which I had inadvertently left standing); but after examination I found it to be not so. I then placed my ear on the rail of the vessel, when I was continually charmed with the most heavenly music that ever fell upon my ear. It did not sound as close to us, but was sweet, mellow, and aerial, like the soft breathings of a thousand lutes touched by fingers of the deep sea nymphs at an immense distance. Although I have considerable 'music in my soul,' one night I became tired and determined to fish. My luck in half-an-hour was astonishing. I had half filled my bucket with the finest white cat-fish I ever saw; and it being late, and the cook asleep, and the moon shining, I filled my bucket with water, and took fish and all into my cabin for the night. I had not yet fallen asleep when the same sweet notes fell upon my ear; and, getting up, what was my surprise to find my cat-fish discoursing sweet sounds to the sides of my bucket. I examined them closely, and discovered that there was attached to each lower lip an excrescence, divided by soft wiry fibres. By the pressure of the upper lip thereon, and by the exhalation and discharge of breath, a vibration was created similar to that produced by the breath on the tongue of the Jew's harp."

THE Darwin family presents some curious and interesting instances of the heredity of genius. For several generations the family has been distinguished for intelligence far above the average, which in two cases at last has risen to the rank of genius. Almost all its members have possessed scientific tastes, and have followed the learned professions, generally with success. We read that Robert Darwin, the father of Erasmus, was a man given to science; he left two sons, Robert Waring, a poet and a botanist, and Erasmus. Of the children of the latter five reached maturity: Charles, who had already become distinguished as an anatomist when he died from the effects of a wound received while dissecting; Erasmus, a statistician and genealogist; Robert Waring, a skilful and eminent physician, father of him whom we must designate as *the* Darwin of our own days; Francis, a naturalist of merit; and Violetta, who became the mother of Mr. Galton, the author of the well-known treatise on the "Heredity

of Genius." A son of Francis, Captain Darwin, in his "Game-keeper's Manual," shows "keen observation and knowledge of the habits of various animals." The two sons of Mr. Charles Darwin, George and Francis, have not merely taken part in their father's researches, but have entered into independent scientific investigations.

THE following facts may be interesting to those who read about Dr. Richardson's ideal city of "Salutland." Low Moor, a village about a mile from Clitheroe, Lancashire, contains a population of about 1,100 souls. There is neither public-house, beershop, nor any place for the sale of intoxicating liquors; neither is there a policeman, prison, pawnbroker, doctor, nor lawyer. The rate of mortality is remarkable. During the last ten years the average number of deaths per year has amounted to only fifteen and a small fraction per thousand of the population.

PORK AS FOOD.—Pork is, of all meats, the most difficult to digest, and should always be sufficiently cooked, for a very special reason, namely, that it is often infested with parasites, that is, creatures that live in it. Most of you have heard of tape-worm, and you should be aware that it is apt to affect those who have eaten what is called "measly pork." The creatures producing this condition appear in the pork as whitish specks, something like grains of rice, and consist of a head like that of a tape-worm, with a sort of little bladder for a tail. When this pork is eaten raw or only half-cooked, this little creature is carried into the bowels, and grows enormously, becoming developed into tape-worm, which is often many feet long. The name given to it when in the flesh of the pig is *Cysticercus cellulosa*, and in the tape-worm state it is called *Tænia solium*. The best plan of avoiding it is to have the pork thoroughly well cooked, so that the *Cysticercus* may be killed. And, of course, "measly pork" should not be eaten if it is discovered to be measly. A similar parasite sometimes, but not so often, infests beef and veal, and to avoid the chance of getting them, they ought also to be well cooked. There is another parasite sometimes found in the pig, which is far more serious than the tape-worm larva. This is the *Trichina spiralis*, which has of late years caused much illness and even loss of life, especially in Germany. The first case that attracted much attention to it occurred in Dresden, in 1860, when a robust maid-servant was admitted to the hospital with symptoms something like those of fever. Soon, however, she suffered great pain in the whole of the muscles, increased by the least movement. Inflammation of the lungs then set in and she died. After death vast numbers of the *Trichina* were found in the muscles. It should be noticed that neither salting, smoking, nor moderate heating, affords any security from this pest. It may be killed, however, by exposure to the temperature of boiling water. You see, therefore, how important it is that food should be thoroughly cooked.—Hy. Simpson, M. D.

Correspondence.

THE FUNCTION OF MIRTHFULNESS.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—I cannot lay claim to equal authority with your other correspondents on the ground of long or extensive experience; but, with your permission, I would offer a few remarks upon the question—*Mirthfulness versus Congruity*. I read Mr. Bray's letter with great interest and care. I have also read those of Mr. Pringle and Mr. Howes. I confess myself more willing to be "led astray by Mr. Bray"—as the latter gentleman unkindly put it—than to be corrected by Mr. H., although he writes "for the benefit of learners." What we want in this case is to define what the function of a given organ is. An *illustration* is not a definition; all it can do is to throw light upon the definition. With regard to the above-named organ, I think its locality and size may be taken as circumstantial evidence of Mr. Pringle's view.

I cannot think with Mr. Bray that it is a purely intellectual organ, because the nature of its functions seems to vary according to the kind of organs in exercise with it; as the literary in regard to puns, &c., the mechanical in queer objects, and so on, the materials for its operation having to be furnished by other faculties. It seems to me that both Mirthfulness and Congruity are not combined, or rather that it is an organ which makes fun out of *certain kinds* of incongruity, those kinds causing *pain* being perceived by the perfecting organs—Ideality, &c.

It might be interesting and relevant to the question to ascertain, if possible, the nature of this development in the Irish head. Perhaps some of your readers may be in possession of facts whereby to arrive at some conclusion. The Irish characteristic in this direction is indisputable. If Phrenology could establish any corresponding facts, one such fact would be worth a thousand opinions.—Yours truly,

Margate.

F. C. BARRATT.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR,—I have received the last two parts of your interesting magazine, and have given orders for the previous parts. It deserves to be largely successful. Some time ago I saw some numbers of an old periodical called the *People's Phrenological Journal*, begun in 1843; how long continued I do not know. In it there was a series of articles by Luke Burke, Esq., and another by Hudson Lowe, Esq., the beginnings of which I have only seen. Possibly you or some of your readers could give me information about these gentlemen, or where their views could be seen in full. Any information on the above will oblige,—Yours,

June 16, 1880.

INQUIRER.

Answers to Correspondents.

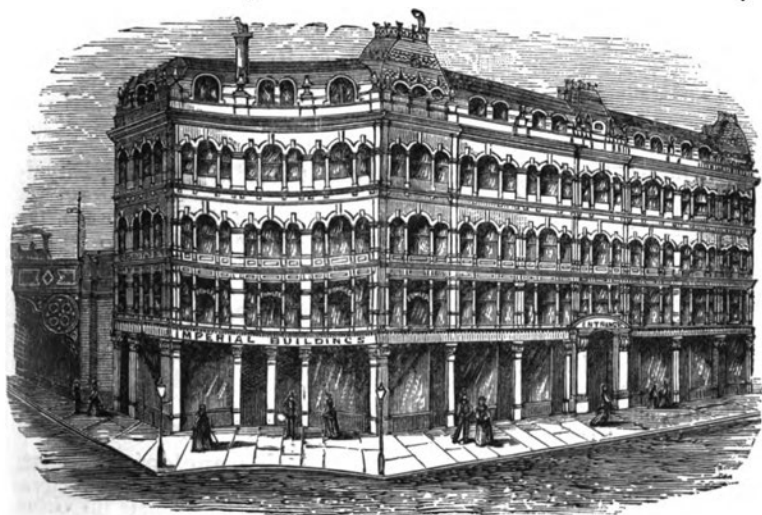
GER.—The words you quote from the "Manual of Phrenology," with reference to the Salvation Army, namely, that the religion of its members is "almost purely emotional," are used in no disparaging sense. When the organs of Conscientiousness and Benevolence are larger than Veneration and Spirituality religion is liable to become more a matter of doing good and doing right than of simple worship. Worship—the action of Veneration—is a pure emotion. We may some day give particulars of the developments of Mr. and Mrs. Booth.

F.R.J.—We may have occasion to refer to the subject of your criticisms again; but bear in mind that you are wishing us to give you what experience only can supply. "Criticism," says Richter, "often takes from the tree caterpillars and blossoms together."

J. S., B.—Exercise must certainly be good for you; but it is possible that your nerves are not of the strongest, and you would do well therefore not to indulge in too violent exercise.

W. B. (Evesham).—There is no institution that we know of where phrenology is taught regularly, in England at least. The time, however, will come when it will be universally recognised as the true basis of mental philosophy. We hope Sir Josiah Mason may ere long see his way to give the subject a place in the curriculum of his Science College at Birmingham, to be opened in October next.

L. N. FOWLER, PHRENOLOGIST & PUBLISHER,



6, 7, 8, & 9, IMPERIAL BUILDINGS, LUDGATE CIRCUS,
LONDON.

MR. FOWLER begs to inform his numerous friends and patrons that he has removed to the above commodious premises adjoining Ludgate Hill Railway Station, in order that he might have room for the extension of his publishing business, which has grown to such dimensions as could not be conveniently carried on in his former rooms. All his own works will henceforth be published by himself; and in addition, he has been appointed sole agent in Great Britain for the works published by S. R. Wells & Co., Phrenological Publishers of New York, which in itself necessitates an increase of staff and accommodation.

Mr. Fowler has also made arrangements for the publication of works coming within his province, and he hopes that from time to time there will be issued from his house such works as will sustain the good repute which the name has ever borne in connection with Phrenology.

In making his selection of premises, Mr. Fowler has had in view the possibility of arranging his extensive cabinet of skulls, busts, &c., illustrative of Phrenology, to a better advantage than he has hitherto been able to do. There has long been a felt want of a Phrenological centre in London, where the literature of the subject could be procured, meetings held, and a kind of museum concentrated.

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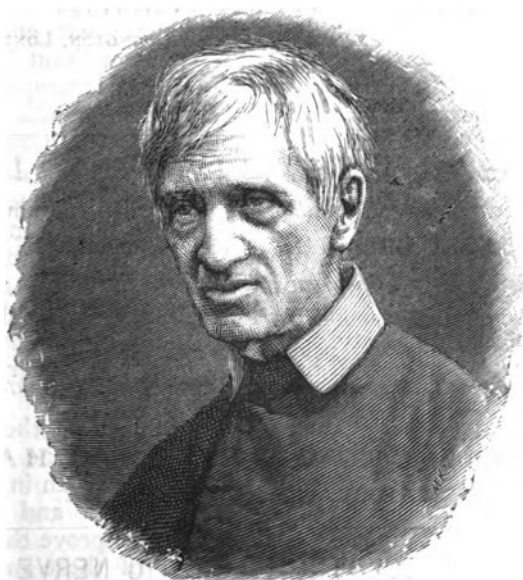
THE
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AUGUST, 1880.

CARDINAL NEWMAN.

A PHRENOLOGICAL DELINEATION.

The temperament of Cardinal Newman is most favourable for mental action and power of endurance, there being a predominance of the Motive and Mental, the Vital being only



From a Photograph by Mr. H. J. Whitlock, Birmingham.

sufficient to give living and working capacity. There is a fair distribution of bodily and mental power, so that there is no excess, excepting that there may be a predominance of ten-

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U

dency to brainwork. There is fair harmony between the proportions of face and head, with rather more size of brain than face when compared from likenesses.

The features are regular, with a good jaw, a prominent life-indicating chin, a strongly-marked nose, and a distinctly-defined ear. The eye is full and steady-looking—not characterised so much for vivacity as for intelligence and sincerity.

The Cardinal's head, which is of large size, is quite fully developed in all parts, and the organs appear to be strongly represented, especially the frontal, coronal, and side head. He is alive in all parts of his brain, and all departments appear to be occupied, as though there was a call for a full action of all the powers.

His broad head over the ears indicates that he measures his strength with his task, that he has a full share of economical and conservative power, and is not disposed to "cast pearls before swine"—to resort to sensationalism to attract attention, or to push himself forward for the mere sake of being heard and seen. He does not readily commit himself, nor take a position he cannot maintain; and yet being full through from ear to ear, he must have great energy and industry, and a thorough, executive spirit, without being destructive or forward in controversy. Secretiveness, Cautiousness, and Conscientiousness all being large, indicate great circumspection, consistency, and uniformity of character.

Self-Esteem does not appear to be large; he is not proud, assuming, nor particularly dignified—is not disposed to put himself forward and take responsibilities that do not legitimately belong to him. Approbativeness is much modified by the moral brain, giving moral and intellectual ambition, together with ease of manner, joined to a due degree of gentleness and modesty. Firmness manifests itself in the form of perseverance and patient application rather than by prompt decision or positive demonstrations of will.

The head being high, and fully developed in the coronal region, indicates a high moral and religious tone of mind; sense of justice, consciousness of immortality, faith in spiritual existence and influence, feeling of devotion and worship, joined to strong sympathies and desire to improve the human race, are all strongly indicated. Some of these moral and religious feelings may be more manifest than others, because they may be more cultivated and rendered more active by exercise, but they are all prominent qualities. Benevolence and Conscientiousness, however, appear to be predominant, and to modify his whole character.

His forehead is full, high, and broad; all the intellectual powers are distinctly indicated. He has not only the temperament for a student, but the development to study and think. The perceptive faculties give him the power to readily acquire knowledge from observation or research: and he knows what to do with his knowledge when he has gained it, for he has a superior reasoning brain, which gives power of thought, originality of mind, and a disposition to ponder over subjects. Comparison being very large, he has very distinct ability to analyse and study the relation and fitness of things; to discriminate, compare, and contrast qualities and conditions. He has great liking for truths in nature as well as in philosophy and revelation.

With such a temperament and form of head the Cardinal must take a positive delight in studying and thinking. The organs in the central brain, joined to his temperament and sentimental and emotional tone of mind, give him favourable talents for literary acquirements and productions. He is particularly well qualified to explain, simplify, illustrate, teach, and to make clear and striking comparisons. He has favourable talents for speaking, but still more for writing. His passions and animal propensities are more easily regulated than in most men, for the predominating powers of his nature are moral and intellectual, while the Vital temperament does not indicate a superabundance of animal life, warm blood, or a high degree of gustatory ability. His thoughts and enjoyments are not of a worldly, animal nature, and his intercourse with society is more of a sympathetic, humane nature, than of a mere social one; and his interest in others is based in a desire for their improvement and welfare rather than in mere personal friendship.

Taking his organisation altogether, one would be justified in saying that the Cardinal should be known by his intimate friends as possessing a character almost unique in many points—strong in its individuality and originality; strong almost to weakness in its sympathies; strong in its quiet energy and steady will; strong in its perception and retention of things; strong in its love of the simple, the beautiful, and the true; and strong, too, in its trustful sincerity and modest retiringness of disposition.

L. N. F.

THOSE who are most anxious that the boundaries of knowledge should be enlarged, ought to be most eager that the influence of women should be increased, in order that every resource of the human mind may be at once and quickly brought into play.—*Buckle*.

ON SOME OBJECTIONS TO PHRENOLOGY.

There is a long list of objections brought against phrenology by one class of persons or another. But these objections are constantly changing. The stock objections that were for ever being urged years back, are now seldom or never heard, while new ones are from time to time cropping up, according, for the most part, as the objector's ignorance lies in one direction or another.

At one time the religious world were chiefly concerned because, they said, phrenology was immoral in its tendencies. Now, one never—or very seldom indeed—hears a word about such objections. The chief objections now raised from a moral point of view are that phrenology leads to materialism and to fatalism.

Let us examine these objections. Why, in the first place, does phrenology lead to materialism? Because, say the objectors, the science makes the mind so dependent upon matter that no distinction can be made between them. They forget that any system of mental philosophy makes the mind depend upon the brain for its manifestation, and must therefore, according to their dictum, lead to materialism. The fact that phrenology divides the mind into faculties, with special locations, and dependent upon certain nerves, does not lead to materialism any more than to make the mind as a whole depend upon the brain as a whole. In defining the mind, the objector would have it so immaterial as to be nothing at all, while the phrenologist says that it is a thing. It grows and increases in size and strength, and becomes more and more responsible and influential, and is the greatest power on earth, yet of such fine quality that the fingers cannot feel it, nor the eyes see it, nor can it be weighed or measured by any physical instrument. The objection of materialism becomes the more absurd the more it is examined.

The scarecrow of fatalism has perhaps more ground for its existence; and yet that very ground is a reason why the truths of phrenology should be more studied. The objector says that, according to phrenology, man's accountability and responsibility are destroyed, and that persons are led to justify themselves by saying they could not help doing as they did with the kind of head they had; their heads were bad, and therefore they could not help being bad. Then we have the argument so often used as a clinching one—that a system which recognises organs that lead to murder, theft, lying, lust, stubbornness, vanity, pride, &c., is not one that commends

itself as being of Divine origin, and so forth. It would be just as reasonable to argue that because man has an arm wherewith he can strike down and kill his brother, therefore his structure does not commend itself as of omnipotent design. If phrenology gave them positive tendencies to good, and to good only, they would not say a word, and yet it would lead to fatalism just as much as the other. If a person is fated at all to either good or bad, it takes away man's freedom.

It is further urged that man is fated to have much or little mind according to the amount of brain he possesses. There the objection is at fault; for a person has more or less brain, well or badly formed, according to the amount and kind of mind he has. The mind is master over matter, and matter is dependent on mind. But phrenology gives neither the head nor the mind. It finds them already here, and takes them as they are, and attempts to explain why they are as they are. Objections might be made against physiology, anatomy, chemistry, botany, &c., with the same reason, and yet who would think of being so foolish?

Phrenology does not lead to fatalism, nor does it destroy accountability nor responsibility, but, with the aid of the laws of heredity, it shows that man is the cause of all defects in organisation, if not in action. The more we know about man's organisation and the laws that govern it, the more we find man's obligations increase; and that those who have gone before are the cause of the imperfect organisation of those that are now living. The one who raises such objections is really finding fault with the laws and order of Nature. The child is not to blame for any of its natural defects or excesses; and its parents could give only what they had to give, and Nature had nothing else to do but to bring into existence the material put into her hands. The cast must be according to the mould. The fathers have eaten sour grapes and the children's teeth are set on edge. The fathers are off the track and the children are born off the track. The fathers, from various causes, have failed to cultivate and develop all their gifts, and the child is affected by that neglect. If a man makes no use of the third storey of his house, it soon becomes a receptacle of dust and cobwebs; so if he fail to use the moral brain or any part of it, there is not so distinct a manifestation of it in the child.

From various causes, parents are diseased and imperfect in body and mind; and they cannot do otherwise than transmit what they have. One or both of the parents have diseased lungs, a weak heart, poor digestive powers, weak muscles, small bones, weak sight or hearing, an excessive or weak

nervous system : how can they give health and strength where they have disease and weakness ? Again, if the parents lack the reasoning, and are imperfectly developed in the moral, and strongly developed in the animal propensities and passions, how can they give a good intellect and a well-balanced brain to the child ? Does the objector say the parents must pray that God will make up for the deficiency ? That is not the way God does business. The principles of Nature have not been changed from the beginning ; besides, such parents would not think to pray for a change. It will do to pray for restoration to health, but not for a change of the order of Nature.

If the parent has a morbid, deranged, or weak nervous system, and there is madness or any other special nervous malady, it is transmitted the same as where there is consumption in the family—the child partakes of the tendency. In like manner small Venereation is transmitted the same as small bones, and so of all the faculties of the mind.

“What is that but fatality ?” says the objector. Call it what you please ; it is the fatality of law—that law which tells us that the sins of the parents are visited on the children to the third and fourth generation.

If phrenology be true, the study of it cannot lead us away from the Author of it and of all other truths ; on the contrary, it leads to the study of the harmony of one truth with another, especially of those that have a bearing on the nature and responsibility of man. It cannot tend to irreligion or irresponsibility because it recognises all the moral and religious faculties, and implicitly teaches that all the powers of the mind should be exercised in their turn, and that the character cannot be perfected without the control of the higher moral faculties. The study of the science tends upwards, to self-development and self-improvement. In fact phrenology cannot be studied without a personal application of its truths, and this cannot be done without results accruing analogous to those which are sought by what is called in religious phraseology, self-examination.

L. N. FOWLER.

A MAN of intellect is lost unless he unites energy of character to intellect. When we have the lantern of Diogenes we must have his staff.—*Chamfort.*

It is by imitation far more than by precept that we learn everything ; and what we learn thus we acquire not only more effectually, but more pleasantly. This forms our manners, our opinions, our lives.—*Burke.*

THE HEART.

All men, who have even a remote idea of the doctrines of phrenology, or even those who are ignorant of this science but acknowledge that the brain is the organ of the mind, must confess that the brain alone is the medium of all mental action, whether that action is of an intellectual, moral, or of a purely animal nature. No perception, no thought, no reasoning, no pleasure, no pain, can take place without brain action. Therefore I say we must wonder why the word 'Heart' is so frequently used and misapplied when man's actions are discussed.

Among those who most frequently misuse this term are divines, educationalists, moral philosophers, mental physiologists, poets, novelists, and even statesmen. Of those whom I have just mentioned, perhaps the divines make use of the heart in the most puzzling and indiscriminate manner. In the most decided expressions, they speak of the heart and the mind as two entirely distinct terms, both in relation to the mental actions of their fellow creatures. The heart, with them, is the seat of all the affections; it is that part of the human being which is active both for good and for evil deeds. It is the seat of love and hatred. At times they represent it as struggling with the mind; on other occasions as directing the mind for good and for evil. I have listened to clergymen of almost every denomination of the Christian religion, from the most enthusiastic ultramontane Roman Catholic priest to the Methodist minister and the elders of the Plymouth Brethren, and they, one and all, make use of this wonderful organism, the heart, as having the most multifarious duties to perform; and all these duties, according to them, entirely independent of the mind, which they readily admit to be, in some way, connected with the brain. And this, I must say in passing, is quite a recent admission on their part.

Not very long ago, I was listening to a very eloquent discourse from a clergyman of the Church of England—I should say the High Church of England—in one of the south-eastern suburbs of London, and he, in the clearest possible terms, stated that the heart was the seat of the affections. I took the liberty of writing to him, and asked him what he meant by such an assertion. He granted me an interview. We had a long discussion on this subject. He clearly admitted that the mind manifested itself through the medium of the brain; but he maintained that there was something yet independent from the brain, and he made use of the term heart to

avoid metaphysics. This was as far as he could explain his ideas.

Mental philosophers of the present day, and among whom I single out Dr. Carpenter as a fair, and I might say, the highest type of his class, make use of this expression in most peculiar and perplexing ways. In Dr. Carpenter's "Mental Physiology," he speaks of the mental characteristics of children as varying greatly both for good and for evil; but he says that certain virtues are impressed *in the heart of every child*: thus clearly asserting that the heart and the brain had two distinct mental duties to perform. In fact, nearly everyone who has written on the subject of mental philosophy has made such frequent use of the term heart, in order to explain difference of character, and account in an easy, off-hand manner for what are, to the non-phrenologist, mental mysteries, that it would be the work of years to attempt to classify the numerous functions of the heart which these philosophers have ascribed to it.

Among the educationalists, and even those who are taking an active part in what is called educational reform, they have done a good deal to mystify the world by the frequent use of the term heart in relation to the minds of children, and of parents and teachers. They tell us that not only should the mind be trained and cultivated, but the heart should have special care and attention.

We can all excuse poets and novelists for making a free use of the term heart; and to such an extent is our poetry and fiction mixed up with the heart, especially as the seat of all amatory propensities, that perhaps the imaginative use of this term will last for ages, and most likely as long as English poetry remains in the records and memory of mankind.

I think it is the most surprising of all, when we see hard-headed and practical statesmen making use of the term to convey their ideas. I remember, in a speech delivered by the late Chancellor of the Exchequer, Sir Stafford Northcote, at Edinburgh, in justification of the unhappy policy pursued by the Cabinet in relation to the Eastern Question, he made use of words to this effect:—that there were always two policies which were open to statesmen to take—the policy of the *mind* and the policy of the *heart*; and his Government were compelled to adopt the policy of the mind. Now, what he meant by this expression I was never able to make out, and I am inclined to believe that the right. hon. gentleman knew as much about the difference as I did.

This only illustrates the very loose style in which the term heart is used on all occasions. I do not for a moment wish

to infer that Sir Stafford Northcote is the only statesman who has misused this term ; for, if I am not much mistaken, the greatest of all living English statesmen—the Right Hon. W. E. Gladstone—has frequently made use of this word in just as ridiculous a sense ; and even the great and the good John Bright has fallen into similar errors of expression.

When we turn our attention for a brief space of time to the by-gone days, we find that the most extraordinary qualities were settled in the heart. Queen Elizabeth is reported to have said that the word Calais would be engraved on her heart. Voltaire left his heart to France, and it is preserved in spirit to this day, and is looked upon as a great treasure. Daniel O'Connell left his heart to Rome, and I suppose it is now resting quietly on some dusty shelf in the Vatican. Both these great men must have attached great importance to the heart, as being the seat of all the noble qualities of the mind.

I could cite many cases where men and women have bequeathed their hearts to their dearest friends, but I cannot trespass on your space.

Dr. Johnson, in his Dictionary, rightly described the heart as a muscular contrivance for propelling the blood through the veins of the body ; but he has also described it as being the seat of many moral and animal qualities.

It certainly must be admitted that the expression 'heart' has a very easy and pleasant sound, and no doubt the poets and novelists would be greatly put out if they were compelled to abandon the use of the word in all their writings. The clergy and sentimental orators would come to a dead level if they were not allowed to make the most frequent use of this term in their sermons and orations.

It is so easy to say that because a man did good he had a good heart, and because he did wrong it was from having a bad heart ; to say that you love someone with all your heart, and, again, that you hate another from the bottom of your heart.

The whole mystery, or what is at present supposed to be a mystery, is at once cleared up by accounting for mental peculiarity from the different states of the heart. But it is false and nonsensical, and all who wish to have a clear idea of the constitution of the human mind must fight against the use of these erroneous expressions. When once we strip the heart of all its wonderful mental peculiarities, then the sooner we shall understand ourselves and our neighbours.

Then good-bye, heart ! you have ruled the metaphorical world long enough ; make way for brain. For the brain alone is the seat of the mind, and no mental action—and I will go so

far as to say physical action, can take place without brain action, and, consequently, brain destruction and renovation. As no galvanic action can take place without the destruction of zinc or some other metal, and as no work can be done on this planet without the consumption of some matter, so no mental action can take place without brain consumption, which consumption is replaced by the food we eat and drink. And mental action will last as long as the brain has the power within itself to replace the matter consumed. When the brain loses that power, mind ceases.

C. DONOVAN.

THE FACE AS INDICATIVE OF CHARACTER.

There are several important facial signs of character, or rather of health as affecting character, which must now be pointed out. They are the physiognomical "poles," as they are called, of the lungs, the stomach, and the heart. How important these are in the physiognomic art will be readily understood after a brief consideration of the effects on character of weak or strong digestive power, poor or good lungs, bad or good circulation.

We will take digestion first. The facial pole of this function is situate about half-way between the corners of the mouth and the lower part of the ears, opposite the molar teeth, or in the middle of the cheeks. Those who are full in that region have naturally good digestive powers, while constitutional dyspeptics fall in there, that is, are hollow-cheeked, or, as it is often popularly put, lantern-jawed. The accompanying portrait (Fig. 5) indicates weak digestion. This is a condition of health very often present in literary men and brain-workers generally, and arises, in great measure, from the nervous strain on the system and the sedentary habits of this class of persons. The contrary condition is seen in Fig. 6, representing Meissonier, the French artist, who evidently enjoys good eupeptic capabilities. "This popularity," says Mr. Fowler (in "Human Science"); "shows why and how all the minutest shadings and phases of all the

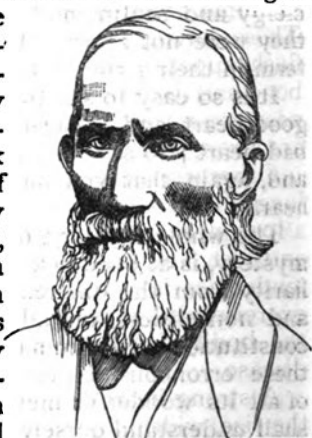


Fig. 5.—Weak Digestion.

health conditions report themselves in the face; that is why the countenances of all proclaim so perfectly all their bodily conditions, including their precise existing states of health and disease; and thereby incidentally why a good complexion is a paramount condition of beauty, and beauty a sign of loveliness, because it indicates normality, and thus purity."

The polarity of the lungs is obviously connected with the face just where the hectic flush appears in consumption, and at the reddest part of the rosy cheeks of health. That this hectic flush is caused by lung inflammation is demonstrated by its always accompanying it. That this particular part of the face is in sympathy with the lungs is proved by its being always pale whenever they are inert; red and rosy whenever they are vigorous and healthy; and hectic whenever they are inflamed.



Fig. 6.—Good Digestion.

In constitutional consumptives the face at this part is always sunken. The larger, when laughing, the muscular ridge running across the face from the nose to the cheek bones the less tendency to consumption there is; and the thinner and smaller this muscle the greater is the predisposition to consumption. Mr. Fowler says the sign is infallible, whether in those from a consumptive stock or not. Those having a hollow beneath the eyes, where the hectic flush appears, and falling in just above or below the cheek bone and between it and the middle of the nose, are predisposed to phthisis. Those, on the contrary, who are full there, are strong lunged.

Other signs of consumptive tendencies are a tall, slim figure, long fingers and limbs, flat, narrow chests, a stooping posture, a long neck, sharp features, light and fine hair and cold hands and feet. Anything, therefore, that tends to counteract these tendencies is good for consumptive subjects. Plenty of air, exercise, and anything that tends to give natural stimulus to the bodily functions are the only panaceas in this terrible disease.

A strong heart or good circulation is indicated by the chin, the size, width, and downward projection of which betokens vigour in that organ. A large, long, broad, projecting chin is indicative of circulatory power, ardency of the animal functions, and strong passions; while a small, narrow, retreat-

ing chin is a sign of feeble circulation and tameness. There is a lack of communicative force in such a chin. The portraits of the King of Greece manifest weakness of this kind, and it is questionable whether he has sufficient power to lead and sustain the people over whom he rules in a difficult crisis of their existence.

Persons with a well-developed facial polarity of the heart enjoy excellent and uniform circulation, have warm hands and feet, seldom feel chilly, withstand cold and heat well, perspire freely, have an even, strong, steady pulse, and are little liable to sickness. The accompanying portrait of Catharine of Russia (Fig. 7) gives evidence of unusual power of circulation and general vital vigour.



Fig. 7.—Strong Circulation.

When the chin is small there is a fluttering, feeble, and irregular pulse, and the person suffers from chilliness, even in summer. Those so constituted are also much affected by changes in the weather, and are subject to coldness of the extremities, and to heat and pressure on the brain. Mr. Fowler says they are likewise liable to brain fever and to a wild, incoherent action of the brain, because the blood which should go to the extremities is confined to the head and vital organs. They are slow to recuperate when ill, and succumb much more readily to disease than persons with a large chin.

Old age is almost invariably accompanied by a prominent chin. The portraits of centenarians, with hardly an exception, present this sign of longevity in a marked degree.

Another indication of old age is a large, long ear, and this sign is all the more sure if accompanied by great length of profile from the chin to the crown of the head.

It does not follow that persons having these signs of longevity necessarily live to be old. It would perhaps be more accurate to say that the features indicated are signs that a person possessing them is of a long-lived family, and that with ordinary care and moderation in living he also can live to be old.

It will frequently be found, too, that persons with tolerably large heads are long lived. The explanation appears to be that, as the seat of life is primarily in the brain, the more room the brain-case affords to the essential functions of life, the better

are the chances for its maintenance. Large headed men will generally be found to have more endurance both mentally and physically, other conditions being comparatively equal, than the small headed. They may not wake up so soon, be so readily started, or show so much activity all at once as smaller-headed men, but they wear longer and do not tire so soon. As a man with a large heart has a better circulation than a man with a small one ; so one with a large brain possesses a more equable and constant supply of nerve force, or of that which is more essentially the life principle than the blood, than one with a small brain. There are cases of idiots living to be old, but as a general rule they do not live to any great age.

PHYSICAL CULTURE.

Now that the public mind has been thoroughly roused to the importance of national education, and that the young, even from the tenderest age, are being confined very much to school-rooms and subjected to that restraint of body which is necessary in school, it is more than ever necessary that attention should be paid to physical culture and development. It is often remarked that if children are allowed to run free and take part in the out-door games and amusements to which they are naturally inclined, they need no special physical training. There is undoubtedly much truth in this view ; but unfortunately town children, and those of the poor especially, are far from possessing the opportunities of unlimited exercise in the open-air. They are besides obliged to spend a large portion of their time in school, where their occupation is the reverse of what tends to the development of the body. Intellectual education is undoubtedly a very good thing, but if the ardour for education which has suddenly taken possession of the nation be allowed to militate against that physical development of the young, so essential to their future health and well-doing, it will become a question whether intellectual training at the expense of bodily strength will not be a curse rather than a blessing.

In many schools, board schools particularly, military drill has been introduced. But this is not sufficient. It might even be shown that the drill of the soldier does not develop equally all parts of the body, but tends to make it stiff and unwieldy. Apart, however, from this objection, it is not adapted to young children and girls—those really who require the most attention in this respect. Then there is another objection to the military drill, and one which will prevent it

from being generally adopted in schools. I refer to the fact that many object to the drill because they think it tends to cultivate a military spirit in children. The objection may appear a weak one in some; but there it is, and there it will remain, and probably grow stronger and stronger so long as we see exist such evils as arise from the large armaments of Continental States. Then on more than one school board the military drill is objected to on account of its cost, a drill instructor's salary making a considerable addition to board school expenses, everywhere already high enough.

What is wanted is a system of gymnastics at once simple and inexpensive; and these we have in a system largely in vogue in the schools of the United States, where the corporeal development of the young is not lost sight of in the ardour for intellectual education. The system referred to is a modification of that of Dr. Dio Lewis, of Boston. An American gentleman was recently observing some pale and puny-looking school children, and asked if in our English schools there was no system of gymnastics practised. The answer that such a thing was an exception rather than a rule surprised him, and he described the simple but efficient method of giving the boys and girls exercise in the primary school in which he was educated in Philadelphia. The class-rooms were all on one floor, and were simply separated from each other by large sliding glass doors. At a signal, given by the head master twice a day, that is in the middle of the morning and afternoon school, the doors were thrown open, boys and girls stepped to the wall, where wands were arranged in racks, took one each, and fell into line in the middle of the floor; then one of the teachers went to the piano and played a simple tune, to which the wand exercises were performed. "Five or ten minutes of these exercises morning and afternoon," said the gentleman, "had a wonderful effect in wakening us up and putting fresh vigour into our studies. Perhaps towards the middle of the afternoon we would be getting heavy and sleepy, when a bout with the wands waked us up for the rest of the day, and instead of being an obstruction to school work it was actually an aid to it; for directly the master's bell sounded, the wands were replaced in the racks, and doors were swung into their places again, and work went on as quietly and as orderly as if nothing had taken place to interrupt it."

This is just what is wanted in our English schools. I recently read in a newspaper an account of a gymnastic competition which took place among the girls of certain schools, who had been taught to go through a number of performances

on a patent apparatus, as if they were in training for acrobats or monkeys. It is surely high time intelligent people, educationalists especially, understood that this is not the sort of physical exercise and discipline requisite for children, and particularly for girls. Perhaps the best means of exercise for them are those games and sports in which they naturally engage—skipping, running, and romping in the fields, throwing the ball, and the like. But as these are not always available, it is necessary to have recourse to other—and somewhat artificial—means, and nothing seems to meet the case so well as the system mentioned above, the invention of Dr. Dio Lewis, of Boston, U.S.A. They consist of exercises with dumb-bells, rings, and wands. The excellence of the system consists, first, in its perfection as a means of developing the body in all its parts, and, secondly, in the ease with which it is applied, the cost of the apparatus being nothing. All that is required by way of tools are a few plain rods or wands, a few pairs of wooden dumb-bells, that can be made at from 9d. to 1s. a pair, and a few pairs of wooden rings. Indeed it is not essential to have all these appliances, one sort being sufficient for all practical purposes. The change from one to another, however, gives a little zest to the exercises.

The appliances are so simple that they may at first sight appear altogether inadequate; it must be remembered, however, that what is required is not to make acrobats and athletes of children, but to give uniform development to the bodily structure, and this can be done by the use of the body alone, with little or no aid from external apparatus. The simpler movements of the wand and dumb-bell exercises can be done by the youngest children: they even soon get into the more complicated movements of the ring exercises, which are done by pairs, and cultivate suppleness of limb and grace of movement, like dancing. The system can easily be learned, and taught by the regular teachers themselves, and they even obtain as much benefit from them as the children. It may be urged that they would not be likely, after the first novelty of the thing had worn off, to give that attention to the subject requisite for efficiency. There might be a danger of the kind, but that could easily be overcome by making gymnastics, like other subjects, available for the Government grant.

Another advantage of the system is that it is practised to music. This, it will be acknowledged, is an important addition. It gives zest and spirit to the performance, just as the drum wakes up the dormant energies of the soldier. But it does more than that. There is an education itself in the very training of the body to act to music.

With regard to supplying the music, it is to be presumed that there is in most schools either a piano or a harmonium, and but few teachers probably now-a-days are unable to play over a simple tune for the movements to be done to. Nothing ornamental is required, the chief requisite being emphasis and good time. Where a more complex instrument is not available, a tambourine may be used for beating time, or it may be done by simply clapping the hands and counting.

It need hardly be said that the school-room floor should be as clean as possible, so that there need be no unnecessary amount of dust raised. The room should also be comfortably warm in winter, and when the exercises are begun the windows should be opened, but closed again directly they are over, so as to obviate chills. The dress worn by those who practise the exercises should be as loose and as free from anything likely to restrain motion as convenient. In some gymnastic classes it is usual for the pupils to have a special dress, somewhat after the pattern of that affected by bicyclists, but a little looser about the trunk. Such a rule, however, is not possible of fulfilment in all schools, and it is, besides, hardly necessary, provided the above conditions be attended to.

By the introduction in our schools of a system of physical exercises like this we should soon see school-children looking better than they now do, and we should not hear so much as we have done of late of over-taxed brains.

A sound brain in a healthy body is a good motto for our schools, and it is one that should never be lost sight of. But that ideal will never be attained so long as town children are debarred from those healthy exercises in the open air which the young of all creatures naturally delight to take, and are pent up for hours daily in the too often close and stuffy atmosphere of the schoolroom, and then the remainder of the time in frequently still closer homes. The time will come when it will be considered as necessary in towns to provide children's gardens as it is now to erect and maintain hospitals and dispensaries. Meanwhile those who have charge of the education of the young will greatly fail in their duty to them if they disregard their physical culture.

J. W.

If I have any one principle firmly fixed on my mind, it is never to shun present inconvenience where it will produce permanent satisfaction. As for the applause of the world, I have often expressed my contempt for it in itself.—*Thos. Young, M.D.*

THE
REPUBLICAN CANDIDATE FOR THE PRESIDENCY
OF THE UNITED STATES.

The Hon. Jas. A. Garfield is a powerfully-built man, six feet in height, well built and proportioned, strong, healthy, temperate, and very industrious. He is in the prime of life, eats heartily, takes hold of business in earnest, and is a great student. Though he began poor, he has succeeded in working his way up to high position. His courage and patriotism were proved on many a battlefield at the head of an army. He has shown himself to be a scholar by being president of a college, has proved himself a statesman by his works and the position he has filled, and he manifests his common-sense by living a modest, unostentatious life, preferring to obey the laws of nature than to live a fashionable, artificial life. His head is very large and particularly prominent in the frontal lobe, indicating very large perceptive faculties and large reasoning organs. He has bold, prominent features, and is in every way fully developed. His parents stinted him in nothing, constitutionally or organically. He was born to be a man and has become one, every inch of him, in spite of many adverse circumstances. By nature, education, habit, and experience he appears fitted to fill the highest office in the State, and discharge the greatest responsibilities with which a nation can entrust him.

Chester A. Arthur, Republican candidate for the Vice-Presidency, is a large powerful man in every way, and short in nothing. His organisation indicates industry, energy, thoroughness, integrity, versatility of talent, great power to organise, systematise, and work by rule, and to plan far ahead.

We may be quite sure that the acquirements of those classes of facts which are most useful for regulating conduct involves a mental exercise best fitted for strengthening the faculties. It would be utterly contrary to the beautiful economy of nature if one kind of culture were needed for the gaining of information, and another kind were needed as a mental gymnastic. Everywhere throughout creation we find faculties developed through the performance of those functions which it is their office to perform, not through the performance of artificial exercises devised to fit them for their functions.—*Herbert Spencer.*

ONLY HALF A HERO.

A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER IX.

Two days after Diedrich Hammelfleisch had informed Captain Durer that he had seen Gustav Riese and found him too weak to talk, the latter sent for the scholar. Diedrich was pleased to find his friend wonderfully improved; his eyes had a look of returning health, and his voice had regained some of its accustomed ring.

"So you are going to give the 'conquering worm' the slip after all," said Hammelfleisch.

"If by that you mean Death, I hope I am," replied Riese. "Yesterday I should probably have said otherwise; but I have got out of the cowardly mood, and that is partly why I sent for you."

"You wish to challenge me perhaps?" said Diedrich, with a comical gleam in his eye.

"Not exactly," replied Gustav, smiling. "No," he continued after a pause, his face suddenly becoming very grave: "yesterday I had a visit from Captain Gottlob Durer, and it was about him I wished to speak to you."

"Yes," replied Hammelfleisch, gazing intently upon the pale countenance before him, and the sad blue eyes that, looking upwards, seemed to be fixed on some object far beyond the confines of the room. "You know he has been ordered away south on an important service?"

"Yes," replied Riese, "he told me he was about to leave, and did not know how long he might be away. He informed me also that he had received a letter from his cousin, Fraulein Bechstein, begging his good offices on my behalf; and was altogether very kind, regretting very much that he was called away at that moment. On rising to go, he said he should make his cousin acquainted with the particulars of this further introduction to me; adding: 'For of course she does not yet know of our first introduction.'"

"Did not the coincidence of name strike you before?" asked Hammelfleisch.

"Not at all. If I had not been in such a weak state it probably would. It was not until I received Jessica's letter, in which she told me that her cousin, Captain Dürer, would call upon me, that it occurred to me that he and my preserver

might be one and the same. You may guess my feelings when I found such to be the case."

"Yes—that I can," replied the other.

"You know Durer—well?" continued Gustav after a pause, turning his eyes towards his friend.

"We spent two years at Leipsic together, and were almost as inseparable as Siamese twins," said Hammelfleisch.

"There is a look in his eye that methinks all men might like," answered the invalid.

"He has a heart like that exotic tree that converts poison into good sap."

Another pause ensued. Then Gustav said, as though to change the tenor of his thoughts:—

"Don't you think it was a strange chance that made Captain Durer the preserver of my life?"

"Very strange," replied Hammelfleisch.

"It seems to me that there was a providence in it," said the other.

"Possibly."

Hereupon followed another pause, during which the scholar again remarked the far-off look in Gustav's eyes, which presently became glassy with moisture. Diedrich rose and went to the window, and tabered on the pane. He knew, though he looked only on the wintry landscape without, that Gustav for a moment or two turned his face to the wall and wept. The invalid was the first to speak.

"Happens there anything without then?" he asked with apparent nonchalance.

"Nothing particular," replied the other; "I was just thinking how beautiful the homeland will look when the winter, which is nearly over, shall be quite gone."

"Beautiful indeed!" said Riese. "But, tell me, have you seen Hans Quint, and know you how he is getting on?"

"Yes; I have seen him several times, and he is doing well. He is as chirp as a cricket, and as full as ever of the golden-haired Lena. What think you he said to me but yesterday?"

"I cannot guess," said Gustav.

"You know the lower bone of his leg was so fractured that about an inch of it had to be cut away, so that henceforth he will go with one leg shorter than the other. I commiserated with him on the fact that this would considerably augment his up and down in life."

"What said he?"

"That if his unequal legs carried him back to Muhlheim quicker than his whole ones would have done, he should not regret the shortening."

"That was just like Hans Quint," said Gustav smiling; "but come, sit down, I have not yet told you all I wished to tell you."

Hammelfleisch sat down again by the bedside.

"Capt. Durer came hither in the twilight," Riese began; "he was already accoutred for his journey; he stayed perhaps half-an-hour, and in that time I learned a secret that may change the whole course of my life—and his."

"Indeed! and what was it?"

"That he loves the beloved Jessica."

"Did he tell you so?" asked Hammelfleisch.

"No."

"You merely surmised it?"

"I saw that such was the case; I could not be mistaken."

"Well?"

"Diedrich Hammelfleisch," said Gustav, turning in bed so that he could be quite face to face with the scholar, and speaking very earnestly, "I know you are Capt. Durer's friend, but I would that you could be mine also."

"That am I," said the young man, grasping the other's hand. "What would you have?"

"You know that Durer loves Fraulein Bechstein?"

"I do."

"Tell me what you know about the matter."

"I know that he has proposed to her, as the saying is, twice, and has been refused; the last time was since the beginning of the war, when he was at home, wounded; then she told him she would have been what he desired had she not pledged her word to another."

"Did she say that?" asked Gustav, with glistening eye and flushed face.

"So Gottlob told me but two days ago, and he is one who could be dumb, but could not speak what was not true."

"And do you think he still loves her as much as ever?"

"I think so," replied Hammelfleisch, adding, "but he will get over it in time; all men with sound heads outlive such griefs."

Little more was said, and Hammelfleisch presently took his leave; but he was destined not to quit the house—a large country mansion which had been converted into a temporary hospital—without another interview. As he was passing by an open door on the ground floor he heard a voice call "Herr Hammelfleisch!" and knew that it was Hans Quint's.

"Now what would the good Hans Quint have?" said the scholar, entering and saluting him.

"Perhaps you have not a few minutes to spare?" replied Hans, raising himself on his elbow.

"I can spare five or ten minutes, if I can serve you," said Diedrich taking a seat by his bed-side. "What is it that I can do?"

"I have been thinking —. But come a bit nearer, Herr Hammelfleisch," said Hans, lowering his voice and looking towards a bed that occupied the other end of the room.

Diedrich drew his chair nearer to the bed.

"Do you think you could get me the Cross?" asked Hans, without further circumlocution.

The scholar's first impulse was to laugh, but he restrained himself and said:—

"I fear not, Hans Quint. If it were in my power thou shouldst have a thousand crosses. But I am only a humble shooter and stabber like thyself, and so without voice or authority."

"Without authority maybe, but without voice not," replied Hans, "for I have heard you sing many a good song."

Diedrich smiled at the poor fellow's simplicity and said:—

"True; and one would gladly sing you something now to cheer you up a bit if one might."

"I should dearly like to hear a good, cheerful song," said Hans, "like the 'Good Comrade,' for instance, though I know it would make me weep; I never heard it but it brought tears into my eyes. But as to the Cross," he said, changing the subject, "I thought if it were made known at headquarters that it was passably well done, that is, the bringing of Lieut. Riese's message from the farm, it might be considered worthy of a Cross. I did my best, and kept pushing on, though I trembled all over. No man can do better than his best."

"True, Hans, and when a man does his best, even though he does it tremblingly, one would think he deserves the Cross. But I fear few men get their deserts; there is a chance in these things, Hans Quint."

"Mayhap there is," said Hans; "but I thought, Herr Hammelfleisch, that you, being a scholar, might know how to bring the thing about. You scholars can do almost anything."

"And yet I am but a private soldier like thyself."

"True! I did not think of that," said Hans. "Of course if you could get the Cross for me, you could get it for yourself. But you may get it yet, Herr Hammelfleisch, and so may I, for the matter of that. They may give it to me when they send me home, as a kind of set-off against my shortened leg."

"Are you to be sent home then?" asked Hammelfleisch, with a smile.

"I believe so," replied Hans; "the Herr Sawbones said this morning I should not be able to serve again."

"I see; and so you anticipate a speedy chance of seeing the beloved queen."

"Nay; I care to see no queen, be it the Queen of Prussia, or even the Queen of England, so I get back to Muhlheim and see the fair Lena."

"Well, well," said Hammelfleisch, rising, "I hope that may be, and soon. Meanwhile I will not forget thee, Hans Quint, and if I am not able to get thee the Iron Cross, I may be able to do something towards procuring thee a cross of another sort. Farewell."

CHAPTER X.

The same evening, somewhat late, Diedrich Hammelfleisch entered the Lion d'Or. The guests were very sparse, and the fair Jeanne Guepe, who was alone in attendance, had consequently little to do in the way of drawing and serving liquors. She was seated in the little recess that served as a kind of bar, and busily plied her needle and thread. Hammelfleisch, after a quiet survey of the room, walked to a little table near to where Jeanne sat. The damsel looked up from her work and said with a smile,

"Guten Abend, mein Herr!"

"Guten Abend!" replied the soldier. "So you are learning to speak German then?"

"Just a little," said Jeanne; "but I cannot say much yet—only Guten Abend! Guten Morgen! and Donnerwetter! What does Donnerwetter mean, Monsieur Hammelfleisch? The young officers are always saying Donnerwetter! over their wine, and twisting their moustaches."

"Ah, you are very observant, I see. 'Donnerwetter?'—it means thunder-weather, in so many words. But when the young gentlemen say that and twist their moustaches, it means that they have a mind to do something terrible, and doubtless would if Providence had not kindly provided that word as a kind of a safety-valve in the hour of need. It is a sort of lightning-rod to their wrath."

"They must be very terrible—some of the young gentlemen," said Jeanne.

"They are indeed," replied the soldier. "I knew one in Leipsic who put his hair nightly in curl-papers, powdered and painted his face like a woman, wore elastic rings on his wrist to make his hands white, and who fought three duels in a fortnight with men who laughed at him."

"How very terrible! And did he kill any of them?"

"Kill!" said Hammelfleisch, with affected surprise, "why should you talk of killing, when it is enough to effect a little puncture in the tender cuticle such as your bodkin would make, and draw as much blood as would write the word 'honour' with a pin's point. They killed, in times past, to satisfy honour; but now-a-days we have improved on those things."

"It seems to me a strange thing, this that they call men's honour," said Jeanne.

"It is indeed, mademoiselle! It is like one of those insects that combine the most noise with the least substance. But to come back to our lesson. Hast not learned to conjugate the word 'Lieben'?"

"No, Monsieur. What does it mean?"

"I cannot tell thee at present; but if the war were going to last a long time, and I were destined to remain within a score leagues of the Lion d'Or, I might make it clear to thee."

"Can you not tell me a little what it signifies?" said Jeanne.

"It is a word of much meaning in poetry, though of but little in every-day life," replied Hammelfleisch. "But where is thy watch-dog?"

"Who do you mean? my father?" asked Jeanne.

"The same."

"He is busy in the yard; he will be in directly."

The words were scarcely out of the maiden's mouth ere her father entered. He cast a dissatisfied glance at Hammelfleisch and his daughter, and gruffly bade the latter go in and prepare his supper. Jeanne obeyed at once.

"I hope you have enjoyed your *tête-à-tête*," said the copper-visaged inn-keeper, with a lowering look at the soldier.

"Have I not told thee before this that I prefer thy daughter's company any day to thine? Thou art a veritable cross-patch, Jean Guepe."

"I do not like it, Monsieur Hammelfleisch; you are ever leaving the company of your comrades to sit by her."

"And for a good reason," replied Diedrich. "I like better to hear the sound of her needle and of her scissors falling on the floor, than their babble; besides it helps me to think."

"I cannot make you out, Monsieur," said the innkeeper. "At times I cannot help liking you, and at times I fear you: you are so unlike other men."

"Is not the unlikeness to other men in thee rather than in me?" asked the soldier

Guepe either did not hear or failed to understand the question, for he did not answer; and several persons entering the cabaret at the moment, Hammelfleisch singled out one whom he knew, and stepped across the room to accost him.

"Is it not strange, Thau," said the soldier, drawing the other to his table, "that if a man have hunger he will presently hear some one cry hot pies?"

"Possibly; but if a man be thirsty will some one at once order him something to drink?" replied Thau.

"What is it to be? for I suppose you must have something to increase your thaw."

"Burgundy—always Burgundy on this side the Rhine. But, I say, what a godsend my name and my appetite are to you punsters and witsters. I think I am an act of providence."

"You were indeed! and yet with all your thawing you do not melt away, but augment—augment. I verily believe if you should live to recross the Rhine, they will be disposed to send half of you back as alien to the soil. You did well to join the Ambulance, for had you been a belligerent you would have been shot a score times; the rawest Franc-Tireur could not but have hit you."

"I am going into training to play Falstaff when the war is over," said Thau laughing.

"The rôle would suit you well if you were not so fat," replied Hammelfleisch, surveying the other with a comical smile. "But seeing you are a Knight of the Pen I want you to do me a service, and help another on the road to misery."

"I shall be most happy," answered Thau.

"Then I will propound the thing to you as briefly as possible. But first let me tell you that I want you to help a man to get a wife."

"Do you wish me to go wooing for him, then?" asked the Knight of the Pen, stroking his beard.

"You are a fit subject to go wooing," replied Hammelfleisch laughing, "But listen, and I will tell you as quaint a story as you have heard since you quitted the Fatherland."

Thau intimated that he was all attention, and the scholar at once proceeded to tell him the story of Hans Quint, and his affection for the golden-haired Lena; adding such touches, and accompanying it with such remarks, as only Diedrich Hammelfleisch could. "It is but a few hours since he asked me if I could not get him awarded the cross," continued the scholar; "not that he cares much for the bauble itself, but he thinks that the distinction would be talked of, and the fame of it precede him to Muhlheim, and so act as a sort of 'Open

Sesame' to the great Knoblauch's presence, and that of his fair daughter. Now, if you could narrate his doughty deed—omitting, of course, how he lay in the ditch, and giving extra prominence to the fact that he fell down insensible from loss of blood as soon as he had delivered his missive—and let it go in your correspondence to your newspaper, it might get to the ears of the Muhlheimers, and do the honest fellow as much good as the Cross."

"I can do better than that," said the war correspondent, for such the Falstaffian Herr Thau was. "If I sent the story to either of my papers it might go in or it might not; but the editor of the *Eilbacher Zeitung* is an old friend of mine, and Eilbach is a neighbouring town to Muhlheim; if, therefore, it goes there all Muhlheim will read it, and the game will then be pretty much as Hans Quint plays it. What say you?"

"I think I see Hans with the fair Lena to wife," replied Hammelfleisch. "You won't delay putting the project into execution?"

"It shall be done to-morrow."

The subject was then dropped, and presently the two parted.

CHAPTER XI.

In the Durer-House at Frankfort the amenities of the household were not improved by the condition of latent hostility which followed on the tyrannical declaration of the head of that house. For several days after the interview with Herr Durer, in which that worthy gentleman avowed his intention to oppose her union with Riese, Jessica saw little or nothing of her uncle, partly because she kept pretty much to her own room, and partly because he came home very little. Whenever anything happened at "Six-Trees House" to cross his humour it was his custom to absent himself, for, like many a creature of his type, biped as well as quadruped, he had several lairs. His wife had learned, perforce, to put up with what she could not cure, and even to feel some sort of comfort in his absence. At first, when she became aware of her husband's wanderings, she used alternately to upbraid and plead, storm and weep, sulk and fondle, in the hope of winning him back to home and its amities and sanctitudes; when these arts failed she tried threats; but in no long time she found that a weak woman was no match for an unprincipled domestic tyrant. Frau Durer had all the instincts, affections, and moral susceptibilities of a true woman; but it needed a

somewhat higher calibre of womanhood to assert and maintain the wife's prerogative. After her first vain revolt, like the ineffectual struggle of the caged bird, she sank into a state of moody submission, and simply tried to hide what she must not heed.

Her niece, who was of a higher strain, rudely awakened to knowledge at the same time as to love, shrunk within herself, dismayed at this first contact with real life after the dream-life she had been leading. If she had put forth her hand to a delicious-looking fruit, and it had turned into a serpent's head at her touch, she could hardly have recoiled more. She was, therefore, in no mood either to ask sympathy of, or to give it to, her aunt; and the more she stood aloof antipathetic, the more she felt she was being held aloof; and so there grew a breach where there should have been mutual support.

What wonder, under the circumstances, that Jessica sought sympathy and counsel where only else she knew where to look for it, and wrote the letter to her friend the pastor she had determined on writing before? In that letter she told of her joys and sorrows, her hopes and doubts, like the simple and single-hearted creature that she was, and asked for the good pastor's advice and encouragement, and then bade him scold her for not writing before, but only when she was in trouble and sore trial; she even hinted that he would best repay her forgetfulness by leaving her letter unanswered.

Nevertheless,—and notwithstanding it was war time and the railway lines were in the hands of the military authorities—the very day after the posting of her letter to the good Pastor Boeck, Jessica began impatiently to look for a reply. Nor had she long to wait. The fourth day brought her the desired missive—an ancient-looking epistle; and the contents were as quaint as the seal and superscription. They ran thus:—

“It is indeed—when one reckons the months—a long time since I heard from thee; and yet when one's life is busy it seems but yesterday—so do the days hasten away. I had but just been thinking of thee when thy letter came into my hands. I was wondering how it fared with thee in these troublous times, and how much of the common sorrow had fallen upon thee, and with what fortitude thou borest it. For well I knew how deeply thou wouldst feel all the horrors of the wilderness, and how keenly too the sight of the Promised Land—that land of promise we elder ones have prayed for and striven for so long—the United Fatherland! But I still thought of thee somehow, but as the child with the large dreamy eyes, and not as one woman-grown, whose graces

would take captive the hearts of the young men, and make them yearn after thee as Jacob did after Rachel in the days of old. It may be too, child, that thou wilt have to serve for thy love like him. It is not always best that we should get what we want at once, without trials of patience and endurance. What we lightly get we too often lightly hold. Only be true to thy love, and wait, and Time fights on thy side. Life is for the young and the strong, though the old may grip never so hard. I say that, though I too am old; and as to thy lover being poor, take not too much to heart the hard things that they say against poverty. It is often, truly, a grievous thing. But I have been all my life among the poor and toiling, and I say to thee if the rich and well-to-do live worthier and nobler lives than they on the whole do, then are they worthy and noble indeed! I might give thee more precise advice if I knew all the circumstances of thy position; but I would say to thee—choose always the better part, with Ruth and with Mary, and much that otherwise would appear dark and difficult will be simplified."

Though the letter of the good Pastor Boeck did not help her very specifically to solve the difficulty in which she was placed, Jessica found it strengthened and encouraged her in pursuing the course which seemed the only available one open to her. She wished she had someone near at hand like the old pastor of whom she could seek advice and guidance in cases of perplexity, and half regretted that Eilbach was so far distant as not to be reachable under a day's journey. Still it was something to feel that, even at that distance, there was one who cared enough for her to be deeply interested in her welfare. A pleasurable turn was thus given to her feelings, and she found herself, as in the olden days, breaking into snatches of song.

The next morning broke bright, and even warm, and as she threw open her casement and let in a flood of fresh air, she let in with it the rich piping note of a blackbird. The strain was catching, and Jessica sang—

Soon will the bright days come again,
And green buds burst on every tree;
Then birds will sing love's soft refrain,
And my love will bring a song for me.

Then she stopped singing, and sighed—

"Ah! but will he? This dreadful war still lasts, and who knows who will return and who stay! Heigho!"

"What a sigh!" exclaimed Sanchen, who had entered unperceived. "But here is something that will perhaps cure

your sadness"—handing the young lady a letter. "I will return directly," she added, leaving the room.

When she did return maybe a quarter of an hour had elapsed. Sanchen then found her young mistress standing in the middle of the room, with a look on her fair face such as she had never seen there before.

"Has anything happened?" asked the maid.

"I have had a letter from Gottlob," said Jessica after a pause, as though she had only just become conscious of the question.

"Well!"

The young lady turned slowly round, so as to face her companion, and said—

"Can you prepare to make a journey with me to-night, Sanchen?"

"A journey!" exclaimed the other. "Der lieber Herr! What journey would you make?"

"A long one," replied Jessica decisively; "and you must decide quickly."

Sanchen stood with open mouth and dilated eyes, staring at the young lady; and when she saw her deliberately walk across the room and lock the door, she probably thought that her beloved mistress had gone suddenly insane.

"Come in here, and don't stand there like a dazed thing," said Jessica, going into the inner room, "and then I will tell you what is my intention."

Sanchen followed like one in a dream.

"First of all read that," said Jessica, placing an open letter before her.

It is rare in the Fatherland to find even one in Sanchen's humble sphere unable to read and write, and she was no exception to the rule. Nevertheless it was some time before she could make out the purport of what was written on the sheet of paper in her hand, which contained writing on both sides. Gradually, however, the whole thing dawned on her intellect, and she exclaimed:

"Du liebes Gott!"

"You understand now why I wish to make a journey?" said Jessica.

"Yes, indeed!" replied Sanchen. "But where will you go?"

The answer came at once, showing that her young mistress had fully matured her plans.

"To Eilbach! To the Pastor Boeck's! What say you? Will you go with me?"

"That I will," replied Sanchen.

It required the utmost caution and expedition of the two to carry out their plan, but fortune favoured them. That very evening it happened that Frau Durer and her daughters had a visit to pay; and it was not difficult to bribe or get out of the way the servants that remained in the house; so that immediately after dark Jessica and her maid were enabled to leave the house with a couple of valises, step into a fiacre that was waiting for them at the next corner, and drive to the railway station. As they were getting into the vehicle, however, a carriage passed close to them, containing the well-known figure of Herr Durer, who was evidently on his way home. Jessica felt nervous and anxious until the train had started and they were well on their way to Mayence.

It was a long night journey they had before them, and during the weary hours Jessica had time to think of all that had taken place since, a mere girl, she had travelled that road before, and especially of the last few momentous months, with their rush of events. She could not help thinking that perhaps she ought to have had more consideration for her aunt than to merely leave a small note in her dressing-room, saying that, for reasons she could not explain, she had found it necessary to leave the house; and yet how could she have justified her conduct to her without showing the letter which afforded such damning evidence of her husband's villany? —the letter, namely, which had so roused Captain Durer's indignation, and which he, scoring his angry protest on the back, put into the envelope directed to his cousin instead of into the one intended for his sire. Her mind was in a highly excited state, as was natural under the circumstances, and everything relating to her life and actions appeared before her in mental review with startling vividness. Then thought projected itself into the future, but was forced back upon itself, for that way all was dark. Still the excitement of the hour sustained her, until, finally, sleep put an end to conflicting thoughts and emotions, and with the grey of morning they reached their journey's end.

(To be continued.)

Knowledge is now no more a fountain sealed :
Drink deep, until the habits of the slave,
The sins of emptiness, gossip, and spite,
And slander die. Better not be at all
Than not be noble.

WHITFIELD'S SKULL PHRENOLOGISED.

In the year 1838, when visiting Newburyport, Mass., U.S.A., Mr. L. N. Fowler was afforded the opportunity of seeing and making measurements of the skull of Whitfield, co-labourer with John Wesley, who was buried in the vault of the Congregational Church of that place. Mr. Fowler's deductions as to the famous preacher's leading characteristics have just turned up amid a mass of old notes, and may be interesting to the readers of the PHRENOLOGICAL MAGAZINE. They are as follows :—

Whitfield's head was unusually large, high in the forehead, broad in the temples and side head, and high in the crown. His social nature was fully developed, excepting Conjugality and Friendship. He had very large Approbativeness, full Self-Esteem, very large Firmness and Conscientiousness, and large Cautiousness and Combateness, which gave him an unusual degree of moral courage, love of truth, sense of character, forethought, and courage in resenting any interference with what he thought was right. He had also large Benevolence, which gave him more of the self-sacrificing disposition, than of the selfish and uncharitable, and disposed him to live for others as well as for himself. Spirituality and Hope were both large, which gave him enthusiasm, expectation, enterprise, faith in providences, and delight to dwell upon subjects of a spiritual nature ; yet he had not much Veneration, and did not regard the forms and ceremonies so much, and it was quite a secondary matter to him whether he was in a church, a barn, or in a pulpit preaching. He loved preaching and labouring for the cause of religion, without so much regard for forms and ceremonies. He had very large Causality, Mirthfulness, and Language ; hence was specially qualified to entertain others, to explain himself, and to communicate his idea in a most elegant and acceptable manner. He had a very high degree of the vital and mental Temperaments, which gave him uncommon warmth, ardour, and intensity of mind, enabling him to exert a powerful magnetic influence over others.

PUNISHMENT OF CHILDREN.—Whether corporal punishment will ever altogether be abandoned in schools, and whether parents will ever be persuaded that about the worst way in which they can correct their children is to beat them, I am sure that I don't know. I do know that I (with inestimably kind help, many years ago) brought up a little boy from the age of 18 months to the age of 17 years, without ever spoiling or ever laying a finger upon him ; but some guardians of youth may not have had such good fortune as I experienced. But I also know that I should be ashamed now, when my grown-up little boy comes to dinner, to sit opposite to him if I had to remember that, when he was a weak young child, and I a hale, strong man, I had abused my strength by beating him.

The Children's Corner.

THE HAUNTED GARRET.

THERE was once an old man who lived in a house of three stories—a quaint-looking old house, with thatched roof, and curious-shaped windows and doors, and dim cellars that were full of mystery to the owner. Early in life it was said that the old man had had strange dealings with certain grim tenants of these underground places; but of late he had come to have less to do with them, because they now delighted to pinch and torment him. So he kept very much to the ground floor, and to the rooms on the second storey. Here he found it very pleasant, the out-look being fair, and everything being arranged for comfort and enjoyment.

The old man—his name was Welt—was rich, and would have been supremely happy but for one thing. There was a ghost in his third storey—his garret. As a boy he had often heard the whisperings of the ghost of nights as he lay in one of the rooms below. But he had never been invited to enter that upper storey, into which his parents seldom if ever ventured, and whither he, when he had come to manhood's estate, was never prompted to ascend. For many years, indeed, so fully occupied was he with business or pleasure, with buying and selling, junketing, and the like, that he almost forgot the ghost's existence. It became simply a kind of legend—an old-world tale—something with which to amuse the children.

But it happened on a time that Old Welt fell sick, and lay on his bed sleepless and disquiet, while the clock on the landing ticked as it was wont to tick in his boyhood days, when he used to hide his head under the bedclothes for fear of the ghost. How he wished the old clock would stop its ticking! But the more he wished it would cease the more loudly it ticked, and the louder it seemed to tick the more distinctly the past years came into remembrance. The review was not a pleasant one to the sick man, and Old Welt painfully rose up in his bed with intent to throw a pillow at the offending clock, which he could just see standing without the open door of his room.

But his hand was suddenly arrested in the act to throw, and he sat there with staring eyes and widely-gaping mouth.

The ghost stood there—its right arm raised as if to guard the clock!—a strange, grim, wierd, unlovely-looking thing.

How glad the old man was when morning dawned, and the beautiful light streamed into his room! Presently he was able to get up and go about as usual; but he was never again able to dismiss the ghost of the garret from his mind. During the day it did not disturb him much, but as sure as night came there it was. Sometimes it took on one shape and sometimes another. Now it assumed a large, threatening aspect, now a milder and more entreating one; but always it seemed to fill the space about with a something

dreadful, like the glooming of a coming storm. Indoors it was as though it filled the room; outdoors it seemed to be everywhere, and to reach down giant-like hands from amid the stars and out of the bosom of dark clouds.

Old Welt was almost in despair. He had tried every means he could think of to get rid of the tormenting spirit, but in vain. The trouble of it had blanched his hair and thinned his cheeks, and people who had known him hale and happy said: "What ails Old Welt?"

The old fellow was certainly in a very bad way, and, to make matters worse, his toothless old dog suddenly made off without the least warning; he was soon after followed by the cat, and Welt was left as lonely as a lone old man could well be.

After thinking about the matter for a long time, he said to himself:—

"Nothing, it seems to me, can be worse than this—not even to be eaten up alive by the old ghost of the garret himself; so I will just go up and see what he and his abode are like."

It was not an easy task he had set himself, however, for the stair-way up to the upper storey was choked with old lumber, and the key of the door was rust-eaten, and huge cobwebs hung about, and thick dust was lying everywhere. Nevertheless Old Welt was resolute, and worked away to remove every impediment, until at length he had the satisfaction to see the door of the garret suddenly open, and an ample and a cheerful chamber expand before his sight.

"Well!" exclaimed the old man in delighted astonishment. "Who would have thought it? So beautiful!—and to have been unused all these years!"

It was like an enchanted chamber, so many were the beautiful things it contained, so high was it above the world and its cares and cares, and so fair and far withal was its outlook through wide paths of blue sky and bright star-lit spaces.

"I shall live here always," said Old Welt, and then, suddenly re-thinking himself, he exclaimed: "But where's the old ghost?"

Where, indeed?

"What's happened to Old Welt?" asked the people who had formerly noticed his care-worn looks. "Has someone left him a fortune?"

But when they put the question to him, he used to chuckle and say—

"Don't ask too much; but if ever a ghost troubles you, or a spirit, or a bogie, or anything of that kind, go and live right up in the top storey of your house, and you will never see it or hear it any more, but will be as happy as one can be."

Only once afterwards did the old man quit his upper storey and grovel again in the chambers below, and that was when he lost nearly

all his wealth; then the weird old ghost appeared to him again, but Welt only chuckled and said—

“Ah, old friend, you cannot terrify me any more. You are only the ghost of my better self!”

Then he went up into his pleasant garret again, and dwelt there always.

Poetry.

MORNING.

The morn is fair, the air is soft,
And blue the arch that spans aloft;
The sun scarce gone an hour high,
Hath oped the daisy's crimson eye.

The skylark on his trembling wings
To the rapt earth his music flings,
While thousand other tuneful throats
Pour forth their joyous matin notes.

A myriad flowers of varied hue,
Sparkling bright with diamond dew,
In a ground-work all of green,
A fairy carpet make I ween.

On such a morn as this, how sweet
To seek blest Nature's calm retreat,
And far away from man's mad strife,
Brood on the higher joys of life!

SONG.

(*From the German of KOPISCH.*)

O come in my boatlein,
Beloved—'tis here!
The night is so still, and
The sea gleameth near.

And wherever I row me
The flood is a-low; ;
My skiff is afloat in
An undulous glow.

The glow it is love, dear,
The boatlein am I:
I sink in the flame, dear,
O save or I die!

C. N.

Reviews.

House and Home, Vol. III. J. Pearce, 335, Strand.

This is a periodical that occupies almost unique ground, and, if conducted in a thorough and enlightened manner, is calculated to do a good work. There is a vast deal to be done, not only in England, but all over the world, to make the house of the people a proper home for the people. We have long sung, "Home, sweet home," and it is time that we made our dwellings worthy shrines for the affections we centre in them. Those who know anything of the dwellers in towns are aware that this is not the case at present, indeed, far from it. The poor are too often housed as no human beings ought to be housed, and Christian (?) men take rent for the abominations. We have had a great deal of legislation with reference to the dwellings of the working classes, mostly with but little good result. Before anything very decided in this respect can be effected it will be necessary to create a very strong and a very wide-spread public opinion on the subject, and if *House and Home* can, during the next few years, do something to bring about such a result, it will deserve well of the country. It contains an abundance of useful matter, both with reference to the house and the home, and will be read with profit by those interested in either. A leading feature of the periodical is its weekly portrait of men and women who have done something for the cause it espouses, and we are pleased to see that both Mr. and the late Mrs. Fowler find due recognition in its pages. The portraits are exceedingly good.

MIND IN MAN AND IN THE LOWER ANIMALS.—Our natural tendency is so much to assume the utter non-existence of mind in animals that, when we find evidence of mind which we cannot resist, we stand amazed at the discovery. In many things, as we know, the inferior creatures are much more clever than ourselves. We could never build a nest like a bird, or make a comb like a bee, or do ten thousand things which are being done every day by spiders and beetles. But still thought in the highest sense belongs to man. A dog sometimes looks as though he was thinking a thing out, and dog stories are very wonderful; but, after all, the cleverest dog that ever lived yet has never been able to get beyond "Bow-wow," and we may safely predict that no dog will ever acquire even the simplest elements of human knowledge.—*Nineteenth Century*.

WE must strive to make ourselves very worthy of some employment or other; the rest is no business of ours, it is the business of other people.—*La Bruyere*.

Facts and Gossip.

IN reply to many inquiries respecting the prospects of the PHRENOLOGICAL MAGAZINE, we have much pleasure in stating that its success hitherto has been greater than we anticipated. It has received the most encouraging support and commendations from every side that are extremely gratifying. As it becomes better known—and we daily hear from persons who have “just heard” of its existence—its circulation and usefulness will become greater, and, of course, its success more assured. Of those, therefore, who would make success doubly sure we would make this request: That they take every opportunity of introducing the MAGAZINE to friends and acquaintances, and that they leave no stone unturned to gain new subscribers and supporters. A great deal may be done in this way in aid of our venture, and in advancement of phrenology generally.

THOSE who are short of the January number of the MAGAZINE can now have it, as we have again reprinted it. We had run out of this number early in June, and were unfortunately unable to supply many orders. Another edition—the third—being now ready, there need be no more disappointment in that respect. Orders to complete sets, however, should be sent in without delay.

MR. JOHN GAY, in a letter to the *Lancet*, describes the case of a “Fasting Girl,” who came under his charge whilst at the Royal Free Hospital, “the facts in relation to which,” he says, “might be of use if turned to account in the treatment of another such case.” “The patient,” he continues, “a girl of about the same age as Mr. Hayman’s patient (the sleeping girl of Tourville), was from a village in Essex, where she had long been popularly known as the “Sleeping Beauty,” and largely visited by persons from far and near, mostly moved by such various phases of emotion as the sense of the supernatural would awaken. There was no deception, actual or intended. The doctors, the clergy, even the village conjurer, had been tried, but without benefit; at last she was sent to one of the large London hospitals, but still in vain. When she came to the hospital, under my care, she took the position in bed assumed by Mr. Hayman’s patient, apparently asleep, with a subdued sigh and a gentle movement of the body on each inspiration, but still alive to a cup or spoon containing liquid food when applied to her lips. Of this she took but little; and of solid food, as far as I knew, none, showing on how small a quantity of sustenance the body can be kept alive. I do not remember whether the stomach-pump was used, but I think not; for remedy soon occurred to my mind, and with the consent of the friends I lost no time in making trial of it. I had a grain of tartar

emetic placed on the back of the tongue. The girl began to show signs of awaking to the dismal consequences of the salt's activity. She soon sat up, and was persuaded to assuage her trouble by draughts of lukewarm water, and later to solace them by a little brandy as well. When these effects had subsided, she relapsed into her former condition, when, after an interval of twenty-four hours, another dose was administered, and was followed by like effects. She was much disgusted with the process; but, after another period of wakefulness, she once more relapsed. A third dose was ordered, in her hearing, when she roused herself, and once and for all refused to submit. The remedy had done its work; the patient took food, got out of bed, began to move about the ward, and, with the terrors of the 'third dose' before her mind, made such recovery that in the course of a very few days she had packed up her boxes and started home. The 'Sleeping Beauty' was thus transformed into a useful handmaiden in her mother's cottage; and a few years ago, happening to be in the neighbourhood, and being reminded of the incident, I called, and found her a robust, active, and intelligent young woman, still with a keen recollection of the occurrence I have related, not unmingled with gratitude."

DR. KEYSER, who has spent eight months in examining train employés of railroads that centre in Philadelphia, finds colour blindness in $3\frac{1}{2}$ per cent. of the whole number so marked that they were unable to distinguish one colour from another; while $8\frac{1}{2}$ per cent., although able to tell colours, were unable to distinguish shades, and were thus rendered incapable of performing duties required of railroad men. Two of the colour-blind men had educated themselves to know that red is a bright, intense colour, as distinguished from green, which they described as dull. But when light green was put before them they called it red. They explained that the green light had at times shown red to them, and they had stopped the trains. But suppose the red had shown green!

MR. GILLMAN, of Detroit, in writing on "The Ancient Men of the Great Lakes," makes a few remarks about skulls, which anthropologists generally would do well to remember. "Cranial capacity," he says, "must not be implicitly regarded as of physiological import. Otherwise we should have the anomaly of the civilised, refined Peruvian with a skull the cubic contents of which are nearly identical with those of the Australians and Hottentots, and are largely exceeded by those of the brutal North-American Indian. Unless the *quality* of the brain can be represented at the same time as the quantity, brain measurement cannot be assumed as an indication of the intellectual position of races any more than of individuals." The phrenologists, it need hardly be said, have been insisting on this fact for years.

THE American *Phrenological Journal*, under the caption "Mind Telegraphy," has the following paragraph:—"A Wisconsin correspondent claims to have made a new discovery in psychology. He has been experimenting with a lady at conversation when at a considerable distance. He says that she and he can communicate with one another twenty miles apart, and do it as intelligently as if they were sitting side by side! This is by no means a new discovery. Many persons for generations past have made claim to a similar ability. There is a subtle force in human nature which has for one mode of exercise this of mental telegraphy. Perhaps at some future day its philosophy may be so well understood that, instead of a few, nearly all will be able to exercise it for their convenience, and thus render the post-office and the electric telegraph almost unnecessary." We have heard of mental telegraphy before—in fiction; it would be interesting if the "Wisconsin correspondent" would describe "how it is done." Speculations in psychology are constantly cropping up; but they are nothing unless proved.

DR. CORFIELD, Professor of Hygiene and Public Health at University College, London, has published a thoughtful book entitled "Health," which ought to have many readers. On the subject of hereditary disease, the Doctor makes some wise remarks, which should be kept in mind by young people about to fall in love, for he shows that they have "no right" to marry into a family in which there may be a tendency towards disease which they themselves suffer from. Where this precaution is disregarded, the "children are almost certain to suffer from that disease in the worst possible form." "If," continues the Doctor, "there is a tendency to nervous disease in your family, and you marry into a family in which nervous diseases are prevalent, it is very likely indeed that your descendants will furnish a very large number of inmates to the lunatic asylums. Not only are tendencies to disease hereditary, but a tendency to long life is hereditary. If mischief in the organs of the body is likely to descend, and if likenesses descend, it follows that perfection of the various organs of the body is transmitted in families, and so long life is hereditary. But there is another reason why long life is hereditary, and that is, that long-lived people have a kind of contempt for persons who are not long-lived, and they rarely marry into families that are not long-lived families; and so this tendency to long life is increased, and that makes it still more markedly clear, and it has been observed over and over again that long life is hereditary." Dr. Corfield may well declare that "people ought to think of these things a very great deal more than they do."

You are after all *what you are*. Deck yourself in a wig with a thousand locks; ensconce your legs in buskins an ell high; you still remain just *what you are*.—*Goethe*.

ONE of the good effects of the late depression of trade, and the consequent "hard times," has been to turn people's attention to more thrifty modes of living, and especially of eating. The result is seen in the number of "Food of Health Restaurants" to be met with in London and large towns generally throughout the country, and which to all appearances thrive. If these vegetarian eating places do but prove that man is an animal that can subsist, and even be strong, on vegetal substances, they will prove of no small benefit. It is lamentable to see what nonsensical prejudices still exist in favour of a meat diet as against one of fruits and farinacea, and what disgusting compounds of flesh the poor will eat in preference to a clean and wholesome "dinner of herbs." As to the difference in point of health between the two diets, no one can doubt who has tried both. How wise an arrangement it was which made man capable of subsisting on almost any diet is evident from the fact that he *can* maintain existence wherever there is life, and where other animals of less omnivorous design and habit would die; but, for all that, his highest health and well-being are intimately linked with a diet composed chiefly, if not entirely, of the fruits of the earth.

TRELAWNEY, THE FRIEND OF SHELLEY AND BYRON.—"The last time I saw him was at his place at Sompting, on the South Downs. His own particular sitting-room there reminds one considerably of a ship's cabin; it is very plainly furnished, without curtains, and the wall-paper, brilliantly coloured like a child's picture-book, has small square designs of different nations engaged in characteristic occupations. In the morning I heard this wonderful old man, now aged eighty-seven, singing as he rose. He always takes a kind of air-bath before dressing, draws his own water, and chops his own wood. He breakfasts off cold water, bread, and fruit, which he eats standing. The crumbs of his table he scatters on the window-sill for the birds, being very fond of animals generally. He is extremely abstemious, taking only one solid meal a day, and, like his beloved Shelley, he prefers a diet consisting of vegetables, milk, and fruit. His astonishing health and strength ought certainly to make many converts to his mode of living. He goes out every day, no matter how inclement the weather may be, and of late years, when he has chiefly lived at Sompting, he strolls to a duck-pond and feeds the ducks. He has a fondness for children, and, if unobserved, will walk with a stray child clinging to his hand, and regale it with 'Turkish Delight,' a favourite sweetmeat of his own. Winter and summer he wears the same costume—no under-clothing and no extra outer-clothing. His air and appearance are singularly commanding."—*Whitehall Review*.

THE pleasure of criticism deprives us of that of being deeply affected by very beautiful things.—*La Bruyere*.

Correspondence.

THE FUNCTION OF MIRTHFULNESS.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—With your kind permission, I would like to reply to Mr. Barratt's letter on "The Function of Mirthfulness," as inserted in your last number.

I find the first paragraph of Mr. Barratt's letter diametrically opposed to the second. In the first he confesses himself more willing to be led astray by Mr. Bray in the May number, than to be corrected by me in that of June. Now, Sir, in order for him to justify himself in making that statement, he is bound to prove me more in error than Mr. Bray. But he does not even attempt anything of the kind, but *vice versa*; for in the second paragraph he admits that he cannot agree with Mr. Bray, but from his definition which follows he is almost entirely opposed to him; while it shows him to coincide with myself with this exception: that the perfecting organs alone perceive pain—a statement that every phrenologist and mental philosopher knows to have no foundation whatever. It is a plain, self-evident fact that every power of the mind must inevitably experience pain by coming in contact with anything of an opposite nature to that which it admires. For instance, Form will be pained by ugly shapes; Size by impropriations; Weight by unequal balance; Colour by inharmonious shades; Order by disarrangement; Calculation by numerical errors; Time by unpunctuality; Tune by discord in sounds; Language by stuttering; Mirthfulness by excessive seriousness; Ideality by imperfection or vulgarity; Combateness by cowardice; Benevolence by cruelty; Hope by despondency; Conscientiousness by injustice; Friendship by loneliness; and so on. When the normal function of an organ is known, it is very easy to infer its opposite, and that opposite will cause pain, and the function of Mirthfulness cannot be better defined than by just adding that in proportion to its relative size and activity to the other organs will its function be manifested, in turning that which causes the other faculties pain into fun, amusement, laughter, ridicule, &c. How often have I seen very moral and religious persons unable to suppress their laughter when I have described to them the ludicrous way in which the heathens worship, although at the same time they have been much distressed at the ignorance of the subject of their fun. It would be much better if many people would allow this faculty to have its natural action, for it is to everyone a relieving officer. The way in which some foolish people try to hold this power of mind in check is much to be regretted and condemned. They little imagine the life-giving power there is in a good, hearty laugh; nothing is better for dyspeptic persons.

In conclusion, Sir, I wish to tender my hearty thanks to your other correspondents for their letters, inasmuch as they have tended to arouse thoughts which otherwise would have remained dormant. Hoping I have not trespassed on your valuable space,—I remain, yours faithfully,

W Hampton, July 5th.

THOS. HOWES.

THE HENDERSON TRUST.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—I noticed in the February, March, and April numbers of the PHRENOLOGICAL MAGAZINE some particulars with reference to a sum of money lodged in the hands of trustees “for the advancement and diffusion of phrenology, and particularly for its practical application.” It is stated in the March MAGAZINE that the estimated capital of the trust was, in Jan., 1880, £9,785 2s. 7½d. This is a large sum, and it appears to me desirable that those interested in phrenology should know something of what is being done, or proposed to be done with it; anyhow I as one should like to know something about it. £9,785 is a large amount, and, judiciously spent, a great deal could be done with it.

It is the more desirable that something should be done with the money now, instead of allowing it to be idle, because there appears to be a revived interest in phrenology, stimulated in part, no doubt, by your valuable MAGAZINE. I do not know whether I am in place to address my inquiry and suggestions to you, but seeing that I am ignorant of the names or whereabouts of the trustees of the Henderson Trust, and knowing no one who can afford me the least information on the subject, it occurred to me that perhaps a letter in the PHRENOLOGICAL MAGAZINE might elicit the information desired, and create an interest in the subject.—I am, Sir, yours faithfully,

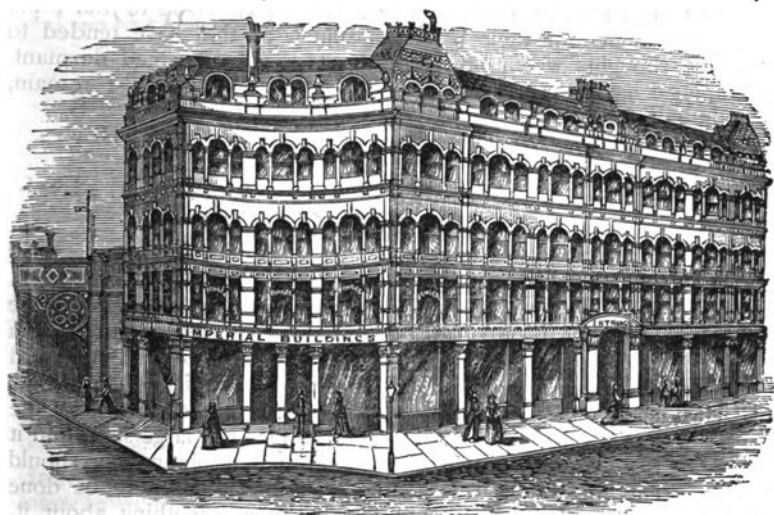
38, *Belgrave Road, N.W.*, July 15, 1880.

WM. CROMPTON.

Answers to Correspondents.

F. G. A. (Dudley).—(1).—The “Characters” of eminent men published in the MAGAZINE are from portraits when so stated. In other cases they are from personal examination of the subjects. To one experienced in practical phrenology there is not much difficulty in judging of the organs of the side and back of the head, especially with profile and full-face photographs. To those who, in addition, are acquainted with the principle of physiognomy, the reading of character from portraits is a comparatively easy and accurate science. (2).—Probably next month.

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MR. FOWLER begs to inform his numerous friends and patrons that he has removed to the above commodious premises adjoining Ludgate Hill Railway Station, in order that he might have room for the extension of his publishing business, which has grown to such dimensions as could not be conveniently carried on in his former rooms. All his own works will henceforth be published by himself; and in addition, he has been appointed sole agent in Great Britain for the works published by S. R. Wells & Co., Phrenological Publishers of New York, which in itself necessitates an increase of staff and accommodation.

Mr. Fowler has also made arrangements for the publication of works coming within his province, and he hopes that from time to time there will be issued from his house such works as will sustain the good repute which the name has ever borne in connection with Phrenology.

In making his selection of premises, Mr. Fowler has had in view the possibility of arranging his extensive cabinet of skulls, busts, &c., illustrative of Phrenology, to a better advantage than he has hitherto been able to do. There has long been a felt want of a Phrenological centre in London, where the literature of the subject could be procured, meetings held, and a kind of museum concentrated.

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THE
Phrenological Magazine.

SEPTEMBER, 1880.

THOMAS CARLYLE.

The subject of this delineation is one of the men whose name and character stand out in bold relief among the men of his day and generation. Mr. Carlyle is one by himself—peculiar in organisation and equally individual in the development he has given to his character. He has by nature a rugged, robust, highly masculine organisation, which makes him feel quite strong within himself. He has a more powerful constitution than belongs to the common lot of men. All his bodily powers appear by nature to be amply developed, and, together with his large brain and highly-cultured mental temperament, give him great personal influence and ability to sway the minds of others. He is thoroughly masculine in the grasp and comprehensiveness of his mind.

Few men are more perfectly satisfied with their own thoughts, or governed more by them, than he is. He is so original, and his originality runs in so peculiar a groove, that it is almost certain that he will differ from others on a given subject, or that they will differ from him.

One of the largest organs of his brain is Causality. This it is which gives him his originality of thought, and the disposition to think for himself, to rely on his own opinion, and to give preference to it. His style of reasoning is peculiar to himself, and he is not prepared to receive as true that which he cannot reason out to his own satisfaction. He values facts in proportion as they support reason rather than merely as facts. In other words, he places reason above facts, and is more given to ratiocination than to observation. He is better qualified by nature for a philosopher and abstract thinker than for a matter of fact, scientific man. He is a great observer when he can get certain food for his reasoning

faculties ; but he is not a great observer without a special object in view.

Large Order, with Causality, gives him great power to arrange and systematise his ideas and method in presenting them ; and with his large Comparison he is able to classify, analyse, combine, compare, and adjust one thing with another, giving power and effect to his criticism.

His imagination is strong, and acting with his large brain and cultivated mind, gives him great command over his thoughts, feelings, and language ; hence he is able to make the most out of his subjects, and to so amplify them as to leave little more to be said. There is consequently a tendency to exaggeration. The good he makes very good, the bad very bad, and the beautiful very beautiful. What he likes he likes very much, and what he dislikes he dislikes to an extreme degree. Hence he presents his views with a certain amount of extravagance. His imagination, joined to his higher sentiments and spiritual emotions, makes him more lofty in his thoughts, grander in his conceptions, and more beautiful in his imagery than belongs to the common lot of mortals, and gives him talent for fiction as well as philosophy.

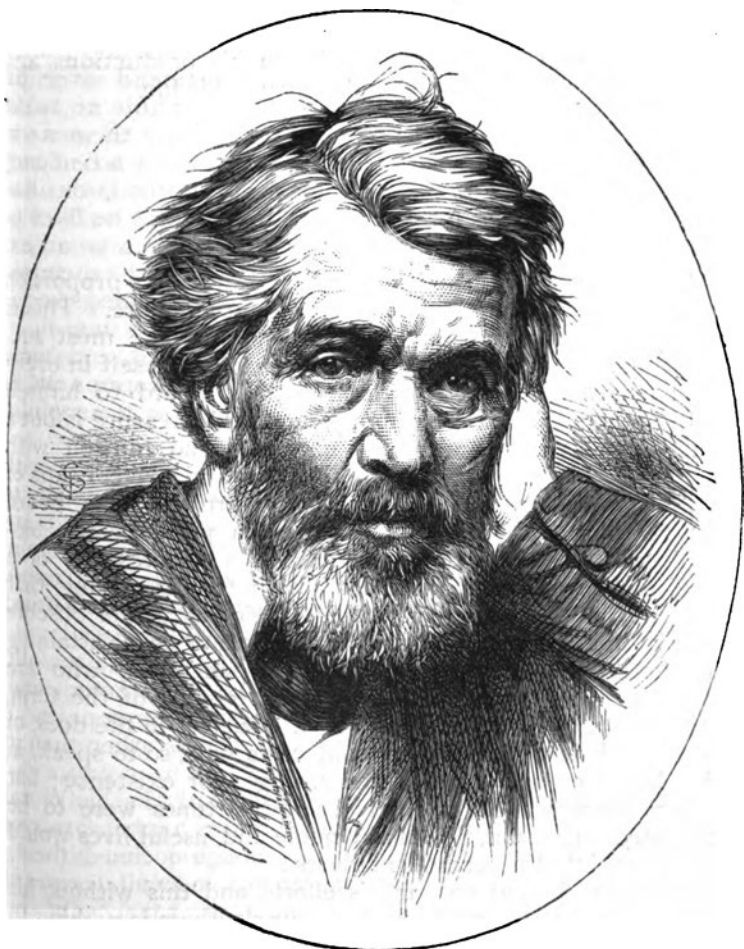
The organ of Mirthfulness is large, and, combined with other organs, gives him great power to act on the minds of others, and enables him to find illustrations in new and unusual channels. This faculty, joined to his vigorous brain, large Combativeness, Conscientiousness, and scope of mind, enables him to present a person or subject in a most absurd and ridiculous light, and to be very witty and sarcastic.

His large neck and the heavy base to his brain, especially at the back of his ears, indicate great force of character ; and, as he has given his life to intellectual pursuits, and not physical, he will show it in force of thought and words rather than in blows.

Conscientiousness stands out pre-eminently in his moral brain. He has a rigid sense of right, and is a great lover of the true and the real. He is full enough inclined (being moral himself) to notice the wrong-doings and evil designs of others, and can criticise with an unsparing hand. On the contrary, what he thinks is just and honest he will stand by to the last. He has moral courage to do and say what he thinks is right, and to expose and condemn what he thinks is wrong.

His dignity and self-appreciation come from his consciousness of his intellectual and moral worth rather than from his self-esteem. His ambition is great, but it takes an intellectual direction. His reverence for his Creator would be based on

intellectual convictions of his character, and not on the mere *feeling* of worship. He is no idolator or worshipper, except to worship intelligence and integrity. Firmness is very large, and must have a marked influence on his character, giving great determination of mind, perseverance, settledness of con-



(From the "*Leisure Hour*.")

viction, and steady adherence to purposes and plans. When young, his vivid imagination may have made inroads upon his decisions, and led to some contradictions in his plans, but, imagination aside, he is very tenacious, and almost unbending. He is not wanting in faith in the invisible, immortal, and

spiritual, but it is a faith of his own, and not one taken from any book of creeds. He singularly combines the conservative with the radical, the economical with the liberal, the rigid with the tolerant, the genial and entertaining with the reticent and distant, and is liable to be to those who do not understand the springs whence come his peculiarities a man of contradictions.

His great strength of character, joined to his originality of mind, may lead to some anomalies in his productions, and yet there may be no lack of consistency in his life.

SUCCESS IN LIFE.

A man's success in life is generally estimated in proportion to the amount of money he manages to accumulate. This is not my view of success in life. To my mind the most successful man is the one who makes the most of himself in every way: makes the most of himself both in regard to himself and to others. The man who merely hoards treasure is but a squirrel on a large scale. He may surround himself with every comfort and with much splendour, and leave heaps of money for his relatives to squander, quarrel over, or hoard like himself; and his name may find a place in the biographical dictionaries as an instance of a "successful" or a "self-made" man, but I have no hesitation in saying that there are hundreds of men plodding their way in the obscure ranks of life, little talked about, and seldom or never attaining the distinction of even a newspaper paragraph, who are nevertheless more successful, in the truer sense of the term, than such a one as above instanced. Success in life does, of course, include the ability to hold one's own, so to speak, in what has been aptly termed the struggle for existence; but if only those who accumulated large fortunes were to be accounted successful, how many noble and useful lives would have to go into the record as failures!

If fortune follows on a man's efforts, and this without his sacrificing himself unduly in the struggle, there is nothing to be said against it. I have no sympathy with those who decry wealth. Money, and plenty of it, is a good thing, one of the best things, when its possession is accompanied by the sense to use it aright. It means the power to study, to travel, to gain large experience, to help others, to have indeed a giant's arm to do good and to get good.

Let no man, therefore, in his efforts to "get on," as the

phrase is, begin by despising money or the means whereby it is won. Let him make plans for getting it, labour for it, and lay by stores of it: let him only not love it more than the good uses to which it may be put.

Success in life, in brief, signifies making the best of our abilities for the advantage of ourselves and others.

How is this to be done? This is a question of importance to everybody, especially to those beginning life. The first thing we should do should be to undergo a strict self-examination, in order to find out what powers we possess, and how we can best put them to account. Some men, and women too, become disappointed early in life because they find others who start with better advantages, or are endowed with higher gifts than theirs. They forget that the fight is not always to the strong, nor the race to the swift. Early advantage is a great deal, and genius is a rare gift, but success does not depend upon these alone.

A man with less genius and more training will make a more perfect work than one with more genius and less training. Many who have suitable ability do not succeed because they do not put forth sufficient effort. One great source of failure or want of success arises from a lack of application. Many never learn to succeed in anything. They get into the habit of leaving a thing half done, and then going to something else, and although they are always busy yet they never finish, and consequently never succeed. Many pupils only half understand their lessons; they skip over much in order to keep up with the class. They let the difficult words go without knowing their origin, their orthography, or their meaning; hence they do not succeed for the want of correct knowledge and proper discipline.

Success in life depends, first upon being well born, secondly upon being well trained and developed, and thirdly upon choosing a calling suitable to their natural abilities.

What is it to be well born? It is to have parents adapted to each other in temperament, quality of organisation, and health, and prepared by consent and arrangement for the onerous duties of parentage.

What is it to be properly trained and developed? It consists first, in being properly washed, fed, and clad all the way up; to be taught to do what is right and necessary; to be encouraged to do for one's self even when young, and to do many different things; to do everything thoroughly well, and to finish what is begun; to read and study various books, and to go about and see how others live and do things; and above all, to be a close observer of nature's laws and unfoldings.

Choosing a calling suitable to our natural abilities, is to be employed where our various powers can develop themselves to the best advantage. For instance, a person having more bone and muscle than brain and nerve is best adapted to physical labour, and to occupations where physical endurance is required. One having a predominance of the vital organisation is best adapted to a calling where exposure is required. One having a predominance of the brain and nervous power should be employed where mental strength and susceptibility are necessary. So different conditions of the body qualify us for some spheres of labour, and different conditions of brain prepare us for other kinds of labour. As the powers of the body and mind become more and more developed, and civilisation advances, more special and artistic kinds of work are required, and more study and accurate thought necessary. The greater portion of society has so advanced that nothing short of high-class work will satisfy, and the artizan must be by nature and culture qualified to meet the demand.

Fifty years ago a farmer could make all his farming utensils, a mechanic his own tools, a dentist his own instruments ; now they are all done by machinery at a manufacturing establishment. The same was true in regard to fabrics. The flax and wool were raised on the farm and were prepared and made into cloth by the wife of the man who grew them. Then all that a man needed he produced and made. Now our wants are so many, and we are so particular, that a special artisan, particularly trained, is none too skilful to make what we want. In many respects the old way was the best ; for the necessities of the times brought out more of the mind, and created a kind of independence that led a man to feel that his strength to supply his wants lay within himself and he was not dependent upon his neighbour.

Who succeeds in life ? Not the young man who thinks more about his dress than about his work. Not the young man who spends his evenings in the bar or ball room, and his spare cash on horse-racing. Not the man who takes a large contract at a lower rate than it will cost to do the work, and makes a great display of business capacity so long as his means and credit last, and then goes into obscurity. Not the young man who goes to college, full of blooming health, with a pocket full of money, and a host of friends, but returns home the second year bankrupt in pocket and health, and at the foot of his class. Not the young man who depends on borrowed capital and has nothing to show but certificates and recommendations, and has more on the outside of his house than inside, and all his goods are in his window.

Men may succeed for a time on a false foundation and in a dishonest business, but not in the long run. Those succeed who constantly do the right thing and get the reward for it. Many men succeed, but are not satisfied with their success, although it is justly earned. A man of middle age came to consult me as to what he could best do by way of getting a living; for he said he had never yet succeeded in anything, and he did not like to be entirely dependent on his friends. I looked at him and said I thought he had succeeded. He assured me he had not. I told him I was sure he had succeeded; if in nothing else, in at least breaking his constitution; and I asked him how he did it:—"Do you work very hard?" I said. "No; I do nothing."

"Do you drink spirits?" "No; unless someone asks me to."

"Do you smoke cigars?" "No, not now; but I used to, and the doctor told me if I did not stop, it would kill me, and I stopped two months ago, and am not well yet."

"How long did you smoke?" "Some twenty years."

"How many cigars did you smoke a day?" "About twelve on an average."

"And you say you have not succeeded. I think you have succeeded exceedingly well. Do you know how long the Great Eastern is?" "No."

"It is 8,160 inches long; and smoking twelve cigars a day, each three inches long, you smoked the length of the Great Eastern in eighteen months." "Oh, yes, that way," he said.

"Your success," I replied, "was in harmony with what you did. You were twenty years ruining your constitution, and did not complain at all; and now you complain because you do not recover it in two months. It may take you twenty years to regain your health, if you ever do."

Many men do the wrong kind of business, and then complain because the results are not satisfactory. The results of wrong-doing are never satisfactory—however honest and sincere we may be. Those of my young readers who are anxious to succeed, without a failure, in life, let them first become as well acquainted with their physical and mental organisations as possible, with the quality as well as quantity of power they possess; let them find out by the shape of the brain what qualities by nature predominate, and then let them set themselves to work to cultivate those powers, and learn to combine the action and union of certain faculties, and thus make themselves do what they have the talent for. Neither the mind as a whole, nor any one faculty of it, does its best at its first effort. It is by long practice and great patience that a real genius succeeds to satisfaction.

Remember that the more faculties act together in any calling in life the better will the work be done. Yet in all cases correct knowledge, perseverance, patience, application, industry, and a single eye to the accomplishment of a definite object are necessary. Where there is a *will* there is a way; but if there is *no will* there is no way, and that is the reason why so many do not succeed. Their will has never been trained; hence they are easily discouraged because they do not succeed the first or second time of trying.

L. N. F.

"MORAL RESPONSIBILITY"—DOES PHRENOLOGY DISCOURTEGEANCE IT?

In one of our denominational magazines an article appeared some time ago by a professional writer on the above subject, in which he unscrupulously affirmed that the "dogma" of phrenology, "as propounded by modern theorists," "lies at the root of much of the rubbish talked and written concerning man's irresponsibility for his acts"; and he maintains that phrenology *does* discountenance man's moral responsibility. I was much struck when I read the article, as it was penned by a person whom I admired; and especially as all my study of the science hitherto had taught me, if it had taught me anything, that man is held accountable for every act he does; and though my study of phrenology since has not abated, but rather increased, I have seen no reason to change my view; on the contrary, in proportion to my study have I been more firmly grounded in the belief that this science, next only to the sacred Book itself, recognises and inculcates the grand truth that "among the characteristics which separate mankind from the brutes, none are so full of grand meaning as that of his being a responsible creature, an intelligence gifted with an innate perception of right and wrong, and a capability, even by nature, for discernment between them."

I could not help perceiving, however, in my perusal of the article, that phrenology (in fact the Bible does too) presents man's "moral responsibility" in a light somewhat different from what this writer does. He seems to think that all men are equally free, and consequently equally accountable. Phrenology, however, does not teach this. Whilst it assumes that all men *are* free, and hence *are* responsible, it does not assume that all men are equally free, and consequently equally re-

sponsible, for to assume such a thing would be a palpable inconsistency—inconsistent alike with reason and Scripture. Reason attests most incontestably that a person removed only two or three degrees from an idiotic development cannot be held equally responsible, morally, by the great moral Lawgiver of the Universe, with the person who has a development similar to Melancthon, or John Gutridge of our own time. And does not Scripture attest the same truth? If not, what is the import of the parable of the talents? The teachings of the greatest moral Teacher the world has ever seen are in happy accordance with, and afford a beautiful confirmation of the important truth taught by phrenology, that we are free only in proportion to the possibilities of our organisation, and are responsible only so far as that freedom is misused or perverted.

"Is it then pretended," asks this writer, "that phrenology solves all the difficulties that present themselves as to the varying courses pursued by different men through life?" Our answer is, that in connection with the influences of education and surroundings, phrenology does solve the difficulties thus presented, and that in a manner far more rationally than any other system of science or philosophy whatever. Phrenology affords the master key of man's mental characteristics and peculiarities, and the only one that has ever been used with certainty.

"Is it contended," then asks the writer referred to, "that because one man has a certain bump largely developed he is not answerable for the excesses against society which that predilection leads him into?" No; there is no intelligent phrenologist who contends for such a thing. The development of no particular organ or "bump" necessitates a man's going to "excesses against society," no matter how large that development be. The normal function of every organ is not *bad* in itself; it is *abnormal* action that begets impure and wrong desires, and so leads to excesses; and mankind are so constituted that "the still small voice" of Conscientiousness is heard above every other faculty, telling every man what the normal action of every other faculty is; and it is only when that voice is disregarded, other faculties unduly exercised, inflamed, and perverted, and there is inharmonious working among the faculties, that men are led into excesses against themselves and "society." But surely no man who understands what he says would affirm that phrenology, because it teaches this, teaches that man is not responsible for his acts. Yet unblushingly this writer protests that "phrenology, as propounded by modern theorists," teaches this pernicious dogma. Surely, in making such an assertion, he is either

guilty of a wilful misstatement, or he is utterly ignorant of the science he pretends to criticise.

But in addition to making the foregoing assertion, the writer attempts to justify his arguments by others equally as preposterous. "Suppose for a moment," he says, "that one man has been examined, and found to possess strong organs pointing to possibilities of crime or passion, whereas another is notable for the uniformly mild and kindly nature of his proclivities. Suppose also, that not the slightest inaccuracy is possible in the method by which this is arrived at. We are to be told then, that because a murderer or a felon is examined after the law has pronounced its verdict as to the crime committed, and appearances indicate such formations, therefore they are not blameworthy for the acts performed. Is this logical, or even according to the rules of common sense?" No, not at all, nor is the conclusion of this latter supposition a logical deduction from the first. Supposing a person to have "strong organs pointing to possibilities of crime or passion," it would not necessarily follow that he would not be guilty for rushing into crime. To suppose this, is to suppose two things: firstly, that certain organs, such as Destructiveness, Combativeness, Acquisitiveness, with Self-Esteem and Firmness, irresistibly lead to murder, or burglary; or, secondly, that where these organs exist, there are no counteracting ones. But any person who has but a superficial knowledge of phrenology must know that it does not countenance these suppositions; on the contrary, it exposes their fallacy; and the fact that it does so, is a positive proof that phrenology recognises the grand truth that all men are justly held guilty for acts of murder, &c., inasmuch as those deeds are perpetrated under the influence of the perverted action of the above-named organs, and not in their legitimate exercise.

The writer goes on to say that phrenologists tender more sympathy towards those who wilfully go into vice and crime, than to those who fall into them when trying to avoid them; an assertion which needs not be exposed by me; and then he branches out into one or two other lines of thought. As, however, they are founded upon the errors already answered, it is unnecessary to repeat them. I have shown that phrenology recognises man's moral responsibility, in what sense, and to what degree; having done so, I need not recapitulate.

Before closing this short paper, however, I may say that it is a great pity that professional writers do not try to understand the principles and teachings of phrenology before raising their puny views against it, as they only lower their reputation by writing about that of which they are profoundly igno-

rant, and enlist themselves among those who, while they pretend to be striving for the truth, are only propagating and bolstering up error.

ALPHA RHO.

[We willingly insert the above, by a young writer, because we wish to encourage such ; but, all the same, we think that it is hardly worth while to notice the lucubrations of an obscure writer who is mainly successful in exposing his own ignorance.—ED. P. M.]

“PHRENOLOGY : OLD AND NEW.”

(First Article.)

Dr. Charlton Bastian has just published a work entitled, “The Brain as an Organ of Mind,” which very ably presents all that is at present known of the brain and its functions, judged from a purely physiological point of view. We may have occasion to return to the book as a whole on some future occasion : at present we wish more particularly to notice a chapter entitled, “Phrenology : Old and New,” with the view of showing how much nearer, year by year, the discoveries of physiology bring the anatomist to the principles assumed (we will say “assumed”) by the phrenologist. It is not many years since the most advanced physiologist refused to recognise that any of the mental functions were performed by special organs, and the phrenological doctrine of the division of the brain was scouted as at variance with the fundamental facts of cerebral physiology. How different is the standpoint now taken we shall presently see.

Dr. Bastian begins by altogether discrediting the “system of Phrenology” of Gull and Spurzheim, as “fallacious in almost every respect ;” and we are not so wedded thereto as to wish to claim that it is perfect. We are quite open to the belief that as our knowledge of the physiology of the brain and of psychological analysis extends, our present views with reference to phrenology will have to be modified to some extent. What we do contend for is that its principles are true, and that in the main the localisation of faculties are accurate. We are not afraid of the discoveries of physiology, and we are the more strengthened in our position when we note the difference of opinion in respect to brain-function between such men as Bastian and Flourens. “This eminent physiologist,” says Bastian, of the latter, “who may be said almost to have been the initiator of experimental research as directed to

the determination of the functions of the brain, felt entitled to draw from his own well-known investigations . . . conclusions, altogether opposed to any localisation of functions in detail—this is, of special functions in special regions of the Cerebral Hemispheres."

"But, notwithstanding," continues the doctor, "the fact that these early and difficult experimental investigations seemed, as Flourens thought, to entitle him to draw some such conclusion, that a definite order must be observed, and that identical mental operations will always be associated with the functional activity of identical tracts of nerve fibres and cells in the brain, and its dependencies. We know that the Olfactory, the Optic, and the Auditory Nerves, each goes to different parts of the brain, so that the primary processes in relation with the exercise of the corresponding senses are distinct from one another. Can we believe that in their latter or higher phases the tracts for such impressions lose their distinctness? Again, I touch the table at which I am now writing, with my fore finger, the impression thus produced travels by means of nerve-fibres along a perfectly definite route from the part touched to my spinal cord. Can I doubt that the route by which it reaches the brain is just as definite (though not so well known), and that a similar impression would always follow the same route, so long as the conducting channels remained uninjured? In some such sense as this 'localisation' would seem to be a simple *à priori* necessity. But if it holds good for sensational operations it will be equally likely to obtain for intellectual operations and emotions. Order and arrangement could scarcely be absent in the carrying on of the functions of those parts of the brain alone, where, from the subtle nature and multiplicity of the molecular actions involved in myriads of cells and fibres, these particular characteristics of lower brain-actions would seem to be so pre-eminently needful."

The author then raises another question, namely: "Whether, in the event of 'localisation' being a reality, the several mental operations or faculties are dependent (a) upon separate areas of brain-substance; or (b) whether the 'localisation' is one characterised by mere distinctness of cells and fibres, which, however, so far as position is concerned, may be interblended with others having different functions. Have we, in fact, to do with *topographically separate areas of brain-tissue*, or merely with *distinct cell and fibre mechanism existing in a more or less diffuse and mutually interblended manner*?"

"The latter kind of arrangement seems, on the whole, to be an even more probable one than the former, and may com-

mend itself most to many persons. The existence of some such arrangement would help to throw light upon some of the results obtained by Flourens, and, indeed, upon doctrines advocated by Brown-Séquard at the present day. It makes it possible to recognise a certain amount of truth in them, without thereby involving us in a denial of the all-important principle of 'localisation' as applied to cells and fibres.

"Brown-Séquard has, indeed," the writer proceeds, "of late expressed himself most positively in favour of the diffuse and interblended arrangement. He thinks he can prove beyond question, that: 'motor or other centres, as commonly conceived, that is to say, as agglomerations of cells, having one and the same function, and which form a more or less definitely limited mass, do not exist.' The existence of the other mode of arrangement would, equally with the latter, make it necessary to admit that cells having the same kind of functional activity should be in communication with one another by means of processes. And, as he contends, the functional activity of similar cells might, in either case, be conjointly and equally well carried on through the intervention of intercellular processes. It would, in fact, make comparatively little difference whether such similar cells were closely packed together, or whether they were scattered over the comparatively wide areas of the cerebral cortex. So far, at least, the writer finds himself thoroughly in accord with Brown-Séquard.

"Thus, whilst a topographically separate localisation of independent faculties seems to the writer altogether improbable, he fully believes that certain portions of the Cerebral Hemispheres—the Anterior Lobes, for instance—are always concerned in the carrying on of Intellectual and Volitional Operations of practically the same nature, though of different degrees of complexity in different individuals." And yet it has been proved beyond doubt, and is acknowledged by physiologists, that the faculty of speech has its seat in a certain convolution of the anterior lobes.

The writer goes on to say: "Perception, Intellect, Emotion, and Volition are so intimately associated with one another in our ordinary mental processes that, if we were even to attempt a definite mapping out of their territories, so as to allow a separate province in the Cerebral Hemispheres for each of these great divisions of Mind, we should probably fall into a grievous error." So are the functions of digestion, respiration, circulation, &c., "intimately associated with one another, and yet their organs are separate and distinct." In precisely these parts of the Cerebral Hemispheres that are most concerned,

when we look upon a fine painting or a fine piece of statuary, may we imagine the emotions of admiration kindled, to which the sight of these objects of art has given rise—however much the activity of other centres may co-operate; and just as the sight of ripe fruit upon a tree may incite a “desire” to possess, followed by a Volitional Stimulus for the purpose of obtaining the desired object, so in this case the parts concerned in the manifestation of the desire, and those in which the Volitional Stimulus “originates, are probably situated within some portion of that same area of convolutional grey matter which was concerned in the Perceptive Act itself.” But why so? Are not all parts of the brain closely related to one another by nerves? We might as well assume (did we not know to the contrary) that the centre which felt the first promptings of hunger, the organ that received the food, and that which digested it, should be situated close together.

“Dr. Bastian then refers to the subject of what are called ‘Perceptive Centres’—a locution signifying pretty much what the phrenologist means by the word ‘organ’; and the reader will see in this doctrine signs of gradual approach to phrenological ideas.” “On the other hand,” he says, “as the writer has elsewhere said, inasmuch as we have certain distinct avenues of knowledge (through the Sense Organs and their proximate nerve-ganglia), and the Cerebral Hemispheres, are the parts concerned in the elaboration of impressions so derived, we can well understand that impressions entering through one gate or sense-avenue, may pass through the substance and towards the periphery of these Cerebral Hemispheres in certain definite directions, and according to accustomed routes. Then, the impressions entering through another gate of knowledge, or avenue of sense, may, and probably do, pursue a different direction through its substance, so that at the periphery the fibres and cells concerned in the conduction and elaboration of those impressions may exist in maximum quantity in different portions of the surface of the Hemispheres, though in part they may occupy jointly the same area, and be intertwined with the fibres and cells concerned in the elaboration of the previously mentioned set of impressions. And so on with the various sense-organs and their ultimate expansions in the form of what I call ‘Perceptive Centres’ in the Cerebral Hemispheres. Thus, though there may be much and compound overlapping of areas, and though the areas pertaining to the impressions of any particular sense in the Cerebral Hemispheres may be a very extended one, still it may well be that certain portions of the surface of the Cerebral Hemispheres might correspond more especially to the

maximum amount of nerve cells and fibres pertaining to some one or other of the various senses.

"Just as certain of the senses contribute in a preponderating degree towards the building up of our mental impressions and their corresponding volitional results (*e.g.*, those of Sight Hearing, and Touch), so we may imagine that these sense organs would be connected internally with a comparatively wide area of cortical substance in each hemisphere. It would be fair to infer as a probability, therefore, that the perceptive centres for visual impressions and also those for acoustic impressions, would have a wide-spread seat in the cerebral hemispheres, whilst those pertaining to the gustatory and olfactory senses would have a more limited distribution."

Dr. Bastian claims that, up to the time when the above lines were penned, no mention of this kind of 'localisation' had appeared in medical or physiological works, "although," as the writer then first attempted to show, "such notions threw much light upon cerebral physiology, and upon certain defects of speech resulting from disease of the brain." In our next article we shall show, following Dr. Bastian, how succeeding experimenters in this line followed up the idea of "perceptive centres," and with what result.

MENTAL DEPRESSION.

If there is one thing that characterises the present age more than another in human suffering, it is the growing prevalence of mental diseases, commencing with a simple headache, and too often resulting in suicide or insanity. In my daily experience as a hydropathic practitioner of over twenty years standing, and that, too, in the metropolis, nothing has struck me more than the great increase of subjects of nervous disorders applying for relief. There can be no doubt that the high pressure rate of living of the present day, especially in large commercial centres, has much to do with this lamentable state of things. Great allowances are to be made for men who have large responsibilities, and who have to contend with so much competition, but there are other influences which contribute very largely to mental derangement and insanity where no such allowances ought to be made, namely, in the education of the young. In our system of education we find the same evil pressure of over-straining the brain in competing for prizes, and so forth. Parents and teachers, for certain interested motives, regardless of the physique or mental capabilities, push

on the young mind to compete for the prizes, &c., thereby laying the seeds of a future useless life.

I may say in the outset that I regard the existing ignorance among the people of the simplest elements of physiology as one of the worst blots on our time. Domestic and social life, education, business, even religion, all are conducted with an almost utter disregard of the laws of health. Children are allowed to grow up, go to school, and enter a profession or calling with hardly the least attention being paid to their natural capacities, mental or physical. The result, in too many instances, is utter failure, while their after-life is made a misery by continual mental suffering.

In an old country like this it is like "kicking against the pricks" to effect reforms either in law, politics, physic, or divinity. I remember very vividly twenty years ago, when I first commenced the practice of hydropathy in this metropolis I was looked down upon by the medical profession and public with the most profound contempt, but I had started with the determination to stand my ground, and to cure any patient that placed himself under my care, feeling convinced there is nothing like success to succeed. On one occasion I attended a coachman's wife, and cured her of a most appalling complaint, and when I asked the man for some small remuneration, he not only indignantly refused, but told me he thought himself entitled to compensation for allowing me to practise upon his wife such audacious treatment. I merely give this fact to show the difficulty there is in inducing people to believe in the truth of essential reforms, let them be ever so effective. At the time I speak of we had a library for working men at Paddington Green, and being anxious to show my good will to that beneficent institution, I presented it with a copy of Combe's "Popular Physiology," and his "System of Phrenology," but they were returned to me with an intimation that the members would not be allowed to read such *wicked* works. Thank God, we have had and are having, since then, great reforms. Parke's Museum, Social Science Congresses, books such as Huxley's "Popular Physiology," Warne's "Long Life Series," and hundreds of others, and last, not least, is the announcement of that august body of medical men who met the other day at Oxford, and who so strongly deprecated the overstraining education of the young, and advocated more practical instruction in regard to the common wants of our everyday life. Seeing that people in this country are led by persons in high positions, it is such a good omen to have men of high medical repute advocating improvements in this direction, that their opinions should be

printed in letters of gold and placed in every educational establishment.

The march of progress is not, happily, confined to this country, but extends to others; and attention of late has been called to the increase of habitual headache among school children, both boys and girls, in Germany. The headache not only destroys much of the gaiety natural to children, but produces impoverishment of the blood, loss of intellectual tone, and reduces many a highly-gifted and poetic child to the level of a discontented drudge. The chief cause of such headaches has been traced to too much mental exertion, and the too great eagerness on the part of parents to see their children excel in a variety of subjects entailing night work. It appears to me the great difficulty lies in a nutshell—the want of better discrimination from a psychological point of view, as to the capabilities of the pupil. Because John succeeds in cramming his mind with such and such studies, Harry must do the same. No account is taken of difference of capacity. Too many parents are as obtuse as the rich father who, when dissatisfied with his son's progress, took the school-master to task for the lad's backwardness; and, upon the master replying that the lad had no capacity, was answered with—"Capacity! capacity! Why did you not buy him a capacity, then? I told you I would spare no expense in the boy's education." Such a system is worse than useless, for not only is it the cause of disease, but it produces mental confusion, and becomes simply a labour of the Danaides, or like carrying water in a sieve. The excessive strain put on the faculties in order to attain what they are not by nature capable of attaining, produces a state of exhaustion of the brain, in which the molecular changes necessary for the reception and assimilation of learning are not completed; so that new ideas cannot be really grasped, and confusion is produced at night with regard to subjects which have been learnt in the day. Hence the objects of school training—viz., earnest intellectual discipline and the formation of a desire for the continuous cultivation of the mind, are almost entirely frustrated.

The danger of over-straining is likely to be attended with more injurious effects to the children of the poor who are weaker in constitution than those of the better-to-do. They further labour under the disadvantage of not inheriting a bias to culture, and consequently in the majority of cases they have not much capacity for sustained intellectual effort. Physiology teaches us that the power of a living organism to accomplish any given act is greatly increased by the repetition of the effort through successive generations, and the educa-

bility of those who spring from the quite uneducated is often of an extremely limited description. Hence there is not the same danger as regards over-straining as applied to the children of the upper classes as there is as applied to those of the middle and lower classes, because, for one reason, they do not feel the effects of competition so much, and, again, because out-door amusements and recreations are more within their reach. The great danger is in the strain put on children in our board-schools, where continuous day-work is followed by lessons at night. I know of several instances of headache and delicacy that have been produced, and where the children have been compelled to remain away from school in consequence of the system pursued. I have even heard of convulsion and epileptic fits being produced by it. I do not hesitate to say that had school-teachers some knowledge of physiology and phrenology, sickness of this kind might be prevented by weeding out delicate children and placing them in a separate room, and giving them about one-third of the ordinary lessons. I do not wish to be considered too hard upon that valuable section of the community—the teachers; but it seems to me that it could be no great tax upon their mental efforts if they were put through a course of physiological and hygienical training, when the evils resulting from their present ignorance of these subjects would be considerably reduced.

R. METCALFE.

SIR WALTER SCOTT'S HEAD.

A cast of Sir Walter Scott's head is now before me. It is a very good one, although by whom it was taken I do not know. I believe it came to me as one of a hundred others I had of Deville in 1835. It is a most extraordinary head, and if he were not an extraordinary man there cannot be much in phrenology. It is 6 inches wide, measured above the ears, and $7\frac{1}{2}$ inches high from the opening of the ear to the top of the head (*i.e.*, to the middle of Veneration, not of Firmness). Allowing half an inch for the hair and the cap in which the cast was taken, it would give 7 inches in height to Veneration—a full inch more than the average of the best heads. The head slopes down rapidly from this, with the exception of Firmness, which is nearly as large, giving the peculiar sugar-loaf appearance for which it was noted. It differs essentially from Chantrey's bust, the Veneration being larger and the self-regarding organs—Love of Approbation and Self-Esteem—much smaller; in fact, the two last organs are small. The forehead is high and broad, but not deep, with the organ of Human Nature, as it is called, and which is supposed to

give an intuitive knowledge of character, larger than in any head I have seen, except Bacon's, or, perhaps, Shakespeare's. The organ of Number appears to me to be very small. I don't know whether this had anything to do with his financial difficulties. Scott's is a very large brain, but his hat was the smallest of six people with whom he dined on one occasion. It is not the head of a philosopher. What I want to point out is that the apex of the head, the enormous Veneration, was also the apex of the whole character.

Helvetius says: "There is no memory without attention, and no attention without interest; and Scott's interest in the past amounted to an intense love, so great as to impress all he learned with respect to it *indelibly* upon his memory. His early life, we know, was spent in poking into whatever had the rime of age. Wherever a building was old and noted, he believed all the stories connected with it, and he never forgot them; so that when he came long after to write his world-famed novels and romances he had all the material at hand; he never had occasion to read up or to refer; his material was all spun out of the then existing state of his own mind; whatever had been consecrated by time and situation, whatever there was of antiquated custom, was then ready to hand, with the intuitive knowledge of human nature to hang it upon. This it was that enabled him to write so rapidly. Scott had a much larger Veneration than any I have seen or known, and with less talent, and under other conditions it might have shown itself only in abuse, or a senseless love of the past; but he turned the stream of departed time over the whole world, to its great delight and improvement. The moral region generally was also very large in Scott. No one perhaps has given so much pleasure, and no one in the past that we can love so well, and upon whose character, as exhibited in Lockhart's life of him and elsewhere, we delight so much to dwell. His was certainly, however, a singular head and a singular character. The moral of what I have to say, or the point of my story is this: you must hang what you want to remember on your strongest faculties, upon those things you love best, or in which you take most interest, and if one intellectual faculty is small, give it the aid when you can of a larger one; some people can remember best by associating events with a large Individuality (*i.e.*, minute knowledge of things); while others, with a large Causality, so connect them with that, and reason up to them from cause to effect. No doubt by such means a defective memory may be much strengthened.

CHARLES BRAY.

THERE is nothing so revolutionary, because there is nothing so unnatural and so convulsive, to society as the strain to keep things fixed, when all the world is, by the very laws of its creation, in eternal progress; and the cause of all the evils in the world may be traced to that natural, but most deadly error of human indolence and corruption, that our business is to preserve and not to improve. It is the ruin of us all alike, individuals, schools, and nations.—*Dr. Arnold.*

ONLY HALF A HERO.

A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER XII.

It was very early when Jessica Bechstein and her maid Sanchen reached the door of the pastor of Eilbach; nevertheless the little household was astir, and the travellers were received with mingled exclamations of welcome and surprise by the aged housekeeper, who at once recognised Jessica, although several years had elapsed since she last saw her.

Eilbach is an ancient, old-fashioned place, and most of its houses are built with a view to comfort and stability rather than to outward show. Consequently it has an irregular, untidy air to anyone accustomed to the straight, rectangular agglomerations of bricks and mortar forming modern English towns. In point of convenience, however, the latter-day inventions compare but ill with the older structures seen at Eilbach and other places. Pastor Boeck's house was a fair specimen of the average middle-class dwelling of Eilbach, although in the lower part of the town there had recently been erected some stucco-fronted domiciles, for the abode of the English artisans who had been brought over to instruct the natives in the cloth manufacture which had of late years taken root at Eilbach and the neighbouring town of Muhlheim. A tile-paved hall occupied the central space from front to back, which seemed to give the entire house air and light. Rooms opened from it on either hand, while from the further end a broad stairway led to the upper storey.

The housekeeper conducted Jessica and her maid into a large plainly-furnished, uncarpeted room, the window of which looked out upon the garden at the back of the house, and through which the young lady could see the good old pastor walking to and fro with his hands behind him. Having invited her guests to be seated, the housekeeper almost ran down the garden to tell the pastor of their arrival. In an instant he was in the house, his face betraying a strange mixture of pleasure and surprise.

"Nun, du liebes Kindchen," he exclaimed, taking the young lady's hands in his, "you have taken me by surprise. I am right pleased to see you, although I am afraid your visit is due to trouble. But of that we must not ask now. You must have travelled all night, and are doubtless hungry and

tired. "Tante," he continued, turning to the housekeeper, "conduct them upstairs to take off their travelling clothes, and then after breakfast they will perhaps like to rest awhile."

Jessica's heart was too full to allow her to speak then; she quietly went with the housekeeper, followed by Sanchen, and after arranging her toilet descended to breakfast. Both she and Sanchen were able to do justice to the meal set before them, which consisted of coffee and hot milk, rolls, and fresh eggs.

The pastor talked with the greatest cheerfulness during the meal, evidently with the intention of keeping up the spirits of his guests. When they had risen from the table he said:

"Now, Kindlein, you had better go and lie down and take a little rest, and when you are refreshed you will find me either in my study or in the garden."

With these words he bowed and left the room, and was soon pacing to and fro again among the flowers in his garden.

Pastor Boeck was somewhat short in stature and thickset, with a large head, scantily covered with thin, wavy, grey locks. His face was an exceedingly marked one, the chief features of it being a massive brow and almost femininely soft blue eyes. He stooped as he walked, and seemed to keep his eyes fixed on the ground. It was evidently his habit to do his thinking as he walked.

After continuing his exercise along the garden-walk for some time he retired to his study, which was on the opposite side of the hall to the breakfast-room and opened on to the garden. There, in the course of an hour or two, Jessica found him. He rose as she entered and led her to a seat.

"I hope," he said, "you have rested yourself a little after your journey."

"I am much refreshed," replied Jessica, "and now feel able to acquaint you with the circumstances that brought us hither in such an unceremonious manner."

"Do not distress yourself to tell me that now if you would rather wait till you are more rested: it will keep till to-morrow, you know."

"I should prefer to tell you now, if you have the time to spare," replied Jessica.

"As you would, liebes Kind, my time is at your disposal."

Saying this, the pastor drew his chair near to Jessica's, and placed himself in an attitude to listen. The young lady then told the story of her troubles, not, however, without breaking down several times and bursting into tears. The good old man soothed her all he could, and succeeded after a while in

quieting her; but the reaction, after the undue strain on her mind, had set in, and she was feeling very weak. She was nervously fearful lest she had done wrong in the step she had taken, and asked the pastor again and again if he thought she ought to have stayed at her uncle's after what had happened.

At first he bade her not trouble herself by thinking about the matter until she could look at it calmly; but seeing that she could not rest without his opinion, he said:—

"I did not want to give you my opinion until you had come to a calm and deliberate judgment yourself, after looking at the subject from all points of view; for that is the way in which the mind is trained to act with forethought and wisdom. A great mind has said that we may use others' knowledge, but our wisdom must be our own. But it may seem hard to be drawing a lesson from a severe distress, and yet these are the times when our best and deepest lessons are derived."

"I have tried to look at the thing from every possible point of view," said Jessica quietly; "and it seems to me that I took the right step under the circumstances."

"Well, and so I think," replied the pastor, "looking at the circumstances from your point of view, at least such is my present judgment. But tell me, my child, what you think should be the next step, for you know if anything is to be done we should do it?"

"I have been trying to think whether anything should be done, but I cannot decide, and I wanted you to help me," replied Jessica.

"Let the matter rest until to-morrow," said the pastor, and by that time it will have cleared itself to your mind. Come now," he continued, "and look at my children—my flowers."

Just as they were about to descend into the garden, the pastor laid his hand on Jessica's shoulder, gently drawing her back, while with the other he pointed to a boy playing with a fat little pup on a plot of grass. He was a bright, curly-headed little fellow, with a broken straw hat carelessly perched on the back of his head. In his hand he held a bit of string, at the end of which was tied a saw-dust doll: this he was dangle about, and the puppy was jumping at and trying to seize. Every now and again the dog would make an extra bound and come down on its back, when the boy would shake again with laughter. Both boy and pup seemed to enjoy the sport greatly. At length, with an extra spring, or with more adroit aim, the dog succeeded in seizing the doll and giving it a big rent. The result was very ludicrous, and evidently unexpected by the actors in the tragedy: the contents of dolly shed them-

selves in a rapid and continuous stream. The immediate cause of the calamity was the most astonished; he was young, and probably did not know what it was to let out the life-stream—especially the life-stream of a doll, and so when the sawdust flood fell upon his head and entered his eyes, nose, and mouth, there was such a snorting and sneezing as never was seen. This and the sudden and utter collapse of the doll, caused such amusement to the boy that he fairly fell and rolled on the ground with laughing.

The scene was so comical that neither the pastor nor Jessica could help laughing.

The pastor approached the boy, who was still laughing at the efforts of the puppy to free itself of the saw-dust, and said:—

“Why, Bub, you have let Flick spoil your doll: how’s that?”

“It isn’t mine—it’s Lienka’s,” replied the boy with another burst of laughter. He evidently thought it was rare fun that Flick had destroyed Lienka’s doll—not his.

“But do you think you should have let Flick spoil little Lienka’s doll? She will cry now because she has not got one.”

“I will give her mine,” replied the boy, looking up with his large blue eyes.

“That’s right, Fritz,” said the pastor, kneeling down on the grass. “Now give me a kiss and tell me if you love me.”

“I do,” answered the boy, throwing his arms round the old man’s neck.

“How much, Kleine?”

“A gulden and a week.”

“Now will you give this young lady a kiss?”

Fritz turned on Jessica a searching look, and then said—

“Yes, I will give her a kiss if she will play with me.”

Jessica said she would, and immediately received the guerdon of her good nature.

A great part of the remainder of the day was spent, under the guidance of Fritz, in exploring the pastor’s garden, where white and golden blossoms were beginning to break from under ground, and delicate green buds to festoon the trees. There was a scent and savour of spring already in the air, and as Jessica went hither and thither with her little guide, her colour heightened and her heart became lighter. When the sun had gone down, and it was too cold to remain outdoors, the little Fritz came and played in the house, building all manner of wonderful structures with the oddest things, sometimes prattling the while in the most artless manner, now altogether absorbed in his efforts, and anon breaking into a

cheery laugh when some unexpected catastrophe occurred. When at length a messenger came to fetch him home for supper and for bed, he jumped up without the slightest demur, only asking time to give kisses all round. Jessica, to whom he came last, and held up his rosy mouth for a kiss, could not help seizing him in her arms and exclaiming :—

"Why the child is a perfect Amor ! Tell me : do you love me ?"

"Yes," answered Fritz.

"How much ?"

"A gulden and a week."

"So you already love the young lady as much as you love me ; I have known you all your life, and the lady only a day," said the pastor, who entered at the moment. "Is that so ?"

"I love you the most, uncle Boeck," replied the little fellow, running towards him.

On the following morning Jessica's position and prospects were again talked over, and it was decided that the pastor should make a journey to Frankfort, see Jessica's aunt, and if possible take her into confidence and see what could be done. This was the pastor's own suggestion, and as there was no reason for delay, and as he wished to pay a passing visit to Cologne, he started that evening.

Jessica felt much happier now that this matter was settled, and any stranger who had witnessed her playing with Fritz and his toys would have thought her as light-hearted as he.

"You will come and play with me early to-morrow, won't you, Fritz ?" she said, as she gave him his good-night kiss.

Fritz promised that he would.

But when morning had come, and little Fritz hastened to fulfil his promise, he found a great change in the aspect of things. In the first place the fitful sunshine of the last few days had fled, and the rain was falling dismally. But the child's heart was all sunshine, and so the weather did not trouble him much. Tante was laying the breakfast-table when he ran into the house and asked for Jessica.

"She has not come down yet," said the Tante. "You may go up to her room, if you like, and tell her breakfast is ready."

Fritz immediately mounted the stairs and began to beat with his little hand on Jessica's door. There was no response, however. He then tried the handle, and as it yielded to his pressure, he very unceremoniously entered. Looking round the room, he soon perceived the one he was seeking on the floor by an easy chair, with her face buried in the cushions. Advancing softly to the side of the chair, Fritz gazed at the

motionless figure for a moment or two and then said very gently :—

“I am here, Jessica; are you praying?”

The only answer was a sob, that seemed to shake the kneeling maiden from head to foot.

Poor little Fritz stole softly out of the room and down the stairs, wondering what was the matter with his new companion. Going up to Tante, he said, with an earnest look in his large eyes :—

“I don’t think Jessica is very well; I think you had better go up to her.”

“Why, dear? Has she been cross to you?”

“No, she did not speak to me at all. She is on the floor, with her head on the chair. Will you go up to her, Tante?”

The Tante went up, and Fritz followed her. She found the young lady in the position described, sobbing bitterly. She bent over her, and raised her head, asking her what was the matter. Just then Sanchen entered, and seeing that something was the matter, rushed to her young mistress’s side and took her in her arms. As she did so a letter dropped to the floor.

It was unfolded, and Sanchen saw by the handwriting that it was from Gustav Riese. She hardly, indeed, needed this assurance, for she herself had handed Jessica the missive which had come addressed to her, as all Gustav’s letters had from the first, in the care of a friend, after she had left the Schappel House, where Riese and she had become acquainted. It was owing to this circumstance that the letter had now come to hand, for Sanchen had taken the precaution before they left Frankfort to give her friend Pastor Boeck’s address.

Glancing over the letter, which her intimate and confidential relationship with her young mistress enabled her to do, Sanchen soon perceived what had occasioned Jessica’s present trouble. She threw the thing away from her with a jerk of contempt. Jessica reached out her hand for it, folded it, and put it in her bosom.

“That’s the way!” exclaimed Sanchen, caressing her distressed mistress, “embrace the thing that stings you! There, now, be quiet. I would not take on like that if I were you. They are not worth it—none of the men. They are all tigers and bears. There now, calm yourself. Tante is waiting breakfast for us.”

In a little while they managed to quieten the young lady, and she implored them to leave her a minute or two and she would presently descend.

"What is it that has caused her such trouble?" asked the Tante when they had got down stairs.

"Her lover writes to her, after he has won her affection, and when he knows what she has suffered for him, that he knows her cousin loves her very dearly, and that she is not without some fondness for him, and therefore he releases her from her engagement to him, and thinks she had better accept her cousin, who both by position and education is better qualified than himself to make her a good husband. That's just what's in his letter, although not perhaps in exactly those words."

"But does he not give any reason?" asked the housekeeper.

"None at all. A man never does give a reason, except such as he gives when he wants to eat—that he is hungry. He just does a thing because it comes up his back to do it. I never saw such a lot of men as there are in this world. But here she comes."

Jessica entered, calm apparently, but with red and swollen eyes. Presently Fritz stole to her side as she sat by the table. She bent down to kiss him, and he put an uncouth battered doll on her knee, and said timidly:—

"I will give you that, and to-morrow I will buy sister another."

Then he ran away, and Jessica could not help smiling, though her eyes filled with tears as she did so.

CHAP. XIII.

It was the third day when Pastor Boeck returned. He reached home very late—so late, indeed, that the household had almost given him up for the night, and were about to sit down to supper without him. It was a boisterous night, and the good Tante expressed the hope that he would not be travelling on such a night. The words were scarcely out of her mouth ere the pastor's footsteps were heard on the paved pathway leading to the front door. There was no sound in the world the Tante knew better than the pastor's. How could it be otherwise when any time these fifty years, save when he had been away at college, she had been in the habit of hearing it and harkening for it night and day, even from the time when, less than the little Fritz, he toddled to her side, or paddled up and down the stairs?

The Pastor looked none the worse for his journey, indeed, all the better for it if anything. Though upwards of fifty, he

was hale and hearty as many a man of thirty, for like Adam in *As You Like It*, he could say—

“Though I look old, yet I am strong and lusty ;
For in my youth I never did apply
Hot and rebellious liquors in my blood :
Nor did not with unbashful forehead woo
The means of weakness and debility ;
Therefore my age is as a lusty winter,
Frosty, but kindly.”

Jessica looked at him with a wistful eye. Perhaps she hoped that he might be the bearer of some news that in her inmost heart she felt could not be. The pastor marked her anxious look, and her pale, worn face, and taking her hands in his, said gently—

“Now you must cheer up, Kindlein, for all will yet go well.”

“Jessica’s eyes filled with tears. That was all the reply she could give. She knew that he had mistaken the cause of her wan countenance, and felt as though it was a kind of injustice to him not to be able to be rejoiced by the good news he brought. With a strong effort she mastered her feelings, however, and managed to chat over supper with the pastor about his journey, and about Frankfort, from which it already seemed as though she had been months absent, so much had she lived through during the past four or five days.

After the table was cleared, Herr Boeck said, drawing his chair nearer to Jessica :—

“Now I suppose you would like to know how I have sped ?”

“Yes,” said Jessica meekly, not daring to trust herself to encounter his gaze.

“Well,” replied the pastor, “I saw your aunt, and had a long conversation with her. At first she was inclined to treat me a little *sans cérémonie*, but after awhile softened and listened to what I had to say with attention, and even with interest. I told her that something had happened connected with her husband’s desire that you should marry your cousin, which had determined you to leave the house, and as I thought under the circumstances, justifiably. She asked what that something was. I said I was at present precluded from saying, for reasons for which she would one day, perhaps, give me her thanks.”

“If such be the case,” she replied, “and I am, moreover, to keep the knowledge of Fraulein Bechstein’s whereabouts from Herr Durer, what is the object of your visit ?” “For, of course,” said the pastor, “I in the first place made it a condition that

I could only disclose your address on her promise to keep it a secret, which she gave."

Jessica listened without interrupting the narrative, and the pastor continued :—

"I said my object in paying her a visit was to set you right in some measure with your aunt, whom it was your sincere desire to make and keep your friend. Whereupon she remarked that she had always desired to be in the place of a mother to you, and to do her best for your interest. 'But,' she added, 'Jessica was never like any other girl, and I never seemed to get her sympathy. Half her time she seemed to be—I don't know where—in another world. She seemed altogether lost or indifferent to this; and so hints or suggestions that were meant for her good were not seen in that light. In regard to this match with her cousin which seems to have made all the trouble,' she continued, 'I did not want to force her against her will; at least I only wanted her to understand that in these matters parents and guardians, who know what the world is, and see it as it is, are better judges than those who are still under illusions, and see life through rose-coloured spectacles.'"

"But has life to you, madam," I suggested, "shown that it is better to dispose of young people in respect to the all-important matter of marriage solely with a view to the prudential aspect of the question than to let their affections decide, in some measure at least?"

"I thought your aunt was a little moved by this question; but she replied that, perhaps, parents, and those who stood in the place of parents, were a little too anxious in these matters, and that they as often did harm as good by their solicitude. We finally came to a full understanding. She promised to watch over your interests to the very best of her ability, and to let you know how things went on at home. Before we parted she confessed she thought it best that you should be away at present. And now," continued the pastor, "that I have told you all that I can remember of my interview with Frau Durer, let me show you something that I think will interest you."

He drew from his pocket a small newspaper, styled the *Eilbacher Bote*, the which, after carefully unfolding, he handed to Jessica, his finger indicating a paragraph to which he would call her attention. It was headed: "Es gibt Heroen in Muhlheim," which, Englished, would be—"There are heroes in Muhlheim." The paragraph gave an account of Hans Quint's deed of valour, for which he thought he ought to have the Iron Cross. It was written in the light, nervous style, for

which Herr Thau, Hammelfleisch's friend, the war-correspondent, was known, and put the story highly in favour of the chief actors—Hans, Captain Durer, and Lieutenant Riese.

Pastor Boeck had brought the paper, naturally enough thinking that his protégée would be pleased to read what was said about her lover in the papers. What was his surprise to see her eyes flood with tears as she read, and then her head sink down upon the sheet with a sob that seemed to convulse her whole frame!

The strain on her feelings had already been great, and this mention of Lieutenant Riese's name brought all her trouble, which she had been trying to keep out of sight, back to her mind and quite overpowered her. Sanchen, who was knitting in the corner by the stove, was instantly by her side, and the Tante led her to her own room. Meanwhile the pastor paced to and fro, wondering what could have called forth this depth of feeling.

Presently, however, his aunt returned to the room, and saying that Jessica would be calm directly, told him of the letter she had received from Gustav Riese the day after he left for Frankfort.

"That is too bad—too bad!" said the old man. "If I had known I would not have shown the paper, naturally. Poor child!"

"She will get over it," said the Tante. "She is very sensitive and full of feeling; but she has plenty of intelligence, and will not let it master her. But we must keep her employed. You must interest her in some of your work, Moritz."

"Yes, yes; that will be the better way," replied the pastor, again walking to and fro. "It is too bad—too bad! And and yet the young man may be acting from a high sense of duty or honour. Who knows?"

"I think there is something of the kind," replied Tante, "though I have not seen the letter. I have been afraid to mention the subject for fear of upsetting her."

Jessica and Sanchen now re-entered the room, and the former immediately went up to the pastor, and, putting her hands into his, said with a faint, sad smile:—

"Pray, forgive me for coming and upsetting your household, and when you have time—though not now—read that," placing an envelope containing Gustav's letter in his hands.

The next day was Saturday, and Jessica saw little of the pastor until evening. He always made a practice of spending the greater part of that day in solitude, mostly walking abroad, thus putting himself, as it were, at such a distance

from human cares and troubles, and the turmoil of earthly existence, as enabled him, in the light of present and future compensations, to judge of life the more impartially. The man, he used to say, who never put himself, so to speak, outside of his circumstances, placed himself on a hill overlooking, as it were, the vale of his own life, and viewed from a distance, all that there was, or might be, in it of beautiful, and even great, as opposed to the mean and small, never rightly estimated what life was, and what a great and glorious thing it might be made. Every human being ought to go up once a week at least into his own Mount of Olives, so as to be able, his senses freed for the time being from the overpowering presence of material needs, to refresh his soul with the sight of the great Beyond, and thus calmed and elevated, return to the Jerusalem of his daily existence with renewed hopes and strength.

All day Jessica had had the company of Fritz. He had run into the house early in the morning, and hardly left her side until he was sent for to be put to bed. With an instinct that is almost divine in some children, he seemed to feel that his companion needed love and sympathy, and these, in his pretty, childish way, he gave in overflowing measure. He brought her snowdrops and the golden spear-heads of the crocus, and each time turned his great blue eyes upon her for her thanks. When tired of running about, he had climbed upon her knee, and asked her to tell him a story, whereupon Jessica had told him how a prince once upon a time came from a far-off country, and made all the people love him; how, after awhile, he was called away to battle against a robber clan; how, then, the rumour arose that he would never return, and some believed it and some did not; and how all mourned and hoped, because life was no longer the same thing without him.

"And which do you believe, Aunt Jessica?" asked Fritz, when the tale was ended—"that he will come back or that he will not come back?"

"I think I believe that he will come back," replied the storyteller, pressing her cheek against the boy's head to hide her eyes.

"Why do you cry, Aunt Jessica?" said the boy, feeling a hot tear fall on his cheek.

"I think because I am foolish, or else because I have not plenty of work to do, like your mamma."

Presently Fritz was called in, and the pastor found Jessica alone in a little summer-house at the top of the garden. The spot was somewhat elevated and commanded a fine view,

especially of a wide stretch of sky, wherein a few stars were now beginning to appear.

"It is becoming too cold to sit here now, child," said the pastor; "although this is the time when I usually enjoy my garden the most. Look at those pale stars—how they seem to throb with life! Is it not the same as the life we see and admire in the flowers at our feet? and yet while they come and go with the seasons, the stars are for ever there; teaching us, it seems to me, that while we may and should give our affections to things here below, our soul's deepest love should be placed on things above."

"But it is not given even to the young eagles to reach the sun or the stars," replied Jessica, trying to express her feelings figuratively.

"True," answered the other; "they only gain strength for larger and higher flights by frequent buffetings with the wind. It is good for them to have trials of strength: and so it is for us. Therefore, I do not altogether regret the trial you are now undergoing, as I see from your letter."

"You have read it then," said Jessica quietly, not knowing what else to say.

"Yes; and I wished to say to you that I think all will be well in the end. You know the English poet says—

'Tis better to have loved and lost
Than never to have loved at all.'

The mind that has never loved has never learned to go out of itself—to feel that larger sympathy that can nourish a thought for all mankind. I believe to you it will prove the birthday of a larger heart and clearer soul; and, therefore, as I said before, I do not regret it, and I think one day you will agree with me."

Jessica bowed her head on her breast, but answered not. They then went into the house.

(*To be continued.*)

A SOUL occupied with great ideas best performs small duties. The divinest views of life penetrate most clearly into the meanest emergencies. So far from petty principles being best proportioned to petty trials, a heavenly spirit taking up its abode with us can alone sustain well the daily toils and tranquilly pass the humiliation of our condition. Even in intellectual culture, the ripest knowledge is best qualified to instruct the most complete ignorance; so the trivial services of social life are best performed, and the lesser particles of domestic happiness are most skilfully organised, by the deepest and fairest heart.—*James Martineau.*

The Children's Corner.

THE SUN AND THE GREEN APPLE.

A little green apple hung all alone on a tree in a large orchard by a big house. All its mates of the apple-tree had been gathered. This little one, however, had been born late, or else it had been slow in growth, and so had been left on its parent twig in order to become a little bigger and riper before being plucked and stored with the rest.

But the green little apple did not like being left alone, especially as the nights began to grow long and a bit chill.

"I don't see why I should be left here all by myself," he grumbled one day. "I suppose it's because I'm little. But it is not always the big things that are the best—I do know that much."

"No, it's not that," said a saucy little robin that was perched on the bough from which the apple hung; "it's not altogether because you are little, but because you are sour too, that you are left to mope there alone. And I'm afraid there is no help for you, the season is so far advanced."

The robin eyed the little apple very knowingly with its head on one side for a second or two longer, and then flew away.

Then the little apple felt very bad, and again began to grumble.

"If I am little, and if I am sour," he muttered, "I don't see why I should be left here. I suppose a sour little apple can be of use in some way."

The sun, which had just begun to shine very brightly, heard the apple's complaints, and said soothingly—

"Bide your time, green little apple. I shall be able to shine warmly upon you yet for a few days; and if you do not worry, you will grow big and red, and be able to do some good, like your mates. Only bide your time."

The green apple waited for twenty-four hours, and then not feeling either much bigger or much riper, it again began to grumble.

"Bide your time," again said the sun; "bide your time. Everything has to become full-grown before it can do a great work."

"That's all very well for advice, but I've bided my time since yesterday, and I don't see that your shining has done me the least good. How will it better me to be red instead of green? Green's a very good colour, and I feel quite equal to doing a great work, little as I am."

"Very well!" said the sun, "Very well! But remember, I told you to bide your time."

"Bide your time! Bide your time! Ah! ah! ah!"

This was said in a squeaky, mocking tone, and the green apple looked about to see whence the voice came. It saw, strutting about on the ground beneath the tree, a young jackdaw quite bare of feathers. You may imagine it looked old-fashioned enough. The green little apple gazed on it with amazement.

"Bide your time! Bide your time!" again squeaked the jackdaw, finishing off with a loud "Ah! ah! ah!"

Green Apple felt that he was being mocked, and said quite sharply—

"I wonder you did not bide your time, and not come out before your mother had dressed you."

"Ah! ah!" laughed the jackdaw, who seemed in a merry mood; "very good, green chaps! But that was not exactly it; I was dressed enough, but the rude boy at the big house there plucked all the feathers off me."

"That was too bad!" said the green apple feelingly.

"Was it not?" replied the jackdaw, looking up with one eye. "Now, there is a chance for you if you wish to distinguish yourself," he went on after a pause.

"Where?" asked the green apple.

"Well, you see," replied the jackdaw, "everybody ought to try to do some good in the world. Now, the rude boy at the house there needs improving sadly, and you can do it."

"Can I?" exclaimed the little apple quite excitedly, "Can I?"

"Yes."

"How?"

"Well," answered the featherless jackdaw, looking up with his left eye, "to-night there will most likely be some wind, and when it begins to blow, all you've got to do is to wriggle about on your stem, and you will fall to the ground. If you do that I'll see to the rest."

Green Apple promised to do his best, and the jackdaw strutted away.

During the night the wind did blow, and the impatient little apple wriggled and twisted until its stem gave way, and it fell to the ground.

It seemed a long time till morning, but when it came the jackdaw put in an appearance, strutting and looking about first with one eye and then with the other, until he spied the green little apple lying beneath the tree.

"Ah!" said he, "now you shall see what a green little apple can do," and away he hopped.

Presently, however, he came screaming back, running with drooping wings and widely open eyes, and after him a rough-headed lad. In passing the apple the jackdaw gave it a smart flap with his wing, and sent it rolling to the feet of the pursuing boy. The latter at once forgot the bird and pounced upon the apple.

The green little fellow felt a thrill of joy as the lad, carrying it to his mouth, took a great bite. The next moment the boy's mother called him, and he stowed the remainder in his pocket.

That night there was a great to-do in the house; everybody was up, and the rough-headed boy's father and mother were in deep trouble, for their young son was doubled up like a great Z. The doctor was called in, and he said the boy had the cholera, and for a long time it was feared he would die.

All this time the green little apple, or what remained of him, was lying in the boy's pocket on a chair. One day, however, the boy's mother found him, and suspecting him of the mischief, threw him out of the window into the orchard. He went bounding along at a great pace until he came to a fine large apple tree, where he stopped. He nearly ran up against a little robin that was hopping on the ground.

"Oh!" said the robin, skipping aside, "it's you, is it? I thought a sour-looking little thing like you was not of much good."

"He should have bided his time," said a rosy apple that was hanging with a number of others on the tree above him. "We did, and soon we shall be gathered and stored in nice warm cupboards, and when Christmas comes we shall be taken out and put on pretty plates in cosy rooms, and then we shall be surrounded by bright, happy faces; and he would have been the same if he had been patient."

This speech made the green little apple feel all the more miserable, and he murmured—

"I wish I had bided my time. It was not much to double up that boy and make him howl as he did. I wish I had bided my time, as the sun advised me. The sun had known a good many apples before my time and knew better than I did."

Just then an old grunter came by and gobbled up the green little apple, and that was the last of him.

AN ELECTRIC COW.—A remarkable case of animal electricity is given in the current number of the *Veterinary Journal*. It is reported by Mr. W. Woods, F.R.C.V.S., Wigan, and is as follows:—"On the 21st of February last, I was requested to visit a dairyman's cow which had calved the previous night, the owner stating that he did not understand what was the matter with the animal, as every time he touched her a trembling sensation ran up his arm, and he involuntarily twitched it away. He seemed perfectly astounded, and kept impressing it on me that he was not afraid of the cow, but he could not help shaking when he touched her. I visited the cow, and when I placed my hand upon her I received a perfect electrical shock, the animal evidently receiving the same, for as often as she was touched by anyone she bellowed, and jumped forward, apparently terrified. The pulse and temperature it was perfectly impossible to ascertain. The owner was unable to milk her, as she went almost wild when touched, but was perfectly tranquil when not meddled with, with the exception of a wild look about her eyes. No matter how many times the animal was touched, the same result followed. With great difficulty I administered a strong saline purgative, combined with fifteen croton beans, followed in a few hours by a pint of linseed oil, containing 3 ss. chloroform. At night the cow was considerably better, and the following morning I was pleased to find her quite convalescent."

Poetry.

THE PASSING BELL

One more to the myriad and one
 Who have breathed their last earthly breath ;
 One more to the myriad and one
 Who have passed through the portal of death.

One more to the number that rest
 In the dreamless repose of the tomb ;
 One more to the host of the blest
 That have passed through the tenebrous gloom,

And have sighted the mystical shore,
 The bourne of our hopes and our fears,
 And joy in the gladness in store,
 Or droop 'neath the forecast of years.

One more to the number—ah me !
 How soon is our day-reel unwound
 To-morrow for me and for thee
 May the same tintinabulum sound.

A. T.

CASTLES IN THE AIR

Who has not in idle moments
 (Though those moments be but rare),
 Built, with many a flight of fancy,
 Castles in the air :—

Dreams of wealth, ambitious triumph,
 Fancied scenes of peace and joy ;
 Sorrows gone, and cares forsaken,
 Bliss without alloy ?

Childhood's hopes and manhood's yearnings
 Seem to find fulfilment sweet,
 Happiness and pleasure ever
 In those visions meet.

But our dreams are rudely broken,
 Duties real claim our care ;
 Vanish all those happy visions—
 Castles in the air.

F. G. ATKINS.

Reviews.

Lectures on Localisation in Diseases of the Brain. By J. M. CHARCOT, translated by E. P. FOWLER, M.D. New York: Wm. Wood & Co.

Professor Charcot has laid phrenology under a debt of gratitude for the minuteness and thoroughness with which, in the work before us, he discusses the question of abnormal mental phenomena, and their relation to pathological conditions of the cerebrum. His position as chief of the Salpêtrière Hospital at Paris has afforded him exceptional opportunities for the study of cerebral disease, and these opportunities he has by no means slighted. One of the most important conclusions to which his researches have led him is thus given in his first lecture:

"Long explanations are unnecessary to convey what is meant by localisation in cerebral physiology and pathology. The term has long since become a common one, and its meaning is well known. I, therefore, only remind you that the principles of cerebral localisation rest upon the following propositions: The encephalon does not represent an homogeneous organ, a unit, but rather an association, or a confederation, composed of a certain number of diverse organs. To each of these organs belong distinct physiological properties, functions, and faculties."

The case of a woman suffering from loss of speech is described as "a fine example of cerebral localisation." "The case," he says, "was a woman named Farn . . . observed at Salpêtrière. She was attacked with aphasia. There had existed no trace of paralysis either of motion or sensation. Aphasia was in this case the only symptom, and atrophy of the third convolution was also the only corresponding lesion revealed by autopsy." Dr. Fowler has made a capital translation of the work, which is also well printed and illustrated. The student of mental science who wishes to make himself thorough should read these lectures.

The Bath in Diseases of the Skin. By J. L. MILTON. London: Chatto & Windus, Piccadilly.

Mr. Milton is senior surgeon to St. John's Hospital for Diseases of the Skin, as well as lecturer on diseases of the Skin, and from having given special attention to the treatment of cutaneous affections by the bath, he is more than ordinarily well qualified to treat the subject. He says in his preface that it has been his aim "to place every reader, who may happen to be suffering from any disease of the skin, in a position to carry out, efficiently, yet economically, even when residing in the country or travelling, the directions given by his medical attendant respecting the use of those baths which form so important a feature in the modern treatment of these affections."

The author goes on to say that "the bath, especially in the form of vapour, has become a necessity in diseases of the skin, and, comparatively, we meet with few cases which are not benefited by it. In some forms of cutaneous disorder it is so indispensable, that without its assistance we could not reasonably hold out a promise of cure, seeing that the relief afforded by constitutional means and local applications alike come, sooner or later, to a standstill, and in certain peculiar varieties can scarcely be looked for when internal treatment is not supported by this potent auxiliary. In the harsh, dry state of the skin which accompanies such diseases as lepra and ichthyosis, it may be said, without qualification, that the vapour bath is of more importance than any remedies or any combination of them. Yet I should be quite within bounds if I were to speak of the employment of the bath, both as concerns theory and practice, as being essentially the branch of treatment which is the worst managed and the least understood." The importance of a work like this, by a practical medical man, cannot be over-estimated. There is so much ignorance about the curative properties of water, and so much fear of it withal, that it is highly necessary that the public should be enlightened on the subject. Mr. Milton's treatise is calculated to dispel a good deal of the existing ignorance about the use of the bath, and should be in the hands of all who are subject to any kind of cutaneous affection. The only criticism we feel disposed to make is, that the author seems to have a little prejudice against the Turkish bath, although he gives his reasons for preferring the vapour bath in a clear, straightforward way. We can heartily second his recommendation of the Turkish bath at Preissnitz House, Paddington, of which he says: "I cannot very well conceive how anything can be more carefully devised and carried out. A bath there is not merely a comfort: it is a luxury, which those who have once tried will ever appreciate; and if such a bath were always accessible to every person who required it, there would be less need for me to say what I am now saying." The book sells at one shilling.

The Daisy: A Journal of Pure Literature. London: Christian Age Office, St. Bride Street.

This is the seventh volume of this periodical, and from the high tone and tenor of its contents, it is worthy of a place in every family. Many of its articles are transatlantic in origin and flavour, and so impart a freshness to the pages not common in periodicals of its type and scope. One corner is invariably set apart for the little folk, and cannot but be read by them with pleasure and instruction. Then there is a column for the household, containing hints, recipes, &c. The tales are all strictly moral in bearing, and may be read by all.

THAT state of life is most happy when superfluities are not required, and necessities are not wanting.—*Plutarch.*

Facts and Gossip.

THE article in continuation of the series on "The Face as indicative of Character" is unavoidably obliged to stand over this month.

IN a recent number of the PHRENOLOGICAL MAGAZINE we noticed the fact that the milk of ruminants, when drank, is coagulated by the acids of the stomach into a hard mass, and hence that animals that do not ruminate find a difficulty in digesting the milk of a ruminant species. Many delicate persons, especially women, are made ill by milk. Miss Neilson's death is attributed in Paris to drinking a cup of cold milk. A medical writer in the *Paris Journal* often warns his readers against this beverage. The objection does not hold against the milk of mares, asses, and other non-ruminant animals, and should always be used for the delicate in preference to the milk of cows.

WE notice that Charles Victor Coates, Esq., M.A., (G.V.I.) B.A., Cantab., younger brother of James Coates, Ph. D., the well-known Glasgow phrenologist, is candidate for the professorship of mathematics, Queen's College, Cork. The candidate has a happy combination of the mental and motive temperaments, with just sufficient of the vital to give vigour and recuperative power. As a student he has been as successful in winning trophies in manly sports, foot-ball, cricket, &c., as in gaining the highest honours in mathematics. His physical and mental training have been carefully advanced side by side. As early as 1873 he became the gold medalist in mathematics at the Queen University, Belfast, as well as holding honours and scholarships in logic, natural philosophy, chemistry, and French. The candidate is now twenty-seven years of age, and if successful will have the honour to be the youngest professor of mathematics in Great Britain or Ireland.

IN consequence of the frequency with which complaints of the ill-treatment of little children have recently found their way into the public papers, several ladies and gentlemen, feeling convinced of the urgent necessity for a more complete and authoritative restriction of the practice of inflicting corporal punishment, have formed themselves into a Society with the object of bringing about this result. Among other means which they intend to adopt in seeking the aid and sympathy of all who are interested in the welfare of children, they purpose publishing a Magazine, to be called the *Children's Advocate and Guardian*, to give expression to the views of the promoters by means of short articles, reports of and comments on flagrant cases of ill-treatment, and correspondence. Those interested in the Society and its object, are invited to communicate with the Secretary, at 16, Southampton Street, Strand, London.

THE *Times of India*, recently published an account by a Babu of his success in training monkeys to pull punkahs. The facts connected with the Babu's interesting experiments have been brought before the Asiatic Society of Bengal by Mr. L. Schwendler, who mentions some other instances in which the display of intelligence by monkeys has been noticed. In particular he refers to a case in which a monkey, which had sustained a fall from trusting to a rotten branch while swinging on a tree, had been observed afterwards to examine the branches of the tree, and to break off those which it found to be rotten. Some discussion ensued as to whether the action of the monkey in this case was the result of intelligence, and some of the members present were of opinion that it might have been the result simply of anger caused by the fall. Mr. Schwendler, however, stated that he had for long made the habits of animals a study, and that he was convinced of the fact that monkeys were possessed of much intelligence; and he vouched for the authenticity of the statements made in the paper read regarding the monkeys which were taught to pull a punkah.

THE "COMBE" LECTURES ON "PHYSIOLOGY AND THE LAWS OF HEALTH."—A movement is now being promoted by the trustees of the late George Combe with a view of diffusing in provincial towns of Scotland a knowledge of popular physiology and its relation to the laws of health. The trustees have appointed Dr. Andrew Wilson, F.R.S.E., of the Edinburgh Medical School, and an Examiner in the Faculty of Medicine, University of Glasgow, their Combe lecturer, and this gentleman is now engaged in organising courses of lectures for delivery in Dundee, Kirkcaldy, Dunfermline, and Stirling during the ensuing winter. It is proposed under the scheme in question to extend the radius of these lectures, should the trustees find their efforts to diffuse a knowledge of the laws of health appreciated. Each course is to consist of a number of lectures, to be delivered once a week in the evening. Dr. Wilson's experience as a lecturer in London, Edinburgh, and elsewhere (and at the Watt Institution in the latter city especially), has fitted him eminently for this task, and full illustration of his subjects may be expected at his hands. The subjects of lecture will include such important topics as foods and dietary, breathing and ventilation, digestion and circulation, the nervous system, and the senses, &c. It is almost impossible to overestimate the value of such lectures to the people at large, if they will only profit by them. We may add that the Combe trustees provide all needful expenses connected with the lectureship; and so far as each town is concerned the lectures are given free of all expense to the citizens.

BE substantially great in thyself, and more than thou appearest unto others, and let the world be deceived in thee, as they are in the lights of heaven.—*Sir Thos. Brown.*

Correspondence.

"THE FUNCTION OF MIRTHFULNESS."

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—Owing to circumstances uncontrollable on my part, the August issue of your magazine did not reach me until to-day. I should be very glad, therefore, should your space permit, if you would do me the kindness of inserting a word in reply to Mr. Howes' letter in that number.

First let me say that my statement confessing my willingness to be led astray by Mr. Bray rather than to be corrected by the former gentleman, arose from the general evidence of ability in the one letter as compared with the other. There is philosophy and reason in Mr. Bray's letter, which carries with it more weight than any mere assumption of authority without such evidence.

I fail to see that I am "almost entirely opposed to Mr. Bray." Why, there is in point of fact little difference between us, and no direct contradiction. He calls the organ in question an intellectual organ, but says that we seldom get its manifestations as such, but mixed with other organs. What he calls the "mixing," I hold to be part of the function of the organ—viz., to derive the character of its manifestations from other organs—the intellectual included.

Your correspondent says that my definition coincides with his own. Does it? His definition in your June number is that "it is a faculty that makes fun or enjoyment out of misery." (?) In my last letter the words are: "that it is an organ which makes fun out of *certain kinds* of incongruity." That "misery" is an equivalent term for certain kinds of incongruity is too good logic for me.

But there is an exception, he says, which is the only point of difference between us, and in the discussion of which he plunges too far for me to follow him; but as the whole is founded upon a misreading of my letter, it is not necessary. If Mr. Howes will look at my letter again, he will see that I said that *those kinds of incongruity which caused pain were perceived* by the perfecting organs, which is a very different thing to saying that "the perfecting organs alone perceive pain." Observation and experience both confirm the former statement. There are many incongruities which we *cannot* laugh at unless there exists a palpable deficiency in good taste and refinement.—Yours truly,

F. C. BARRATT.

Margate, 19th August.

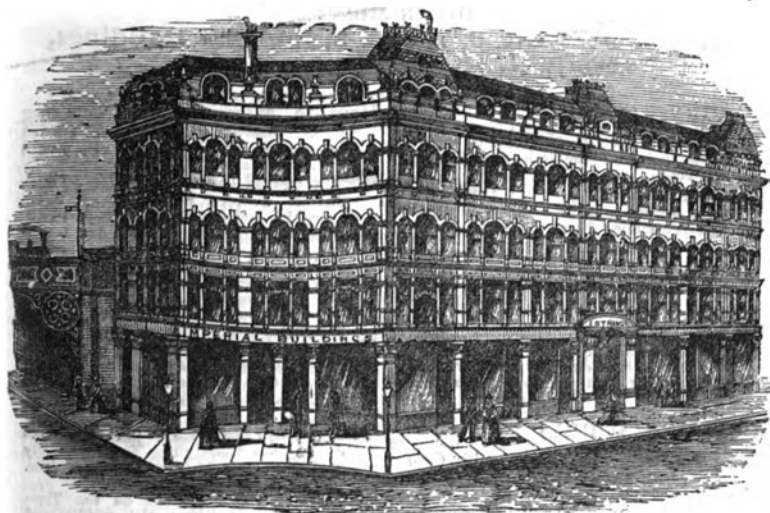
 Answers to Correspondents.

J. W. W. (Morton Morrell).—Your letter is unavoidably crowded out this month.

W. S.—Mr. Spurgeon's character and portrait will appear in due course, though we cannot say exactly when.

SIGMA (Hong Kong).—Measurements of skulls, or any other facts relating to the ethnology of the Chinese or other Mongolic races, will be interesting.

L. N. FOWLER, PHRENOLOGIST & PUBLISHER,



6, 7, 8, & 9, IMPERIAL BUILDINGS, LUDGATE CIRCUS,
LONDON.

September 1880.

IN calling attention to his new London address, Mr. Fowler begs to announce that he is sole London Agent for the Phrenological and other works of Messrs. S. R. Wells & Co., of New York, also of Dr. Holbrook, of New York, Publisher of the *Herald of Health* and other hygienic works. A large assortment of American works kept in stock, a Catalogue of which may be had on application. Any other American publication not in the Catalogue, may be had by ordering.

Arrangements are being made for the production of a beautiful Case for binding this year's Volume of the *Phrenological Magazine*. Those who desire to have one would oblige by sending in their orders as early as possible, especially foreign subscribers. The price will be 1s. 6d., post free.

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THE
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OCTOBER, 1880.

SIR JOSIAH MASON.

A PHRENOLOGICAL DELINEATION.

This gentleman has a head of unusual size, being $23\frac{1}{4}$ inches in circumference, together with a very marked development of brain, some organs being very large.



From a Photograph by B. Penn, Birmingham.

His social brain is strongly represented, and he is specially large in the organ of love of children. The head has almost
VOL. I. 2 C

the appearance of being deformed in the locality of this organ. Love of place is also very distinctly represented, which, combined with the domestic affections, make him very fond of the family and home circle, but more especially of children.

He is broad between the ears, giving great force of character, which, together with his strong, bony, and muscular structure and naturally powerful constitution, gives him great energy and power to execute his plans, allowing no objects to remain in his way. When competing with other minds his superiority would be seen by his always gaining his point.

The crown of the head is not developed except in Self-esteem, which is large enough to enable him to rely on himself and take the responsibility of his own actions. Caution is sufficiently developed to give prudence, but not enough to give undue restraint. Approbativeness is inferior in size, and enters very little into his character. He cares much more about pleasing himself than about pleasing the community generally, especially the fashionable world, for which he cares very little. He would never go upon the principle of "you tickle me and I'll tickle you." There is no approach to vanity in his composition.

Firmness is very large and has a powerful influence. Whatever he makes up his mind to do, he will do by hook or by crook. Along with his executive brain, it forms one of the most marked features of his mind. His energy, self-reliance, and perseverance are the fundamental elements of his character.

The head is high in the coronal region, especially in the centre and fore part of the top-head. Benevolence is the largest organ, and probably one of the strongest, if not the leading, impulse of his mind. The organ is so large as seen from the side or front as to make the head appear almost deformed. Veneration also is large, and must modify his whole character. Hope, too, is a prominent development, and, together with his full Acquisitiveness, great energy, good health and large brain, gives him enterprise and a speculative turn of mind. Spirituality is fully represented, and must have a modifying influence.

In times of excitement there may not be all the restraining power necessary to give due circumspection and balance of mind, so that the faculties that are excited are, for the time being, liable to have the control.

He is broad in and above the temples as seen from the front, indicating that he has a large amount of skill, ingenuity, versatility of talent, imagination, taste, and sense of perfection.

The intellectual brain is developed in a most extraordinary degree. The frontal lobe is long, high, broad, and very prominent. All the perceptive faculties are very large, endowing him with great powers of observation, both extensive and minute. These faculties give him great versatility of knowledge and ability. With them he could excel in science, in judgment of property, in acquiring knowledge, and in becoming acquainted with men and things. Such powers of mind want to know, see, and test everything. Form and Size are particularly large, giving a correct mechanical and artistic eye, and a correct judgment of outline and proportion. Weight, Colour, and Calculation are large and influential, while Order is very large, and enters strongly into his character, giving him great power to organise, systematize, and do things according to a method as near perfect as possible.

Causality is large, while Comparison and Intuition are very large, endowing him with superior judgment, and ability to originate, plan, and think for himself, together with superior powers to analyse, compare, criticise, and see the fitness and adaptation of one thing, quality, or circumstance, to another. He has a wonderful faculty to see the bearings of things, the one upon the other, to take all the circumstances and conditions into account, and to come to correct conclusions, so that he would seldom have occasion to change his mind or plan of operations from his first impressions. He has a very intuitive as well as a penetrating mind, so that from a part he is able to sense the whole. He is a good judge of men, and is rarely deceived in his first estimate of them.

His powers of speech are fair, but they are not those of an orator. He can act better than he can talk.

His great brain, together with the quality of his organisation, gives him great grasp and comprehensiveness of mind, qualifying him for extensive and complicated operations, and to take upon himself great responsibilities. Few men have more general grasp of mind or more varied talents ; few are so intuitive in their judgment of men and things, or more correct in their perceptions ; and very few are endowed with so much self-reliance, determination, and executive power, joined to such strong domestic feelings, and so much sympathy and interest in the welfare of others as Josiah Mason.

[The above is a description of Sir Josiah's character as indicated by his head in the year 1862, when Mr. Fowler first examined it. The following notes, written by Mr. Fowler after an examination made in the early part of the current year, will be of interest to phrenological students. "Few individuals offer so strong a proof of the science of phrenology as Sir Josiah Mason, and the number

is limited where such great changes have taken place in the shape and size of the head. I have measured and examined Sir Josiah's head with care several times, and each time have been surprised at the changes that were taking place, both in respect to the size and the shape of his head. When I first examined his head in 1862, it measured $23\frac{1}{2}$ inches round the central portion of the skull, and the predominant developments were the very large perceptive faculties, the lower portion of the forehead projecting much beyond the reasoning organs, so that it was somewhat retreating. The development of Firmness was much larger than now, and Philoprogenitiveness was developed to excess, and exceeded any other social or domestic faculty. The executive brain was larger, and Cautiousness less than now. Ten years after I again examined his head, and found it had changed in a marked degree, and measured $24\frac{1}{2}$ inches. A few days since, I once more examined it, and found it measured 25 inches minus $\frac{1}{8}$. It now shows the reasoning faculties to be equal to the perceptive. His forehead is upright, not retreating in the least. Benevolence is larger than ever, Firmness is not so marked, the organ of Philoprogenitiveness does not appear nearly so prominent as it did fifteen years ago, while Friendship is much larger, so that the back head is now round, and evenly developed. The executive brain is less marked in development, while the prudential brain is more distinctly manifest. The head, as a whole, is more even, and there is less distinction between one organ and another."—ED. P. M.]

The following biographical particulars respecting Sir Josiah will be interesting. He was born at Kidderminster on February 23rd, 1795, and from his earliest youth had to earn his livelihood. When quite young he worked as a shoemaker, then as a baker, and next as carpet-weaver at Kidderminster. At the age of twenty he went to Birmingham, where for ten years he was a jeweller and gilt toy maker. At thirty he was introduced to the business of steel split-ring and key-ring making by Samuel Harrison, the first inventor of steel split-rings. Mr. Mason regards this introduction as the foundation of his worldly prosperity. He afterwards succeeded to the business of Mr. Harrison, and then added to it the manufacture of steel pens.

Mr. Mason's introduction to the pen trade is strikingly illustrative of his business intellect. In the year 1828 or 1829—he does not remember the precise date—he was walking up Bull Street, in Birmingham, when, looking into the shop window of Mr. Peart, a then well-known stationer, he saw a card containing nine steel pens, the price of which was 3s. 6d. Infinitely better pens are now sold at 4d. per gross of twelve dozen. "The novelty of the thing," said Mr. Mason, recounting the incident to a friend, "induced me to go in. Mr. Peart was writing with one of the pens. He said 'it was

a regular pin.' I instantly saw that I could improve upon it, and I bought the 'pin' for sixpence." On examining it, Mr. Mason made out the name of the maker to be "Perry, Red Lion Square, London." When he got home he made three pens, from which he selected the best, and sent it by that night's post to Mr. Perry. Two days afterwards Mr. Perry presented himself in Lancaster Street, to see the man who had made a better pen than his, to ascertain if he could make them in large quantities, and to conclude a bargain with him.

In both the split-ring and the pen business Mr. Mason was eminently successful, and with the capital thus acquired he subsequently entered into partnership with G. R. Elkington as electro-platers and gilders, under the firm of Elkington and Mason, and then into the business of copper melting, under the firm of Mason and Elkington.

In connection with the latter undertaking Mr. Mason established a copper-smelting business at Pernbury, in Wales, which, an obscure village in 1850, has, through his enterprise, been converted into a flourishing town. The school built by his firm to accommodate between 400 and 500 children, is now found too small. At every point in Mr. Mason's career we see his instinctive appreciation of the schoolmaster as the ultimate reformer.

Another sphere of Sir Josiah's activities was in connection with the banking interests of the Midlands. When the Birmingham Bank failed, he became chairman of a new company formed to assist and, if possible, to repair the losses of the old.

Such is the brief record of his business career, but the chief interest of his life is in the public use which he has made of the wealth thus acquired. His first great work of benevolence was the erection and endowing of almshouses, and an orphan asylum for boys and girls, at Erdington, near Birmingham.

The first portion of the buildings was erected in 1858, one part as almshouses and the other for an orphanage. There is accommodation in the almshouse portion for thirty women, spinsters or widows of the age of fifty years or more. Each inmate is provided with a furnished house, coal, gas, and other advantages. The portion which was originally the Orphanage is now converted into a home for girls educated at the Orphanage, who may be out of service, or suffering from sickness, and is under the care of a matron. But Sir Josiah was not satisfied with these acts of beneficence, and the foundation stone of a new orphanage was laid by the founder himself, privately, on the 19th of September, 1860, and the

building was finished and first occupied in 1868. In addition to the expenditure of £60,000 on the building, Sir Josiah has endowed the institution with land and building estates of the estimated value of £200,000. No publicity was given to this munificent gift until the twelve months prescribed by the statute had elapsed after the date of the deed, when, on the 29th of July, 1869, the institution and the estates were handed over to seven trustees, who, together with the founder, compose the present board of management. On his death the trustees will be increased by the appointment of seven others by the Town Council of Birmingham. The inmates of the Orphanage are to be "lodged, clothed, fed, maintained, educated," and brought up at the exclusive cost of "the Orphanage income." There is no restriction whatever as to locality, nationality, or religious persuasion. In the year 1874 an additional separate wing was built, consisting of dormitories and a schoolroom for 150 boys, connected with the main building by a large dining-hall, capable of accommodating 500 inmates. The institution is now capable of accommodating 300 girls, 150 boys, and 50 infants (boys), who will meet together for meals and prayers, but are separated as to school and dormitories. The number of inmates admitted to the institution since its first commencement has been as follows—girls, 406, of whom 29 have died, 175 have been sent to service or returned to friends, and 202 are now in the Orphanage; boys, 246, of whom 7 have died, 114 have been sent to employment or returned to friends, and 125 now remain in the Orphanage. The rules permit the admission of boys from 7 to 10 years old, and girls from 4 to 10 years. Certificates are required of marriage, birth of child, death of father, and death of mother. Every child is admitted subject to being returned to his or her friends at any time the trustees think fit. Boys leave when they are 14 years of age; girls from 15 to 17 years of age, as situations are found for them. Boys and girls are awarded two suits of clothes and a Bible on leaving, if they have been their full time, and their conduct is satisfactory to the trustees.

Besides this noble and munificent charity, Sir Josiah Mason has built and endowed a college for the study of practical science, which is based on the same broad and liberal principles. The object of the founder being to promote "thorough systematic education and instruction, especially adapted to the practical, mechanical, and artistic requirements of the manufactures and industrial pursuits of the Midland district, and particularly of the Boroughs of Birmingham and Kidderminster, to the exclusion of mere literary education and

instruction, and of all teaching of theology and of subjects purely theological," which limitations are declared to be fundamental, "no principal, vice-principal, professor, teacher, or other officer, servant, or assistant of the institution shall be required to make any declaration as to, or submit to any test whatever of, their religious or theological opinions, or be presumed to be qualified or disqualified by any such religious or theological opinions, but shall be appointed solely for their fitness to give the scientific or artistic instruction required from them." The trustees are always to be laymen and Protestants—the system of instruction, as far as practicable, to include the following subjects—mathematics, abstract and applied ; physics, both mathematical and experimental ; chemistry, theoretical, practical, and applied ; the natural sciences, especially geology and mineralogy, with their application to mines and metallurgy ; botany and geology, with special applications to manufactures ; physiology, with special reference to the laws of health ; and the English, French, and German languages. The trustees are empowered at intervals to revise the system of teaching and the subjects taught, so as to adapt them to the various requirements of the district. There is to be no restriction as regards sex, creed, or birth-place in the admission of students. The preference is, however, to be given to students from Sir Josiah Mason's Orphanage, and a second preference to candidates born within the boroughs of Birmingham and Kidderminster. The management is vested in a bailiff and six trustees. The founder is the bailiff, and after his death the Birmingham Town Council is to elect five other trustees, vacancies in this body to be filled up as they occur by the trustees and the Council respectively.

The deed of foundation also declares, that "whilst no person is to be admitted to the benefit of this institution who is not for the time being wholly or principally dependent for a livelihood upon his own skill and labour, or upon the support of his parents or some other person or persons, the poorer classes of the community are not to be considered as having any exclusive right to the benefit of the institution, the object of which is to promote the prosperity of the manufactures and industry of the country, and especially of the boroughs of Birmingham and Kidderminster, by the scientific education of naturally qualified persons of all classes, who will have to gain their livelihood wholly or principally by the pursuit of science, art, or manufacture, especially the more intelligent work of the middle classes." It also provides that as soon as the income of the institution will allow, and as soon as the

trustees have made provision for the education of males, provision shall also be made for the education of females.

The foundation stone of the College was laid by Sir Josiah Mason on February 23rd, 1875, and was opened on the first of the present month. The salary of each professor is £250 per annum, *plus*, in each case, one-half of the class fees. The professors of chemistry and physics will each be provided with an assistant, at an annual salary of £100.

The College is a magnificent Gothic edifice, with a frontage in Edmund Street of 148 feet. The buildings cover an area of about 2,400 square yards, but in the course of time, when the original plan of the founder is carried out, they will occupy nearly double that area, the extension, of course, being made in the rear. Interior arrangements include a library and reading-room of large dimensions, which, together with a physical laboratory, are on the ground-floor.

On the first floor are the chemical lecture theatre, three large lecture-rooms, chemical preparation rooms, professors' apartments, class-rooms for magnetism, rooms for chemical collections, models and apparatus, and in the south-west block at the back are several large rooms for drawing. The floors above are entirely devoted to chemistry. A commodious apartment in the front block is set apart as a professors' laboratory, and here also are rooms for the study of organic chemistry, and for gas, water, and spectrum analysis. Above these is a large and lofty room to be used as a museum. In addition to the rooms already mentioned, there are on the several floors about twenty-five smaller rooms for professors, assistants, classes, &c. Altogether the building contains nearly a hundred rooms.

In the year 1872 Her Majesty conferred on Mr. Mason the honour of knighthood, in recognition of the munificence of his many benevolent and philanthropic labours for the good of his fellow-men. Of all who have received the honour at the hands of the Queen, few have merited it so well as Mr. Mason.

There are some remarkable resemblances between Mr. Mason and the late Mr. Peabody. Both were born within five days of each other, both began poor and became wealthy through their own energy and industry, and both have distributed nearly a similar sum among the poor. But while Mr. Peabody handed over his money to trustees and left the arrangements to them, Mr. Mason has superintended every detail of his own charities.—L. N. F.

THE EVOLUTION OF IDEAS.

Science declares that ideas are the results of the same natural forces which act in organic nature ; and mental phenomena are not different from other natural phenomena in kind, but only in greater complexity. Herbert Spencer says : "All impressions from moment to moment made on our organs of sense stand in direct correlation with physical forces existing externally." "But how," he continues, in another chapter of his "Principles of Philosophy," "can we interpret by the law of correlation the genesis of those thoughts and feelings, which, instead of following external stimuli, arise spontaneously? . . . The reply is, that the immediate correlates of these and other such modes of consciousness are not to be found in the agencies acting on us externally, but in certain internal agencies. The forces called vital, which we have seen to be correlates of the forces called physical, are the immediate sources of these thoughts and feelings, and are expended in producing them. . . That no idea or feeling arises, save as a result of some physical force expended in producing it, is fast becoming a commonplace of science ; and whoever duly weighs the evidence will see that nothing but an overwhelming bias in favour of preconceived theory can explain its non-acceptance." These words of the renowned English philosopher express the opinion of all those men of science who approve the theory of "evolution," and the object of this paper is to show how the results of the scientific investigation of ideas support this theory.

Evolution in nature is always going on from the unconscious toward self-consciousness. The highest stage it has reached on our globe is man, and with him terrestrial development has arrived at a remarkable turning-point. It seems not to proceed, at least for the present, in a further organic evolution, but only in a higher development of consciousness. Intellectual evolution has become predominant, and the unfolding of ideas has become more significant than the creation of new organs.

Instead of producing higher organisms, nature has given to the human species the faculty of invention. By means of this faculty man has transferred the form of the human organs, as well as their functionary and formal relations, to the instruments he invented, and the productiveness and receptiveness of the former have thereby been remarkably increased. The evolution of ideas has thus accomplished what the further development of organisms would have done.

When we study the construction of our most important instruments we discover to our astonishment that the latter are true copies of some parts of our body, and simply a further completion of them.

In the first stone hammer man has unknowingly imitated his forearm with closed fist; in the shovel and spoon we see the forearm and hollowed hand; in the saw we find a reproduction of a row of teeth; tongs represent the closing together of thumb and fingers; in the hook is a bent finger, reproduced; the pencil is simply a prolongation of the forefinger; so, we see in all instruments, from the simplest to the most complicated, only an improvement and completion of the human organs; and thus we find that all the inventional thoughts of men are directed towards the same aim as that toward which organic development tends.

But here we have first to answer an objection. Some might say, that this imitation of organs was intentional, or that man may have found instruments which resembled those organs and recognised them as most useful for the purpose. Though this explanation may not seem to us satisfactory, let us take it for granted. There could yet have been no conscious imitation of *interior* organs, of which the following furnishes some beautiful examples:—From the most simple magnifying glass to the compound microscope, we find nothing else but an imitation of the lens in the animal eye; and these instruments were invented long before anything was known of the anatomy of the eye; yes, even more; the invention of these instruments has helped to solve a physiological problem hitherto unexplained, and the construction of the camera obscura and the daguerreotype has taught us the composition of our own seeing apparatus. When the telescope was invented, the discovery was made that coloured margins which surrounded the objects disturbed the clearness of the view. This inconvenience was overcome by constructing object lenses composed of two different kinds of glass (crown and flint glass), which rendered these instruments perfectly achromatic. What was the astonishment of scientific men, when the fact was revealed that in the human eye there are also two refractory substances, the crystalline body and the lens, which render the sight achromatic? The construction of the human ear gives us another interesting proof, and we were only able to understand it after the invention of the piano. Corti's strings are a regular graduated series of strings which correspond to the strings of the harp or the piano, and just as each of the strings of these instruments resound only when a corresponding sound strikes it, so do Corti's strings in the ear.

In the same manner the construction of the organ has given to physiology the explanation of the organ of speech, and partially explained the mechanism of the heart. The late Prof. Dove has summed up the result of these facts in the words: "We only understood the mechanism of our own organs when we had unconsciously reproduced them by the exercise of our inventional faculties."

After a careful consideration of the facts before us, few will doubt that in the invention of instruments we have reproduced the human organs, though some one might suggest that this reproduction is not the result of the action of natural laws, but only the consequence of careful contemplation, and say that in nature, as well as in technics, there are mechanical problems to be solved; and as in the former success is granted by natural selection, so in the latter by industrial progress, that a reproduction of organs can scarcely be avoided, for, if in our instruments the power and usefulness of our organs are to be extended, it is only natural that we give them a corresponding form. The weakness of this reasoning will be apparent if we show that in those products of our thought, which are not the results of a mere practical tendency, and where a further completion of the human organs was out of question, in products where our intelligence had seemingly a perfectly free field for operation, we have been directed by the same laws, and led by the same tendency, which is the basis of all organic development. We are speaking of the products of art. Shakespeare, in his "Winter's Tale," says "art is but nature," and Schopenhauer calls a work of art "an anticipation of that which nature intends." One of the most interesting proofs of this fact is to be found in A. Zeising's book,* in which he speaks of the "golden cut."

The "golden cut" is the name given by German mathematicians to that division of a whole into unequal parts, whereby the smaller part is related to the larger as the larger to the whole, or *vice versa*—the whole is related to the larger part as the larger to the smaller.

Zeising endeavours to show that in this law is embodied the ground principle of all formation in nature and art, where the tendency is toward the total and the beautiful. He calls this law the ideal type and normal measure of all things, and recognises it in the morphology of animals, of plants, of crystals, in the proportions of sculpture and painting, and even in the musical proportions. It cannot be denied that this discovery

* A. Zeising: "Neue Lehre von den Proportionen des Menschlichen Koerpers." Leipzig, Weigel, 1854.

is of the highest value for the study of æsthetics. Although this principle had been long recognised in nature, Zeising was the first to demonstrate that it was represented in works of art, and illustrates in a very clear manner that it forms the basis of beauty in the "Apollo of Belvedere," in the "Antinous," the "Venus of Medici," the "Venus of Praxiteles," the "Eva of Raphael," &c.

Those who accept the dogma of free-will can never find a satisfactory explanation of this remarkable fact, but it is easily understood if we admit that our ideas and thoughts are produced by natural causation, and are the result of unchangeable laws.

In works of architecture the same principle is repeated, and this is an additional proof that the activity of genius and the conception of an artistic idea are only the result of natural laws pervading the artist. The measures and proportions of different Greek buildings harmonise in a remarkable manner with the law of the "golden cut." We mention only the Parthenon in Athens, the Propylæa of the Acropolis, the Erechtheum, the Theseus Temple, the Temple of Apollo Epikurios, the Temple of the Olympic Jupiter in Agrigentum, the Propylæa of Eleusis, the Temple of the Capitoline Jupiter in Rome, the most ancient of the Temples in Selinuntum, &c. We also find the law of the "golden cut" in Gothic architecture—in the dome of Cologne, the Cathedral of Elizabeth in Marburg, and with more or less precision it is represented in nearly all cathedrals of the world.

That the rule of the "golden cut" was not known as an æsthetical principle, but only felt instinctively, is evident from the fact that only in a few cases it has been strictly observed; in all the others it is simply approached.

And now, after having seen the invalidity of the argument of conscious imitation, let us return to the technical sciences. It cannot be denied that in these sciences consciousness plays a more important part than in merely artistic conceptions. Very often there is a prefixed tendency to be recognised in the construction of machines and instruments, which are invented to supply a deeply felt want, and most of them are the product of careful and conscious meditation. But we have already seen that *meditation* and not *consciousness* is the productive element.

The truth of this assertion can be found by a careful study of technical development, and has been perfectly well recognised by Prof. Reuleaux,* who is perhaps the most able connoisseur of machineries. Among other things he says:

* Reuleaux: "Theoretische Kinematic," Braunschweig, 1875.

"When one observes the development of the technical sciences one is tempted to believe in a perfect *self-acting* evolution of ideas. . . . Everywhere we see how one idea unfolds from the other, as the leaf from the bud or the fruit from the blossom, just as in nature everywhere each new development is the product of some previous forms."

The development of technical sciences is based upon a continuous increasing of relations between man and the external world, and is perfectly identical with organic evolution, which takes place under a further differentiation of organs with increasing adaptation.

But this is not only true of this single phase of culture. The same organic construction is to be found in the whole world of thought.

Ideas unfold and evolve one from the other, and differentiate strictly according to the law of evolution.

In the history of the human mind there is to be found a process of adaptation of conceptions to reality. In this process there is a competition, an elimination of the "unfit," that is, of the *error*; and here likewise, as in organic nature, the greater adaptation—that is, the higher truth—leads to victory. It is the old law of the "survival of the fittest." And to make this analogy more complete, and to give it the worth of a real analogy, our thoughts are not coming to appearance in an arbitrary manner, but in a consequent order. They come forth when the foundation of their existence is laid, and not singly but in groups, which bear the same general character. "Each age," says Goethe, "hovers in an atmosphere of familiar ideas, and it is quite natural that the same discoveries are made by different persons perfectly independent, yet nearly at the same time, just as in different gardens fruits of the same species fall from the trees at the same season."

When the world is ripe for certain ideas they are produced. Before each great discovery a kind of fermentation seizes the minds of humanity, and it is the task of the genius to concentrate the thoughts of his time and bring them to a conclusion.

G. G.

Is not cant the *materia prima* of the devil, from which all falsehoods, imbecilities, abominations, body themselves, from which no true thing *can* come? For cant is itself properly a double-distilled lie—the second power of a lie.—*Carlyle*.

TRUTH takes the stamp of the souls it enters. It is rigorous and rough in arid souls, but tempers and softens itself in loving natures.
—*Joubert*.

PHRENOLOGY : OLD AND NEW.

(Second Article.)

The first physiologist who began in earnest to search for "Perceptive centres" in the cortical grey matter was, says Dr. Bastian, Dr. Ferrier; adding: "though he makes no reference to the writer's views." "Ferrier," he goes on to say, "took up the inquiry, perhaps independently, certainly in a thoroughly systematic manner, and his results deserve to be most carefully studied. The notion that there ought to be such 'perceptive centres' evidently commended itself to Ferrier, and, with characteristic energy, he sought to throw light upon their localisation, as he had previously, instigated by the views of Hughlings Jackson, sought to establish the existence of distinct 'motor centres' in the cortex of the cerebral hemispheres."

After noting that, until quite recently, there had been a notable dearth of evidence in medical literature in regard to the existence and localisation of any such "perceptive centres," either in man or the lower animals, Dr. Bastian goes on to say: "The fact of this absence of evidence in regard to the situation of the 'perceptive centres' of man seems at first very surprising, since it might be imagined that a study of the multitudinous records of local disease implicating the surface of the Brain which exist in medical works, would soon settle the problem. This, however, is far from being the case, and that for many reasons, which need not now be detailed. Suffice it to say, that local lesions of the mere cortex of one cerebral hemisphere in man have apparently never been known to be definitely associated with loss of Smell, of Sight, or of Hearing on either side of the body. This peculiar circumstance seems to be specially related, as the writer pointed out in 1874, to the duplicate nature of the brain, and to the fact of the connection of each of its Hemispheres with the double and intimately united lower ganglia or nuclei of each of the Special Senses."

It used to be an objection frequently urged against phrenology that the brain could be injured, and yet "the so-called organs" show no sign of diminished activity or power. The answer of the phrenologists was, that the organs being double, when those on one side were injured, those on the other side performed the functions alone. Dr. Bastian says: "In consequence of such an anatomical arrangement, one hemisphere seems often, in a very short time after the occurrence of damage or injury to its fellow, to be capable of being brought

into relation with sensory impressions from both sides of the body, so that although the 'perceptive centre' for the sense of Sight, of Smell, or of Hearing, may be destroyed in the convolutions of one hemisphere, no blindness of the opposite eye or no unilateral loss of smell or hearing, as the case may be, is produced. It is quite possible that, in the first instance, there may be some unilateral loss or weakness of one or other of the special senses when one of its convolitional centres is damaged, although this defect, in the early days of an illness, may easily pass unobserved."

Dr. Bastian then proceeds to examine some of Dr. Ferrier's results. "These experiments," he says, "are supposed by him to support the notion that 'perceptive centres' limited in area, and topographically distinct from one another, exist in the cortex of the cerebral hemispheres. His facts, however, do not necessarily carry with them any such interpretation." It must therefore be borne in mind that Ferrier's discoveries are not by any means accepted as final by physiologists. Let us see how some of them are in accordance with or opposed to phrenology—the "Old Phrenology," that is. Ferrier's experiments were made upon monkeys on account of the general resemblance which obtains between the brain of these animals and that of man. Dr. Bastian says: "After comparative observations upon the effects of unilateral and double destructive lesions, Ferrier localised the 'perceptive centre' for the sense of hearing in the upper half of the 'superior temporal convolution.' (Fig. 1.)

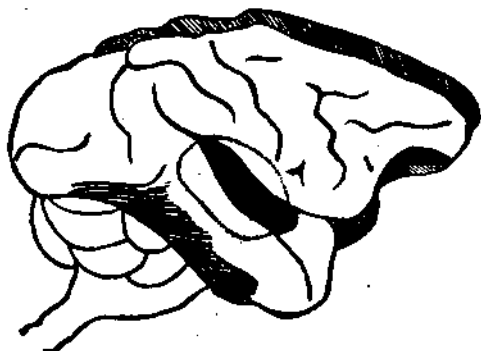


FIG. 1. —Brain of monkey, showing a shaded area corresponding with the so-called "auditory centre," in the cortex of the right cerebral hemisphere (Ferrier).

"Destruction of this region in one hemisphere was found to lead only to a very temporary deafness in the ear of the opposite side of the body; whilst destruction of the same

region in both hemispheres caused a lasting and total deafness on both sides." It is not to be expected that injury done to the brain in the neighbourhood of the ear could pass without affecting the sense of hearing; but it is not conclusive that the "perceptive centre" of hearing is located there.

The phrenologists have always maintained that the 'centres,' to use the new term, for the external senses, and for the senses of cold, heat, &c., have their seat in the base of the brain. The more purely animal faculties have their localisation there; as, for instance, Amativeness, Vitativeness, Alimenteriveness, &c. It is important to bear this in mind in regard to what follows.

"In regard to the seat of the 'perceptive centre' for the sense of Smell we have anatomical indications of great value. The connection of the 'olfactory tract' with the tip of the Temporal Lobe (or, indeed, the actual continuity which exists between these parts in many animals), as Ferrier says, 'might of itself be regarded as establishing strong grounds for a physiological connection between this region and the sense of smell.' He adds: 'In the monkey and in man the direct connection between the outer root of the comparatively small olfactory tract and the subiculum (the inner part of the tip of the Temporal Lobe) is not so evident, though in the monkey it is more apparent than in man. The origin of this so-called root from the subiculum is, however, thoroughly established.'

"A lesion of one subiculum was found to cause diminution or abolition of smell on one side, viz., the side of lesion—thus confirming the direct relation above indicated. . . . Destruction of both these regions was found to cause loss of Smell on both sides of a permanent character."

The sense of smell is intimately connected with taste, and we find that Ferrier puts their location close together. "Owing to the protracted position of the Temporal Lobe," says Bastian, "accurate limitation of lesion in this situation was found to be almost impossible. Hence, though the 'centre' for Taste is believed by Ferrier to be immediately contiguous with that of Smell, viz., in 'the lower part of the middle temporo-sphenoidal convolution,' at the tip of the Temporal Lobe, he is unable to speak with so much certainty as to this location. 'The abolition of taste,' he says, 'always coincided with destruction of regions situated in close relation to the subiculum;' whilst in favour of the part above defined being the centre for taste, he remarks that irritation of this portion of the 'middle temporal convolution' leads to movements of the lips, tongue, and cheek pouches, which he regards as the reflex movements consequent on the excitation of the gustatory

sensation. Destruction of this region on one side produced temporary loss or impairment of Taste on the opposite side of the tongue; whilst the loss of this sense became complete, double, and permanent when the same part was destroyed on both sides." (Fig. 2).

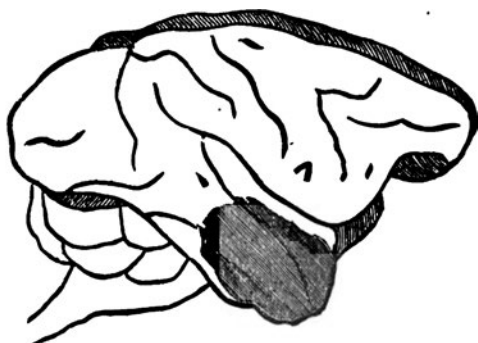


FIG. 2.—Brain of monkey, showing shaded area in Temporal Lobe, the destruction of which caused loss of Smell on the same side, and loss of Taste on the opposite side (Ferrier).

"Destruction of the whole of the tip of one Temporal Lobe," says Bastian, "was found to produce a temporary loss of Smell on the same side and loss of taste on the opposite side."

It will be seen that Ferrier's location of the centres for Smell and Taste correspond very closely with the organ of appetite, with which, it need hardly be said, they are fundamentally connected. It is worthy of remark that more than fifty years ago, Dr. Hoppe, a distinguished phrenologist of Copenhagen, pointed out the relation betwixt taste and appetite. "That the sensation of taste," he says, "only passes through the nerves, and is perceived in a part of the brain, is a supposition, I think, sufficiently proved. Now, it appears to me as highly probable, and by analogy agreeing with other experiences, that it is due to the same organ which *tastes* (viz., distinguishes and enjoys) and *incites* us to taste, or, in other terms, to take food and drink. This, according to my opinion, is the organ of appetite for food, and consequently it may also be named the organ of Taste (*gustus*), and stands in the same relation to this of the external senses as the organ of Tune to the sense of Hearing." It will be seen from these few notes of Dr. Ferrier's "discoveries," supposing them to be established, that they do not constitute such a "death-blow" to phrenology as some would have us believe.

ED. P. M.

THE FACE AS INDICATIVE OF CHARACTER.

(Continued from the August number.)

The science of physiognomy, if science we may call it, is based on the axiom that form is the outward expression of essential character or inherent quality; in other words, that the same element, or thing, always manifests itself to the senses in the same unvarying manner, and that when there is any deviation, it is a sign that some other quality has been at work. Thus, the apple is always apple-form: whether crab or russet, it has the same general characteristics; so that it is never mistaken for an orange or a pomegranate. So the acorn is always acorn-shape, and, put into the ground, it always produces an oak tree, never an elm or a beech, or what can be taken for such. Given substances always crystallise in a given form, be it cube, octahedron, or what not, never otherwise; and the expert crystallographer will tell you at once whether a piece of rock is quartz, rock-salt, diamond, or fluor-spar, by the form of crystallisation.

As it is in rock life and vegetal life, so it is in animal life: shape invariably attests character. The fox, whether found amid Arctic snow, or beneath the Equator, is never other than fox-like. The cat, too, is everywhere cat-like, and the dog, dog-like. If they ceased to be so, they would cease to be what they are. The dog is dog-shaped because that is the form that expresses the dog-nature. Any change in outward form is the result of inward, essential change. We are told by naturalists that the dog is a modified form of the wolf: if we put a wolf beside a mastiff, or a Scotch terrier, we see how wide is the difference between them; but that difference was one of mental growth before it became one of form. Darwin has shown how domestication, by changing the habits of animals, and so by changing that which is at the back of all habits, mentality or brain, has produced endless modifications of their external features. All the domesticated animals afford instances in point, but none more than the pigeon and the dog. So great has become the divergence of type in the latter, that at first sight some of them hardly appear to possess the characteristics of a common tribe. Take the spaniel and the greyhound for instance; or the bulldog and the Newfoundland: all, probably, from the same remote ancestry, though all so widely differentiated. No reasonable person would attribute these extremes of outward conformation to a "sport" of nature: we look upon them naturally as being in accord with inherent characteristics. Almost the dullest

would perceive that the greyhound could run better than the pug, while the pug could, probably, yelp better than the greyhound.

Every part of everything bears an exact correspondence to that thing as a whole. Thus, tall-bodied trees have long branches and leaves; short-bodied trees, short branches and roots; and creeping plants, as the grape, honeysuckle, &c., long, slim roots, that run underground as widely as their tops do above. Correspondingly, long-handed persons have long fingers, toes, arms, legs, bodies, and heads; while short and broad-shouldered persons are short and broad-handed, fingered, faced, and limbed. When the bones on the hand are prominent, all the bones, those of the nose included, are equally so, and thus of all other characteristics of the hand. One might write a whole chapter on the physiognomy of the hand; and perhaps in due course we may do so. Let it suffice here to say that from the hand one may estimate the native power of the constitution. A firm, well-knit hand is sign of a tough, hardy organisation; while a loose, flabby hand betokens the reverse. Persons of a healthy, long-lived family have invariably hands of a tough, compact make,

rather dry, and of a moderate temperature rather than hot; while those of a consumptive diathesis have hands more or less clammy, flaccid, and with bones that seem ready to come apart.



Figure 8.

Every part of the body bears a certain proportion to every other part. Thus, the outstretched arms, in a well-proportioned person, measure the length of the body from foot to crown; the foot is one and a half times the length of the hand; the fore-arm and hand are the length of the leg from the knee to the sole. So the body will be found an exact multiple of the head in length. In like

manner, a well-balanced head and face are similarly proportioned in their parts. The breadth of the face (see Figure 8), should be two-thirds of its length, measuring from the chin to

the top of the forehead. When it is less than that there is a lack of those powers that give force and energy to the nature, as we shall see as we proceed; when, on the contrary, the breadth is greater than this, there is more than ordinary vigour in the action of those propensities. Then a line drawn through the corners of the eyes should equally divide the face longitudinally; that is, a line taken perpendicularly from the corner of the eye to the top of the head should be equal to one taken from the same point to the chin. If the former does not equal the latter it is a pretty sure sign that there is not a high type of mind. Again, the length from the chin to the nose should equal the space from the point where the upper lip and the nose join to the root of the nose. Broadly speaking, where such is not the case, and the lower part predominates over the latter, there is a preponderance of mere doggedness of will, obstinacy, or even stupidity, over executiveness, energy, and force, or *vice versa*.

Examine carefully the proportions of the head and face represented in Fig. 8. It is a well-proportioned masculine visnomy, save that the mouth is hardly pronounced enough: it should be a little larger. It will be seen that the dotted line from the wing of the nose to the lower tip of the ear cuts off a space thence to the turn of the chin equal to the space between the said line and one from the root of the nose to the outer angle of the eye. It will be seen, too, that the line through the eye, if continued both ways, would accurately bisect the oblong square containing the head. Such a line indicates with tolerable accuracy the base of the brain, so that the amount of brain a person possesses may be roughly estimated by the height and breadth of the head above the eyes and the ears.

Oliver Wendal Holmes speaks of two and three storey heads, and the figure is a very good one. There is as much difference between people in this respect as between houses. Some men, and women, too, for the matter of that, have low, flat heads, heads of one storey, or one story and a half, and they never can get above the low level of earthly appetites and proclivities. Of such beware; contact with them will never redound to your profit.

It is profound ignorance that inspires a dogmatic tone. He who knows nothing believes he is teaching others what he has just learned himself; he who knows much scarcely thinks that what he says can be unknown by others, and he speaks with less assurance.—*La Bruyère*.

MENTAL DEPRESSION.

(Second Article.)

In my last article I spoke of the desirability that teachers should know something about the laws of health, in order that they might guard against the injury too often done to children by over-work; but teachers will never have the requisite knowledge until public opinion has been thoroughly educated upon the subject. When the community has been imbued with the importance of the thing, it will then be made a necessity that teachers shall be possessed of some physiological and hygienical knowledge. Happily it is now beginning to be recognised that physiological knowledge should be more general, though up to the present time little or nothing has been done either to make it an essential qualification for teachers, or to impart it to children. I hold that this is the great fundamental defect of our educational system. If I do not quite misconceive the idea of education, it means the training of a human being to use his various powers, physical as well as mental, legitimately, and to the best possible advantage, both for himself and for the society of which he forms an integral part. Now, in order to arrive at such a result the very first essential is self-knowledge. But where is the teacher who aims at giving his pupils such knowledge? If self-knowledge does come, it comes as the result of hard and often very bitter personal experience—not unseldom, too, at the other end of life, when the charm has been taken out of living and the incentive to action is weakened.

How much failure and how much trouble might be spared, by a system of education which should aim at giving children some sort of knowledge of themselves, their powers and weaknesses, few can appreciate who have not given attention to the subject. A striking instance in point came before my notice this very day. A gentleman called upon me for professional advice, and seeing the *Phrenological Magazine* on the table before me, he said he was glad to see such a thing was published, and told me he had great faith in the good that would be effected when phrenology should be better known. This led him to speak of the benefit he derived from it, and the facts are so striking that I cannot do better than give them. Being a youth of good physique, his parents thought they could not do better than make a soldier of him. So he was sent to a military college, and he did his best, being nothing loth, to pass the examination. However, he failed. Then he was sent to Harrow, and there he made so much

progress in ecclesiastical history, that it was thought he could not do better than go into the church. To this he made no objection, and again did his best ; but, unfortunately, with the same result. Then his parents decided to take him to a phrenologist—the late Dr. Donovan—for his opinion as to what he was best fitted for. The doctor, after examining his head carefully, pronounced in favour of the law, and to that the young man was finally put, and in it he proved so much in his element that he passed with marked success.

This instance touches one of the most marked evils of our time : I refer to the tendency there is for persons to be forced, or to force themselves, into positions they are not fit for. A man, for instance, may be very well qualified for a ploughman, or a clerk, or a schoolmaster, or a shop-keeper, or for any of the ordinary callings, but may have no ability whatever for anything higher, or requiring more grasp of intellect. But it is not the thought as to whether a man is qualified for such or such a place or sphere that enters the head. The only question is whether he can by hook or by crook be pushed into the desired position, and receive the honour or emolument of it, no matter how badly he fulfil its duties. It would be impossible to estimate the number of people there are who are out of their natural places. You find men occupying such positions as lawyers, clergymen, doctors, members of Parliament, who ought to be at the plough-tail or elsewhere. For, to say nothing of moral capacity, we see men of only mediocre intelligence trying to push themselves—too often successfully—into places for which intellectually they were never intended, and in which they can never hope to do their duty as they should. Not long ago, when speaking on this subject to the dean of one of our leading hospitals, he told me they had some three hundred medical students in their wards, adding, “ But I am sorry to say that I do not believe there are more than seventy of them who are fit to be medical men.”

It need hardly be said that the evils resulting from such a system are very great ; for not only does the community suffer from having bad doctors, bad lawyers, or bad clergymen, as the case may be, but the individual so placed, or rather misplaced, suffers in a like manner. Every man is by nature fitted to fill some place, and his life is not what it should be, nor are his duties fulfilled as they should be, if he fail to get into that place. A youth, for instance, has been brought up behind the counter, or at the lap-stone, and he did very well there. He was happy and contented ; but in an evil hour he thinks he would like to be a parson, or some one

has filled his head with the notion, and so he begins to study and read and beat his brains until he succeeds in addling them most effectually. Perhaps by dint of putting a pale, sickly-looking face in the place of a formerly round and ruddy one, by getting at his tongue's end some glib sentences that pass muster now-a-days for wisdom or learning, and by showing a large space divested of hair, which is mistaken for intellectual "development," he gets passed on to a pulpit. He may be conscientious enough—all the worse for him if he be! for then he works hard to do what, by his position, he ought to be able to do, and he succeeds thoroughly in—spoiling a constitution! Now I will be bound that God likes, above all things, a healthy man, or a healthy woman, and does not want His work done otherwise than healthily. It is one of the misfortunes of society that a vast deal of work is done unhealthily, resulting in untold evils, both to the world generally and to the person obliged so to act. The man who gets into the place he is by nature fitted for, whether it be high or low, works easily in that place, and so works healthily. But let him get into, or be placed in, a position for which he is not capacitated, and, unless he shirk his duty altogether, he will have to endeavour to do his duty under a constant strain. It is this strain put upon the mind by men who have got into wrong berths that is the cause of so much mental depression and its consequences.

A great deal of this kind of thing could be obviated by a little effort to gain a small amount of that self-knowledge which I have spoken of as fundamental to a thorough education. But it is to be feared that the evil is only too often the result of that system of training referred to in my last article—a system which does not take into account the amount of mental power an individual, whether youth or maiden, is endowed with, but thinks that constant cramming will do everything: an idea the folly of which cannot be too soon or too forcibly exposed.

Physiologists have, of late years, come to a better understanding of the physical basis of the mind, and of mental operations. They have shown, with great clearness, that all intellectual acts are the immediate results of physical changes in brain-tissue, or of the reactions within definite cells of certain forms of matter and force; and hence, that the capacity for such acts is strictly correlated to the maintenance of cell-growth, and to the conversion of force from other modes of its manifestation. More than this, they have ascertained that the truly intellectual acts, those that the educationist should most desire to cultivate, are apt to be stimulated by the activity of

cells which are really subservient to functions of a lower order, by which the former are liable to be displaced and ultimately superseded. By these considerations we are led to recognise that the physical basis of mental activity is, in truth, the *conditio sine quâ non* of its existence, and that the healthy body is the essential precursor of the sound mind. Physical health, therefore, should be the first consideration, not only of our educational systems, but of our entire subsequent life; and it is only when this has been secured that we have any right to look for profitable results in regard to our mental activities.

I do not want to be understood as objecting to the effort being made to bring about the highest possible results by training; I merely wish to point out that it does not pay to spoil the pleasure and healthy fruitfulness of life by attempting to make a brain do more than it is by nature capable of doing. The result is too often worse than fruitless, it is injurious; and the injury is not one that remains with the one who brings it upon him or herself, but is passed on to posterity. "The fathers have eaten sour grapes, and the children's teeth are set on edge."

The way to obviate this kind of thing is to put in force the motto inscribed in letters of gold on the Greek temple: "Know thyself." It is better to do so and work with that knowledge, even though it should but incontestably prove that you can never be a Shakspeare, possibly not even a Tupper; even though it should prove that your abilities are of the most mediocre kind, than that you should work away at a piece of glass, thinking you have got a diamond, and so waste time and effort. It is better to make a shoe than spoil a parchment. A little self-knowledge, such as can be obtained by a study of physiology and phrenology, is a most wholesome thing, and one which always pays for its acquirement. It is moreover, the only means whereby we can make the most of ourselves, and prevent ourselves from becoming that most deplorable of deplorable things—failures in the voyage of life.—R. M.

CERTAIN Dutch naturalists are testing the ability of the domestic cat to act as postman. Selecting Luik for their headquarters, they thence dispatch a number of cats, securely tied up in woollen bags, to the neighbouring villages, where they are freed from confinement and turned loose, with neat packets of letters firmly strapped to their backs. At once their domestic instincts come into full play, and they swiftly flee homeward with unswerving directness. Of thirty-seven cats thus constrained to serve their country not one has hitherto failed to fulfil its postal function with excellent punctuality.

ONLY HALF A HERO.

A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

CHAPTER XIV.

On Sunday, when she arose, Jessica said : " To-day I begin a new life." She drew a line, figuratively, against yesterday, and, copying the example of some novelists, began a new book with a new chapter. Looking back, with a tranquil mind, it seemed to her as though she had been living hitherto in an enclosed garden, shut out from the large world and its larger knowledge and consciousness, and that she only now, having as it were ascended from the vale, began to see and measure the world aright. So does the universe grow upon us with every added experience, until, at last, parish, known world, and unknown universe are linked in one unbroken chain, and the vast to-morrow is as sure as the dim and boundless yesterday. The thought of a destiny so vast, and a connection so endless, is naturally a spur to the endeavour to be worthy of such a birthright. It is well that man's enlarged mental grasp and consciousness, and his widened sense of duty, should be equalled by his courage and determination : otherwise the mind might shrink and break down in view of the greatness of its task. As it is, there is something exhilarating in the thought that there is never any need for the soul to weep, like Alexander, for other worlds to conquer : the grief should be rather that so few are conquered.

These were not exactly the thoughts that passed through Jessica's mind at this crisis of her existence, but her feelings took somewhat that shape. She felt that her late experiences, and the widened consciousness they had given her, were not meant for her hurt, but for her good ; and she determined that, as far as lay in her power, she would not belie the estimate Pastor Boeck had made of the effect of her trial upon her. Come what might of it, her life should not be spoiled thereby, neither in its poise nor in its activities ; nay, the latter should be increased—as increased it ought to be ; for had she not heretofore been living for herself alone ? not, perhaps, very selfishly, but still with very circumscribed sympathies for others. That very morning she would ask the pastor to put her into a way of doing some good. He should see that she had loves that could link themselves with the stars as well as with earthly flowers. This was how she would begin the new

chapter in her life. Whatever the future might have in store for her, either in the shape of joy or sorrow, she would not be weakly incapable of meeting it by want of resolution.

The first step she took in her new life, however, proved to her how little she could cut herself away from the past. She had stepped to the window, on the ledge of which lay a Bible. No sooner had she seen it than she determined to consult it, as she had read King Charles I. did in a time of trial, not so much as an oracle, however, as for guidance. She opened it at random, and her eye fell upon the lines of Solomon's Song :—

“ My beloved spake, and said unto me,
Rise up, my love, my fair one, and come away.
For, lo, the winter is past,
The rain is over and gone ;
The flowers appear on the earth ;
The time of the singing of birds is come.”

The whole passage is so full of the language of love that it moved Jessica to the core, and for a moment she trembled and felt weak. What wonder? Was not the love in her heart that would have joyfully responded to such an invitation from its object? and were not the flowers beginning to appear after the winter had passed? A minute or two, however, sufficed to give her full control of her feelings again, and she went down stairs with a glowing heart, but still resolute.

Jessica expected to meet the pastor in the breakfast-room, but he had had his morning roll and coffee taken into his own room, and so she did not see him until he mounted the high, narrow pulpit of the little Lutheran church of which he was pastor. It seemed like a return of old times to occupy the old seat by the side of the square and upright Tante. The sound of the aged pastor's voice, too, deep and mellow in its tone, heightened the illusion. For a brief space she was a child again, listening to the words of wisdom, and yet they now fell upon her ear with a deeper significance than ever before. She had known passion, and anger, and disappointment, and her heart was, as it were, like a drouthy land thirsting for rain; and, like a land that has received the refreshing showers and has returned a vaporous smoke, Jessica felt herself in a new atmosphere.

She returned to the Pfarrer-house with the words of his sermon ringing in her ears :

“ Do your best, honestly, uprightly, manfully, and be trustful with regard to the rest. When we have done our worthiest, in whatever sphere, in whatever position, under whatever circumstances we are called to act, then we may safely leave

the rest to Providence, or, as the common saying is, to take care of itself. There is so much in life, intimately concerning us and ours, over which we can have no control, that it is positively necessary for our peace that we should leave it implicitly in the hands of the Disposer of events. To those who have not accepted what is called the religious life, as well as to those who have, this rule is equally applicable. If misfortune come, bear up manfully under it : it will lose half its weight by a courageous encounter. If fault of ours has been the cause of it, let it make us resolve to avoid the error in the future. But let whatever will happen, do not let us repine, and give way to despair, and get into a slipshod habit of doing things. 'To be weak,' says the great Milton, 'is to be miserable, doing, or suffering.' We should ever act with this thought in our mind's eye : that, whatever our fate or fortune, whatever our field of labour, whatever our talents, whatever our opportunities, there may be a time when we shall be called upon—and are we not always being so called upon?—to suffer, to enjoy, to act some part, to take some place, to be something ; and when that supreme moment of our destiny comes, we will be ready to meet it and fulfil it worthily, if any will, wish, or endeavour of ours can enable us to do so. And we should remember, too, that for some of us—perhaps for the most of us—that great moment may come after we have quitted this life. We know not."

In the evening the pastor's friend Klein came. Klein was a musician—a man to whom all the great meanings of life were translatable into music. He was a tall, lank, white-faced and white-haired personage, with long, white, bony hands and a nose like a flying buttress. It is necessary to mention him here because his coming drew everyone into the drawing-room to hear his playing, and because that playing had an influence on our story.

It was thus : Playing one piece after another, he at length dropped upon a composition of Beethoven's which was a favourite of Jessica's, and which she had often played in the early days of her acquaintance with Gustav Riese, when she used to play with open window while he listened from his garret. He, too, had liked it much. Under Herr Klein's hand, however, it was different to anything she had heard before. It seemed no longer the pianoforte, but an elemental spirit that gave forth the sounds, running over the whole diapason of human sentiment and emotion,—hope, passion, fear, despair, aspiration, victory, thanksgiving. In the midst of it there was a thrilling andante passage, in which Jessica seemed to hear the voice of her lover pleading for forgiveness. The resentment

she had felt towards him gradually gave way, and ere she retired to rest she had resolved to write him a reply to his letter, and to release and forgive him.

The letter was duly written, but was never posted, for with the evening's papers came the news that Lieutenant Riese had, during a slight action in which he was engaged, been taken prisoner by the enemy. This occasioned the greater shock to Jessica and her friends because the last time but one that she had heard from him he was still in the hospital.

Poor Jessica! It was very hard upon her. For though she had released him, and though she said to herself a hundred times, "I shall never see him again," yet the tender feeling for him was there; and harden herself as she would, she could not help giving him the frequent tribute of "rainy eyes."

Several days passed, the little heroine struggling manfully—or should we not rather say womanfully?—to sustain the character of one who had, not exactly cut with the past, but who had closed one volume of life's story and opened another, beginning it, moreover, with a brand-new motto; finding it very hard, and oftentimes almost breaking down, great influxes of feeling sometimes welling up that would not be said nay; looking everywhere for support but finding it chiefly in Fritz, whose bright face and merry laugh often won her from herself when nothing else could:—several days had passed thus, when one morning a letter in a strange handwriting came to Jessica, under cover to Sanchen.

The little family was seated at breakfast at the time, and Jessica, after reading the letter over two or three times, quietly handed it to the pastor. It was only after the third time of reading that she really sensed the meaning of it: the steam of her coffee, or something, got into her eyes, so that she could not see the writing clearly. Besides, it was no ordinary epistle, as we shall see. It was as follows:—

"Liebes Fraulein,

"*Verncz*, — 1871.

"Your well-beloved and my good friend, Lieutenant Gustav Riese, of the — Regiment, of which I am also an humbler needle-gun bearer, recently requested me, in case anything should befall him—or, in other words, in case he should fall—to convey to you the expression of his constant and undying affection, and the desire that you would remember him as having striven to do his duty. In the afternoon of the Sonnabend (Saturday) just past, being about to go under fire, he bade me not forget my charge, saying he had some premonition that he should fall. His anticipation proved

correct: he fell—but happily only into the hands of our esteemed enemy, who doubtless will take good care of him until the war is over (which desirable end, it is to be hoped, der liebe Gott and our good Bismarck will soon bring about), or until such time as an exchange of prisoners can be effected. Perhaps the strict fulfilment of my promise would have required me simply to put myself in communication with you should he have fallen in the fatal sense. If I have erred in taking a more liberal view of my duty, pray pardon the fault in one only less rejoiced to be able to forward, than you will be to receive, news of so much happier a nature.

“I give myself the pleasure to sign myself your well-wishing and humble servitor,

“DIEDRICH HAMMELFLEISCH.”

The pastor read the letter over very carefully twice, and then said, placing it upon the table—

“That is very good; that is very good.”

Jessica looked at him with full liquid eyes. A great rush of tenderness for the imprisoned soldier took possession of her bosom, and she could not trust herself to speak. Poor girl! it was as if the Fates had determined to try her to the utmost and would not let her be

Later in the day the Pfarrer said to her that he thought it would be well for him to write to Herr Hammelfleisch and thank him for his kindness in communicating the particulars he had about Gustav Riese. Jessica assented, and he retired to his study to dispose of his task at once. Presently Jessica knocked at the door, and, entering, said, that on referring to some of Gustav's old letters, she found Herr Hammelfleisch spoken of in several as a young man of rare talent and a scholar. She had thought he might like to know that he was writing to a man of culture.

“Yes, truly; I am greatly obliged,” replied the pastor. “But what made you refer back to your letters?”

“When you mentioned the name it suddenly occurred to me that Gustav had spoken of him in his letters. I had forgotten all about it until now. I think these troubles waken the mind up and make it more vivid in its action. I seem to have lived more in these few past weeks than during my whole life before.”

“And don't you think, Kindlein, that if troubles do that they are not altogether useless?”

Jessica placed her hand upon her heart as if there was a pressure there, and answered abstractedly, and in a low voice, “Perhaps.”

CHAPTER XV.

Several comparatively uneventful days passed over—uneventful, that is, to the Pfarrer's household; for to the world at large every day—nay, every hour, was eventful enough. The war, for one thing, was gradually drawing to a close; France, though she had struggled bravely, heroically, had struggled in vain; long years of misgovernment, corruption, and fraud had sapped her strength, and placed her at the victor's feet. She had been like one who danced on a drum, pleased with the sound elicited by his own heels, never dreaming that the more he danced and attracted the attention of the world, the nearer he brought his own collapse. But our story is concerned with these events only in a minor way.

When Pastor Boeck had written his epistle to Hammelfleisch, he felt satisfied with himself, and looked forward to the day that ought to bring him a reply with not a little eagerness.

Meanwhile Jessica strove bravely with her troubles. She gave herself no more time to brood over them than she could help. Under the pastor's guidance she visited the sick and needy, and those—an equally large number—who were neither exactly sick nor exactly needy, but who pined for human sympathy, for encouragement, for a kindly word and a gentle pressure of the hand. Jessica soon found that she had enough to do to prevent the time from hanging heavily on her hands, and experienced a real pleasure—albeit often dashed with pain—in ministering to the wants of these "poor." There was something in the atmosphere of the Pfarrer-house, too, that had a stimulating effect on her intellect, and she started to read with avidity. Life began to claim more of her than it had done. The home-life at Frankfurt had been a repressive one, and though her mind was naturally one that aspires, yet there was nothing for it to feed on there. Her aunt was one who took an interest in nothing beyond her household affairs; the eupeptic sisters, Dorothea and Holda, talked only of millinery and things matrimonial; Herr Durer was one the store of whose wisdom had never yet been tapped; while, as for Gottlob, poor fellow, he spent most of his time at his "cercle"—and no wonder! He took no interest in the discussion of the fashions, or in hearing the little plots of his amiable sisters to catch a husband apiece. There was nothing particularly brilliant in the conversation of his companions of the "cercle," but surely anything was preferable to the endless cackle of indigent intellects about frills and flirtations.

"Better turn a girl loose in a library, and let her read and think free-thought, than bring her up exclusively in the society of a lot of empty-headed women who can think of nothing but dress, and fashion, and scandal, and the like frivolities," said Pastor Boeck one day, when he and Jessica were talking about these things. "No daughter of mine—had Providence blessed me with wife and child—should have had that which most nearly allied her with the Divine mind marred by such bringing-up. No wonder men are often forced to seek diversion away from home."

This was almost the only subject upon which the pastor ever got really warm, and upon which he differed from his friend Klein, who opined that "it was woman's business to look pretty—nothing more."

Little Fritz found a difference when Jessica began thus to dispose of her time. One day he said—

"You don't play with me now as much as you used to do: why don't you, Aunt Jessica? Don't you like me as much as you did?"

"Of course I do," replied Jessica, taking him up in her arms and pressing him to her bosom. "I think it is because I love you more, and everybody more, that I want to be better and able to do more."

"Aunt Jessica," said Fritz, pursuing a new train of thought, "why don't people always be children, and play in their gardens instead of working?"

"Because they have to work to get bread."

"Do you have to work for bread, Aunt Jessica?"

"No."

"Then why don't you play?"

"Because the good God expects everyone to do something useful, and to hurt no one."

"Will He expect me not to hurt Lienka's doll?"

"Yes, I daresay He will."

"Then I won't hurt it any more."

At length the pastor was gratified by the receipt of a letter from Diedrich Hammelfleisch, and as it contained something material to our story, it may be well to give it entire. It was as follows:—

"Vernez, — 1871.

"Esteemed Pastor,—

"It would not be easy to describe the many pleasurable feelings which were aroused in my bosom by the perusal of your esteemed letter. At the same time it grieves me to think that a lady, of whose goodness and many graces I have heard so much, should be in trouble, and that through an affair of

the heart. I may almost say that it affects me personally; for it happens that both the young men, whose love she has so powerfully awakened, I call friend. The rejected one was my intimate college mate and boon companion, while the more fortunate, but equally unhappy, accepted suitor, was my comrade and messmate from the crossing of the Rhine till he was made officer. I don't know which I would have the nearer to me—the good, soft-hearted, bibulous, hearty, ever-to-be-trusted, college friend; or the gentle, clear-souled, lion-hearted fellow gun-carrier. If it were in the nature of things that one should choose his own brothers, I would have both of them for my mother's sons, with her consent, of course. Holding them both so dear, it naturally follows that I would have each marry the girl of his heart. But since this cannot be, pray imagine how the tearing of their heart-strings has been the rending of mine.

“And yet, looking at the thing as a philosopher, I would not have had the matter otherwise, or at least not much: perhaps if my department were theology I should put my thought thus: that Providence had ruled all things for the best. But you must know, worthy pastor, that I try to believe myself a philosopher; I pose as such, sometimes, to my own no small amusement; therefore I must look at this affair somewhat *en philosoph*. I say: here are two young men, esteemed friends, whom I would fain have know each other and be happy in each other's acquaintance; but, as fate, or Providence, would have it, they have both fallen in love with the same maiden, while she, as in duty she ought, has only fallen in love with one of them; still for the unloved one she has a kindly, sisterly regard that would spare him pain to the extent of a large self-sacrifice. Then in the one scale there is wealth and position, and in the other lowliness of birth, disparity of fortune, in short. Thus we have an interesting speculation as to what these two—or should we not say three?—souls will do under the circumstances. Which will be the noblest—act the best?

“I did not know, however, that the good Gustav had relinquished his prize; although I saw he was ‘exercised’ in mind about the matter. He is just the one, under a feeling of duty like that, to hide himself away and die by inches; and I only fear in his present position, and in the state of health he was in when I last saw him, that he may sink under his troubles. We must hope that such may not be the case, and when we have peace, as I trust we shall have ere long, that love also will descend upon him with dove-like wings.

“As for the good Gottlob—well, he will storm through life

for a time, feeling that he has a wound that will not heal. But it will heal all the same, as most such wounds do, leaving only a Jennerian scar to show that any future love-fever must be mild and innocuous. In Gottlob's case, however, one regrets that to the love-storm should be added one of hate—aroused by the father, too. It almost makes one wish oneself back in the age when it was held to be a man's duty to give the quietus to his parents after they had ceased to be of any use, but an encumbrance to the world. I must say that the storm of hate was more gratifying to me than the love-storm. Unfortunately the upshot is that his father has quarrelled with him and threatens to disown him. This I learned from himself but a post ago.

"Thus it stands at present with the two, whom war and love have conspired to throw together and unite. Let me now enlist your good opinion in favour of a third in whom I have been, and am still, interested in the character above mentioned—of philosopher. Not many days ago I bade him farewell, as he started on his journey—whither I would willingly have accompanied him—Fatherlandwards. I trust his name and fame have already reached you, through the columns of the *Eilbacher Bote*; in which case I need not recount to you in what way he is connected with the captain and the lieutenant. The story was told in the above-named chronicle, and if it has not met your eye or ear, as well as of that of every inhabitant of Eilbach and Muhlheim, not excluding that of the burgomaster of the latter and of his amiable daughter, Lena, it has failed of its full effect.

"Hans Quint is worthy of your acquaintance, and I trust Providence will work in his favour, as I and the good Herr Thau have done to the best of our ability. How shall I awake your interest in him better than to say that he knows our dear Gustav better than any man of us, and that he loves him more than any other human being, save the amiable and tuneful Lena above mentioned? He will tell you more about him in half an hour than I could write in a day; and he is, besides, so naturally a philosopher, and puts us pseudo-philosophers so to the flush, that you cannot but be amused by him. If you can write me of the speeding of his suit you will cheer me like a Shakespearian comedy, or a Cervantean romance.

"In conclusion I would that I could give you for the lady, whom, unknowing, I have learned to esteem, the Fraulein Bechstein, happier news of her lover; it is not a little to be able to say that he is worthy—poor though he be, and lowly born—of any woman's love and devotion.

"I have written an interminable epistle, and hasten to sign myself,

"Yours humbly and devotedly,

"DIEDRICH HAMMELFLEISCH."

"That is the letter of a genuine man, notwithstanding he calls himself a pseudo-philosopher," exclaimed the pastor; "I would there were more such, in place of so many mere cigar-makers and clothes-holders."

The observation was made to his aunt, who was sitting alone with him, and to whom he handed the letter.

"You won't show it to Jessica?" she said after reading it.

"Why not?" asked the pastor.

"You know best, Moritz; but I should have thought it would disturb her too much just now."

"It is just the thing to strengthen and encourage her, if there be the depth in her that I think there is."

CHAPTER XVI.

Jessica was out visiting some of what she already began to call "her poor" when Hammelfleisch's letter arrived; when she returned she found it upon the table in her room. It was evening, but there was still enough light for her to read by. After some time had elapsed without her coming down, Sanchen tapped at her door and told her the evening meal was ready.

"I shall be down directly," she replied; and in the course of a minute or two she descended.

Never, thought the pastor, had Jessica looked so beautiful. There was a heightened colour in her cheek and a radiance in her eyes he had never seen there before. They were bright at all times, but now shone like twin stars of the first magnitude. Had she been weeping, wondered the pastor. Who could tell?

"Thank you for allowing me to read it," she said, handing the pastor Hammelfleisch's letter. "Shall we go and find Hans Quint to-morrow?"

"Yes, by all means, if you would like, my child," he replied.

"I should like very much; I think we ought to."

So it was decided that next day Jessica and the pastor should pay a visit to Muhlheim and see if the redoubtable Hans Quint could be found. As the day turned out fine, and the stretch of road between Eilbach and Muhlheim was a very pleasant one, it was decided to do the journey in neighbour Storch's little pony-chaise. Herr Storch was Fritz's father,

and his vehicle—ancient in make and not a little shaky—was ever at the pastor's service. As luck would have it, however, the pony was harder to catch than usual, and so the travellers were a full hour later in starting than they had intended. Then, to add to their misfortune, they had scarcely gone half the way when the harness broke, and they had to waste another hour at a way-side guest-house before they could proceed.

The afternoon was consequently spent ere they reached Muhlheim. Having no very definite notion how he should go about finding the returned soldier, the pastor at the last minute decided that the best way would be to call at once on the burgomaster.

Master-cooper Knoblauch lived in a very unpretentious dwelling in a most unfashionable-looking street. Indeed the term fashionable could hardly be applied to anything in Muhlheim. It was even more out of the fashion than plain Eilbach, which is saying a good deal. The only thing about Muhlheim wherein it seemed to follow the fashion of other towns was in respect to the number of children about the streets, and in this it almost outdid the most populous cities. There were children on the door-steps, children at the windows, children in the gutter, children sprawling in the roadway—children in fact everywhere. No wonder, there being so many of them, they had to go sparsely clad. The chief, and indeed, for the most part, the sole vestment in vogue, appeared to be a kind of blue pinafore—veritably a "pin-afore," for there was nothing at all behind; a fashion paralleled by that observed by some ladies, who clothe one end too much and the other too little. But the little mites seemed very happy notwithstanding, and that is the main thing, as the world goes.

The happiest and biggest group of all was opposite the good burgomaster's house, where they literally swarmed, attracted, possibly, by the chips from the cooperage.

"Take care, uncle," said Jessica, as the pony crawled up at a snail's pace; "we must not run over the little toddlekins."

"There is not much fear of that; the little imps know how to take care of themselves," replied the pastor; and the youngsters instantly made good the assertion by scattering on every side out of the way.

There was a fresh-looking damsel at one of the burgomaster's lower windows, and both the pastor and Jessica at once guessed that it was the fair Lena of whom they had heard. Nor were they mistaken. The window was Lena's favourite position; it was deeply bayed, and afforded a capital

view both ways, so that no one could enter or quit the Ganzgasse without the young lady's knowledge of the fact. She had her eyes on the pony-chaise containing the pastor and his *protégée* the moment they entered the street, and instantly began to wonder who they were and whither they were going. When the ancient vehicle stopped in front of the house, she jumped up and exclaimed, turning to her father, who was sitting in the corner near the stove, with a tankard of home-brewed by his side, and a huge pipe with a pictured china bowl, in his mouth :—

"Father, it gives company!"

"Nun, s'ist gut," observed the burgomaster, puffing out his words with a mouthful of smoke.

"But it is no common folk!" added Lena, excitedly.

"Nun, s'ist gut," repeated the old man stolidly, without taking the pipe from his lips or moving a muscle of his body.

"But it is a lady and gentleman, certainly highly well-born!" insisted the damsel.

"Gut!" again answered the master-cooper with the same imperturbability.

"They are at the door!" ejaculated the young lady, almost breathless with excitement.

"Good!" open it then!"

If the salvation of the world had depended on his calmly continuing to produce tobacco-smoke clouds, the burgomaster could not have maintained his gravity better. He stirred neither hand nor foot; the effort that ejected the puffs of smoke seemed to come from the pipe itself, rather than from the man.

When the pastor and Jessica entered the room, Herr Knoblauch raised a house-cap he wore on the back of his head, and said, "Guten abend," Then he waited for his visitors to open their business to him. This the pastor did in few words.

"I have taken the liberty of calling upon you," he said, "to inquire of one lately returned from the war named Hans Quint, whom I thought in your capacity of burgomaster——"

"Ya! gut!" said the master-cooper.

"I have a particular desire to find out his whereabouts."

"Gut!"

"Doubtless a man who has distinguished himself so much——"

"Ya! gut! I know him," said the burgomaster, at length taking the pipe from his mouth.

"Would you, then, kindly direct me where we can find him?"

"The Lena will show you," replied Herr Knoblauch. "Lena, get yourself ready.—But you will first take something : Lena, bring beer and wine."

Pastor Boeck politely declined any refreshment, both for himself and Jessica, saying that they were rather pressed for time, having to drive back to Eilbach.

The comely Lena showed great alacrity in getting ready to conduct the strangers to Hans Quint's residence, of which Jessica did not fail to take note. As they rose to go the burgomaster raised himself to the perpendicular and accompanied them to the door, where he said—

"This Hans Quint has done great things, I understand?"

"Yes," replied the pastor, "he has proved himself a brave man, and not only that but a good one."

"Gut!"

The result of the visit was not fortunate. When they reached the quarters occupied by Quint, which were in the upper regions of a house in a narrow street, they found that personage not at home, and so Pastor Boeck and Jessica were obliged to retrace their way to Eilbach with their errand but half accomplished. But if they were disappointed at not finding Hans within, Lena was doubly disappointed, or at least she seemed so.

The Fraulein Knoblauch was really a passably good-looking damsel,—not at all "interesting," in the accepted meaning of that word; her cheeks were too full and ruddy for that; the possession of them, indeed, together with a waist that indicated health and vital vigour, would have driven a fashionable young lady of the period into despair: for all the pearl powder in existence would scarcely have obscured the former, nor the most adamant corsets taken down the latter.

"You know Herr Quint, I suppose?" said the pastor to Lena, as they bade her good-bye.

"Not much," she replied, a little demurely; "he has been at the house once, and we met him out once."

"That is a good girl," said the pastor to Jessica, after Lena had quitted them, "and will make Hans Quint a good wife, if he can get her. She has eyes like a summer sky."

(To be continued.)

Tax not my sloth that I
 Fold my arms beside the brook;
 Each cloud that floateth in the sky
 Writes a letter in my book.—*Ralph Waldo Emerson.*

The Children's Corner.

THE FISHER.

The fisher floats upon the tide,
Far spreads the blue sea round ;
The land lies dim ; from every side
He hears no human sound.

The waters rise, the waters fall,
And rocked is he thereon,
And though the sea-birds plaintive call,
Yet hears he not their tone.

A sweeter cadence strikes his ear
Than that of lonely gull ;
Enchanting notes rise soft and clear
And all his senses lull.

He gazes round, no boat is nigh,
Yet still the charm resounds ;
He feels a fear—he knows not why—
His heart all wildly bounds.

At length, within a shell-like boat
Cerulean as the wave,
He spies a maiden fair afloat,
Her feet the waters lave.

Her hair is of the amber's hue,
Her neck is as the foam,
Her eyes are like the wavelets blue,
The deep sea is her home.

She sang to him songs passing sweet,
She smiled so debonair,
It made his raptured bosom beat
To see a thing so fair.

" My home is in the coral groves,
Of crystal is its roof ;
Within its still and bright alcoves
From care we are aloof.

" Come with me there, thou fisher brave,"
She sang him soft and sweet,
" Our life thee many a pang will save,
Our days are glad and fleet."

The fisher heard, the fisher sighed,
He cast a look to land :
When morrow came, a boat was spied
Manless upon the strand.

When many and many a day was spent,
 And many a fruitful year,
 The fisher returned, old, grey, and bent,
 With a look so wan and drear.
 And ever he said: "The wind and the rain,
 The sun and the winter's chill—
 Better are these, with some care and pain,
 Than ever of joy our fill!"

S.

Review.

Ethnology and Phrenology. By J. W. JACKSON. London: Trübner & Co.

There is perhaps no branch of modern science in so unsatisfactory a state as Ethnology, nor is there any in which it is evident some different basis on which to ground research from the one in vogue is needed. The skulls of races are measured and compared, and are classified according as they are long or short, broad or narrow, high or low, with little or no reference to their capacity as containers of cerebral substance. Thus we see skulls classed together as being alike, which, to a phrenologist, at once present features of the widest difference. For instance, two types of skull are classed together because they are both of the same length and height, showing possibly that they contained about the same quantity of brain, although the quality or position of it may have been very different in the two. In the one the predominance of brain may have been behind the auditory meatus; that is, it may have been purely animal in its character; whereas in the other there may have been, relatively, a much larger proportion of intellect. There are not wanting indications that later ethnologists are beginning to regard skulls a little from the phrenologists' point of view, though, as yet, in a very superficial manner.

Attention has been called to the importance of phrenology in relation to ethnology by quite a number of eminent thinkers and investigators, among others, by Vimont, Broussais, Charles Bray, &c. But, perhaps, the one who developed his thoughts on the subject the most thoroughly, was the late J. W. Jackson, whose work now lies before us. How he conceived ethnology should be studied he makes clear in his introduction. "Ethnology," he says, "cannot stand alone; for its effectual prosecution the aid of many other departments of learning and science is imperatively required. It demands anatomy, physiology, phrenology, physiognomy, and, we may add, photography. These, however, are only its primary and more immediate requisites. It wants, in addition, geology, zoology, botany, and climatology. It needs not only to have the man correctly described and accurately represented, but it also seeks some knowledge as to the influences of his environment, and how these

have acted as a plastic force upon his physical structure and mental endowments."

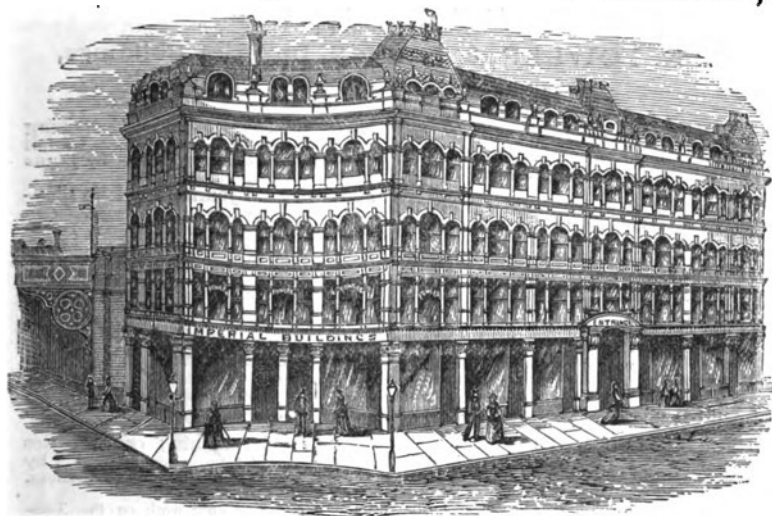
A comprehensive work on ethnology, treated from a phrenological point of view, or from the broad standpoint suggested by Mr. Jackson, is yet to be written; but by way of introduction to the subject, and "as an aid to the historian," a better or more comprehensive work is probably not to be found than the one before us. The work, of course, is not a new one, the author having been dead some years; but nothing that we are aware of has superseded it as yet. Should another edition be printed we would suggest its being carefully edited and provided with notes, so as to leave nothing wanting in regard to modern research on the subject of ethnology.

Facts and Gossip.

READERS who know anything of Central America—Yucatan, part of Mexico, and Guatemala, and the wonderful ruins of temples and towns built in ages long, long ago—will hear with pleasure that a scientific and archæological expedition is to be sent, under the authority of France and of the United States, to make further explorations in that mysterious country. The chief promoter of the expedition is Mr. Peter Lorillard of New York, by whom the greater part of the cost will be borne. In numbers and equipment, nothing will be lacking; casts of important bas-reliefs and inscriptions will be taken, whereby scholars in all parts of the world will be enabled to study relics of civilisation not less interesting than the old monuments of Egypt and Assyria. From what is already known, it is supposed that the builders of those ancient temples had intimate relations with Cambodia and Java, if they were not actually emigrants from those countries. Interesting affinities have been made out by linguistic students, some of whom believe that the table-land of Peru, and not that of Asia, was the cradle of the human race; and that the Hittites of Scripture during their wanderings settled in Peru, and erected the buildings which now excite our astonishment. Hence it will be understood that something may be discovered which will throw light on primeval history. The hill-country of Yucatan is almost unknown. It is reported that the inhabitants—a fierce tribe named Mayas—"have reconstructed the old towns, with their forts and temples, and revived many of the customs, laws, and idolatrous rites of their forefathers." The explorers will visit these people, and also endeavour to find traces of the tribes that preceded the Aztecs.

AN Institute of Heredity has been proposed in Boston, which shall have for its object the improvement of the human race, by the diffusion of knowledge on the common causes of deterioration, by the inculcation of a wholesome sentiment against the marriage of persons afflicted with hereditary diseases or dominated by vicious habits.

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April 8, 1880.—Mrs. M., aged fifty-six, has complained of pain in the back, great thirst, loss of strength and flesh, memory affected, with impaired hearing on the left side; suffers from prurigo pudendi, bowels obstinately constipated, pulse 88, tongue indicative of atonic dyspepsia. Two years ago had great anxiety about her husband's illness. Urine, tested by Fehling's solution and liquor potassæ, showed the presence of sugar; specific gravity, 1'036.

Ordered a Turkish Bath in the morning, and mustard pack over the region of the liver and kidneys in the evening, with a tablespoonful of glycerine in hot water at bed-time to relieve the constipation, and a strict diabetic diet.

April 9.—Bowels acted freely; ordered a Turkish Bath twice a day, hot spinal bath with cold effusion, and dry mustard rubbed into the back, tepid ascending douche graduated to cold. Wet body bandage worn constantly.

April 10.—Bowels opened twice; specific gravity of urine, 1'028. To continue the baths as usual.

April 11.—Specific gravity, 1'030.

April 14.—Specific gravity of urine, 1'028; less sugar. Had a full wet sheet pack yesterday, and one Turkish Bath, with spinal application. Linseed meal-poultices and mustard over kidneys.

April 16.—Specific gravity, 1'028; sugar still present.

April 17.—Specific gravity, 1'023; no sugar detected. Two Turkish Baths daily again.

April 19.—Specific gravity, 1'015; no trace of sugar; has a good deal of pain over left kidney; thirst gone; bowels act well.

April 21.—Specific gravity, 1'022. To continue; two Turkish Baths and wet sheet pack daily, with spinal rubbing, and ascending douche; looks very well, and feels strong, and quite altered in all respects.

April 26.—Specific gravity, 1'016; no sugar. Looks quite well.

May 3.—Returned home, and became an out-patient at Priessnitz House. Treatment: Turkish Baths in connection with cold spouting douches to spine, sitz bath and spinal manipulation for three weeks, at the end of which period all traces of sugar had disappeared. The patient went to Bournemouth for the summer, feeling better than she had felt for months.

THE Phrenological Magazine.

NOVEMBER, 1880.

LORD BEACONSFIELD JUDGED FROM HIS PHRENOLOGY.

The head of this renowned statesman is somewhat remarkable in shape. The central brain from the root of the nose to the occipital spinalis over the central line is long, and all the organs in that line of the brain are prominent, especially from the lower frontal lobe over to the crown of the head, and the organs located there have very much to do with his character. Probably Solomon was not much more developed in this part of the brain than he is, yet must have been much larger in the back part. The base of the brain is not large, but with his tone of organisation, which indicates great tenacity, it is powerful enough to give him all the force he needs to accomplish his intellectual ends. His faith in himself is as great as David's was in the Lord. He had so much faith in himself as a young man that he made the resolve that he would be Prime Minister of England, and he did not slacken his efforts until he had attained the summit of his ambition. Elisha the prophet was not more correct in his predictions than Lord Beaconsfield has been—when he has prophesied of himself. Nothing but the most perfect confidence in himself could have led him to predict what he would do.

What says phrenology about his self-reliance and self-confidence?

The shape of his head tells the story. The central brain is large from the nose, and culminates at the crown of the head—the location of Self-esteem, which leads him to believe in himself if in nobody else. This faculty more than any other is at the foundation of his character, and, of course, of his career. Self-esteem gives love of power and position, and Lord Beaconsfield, having early determined to gain the summit of power and influence, set himself intelligently to work to reach the goal of his ambition.

The next most important faculty brought into activity in

the accomplishment of this one controlling desire is Firmness. This organ towers up in front of the crown so as to be quite conspicuous ; and as the organs on the sides of it are not large, it appears to a still better advantage. Having settled upon what he intended to do, Firmness took hold of the work in a steady, resolute manner. For thirty years or more he persevered with unabated energy, working in one line and with one main object in view. Hence, there is no denying the fact that he has firmness both in character and in the development of his brain. With him it is a foregone conclusion that, when he has made up his mind to accomplish a certain end, whether it be to become Prime Minister, to be an orator, to succeed as a literary man or a statesman, or to carry out certain political views, no obstacle shall be allowed to stand in his way. The end must be attained by hook or by crook.

Approbativeness is not so large as Self-esteem, for his head is only full in the centre, and not at the sides of Self-esteem. He will accept with some grace all the applause others may choose to bestow upon him, but it does not bend him from his purpose or warp his judgment. Nor does he care much for fashion ; while as for rank, titles, &c., probably few men have more genuine contempt for them than he : but he is a wielder of men, and knows how your second and third rate men are attracted by such baubles. He is one of the least envious of men : all he desires, or has desired, is a fair field and no favour, having confidence in his wits and his industry to secure the rest.

His sympathies are universal rather than individual. His attachments are few but sincere. His interest in others is increased in proportion as he and they are equally interested in carrying out certain ends. These ends gained, he is prepared to bestow the same interest on others similarly situated with reference to him.

His head is broad enough to indicate a certain amount of appreciation of property, and power to take care of it ; but property with him is a secondary consideration, and is valued only in so far as it gives power and influence, secures independence, and enables him to accomplish his purposes. The organ of Secretiveness is not so large as is generally supposed. He simply minds his own business, keeps his own counsels, and makes and prosecutes his plans without making any unnecessary cackle about them. There is one thing that Lord Beaconsfield does not like, and that is unnecessary cackle. His shrewdness and policy are to a certain extent resorted to in order to make the more sure of attaining the desired results.

The central forehead is high and full, which gives him a good range of knowledge, power of observation, and ability to acquire information. All the perceptive faculties are large, enabling him to be very accurate in his perceptions, and




giving him a love for the natural and exact sciences. Order is especially large, and he should be characterised for method, system, and ability to make the most of the means at hand.

Comparison is very large, giving him the power to analyse, criticise, describe, and see the bearings of things with great clearness. The combination of Comparison, Eventuality, and Individuality renders him particularly alive to conditions, effects, and the results of actions. His mind is not so creative, original, and inventive as it is analytic, discriminative, and far-seeing. He is better able to infer the result of causes in operation, and to take the advantage of such causes, than to originate and set in motion new ones.

His head is large between Comparison and Benevolence, indicating great intuitive power, penetration, discernment, and ability to foresee. He has well-nigh a prophetic mind, being able to look farther ahead than most men. This intuitive foresight must have had a powerful influence throughout his whole career.

This faculty, together with the general tone and tenor of his mind, makes him a keen and interested judge of men. Few persons can sum a man up so quickly or so cutely as he can.

The fulness of the side head at and above the temples indicates versatility of talent, ability to contrive and devise ways and means, and power to magnify, embellish, and take large and even extravagant views of subjects. These qualities, joined to his large Language, which is seen from his full, projecting , give him great power of expression, oratorical ability, and talent to present his ideas in the most attractive form. Language, together with his large Mirthfulness, Comparison, and other organs, gives him unusual aptitude in the use of epithet, epigram, and sarcasm.

His temperament and tone of mind are such as to greatly facilitate mental strength and activity. He has a predominance of the mental and nervous temperaments, with a fair proportion of the motive and vital apparatus. He inherited a strong constitution and long life, yet he has never had any vitality to spare. His power over an audience arises more from his nervous force, ingenuity of argument, and facility of expression, together with his knowledge of human nature and how to manage it, than from the impulsive or emotional part of his nature.

The question has frequently been put to me: "Is Lord Beaconsfield a great statesman according to his head?"

To sum up in a few words: His head indicates that he has great ability as a scholar, uncommon availability of mind, more than ordinary perception of character, great talents as a speaker and writer, much ingenuity and versatility of intellect, great force of mind, plenty of tact, management, and power to keep his own affairs and plans to himself, very great firmness,

perseverance, determination, presence of mind, and self-command, an extraordinary amount of industry and enterprise, a strong consciousness of his own individuality, and a feeling that he must be the alpha and omega of any enterprise that he may undertake.

As a statesman he would not be able to take the place of an Alfred the Great, a George Washington, a General Pim, a Hampden, a Robert Peel, or a Bismarck. He can "run" a Government—to use the American expression—that has plenty of varied resources ; but cannot lay foundations, create resources, and establish institutions on a broad and permanent basis. His mind is more perspicuous and far-seeing than comprehensive, and he acts more with reference to present than with reference to remote results. More Causality in the intellectual brain, more Conscientiousness in the Moral brain, and more Friendship in the Social brain are necessary to make up a favourable combination of mental powers to lay plans and establish institutions on a permanent foundation.

In conclusion : Few men are, and will be, better misunderstood than the quondam Benjamin Disraeli.

ARE CRIMINALS RESPONSIBLE ?

Thinking men are beginning to look at society from a different standpoint from that which has hitherto prevailed. They are beginning to consider its component parts, and not only these, but the constitution and composition of each component part. Whither the study will lead them we cannot guess, but presumably to something very different from what we have been used for so long to regard as the necessary organisation of society. Those who have hitherto given the most attention to this subject of sociology have not yet taken phrenology into their considerations (they only hint at *a* phrenology) ; but that will come in due course : that which is true can afford to wait—it is the false which is in a hurry to be heard. Meanwhile those who have tested, and therefore appreciate, the value of phrenology can be doing good work by disseminating better views on mental philosophy, and on "the constitution and composition" of the components of society. It is only by such means that real advance can be made. Nature, it has been well remarked, does not go by bounds, but by gradual progress. Therefore those who have been brought up to the belief in an ideal and fictitious mental

science, cannot throw it overboard all at once for a system so practical that it is actually sensible to the touch.

The day will come—and it is to be hoped it is not far distant—when our colleges will recognise phrenology as an important branch of the study of that sociology which is going to form more and more the basis of political systems; and it is important therefore that larger views should begin to prevail with reference to the scope and bearing of the science. Phrenology is a system of reading character because it is at the bottom of that which makes character—that is, mind. If it can explain the differences between men and the causes thereof, it is capable of affording an explanation of the differences between nations of men, and between classes of men. It can explain why, for instance, there is a criminal class; it might be able to show a better way of treating that class; possibly it might in conjunction with physiology and the laws of heredity, indicate a way of preventing the growth of such a class. It will be within the scope of the PHRENOLOGICAL MAGAZINE to treat from time to time on various phases of this subject. It is important, for example, to inquire to what extent criminals are responsible. There are some who hold that most criminals are morally irresponsible, no matter how great the crimes they commit against society, while others hold that they are fully responsible.

The truth probably lies between these two extreme views. There are degrees of responsibility, and these depend on the amount and balance of the mental and moral faculties with which individuals are endowed, also on the quality of their organisations. Some are below the average scale in quality and quantity, while others are far above the average in moral development. Barbarians have enough intellectual and moral power to make them very exacting of each other, and they are very severe in their punishments when they think offenders have not fulfilled their respective duties faithfully. No man, unless he be an idiot, can grow up in a civilised and Christianised community without having his moral sense awakened sufficiently to distinguish between right and wrong, according to his acceptance of moral ethics, and in a normal state of his mind he is able to obey the laws of the land. Men who have gross organisations can so live that they will lower the tone of their minds, stunt the action of their moral sense, and stupify their moral feelings so as to appear to be without moral sense. But many criminals assume the appearance of indifference in order to manifest a plucky, bravado spirit. Some desperadoes fully understand that they run great risks leading the life they do; but they sagaciously calculate that success in their wicked

ways will bring great luck, while failure will bring misfortune and disappointment, and they are willing to take the consequences of their risks, whatever they may be. I will not deny that they are more conscious of the legal than of the moral consequences; but one who has any idea of the legal consequences of an act has some idea of moral obligation. Let an outrage be committed on one of those men that are said to have "no moral sense," and he will quickly show that he has "moral sense" enough to resent the outrage, particularly if his property has been appropriated in any way.

Having visited a great many noted criminals in prison, and having examined them phrenologically in order to satisfy my mind as to what has been the cause of their lapsing into crime, I long since came to the conclusion that the majority of criminals are such from the defective condition of their mental organisation. Where one man is led into the committal of a great crime by a sudden and overpowering temptation, ninety-nine lapse into crime through the overbearing action of some faculties and the weakness of others; that is, the moral or restraining powers. The passions and propensities are generally strong, while the organs of Conscientiousness, Benevolence, Veneration, &c., are defective, so that there is not that humane feeling, that consciousness of a superior power, or that sense of right and wrong which are the usual higher checks upon human conduct. Hence, sometimes deliberately, often in fits of desperation, these men commit deeds of violence, and are quite reckless of results or consequences. Some are deficient in all the above points; others in only one; and the majority have counterbalancing or redeeming qualities which would enable them to lead a moral life if they were so inclined. Though the animal passions and propensities may greatly predominate, and the moral sense be feebly developed, yet it is not entirely destitute. I grant man may stunt its growth, harden the tender feelings of his soul, weaken the sense of right and wrong, live only in the gratification of passion, without the least regard for the future or the well-being of the community.

It often happens that criminals are prone to evil courses from hereditary influences. They are born with an almost preponderating bias to depravity. They may get little or no chances for moral culture, and all their associations in life may be calculated to impair the limited degree of moral power they have naturally. Let such men be convicted of crime and sentenced to an ignominious death, and they brace themselves up to repress every manifestation of moral feeling, and to the last will not confess the turpitude of their crimes even

if they inwardly feel it. They have a false code of honour, and one of its tenets is "to die game." We should not be surprised at this when we reflect that perhaps these men have been undergoing a hardening process in the school of vice for many years, and that each one has been attempting to outdo his fellows in manifesting indifference to all tender emotions; in fact, this is a part of their training, and the boldest and most fearless are considered the best in their circle. To such the highest source of enjoyment is the gratification of the appetites and passions. Again, many of these men take the law into their own hands, and punish a real or imaginary wrong by the infliction of great cruelty, and even murder. Generally they are not a dull, but a morbidly sensitive class of people, and they dwell continuously on the mistaken idea that society has done them some egregious wrong, and that if they can in their way retaliate by striking a deadly blow at society they will have discharged their duty. Yet even the most abandoned is sometimes touched by an appeal made to his higher nature, and leaves off his evil practices, which he would not do unless he had some moral sense to be affected.

In the majority of cases therefore we may be sure that there is enough material to work on with a view to obtaining better results; but there are no means for sifting out the morally weak and strengthening them by putting them under moral influences. The natural course of things leaves them to gravitate to the bottom of the social scale, where they become a part of the class that "preys" upon society. It is a question whether "society" has not some duty in respect to such other than that of punishing them when they have been caught *in flagrante delicto*.

The question is a very wide one, for society naturally—and very properly—objects to undue interference with individual liberty. But when we find that confirmed criminals have perverted the normal action of the moral faculties by indulgence in lustful habits, or have poisoned their healthful blood by alcohol and tobacco, or have never tried to control their selfish propensities, or circumstances have been such that they have grown up from childhood in vice without having had helping hands to guide them into the ways of a better life, it would seem as though something more was due to them than neglect until they stand arraigned for some heinous offence against the laws. Whatever may have been the primary causes of a tendency to do evil, it is a fact that the most abandoned criminals have lived the most intemperate and immoral lives. Had they never tasted a drop of alcohol, their mental powers would not have become morbidly active; and

though they may have had an imperfect organisation, and consequently an imperfect mental condition, yet they might have done better if they had not been left entirely to their own "devices" and to the influences of corrupt men.

There are others of the criminal class who are practically irresponsible. They are idiotic morally. They have never been given those faculties which constitute the moral sense in sufficient strength to render them morally accountable. They are morally—often intellectually—lower than the savage or barbarian, and it is natural for their hand to be against their neighbour. This may seem a strange confession, but it is a fact which has to be looked in the face ; and the sooner it is so regarded the better it will be for society.

If it can be proved that a man has no moral sense, he should at once be confined in some institution for his own comfort and for the safety of society. If it can be proved that a man once had moral sense, and has lived so as to destroy it, then he should be recognised as unfit to be at large in society, and should be confined in an institution. It is as natural to be born with moral feeling as to be born with an appetite, an intellectual nature, and social faculties ; and every individual who is not an idiot by birth, morally or intellectually, or both, has some perception of right and wrong, and hence is more or less responsible for his actions.

L. N. FOWLER.

THE phenomenon known to astronomers as the "zodiacal light," is shown by Mr. J. W. Redhouse, a member of the Royal Asiatic Society, to be identical with the "false dawn," as it is called by the Mussulmans and other Eastern peoples, who have been familiar therewith, as with the Milky Way, from remote antiquity. On the other hand, the zodiacal light has not been known in Europe more than about two centuries. From these facts Mr. Redhouse draws a curious conclusion. It is clear, he says, that our forefathers "could never have come from that central point of Asia so dear to modern Sanskritists, whence they would fain make the Aryan race to radiate, that is, from the snowy table-land of Pamir (behind the Himalaya). The zodiacal light must have been as well known to the shepherds of that plateau as it is to the wandering tribes of Arabia and Mesopotamia. It must *always* have been well known to them ; and once known to a people, such a phenomenon could never be totally forgotten in latitudes where it was visible. Our Aryan race came not, then, from Pamir as their radiating centre. Ethnologists may well weigh this pregnant indication."

THE FACE AS INDICATIVE OF CHARACTER.

(Continued from the October Number.)

It was said in the last contribution on this subject that there were persons with heads of one storey or one storey and a half. So there are others with heads of a somewhat higher cast—two storey heads. They may be intelligent, well-bred people, with taste, imagination, and ideas; they are highly respectable, fashionable maybe, and even religious, but the world does not owe them much; they go with the wind and float with the tide. To make the world's heroes, and reformers, and true "saviours of society," it requires another storey to the "dome of thought." Men with a fair third storey like that can afford to look down on the palaces of kings and emperors. If you would judge a man aright, therefore, observe what kind of an upper storey he has got, and whether it be well furnished.

In making our estimates of men and women, we do not sufficiently take into account how much head there is above the middle horizontal line in fig. 8 (Oct. MAGAZINE). We are

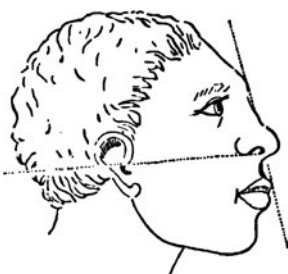


Fig. 9.

guided by pretty or handsome faces, which frequently attest mere harmony of vital functions; or by the development of the forehead, which is a measure of intellect only; while the upper part of the head—the dome—is never taken into account, although it is upon it that character essentially depends. In no respect does man differ so much from the lower animals as in this. Compare the head of any quadruped—even of the dog, to

which some attribute a large share of moral sense—with that of the lowest type of man, and see the difference in respect to coronal development, and then mark the difference between the lowest human type and the highest. The accompanying cut (Fig. 9) does not by any means represent the lowest race, and yet the dullest eye can see that the difference between him and Benjamin West (Fig. 10) is not one of type only, but of character. In proportion as the head is high and broad at the top, so are the aspirations lofty and wide-reaching; whereas the contrary is the case if the head be low.

Some idea of the comparative moral development of different races may be gathered from Fig. 11, the highest type

of European being represented at one end and the negroid at the other. Some time we may give a chapter on the physiognomy of the races, but to do so at present would lead us too far astray from our present purpose. Suffice it to say that it is impossible to engraft upon such a people as is represented by the negro at one end of the scale a civilisation that has been attained by the Caucasian at the other end. They may develop to it in time, but it is a question of brain-growth rather than of the acceptance of forms.



Fig. 10.

Of course it is not here a matter of moral development only: there is a difference of intellect too, and as we are still treating of the face as a whole, it will be well here to speak of the means of arriving at the degree of intellect as a whole. It is customary to judge of a person's intellect by the amount of smooth surface his head presents on the front—which is about as safe a criterion as to judge of a man's strength by the size of his ears. A person may show

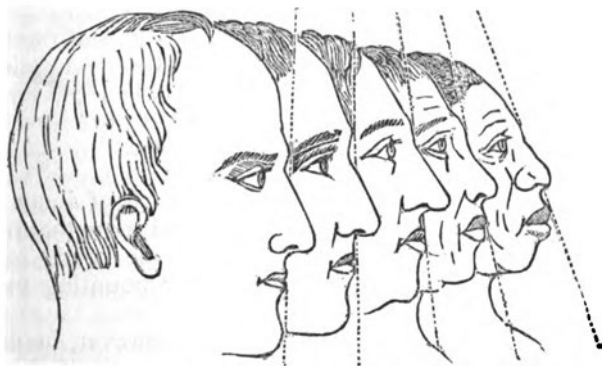


Fig. 11. Grades of Intelligence.

a large frontal space destitute of hair because he is unhealthy, or because baldness "runs" in the family, as the saying is, or for many other causes. The amount of forehead uncovered by hair is no certain indication of amount of intellect: a good intellectual development may go along with an apparently

small forehead. The only sure way to judge of the amount of intellectual development an individual possesses is to estimate the breadth of the forehead from temple to temple and its depth from the centre of the supra-orbital ridge to the ear. Another method of judging of the intellect, not without its value, is what is known as Camper's angle, though, as the degree of intelligence depends upon many other conditions besides those indicated by this mode of measurement, it cannot be accepted in the extended sense claimed for it by its author.

What, then, is Camper's angle? This ingenious savant, on comparing certain antique gems with imitations by modern artists, found that the latter had failed to obtain the effect in their heads which the ancient ones possessed, from not throwing them sufficiently forward to make a line touching the forehead and the teeth nearly perpendicular. He conceived that when he drew a profile so that the forehead and the lips touched the perpendicular line (Fig. 12), he obtained the characters of an antique head. Should he, on the other hand, let this line fall back, and accommodate the outline of the head to it, he diminished the beauty and perfection of the form and the expression of intelligence. Thus, if the said line formed an angle of seventy degrees with a line carried from the opening of the ear to the base of the nose, it represented the head of a negro; while, if it declined still further, by the retreating of the skull, it presented the facial angle of an orang-utan, and so down to the lowest animal forms. The heads of Europeans he found to form an angle of about eighty degrees, and that a character of sublime and more than human beauty was given by ancient artists to the heads of their gods by making the angle still greater, amounting in some cases to one hundred degrees.

It should always be borne in mind, however, in making deductions from this angle, that the falling back of the facial line may depend upon either of two things, or upon both combined, and that the character of the angle is determined by these conditions. It may depend upon the projection of the jaws simply, or upon such projection together with the recession of the forehead; a small facial angle may also depend upon the falling back of the forehead alone. Hence it is possible for two persons to have an equally small facial angle



Fig. 12.

and yet to manifest different grades of intelligence. In the one case there may be a strongly prognathous jaw, like that of the negro, with a fair development of the frontal lobe of the brain ; while in the other there may simply be a very retreating forehead : the former would indicate a fair amount of intelligence with a high degree of animality (should the prognathous character be in excess), while the latter would indicate partial or complete idiocy. Other things being equal, however, it may be accepted as a good practical rule that the smaller the facial angle, the lower the degree of intelligence ; and the greater the angle, up to ninety, or perhaps one hundred degrees, the higher the grade of intelligence.

The next feature of the head and face which calls for treatment is the hair—a great deal depends on its quality, colour, and amount. Our remarks under this head would have come very naturally into the description of the temperaments, but we preferred to treat of some other general matters first.

The quality of the hair agrees with that of the bones, muscles, and skin, and is therefore indicative of the quality of the organisation as a whole. Coarseness of hair is a sign of a coarse, rough organisation, and fineness of hair, of delicacy and susceptibility. The relation between colour and strength is well understood in its application to the lower animals. Dark horses, for example, are said to have better constitutions than white and gray ones. Black hair indicates strength and a predominance of the bilious temperament. Persons with black hair have generally great intensity of feeling. Red hair is a sign of ardour, passion, and quickness of temper, and indicates the sanguine type of the vital temperament. Auburn hair is found most frequently in connection with the lymphatic type of the vital, and indicates delicacy and refinement, and in cultured minds, fine moral and intellectual susceptibilities. Dark brown hair combines the strength of black with the susceptibility of light hair.

Lank, straight hair indicates poverty of organisation, and a staid, set, unimaginative character. Curly hair accompanies vivacity and sprightliness of disposition, and a quickly recuperative temperament. Wavy hair partakes somewhat of the same characteristics ; it indicates also an imaginative, genial tone of mind. Persons who have thick hair, growing down upon the forehead, are of a choleric disposition. The heads of children are generally sparingly provided with hair, and are bald just above the forehead, until susceptibility to the influences of temper is developed ; at which period of life the natural covering of the head becomes abundant and grows down upon the forehead, so as to lessen—often to a consider-

able extent—what, as before stated, is usually taken for the measure of intellectual capacity, a clear forehead. These apparently low foreheads, covered with a shaggy growth of hair, often hide great abilities. When the hair is strong as well as profuse in quantity, growing like a bush over the forehead, it indicates a volcanic character. The cut on page 185 (July number) affords an instance in point. It is the likeness of John Brown, the anti-slavery martyr of Harper's Ferry. Such a man's feelings and convictions must burn their way through whatever may come of it.

FOSSIL MEN.*

The comparative phrenology of man is a subject of vast importance, but it is one which has been very little touched. Of comparative craniology much has been written, especially of late years; but until phrenology has been accepted as the basis to work upon, it is hopeless to arrive at any just estimate of the relative development of the different races, either as applied to fossil man, or to his modern representatives. It is all very well to divide human skulls into dolichocephalic and brachycephalic, or long-headed and short-headed, types, and to try to find out which of these types preceded the other, but this division is not sufficient. It is not enough to know that a skull is long; we require to know what gives the length: whether it is behind or in front of the ears. So, in reference to the brachycephalic types, we want to know what is the relation of height to breadth, and so on.

Mr. Dawson, so far, appears to have made the greatest advance towards a reasonable method of judging of the relative value of cranial types. He says, (page 179): "On the whole, the smaller development of the anterior and upper regions of the cranium, and the greater proportionate development of the face and jaws, are marks of the lower races." And again (page 180): "Cranial characters are thus of even more importance in determining the low or elevated condition of a people than the race from which they have been derived. . . . The small development of the frontal and superior regions of the skull, and the large size of the jaws and facial bones, are marks of low type. . . . Long heads with low frontal regions

* "Fossil Men and their Modern Representatives," by J. W. Dawson, LL.D., &c. London: Hodder and Stoughton, 27, Paternoster Row.

generally belong to the lowest race ; short and broad heads often to an intermediate stage of culture ; and regularly oval heads to the highest type."

This is strictly phrenological and quite true. Hence the inference of later anthropologists, (see Quatrefage's—"The Human Species") that the dolichocephalic type of skull everywhere preceded the brachycephalic is probably correct. But Mr. Dawson is not so trustworthy when he comes to deal with details. Thus, he infers "that a large brain would be correlated with great muscular energy," whereas the direct opposite is very often the case. His statement that "since experiment shows that the lateral portions of the cerebral hemispheres are those connected with motor nerves influencing the limbs, we might infer that heads relatively broad would indicate active and powerful limbs," is based on Ferrier's investigations, which are very far from determining anything. Had he followed phrenology in this respect, as he appears to have done in others—as, for instance, when he says, "the posterior part of the brain seems to minister more largely to the emotional nature"—he would have come nearer to the mark in his generalisation, and it would have harmonised with that already quoted, that short and broad heads indicate "an intermediate stage of culture." As the first step in civilisation is the change from a merely nomadic hunting and fishing life, to one of settled habits, and consequently to the accumulation of property, the advance would be accompanied by a gradual increase in the breadth of the head, indicating the development of those organs—Acquisitiveness and Secretiveness—upon which the recognition of property more particularly depends. It is worthy of note, too, that the races that have made most progress in the arts of civilised life are those in whom Constructiveness is developed in the highest degree. A comparison of a European with an African or a Mongolian skull in the region of the temples, where the phrenologist locates the organ for construction, will show the truth of this assertion.

It should be noted that Mr. Dawson is strongly opposed to the so-called "development theory," and the whole drift of his book takes its character from this fact. There is, consequently, a slight tendency to strain facts to suit his preconceived ideas. Into this disputed question, however, we do not propose to enter; we would simply remark, that while we go with him in his statement that the "most ancient skull fails utterly to vindicate the expectations of those who would regard pre-historic men as approaching to the apes," we totally differ from him in the assertion that "it is at the

opposite extreme." In proportion as the elliptical form is departed from the type approaches the ape, although there may be the widest possible gulf between the lowest human type and the highest simian type of skull.

At present those who, like Mr. Dawson, are opposed to the "development," or Darwinian theory, have the balance of facts very largely in their favour. The disciples of the latter school have to discover very many grades on the downward scale to fill the gap between the lowest known specimens of human skulls—the Neanderthal, the Engis, and the Cro-Magnon—and the highest living representative of the monkey tribe, the orang-utan. But it is certainly going to the other extreme when our author writes like this: "But mute though they may be as to the details of their lives, the man of Cro-Magnon and his contemporaries are eloquent of one great truth, in which they coincide with the Americans and with the primitive men of all the early ages. They tell us that primitive man had the same high cerebral organisation which he possesses now, and, we may infer, the same intellectual and moral nature" (p. 202). How can he square such a statement with those previously made, and quoted above, to the effect that form is determined by mental development. Surely, after all his arguments with reference to the relative value of broad, long, and high skulls, he would not put the Neanderthal men, as regards cerebral organisation, on a par with man as we find him now. If he had thoroughly applied his own rules for judging cerebral capacity, he would have seen that there is a very perceptible difference between the three skulls above mentioned, and of which he gives us an outline on page 194. The Cro-Magnon skull is as superior to the Neanderthal skull in regard to intellectual and moral development, as the European is to the African. The Engis skull occupies an intermediate position. The Neanderthal man was strongly animal in his nature, with a low degree of intelligence, and but little moral feeling: he was, indeed, a savage; while the Cro-Magnon man was possessed of considerable intellectual gifts and a comparatively high degree of moral feeling. The latter was fitted to be the progenitor of a high race of men, which could not be said of either the Engis or the Neanderthal man, more especially, however, of the latter.

We have been led to make these criticisms on some of Mr. Dawson's statements, because he seems in part to have accepted the phrenological theory, and because we wish to point out that had he accepted phrenology fully, and made it the basis of his investigations into comparative craniology, his

arguments would have lost nothing in regard to strength, while they would have gained immeasurably in regard to truth.

There is much else in "Fossil Men" we should have liked to touch upon did space permit, but we can heartily recommend it as being one of the most suggestive books on a highly interesting subject that we have come across for a long time.

J. W.

SOUTHEY ; AND ON CHARACTER IN GENERAL.

Last month I took as my text : "There is no memory without attention, and no attention without interest," and I gave Sir Walter Scott as an illustration of the memory dependent upon "interest." I would now give Southey as an example of the utter want of memory dependent upon the want of interest. Mr. Edward Dowden tells us in his very interesting life of Southey among the "English Men of Letters," that Southey was intended for the law, and that "although he pleaded at times against his intended profession, Southey really made a strenuous effort to overcome his repugnance to legal studies, and for a while Blackstone and *Madoc* seemed to advance side by side. But the bent of his nature was strong. 'I commit wilful murder to my own intellect,' he writes two years later, 'by drudging at law.' And the worst or the best of it was that all his drudgery was useless. Southey's memory was of that serviceable sieve-like kind which retains everything needful to its possessor, and drops everything that is mere incumbrance. Every circumstance in the remotest degree connected with the seminary of magicians in the Dom Daniel under the roots of the sea adhered to his memory, but how to proceed in the Court of Common Pleas was always just forgotten since yesterday. 'I am not indolent ; I loathe indolence ; but, indeed, reading law is laborious indolence—it is thrashing straw. * * * I have given all possible attention to command volition ; * * * close the book and all was gone. * * * Huzza, Grosvenor ! I was once afraid that I should have a deadly deal of law to forget whenever I had done with it ; but my brains, God bless them, never received any, and I am as ignorant as heart could wish. The tares would not grow?" Southey's was a wonderful memory for things in which he was interested, but he had no interest in law and it would not stick. Does not this show how important a knowledge of character, generally dependent upon the largest organs, is in the choice of a profession ? Much of the misery in life, at least all that large part dependent upon want of success, proceeds from the round pegs being stuck into square holes. It has been my good fortune during a rather long life to have been able to reverse this in at least a dozen cases, and to have set people going in the path in which nature intended they should succeed, and it has been a part of my happiness to have witnessed that success. It is very

surprising to me that with the knowledge we really have of character dependent upon the known functions of the brain, so little use should be made of it in all departments of life in which the knowledge of character is all important. At school ; At starting in life in the choice of a profession ; in the choice of a partner for life ; in the choice of our friends, such knowledge ought to be of the greatest use, and yet, how little is it practised ! This is well illustrated in several admirable papers in your last number. Perhaps no case of *reversion* strikes me with equal wonder as that after 100 years of Gall, Spurzheim, and Combe, we should have gone back to pure metaphysics and to "Mind" as the exponent of our mental science, and to Ferrier for our cerebral physiology. The leading physiologists of the present day have much to answer for in their ignorant neglect of phrenology.

In my last paper on Scott's Head, there are two errors that I think are worth correcting—"although a very large brain, his hat was the smallest of *six* people with whom he dined," should be 24. "He *believed* all the stories," should be, "*searched for*."

CHARLES BRAY.

EARTH'S JOYS.

The lovely colours of the Spring
 Soon—soon decay ;
 The birds, that then so sweetly sing,
 Soon fly away ;

The rose, that now so fairly blooms,
 Blooms but to-day ;
 The flowers that have sweetest perfumes,
 Have shortest stay.

Earth's brightest joys soonest depart :
 Love naught too well,
 Lest, when they go, a bleeding heart
 Thine anguish tell.

J. A. S.

SELF-LOVE but serves the virtuous mind to wake,
 As the small pebble stirs the peaceful lake ;
 The centre mov'd, a circle straight succeeds,
 Another still, and still another spreads,
 Friend, parent, neighbour, first it will embrace,
 His country next, and next all human race,
 Wide, and more wide, the o'erflowings of the mind
 Take ev'ry creature in of ev'ry kind.

Pope's Essay on Man.

ONLY HALF A HERO.
A TALE OF THE FRANCO-GERMAN WAR.
BY CAVE NORTH.
CHAPTER XVII.

Next day there were two couples bent on seeing Hans—Pastor Boeck and Jessica, and the burgomaster and his daughter. The former could not get over to Muhlheim until evening; meanwhile Knoblauch *père* had said to Knoblauch *fille*—

"Lena, get ready; we will go to the 'Kron,' where we shall doubtless see this Hans Quint that everyone is asking about. One ought to tell him that well-born people have been seeking him."

Lena was nothing loth to fall in with her father's suggestion; and a few minutes saw the couple on their way to the sign of the "Crown," a brewery whither high and low of Muhlheim went to get their afternoon and evening drinks. Such a thing seems unheard of to English ears polite—that a father should take his daughter to a drinking place. But then Germany is not England, nor German habits and culture English habits and culture: and Heaven forbid they ever should be! Let it be said, to the honour of the Fatherland, that any place of public resort fit for men to assemble in is also fit for women to be seen in; and that even in the public pleasure gardens, where the poorest workmen seek relaxation, the most fastidious need not fear offence by either word or deed. Whatever a German's faults may be—and faults he undoubtedly has—he certainly knows how to behave himself in public better than almost any other plebeian.

The brewery "Zum Krone" consisted of one large public room, dotted over with small marble-topped tables, to which was added in front a kind of open-air extension, covered with an awning, and partly screened with evergreens and creepers. Here the Muhlheimers loved to sit in fine weather and sip their beer—of which, it must be confessed, they guzzle an enormous quantity,—and to turn their hard earnings into reek. One would think to behold them, that the top and summit of life was to make the most perfect possible conduit of the human body for smoke and the swillings of malt and hops.

When the good-natured burgomaster and his pretty daughter arrived at the "Kron," they had the satisfaction of seeing Hans Quint sitting at one of the tables talking to the landlord.

"Nun wie gehts?" said the burgomaster, holding out his hand to Quint. "Gut?"

"Yes, passably good," replied Hans, raising his hat to Lena, and placing a chair conveniently for her—and himself.

"He has done the old place honour, this one," continued the burgomaster, turning to the landlord, who was broad and squat, like one of his own tankards; and at the same time pointing with his thumb to Hans.

"Muhlheim has had no such great honour since it was made," replied Boniface.

The two were pleased to find that they were agreed on this important point, and they signified their mutual good feeling by disposing of a large potation between them. This operation of course took some little time. Meanwhile, Hans and Lena had broken the ice of first acquaintance. The former was quick to see his opportunity, and kept repeating mentally: "Now is your chance, Hans Quint—now or never."

How he commenced the encounter he never exactly remembered himself, but so far as his recollection served he began by asking the young lady if she would not have a glass of *Dickmilch* (thick milk). She certainly did have the *Dickmilch*, and then poor Hans envied the bone spoon that conveyed it to her sweet, coral lips. Finally, they got the talk afloat, and Hans had to tell something about his dangers, and Lena's colour came and went as he described them, and she murmured that he was very brave.

"It pleases the Fraulein to flatter me," replied Hans with perfect *sang froid*, and with a politeness that would shame any other workman in Europe. "I only did my duty, even as I would were it but in the coopering of a simple cask, that is, should I ever have the good fortune to get back to my own trade again," added Quint with keen diplomacy.

"Ah! yes, I remember," observed the phlegmatic father of Lena, turning round and withdrawing the pipe from his mouth, for he was not long without getting his tobacco alight; "coopering is your trade. Good!"

He then fell a-puffing again, and seemed to be thinking of something or somebody in Kamschatka. Presently he resumed somewhat in this wise:—

"Gut! Suppose you come round to-morrow, Hans Quint, or next day, and I will see. But stay! yes; come round to-morrow and look about. You need not start work, however, until you are quite strong; a week or two's wage won't make much difference to me. But be sure and come round to-morrow, Hans Quint—early. Come, Lena, we must be going. Guten abend, Herr Quint!"

The golden-haired Lena, too, gave Hans an affable "good evening," accompanying it with a sweet smile—a smile, indeed, like a ray of sunlight, which, sinking down into Hans Quint's heart, made it warm with delight, and presently give forth green shoots of joy.

It would have done anyone's heart good to see the disabled soldier a little later caper about his room, singing "Tra-la-la!" Presently, however, he had to sit down and take breath, whereupon he soliloquised thus: "This war will not have been brought upon us by Providence for nothing if it result in uniting the Fatherland; but if it should result in uniting me and Lena, Providence will be still more to be blessed."

A way, this, of looking at the dispensations of Providence exceedingly egoistic, to say the least of it, but one wherein ignorant Hans Quint was not at all singular. Many persons, strange to say, have a habit of looking upon the universe as though it were made for their own especial benefit and delectation; and if it should happen to rain when they have planned to take a holiday, straightway they think that surely something has gone wrong in the council-chambers of Omniscience.

Hans, however, did not stop to make any such analysis of his thought. Indeed, he had no sooner recovered breath than he began again to pirouette about the room and tra-la like one possessed—as possessed he undoubtedly was—with the spirit of love.

He was still engaged in this mingled Terpsichorean and Euterpean exercise when Pastor Boeck and Jessica approached the door of his apartment. The gentle knock produced by the pastor's muffled hand was evidently not heard; he therefore took off his glove in order to apply his knuckles to better effect. The first stroke had a peculiar and unexpected effect: it caused the door to fly open as though a secret spring had been touched. It swung back, too, so noiselessly that Hans, whose face was at the moment turned from the door, did not notice that he had two astonished witnesses of his performance, until, in the natural course of his dance, he had described a half circle, which, of course, brought him face to face with his audience.

The reader may imagine the effect produced upon him by the discovery that he was observed. He fell into an attitude of sudden rigidity, as though, like Lot's wife, he had been turned into a pillar of salt. The scene was so comical that both the pastor and Jessica simultaneously burst out laughing; then Hans laughed—laughed, too, so heartily that he had to hold his sides.

When Hans had regained somewhat his composure, and

with it his natural colour—for in spite of his tanned complexion, his face had shown a deep tinge of that which the daughter of Aristotle liked the best, that, namely, with which modesty suffuses the face of simple, inoffensive men—he politely asked the strangers if he could be of any service to them; for it did not enter into his head that they could want him, Hans Quint, neither Herr Knoblauch, nor his amiable daughter, as we know, having had the thought to tell him that “highly well-born people” had been inquiring after him, although that was ostensibly the occasion of their visit to the “Kron.”

“You are Hans Quint—are you not?” said the pastor.

“I am,” replied Hans, with a bow and a wondering look.

“Then you are the person we seek.”

Hans begged them to enter, and placed them chairs as near the window as possible, in order to make the most of the waning light. Having seen them seated, he looked anxiously from one to the other of his visitors, evidently greatly puzzled as to what their errand might portend.

“I daresay you wonder,” the pastor began, “what can have brought myself and this lady hither.”

Hans bowed, and the pastor continued:—

“We have come to learn from you something about a young officer who was of your regiment, and with whom, we understand, you were intimately acquainted—Lieutenant Gustav Riese.”

“Gustav—Lieutenant Riese?” exclaimed Hans, looking from one to the other of his visitors. “Whether I know him? Not my own right hand do I know better; nor would I more willingly do a thing to pleasure my right hand than him.”

“I am glad to know that you think so highly of him, and so will this young lady be,” replied the pastor, turning to Jessica, in whose eyes the wet constellation of the Pliades was beginning to rise.

Hans Quint cast an inquiring look upon the young lady, and answered:—

“He is one so generous and so thoughtful, that it is not often one meets his like. There is only one other that I know at all like him,—whom also you perhaps know—Diedrich Hammelfleisch, who is a great scholar, and a gentleman to boot.”

“Yes, I know him,” replied the pastor, “but only through having had epistolary correspondence with him in respect to Lieutenant Riese. It was he who referred me to you. He spoke very highly of you, and of his good wishes on your behalf.”

"He is very good, the Herr Hammelfleisch ; only one cannot so well understand him as the brave Riese."

This praise of the grieved-for lover was too much for Jessica ; the sluice-gates of tenderness had become too easily opened of late ; and she left the room under pretext of seeking more air, but in reality to hide the wet badges of weak humanity. Presently she returned ; but in the meantime the pastor had given Hans a key to the situation, and had obtained from him full confirmation of what he already felt quite certain, to wit, that it was too much rather than too little love that had caused Gustav to decide to break his engagement.

"Other men," said Hans, "had sweethearts, to whom they wrote and of whom they talked ; but there was something lower and baser in the quality of their affections than in that of Riese. He always reminded me of the youth in the *Märchen* they tell down in the Westphalian country, who was enamoured of a sylph-maiden, and was in that way weaned from those things of an earthly nature that others most hold to.

But when Jessica came back into the room they turned the conversation, and Hans told them in his quaint way of many things that had happened on their way to the great city of the Seine, which made them laugh. Then, as it was waxing late, the pastor and his *protégé* bade Hans Quint good-bye,—it having been first arranged, however, that he should, on an early day, pay them a visit,—and wended their way home. Ere they reached Eilbach, however, Jessica had wormed from the old gentleman all that Hans had told him about Gustav during her absence, for she well knew that there had been conversation about him.

CHAPTER XVIII.

Hans did not fail to call upon the burgomaster early on the morrow, as desired. He found that worthy in his workshop among his men, to whom he introduced the soldier in the quality of a hero, pointing to his short leg as a badge and mark of distinction. Thus, though this curtailment reduced him by three quarters of an inch in himself, at least on one side, Hans saw that it elevated him considerably in the estimation of others, and was diplomate enough to discern the advantage of the situation, and worldly-wise enough to benefit by it if he could. The master-cooper told his men that Quint would be looking in and about, and making himself acquainted with the workshop, until such time as he was strong

enough to start work in earnest, when he would take his place with the rest.

This was good news for the discharged soldier; and he patted himself approvingly, as it were, in imagination, and said: "It goes well, Hans Quint, it goes very well; only be discreet."

The master-cooper had business out of town, which detained him until evening. At supper, however, Hans met him again, by invitation. The summer-eyed Lena, too, was present; and though Quint was duly observant and attentive to her, as a devoted swain should be, he did not omit to do full justice to the salads and the various wursts and other edibles that were before him, in a profusion such as he had never before seen, certainly not during his recent campaigning. The historian, treating of those eventful days, will have to record the fact that not only did the King-Billy-Bismarck-and-Moltke legions penetrate to the capital of the Grande Nation, overthrowing everything that came before them, but that they did it on Erbswurst, coffee, and tobacco.

There is not a feat to parallel this in all history. The truth of the saying that the occasion brings forth the man was never so fully exemplified as in the matter of this same Erbswurst. When all the world besides—that is the German world—was shuddering at the thought of an encounter with the arch despot of France, Herr Erbswurst—I forget his other name, if he had one, and doubtless he had, though none better than this could serve to hand him down to posterity—was steadily rising to the height of his great destiny, in other words, was quietly perfecting the invention of a new sausage which should effect the conquest of France. Had it not been for the great Erbswurst's idea of making a compost of pease-meal and fat, stuffing it into the entrails of animals, and calling it pease-sausage, the whole course of history might have been changed; for without the cheap, portable, and quickly satisfying Erbswurst how could the German fighters have been fed? Truly, it was not very satisfying, but with black coffee on the top of it, and tobacco over that—! The story of human achievement is full of wonderful things, but it has few that can outmatch this.

But to return to the Knoblauch's supper party. Having filled his stomach, Hans felt his heart become full too; and so, in a manner, to relieve himself he told the love-story of Gustav and Jessica,—told it with fervour and unction, too, so that the burgomaster frequently puffed out the word "Gut" with his tobacco smoke, while the tender-hearted Lena let flow two or three furtive tears.

Hans was not sorry to see these signs of emotion, for he was wise enough to know that they were as much tokens of her own love-feelings as of sympathy with the love of others.

Having finished his narrative, Quint asked the Fraulein if she would not favour him with a little song. She would willingly, she replied, but she had no voice for singing.

"Ah!" exclaimed Hans, with sudden *entrain*, "if you have no voice for singing, then is there no womanly voice under the sun. Since I was the height of the table I have gone to church for nothing else but to hear you sing!"

Lena gazed at Hans in amaze, and her father murmured, "Gut!"

Hans did not know what to make of the fair Lena's open-eyed look of wonder. He thought, as the saying is, that "he had put his foot in it," and he added apologetically:

"If I am a sinner, the dear God forgive me; but it is the truth!"

It was now time for Hans Quint to be going, and he accordingly rose and took his leave. Lena accompanied him as far as the door, and when he was outside, and the door closed, he thought that the maiden had seemed disposed to linger. He stood undecided, and told himself that he had been a fool. Then, with a sudden resolution, he stepped back to the door and tapped lightly. It was instantly opened.

"Lena!—Fraulein Knoblauch!"—stammered Hans, "I'm afraid I offended you with what I said about going to church to hear you sing, but—"

"Why should it offend me, Herr Quint?" replied Lena, stepping on to the threshold and drawing the door to after her.

"Well, I thought—I didn't intend to say what I did, but it came out before I could stop it. I'm sure I would rather do anything than offend you."

"I believe it," replied Lena; and somehow during this short colloquy her soft substantial right hand had got between his two rough brown paws.

It was a clear, bright night, and the narrow slit of sky, visible between the gables of the two sides of the street, was palpitating with stars. During the long nights when Hans had slept in the open field he had been taught by some of his comrades, more learned than himself, to distinguish several of the brightest: what wonder he should now seek to communicate his knowledge to Lena!

"That bright star there, just by the chimney-stack, is Venus, the love-star," said Hans, releasing his right hand to point.

It was in reality nothing of the sort, but Jupiter; the information, however, was near enough for the occasion.

"I cannot see it," said Lena, standing on tiptoe.

"You are looking too far to the left; turn your eyes more this way—in the direction of my finger—so!"

Hans, still pointing with his right hand, drew the maiden towards him with his left, in order to bring her vision in a line with his own. In effecting this Lena's cheek came against his own.

"Now do you see it?" asked Hans.

"Yes," replied Lena. "How beautiful it is!"

"Did you never see the love-star before?"

"I've noticed that star before, but I did not know what it was; and I never saw it look so lovely," answered the maiden, still standing on tiptoe and feeling the need of Quint's support to steady her gaze.

"Isn't it sweet?" remarked Hans; probably thinking more of the fair cheek against his jawl than of the star.

"Oh, it is!" exclaimed the other. "I should like to know more about star-lore."

"I will teach you," replied the audacious Hans; and as he gave the promise he took earnest of his fee for the course, to which the coral-lipped maiden made no demur.

Probably no living man was happier than Hans that night. He was in too blessed a mood to think of going to rest; and so climbed on to the housetop—which was easily done from the dormer window of his room—feeling that to seek oblivion of such joy as was now in his bosom were rank ingratitude.

"It is really very fine," soliloquised Hans, as he gazed upon "the golden balls of heaven, tossed through the night by the Hand that made them"; "I would willingly know more about them; but then they are all pretty much alike, and none brighter than the dear Lena's eyes. Star-lore! Where can one study it better than there?"

Quitting his star-gazing, Hans presently went to considering the astronomy, or rather the astrology, of the heaven of his love's eyes, and found the aspect so benefic that ere he slept he resolved to take his fortune at the flood.

The day following Hans found opportunity to open to the burgomaster his mind with reference to Lena. They met in the afternoon at the "Crown" quite accidentally, and there being few idlers present, and Knoblauch complaisant, the soldier at once opened fire from his advanced trenches. So without preamble did he begin the attack that he expected the worthy master-cooper to be surprised; but he was not—not in the least. He simply fixed his small grey eyes more intently

upon his would be son-in-law, and regarded him curiously through the smoke that he was so industriously making. Hans hoped he would say something after the first cannonade, but he did not ; and so there was nothing for it but to go on.

"So long as I can remember I have had a tender feeling for the good Lena ; though of course I never could have dreamed of loving her other than as one may love an angel such as one sometimes sees in the old pictures, but for this war, which seems to have brought all of us nearer together."

Hans paused again, and glanced wistfully at the burgomaster, but he only saw his eyes dimly glistening behind the smoke, and his lips parting to let the reek pass out. For the first time he felt a tremor about his heart, and it seemed as though something was slipping from beneath his feet ; this added some fervour to his words as he said :

"If you had not been so kind to me, I should have come and taken a last look at the fair Lena, and then I should have gone away to some other town and tried to forget her. If you say me nay, then I shall go——"

"Don't be stupid, Hans Quint," said the burgomaster, withdrawing his pipe from his lips. "If Lena is willing—so is it good."

One can liken the sudden change of expression in Hans Quint's face when he heard the last few words to nothing so well as to a rugged, shaggy-browed hill-side upon which a gleam of sunshine has just broken from behind a cloud. As he confessed afterwards to Lena, he did not know whether to laugh or cry. He managed, however, to do neither ; but he seized the good Knoblauch's hand and squeezed it vigorously. Then the father of Lena, not knowing, perhaps, what else to do, said :—

"Look, now, my heart is full, and both our mugs are empty ; knock, Hans, that they may be refilled."

It was very curious that not many minutes later Lena, the summer-eyed, came to fetch her father, and was, of course, very much surprised to see Hans Quint with him. She blushed a little at the sight of him, probaby being reminded of the astronomy lesson of the previous night, but did not omit to give him a kindly smile. As father, daughter, and Hans were walking down the street together, two workmen passed them, and one said to the other :

"There goes Hans with the long leg and a short one : they say he is going to wed old Knoblauch's daughter."

Whether Knoblauch heard the remark or not, his daughter did, and she glanced up quickly at Hans, as if to see whether he had heard it, and blushed. The pathway being narrow,

the old man was a pace or two in front of the young folk, and Hans, drawing closer to the maiden, said in a low tone :—

“ Now, why should it not be so ?—say, why should it not, Lena ?

“ That must the father say,” replied the young lady timidly.

“ But he says that if you are willing, so is it good to him.”

“ Have you asked him, then ?” exclaimed Lena, with a kindling light in her eye.

“ Yes, that have I, and so has he said. Now, what say you, dearest ?”

“ We are now at home, Hans : you will come in ?”

“ Tell me, then I will come.”

“ Nay, come first,” replied Lena, archly ; “ my answer will bear keeping.”

And so he found, the lucky fellow.

CHAPTER XIX.

A few days later Hans Quint paid his promised visit to Pastor Boeck. He had now doffed his military garb, and appeared in plain civilian attire, and if he did not look quite as smart in it, he looked ever so much more comfortable.

“ So you have given up the art of war for the arts of peace ?” said the pastor.

“ Yes,” replied Hans, “ for the art of piecing together oak-staves to make casks.”

“ Then you are going back to your old trade : I think you told me you were a cooper ?”

“ Yes ; and the good Herr Knoblauch has made me his foreman.”

“ Well, that is some compensation after all your trials and dangers,” said the pastor.

“ Truly, and that is not the best of it, for I am to wed the Fraulein Knoblauch.”

The pastor was mildly surprised, for it hardly seemed in the nature of things for a man to thrive so speedily ; however, he congratulated Hans heartily, and observed that it would please his friend Hammelfleisch greatly to hear of his good fortune.

“ Did he tell you, then, about my leaning towards the Fraulein ?” asked Quint.

“ Yes, he mentioned the matter, and said how glad he should be to hear of the speeding of your suit.”

“ He is very good, the Herr Hammelfleisch, and will be sincerely pleased to hear of my happiness, I’m sure ; and so

would Lieutenant Riese if he could hear of it. I wish I could do them a good turn, for they have done me many."

They went into the garden, where the hand of Spring, already well advanced, was beginning to strew flowers in rich clusters, and where, amid the light green foliage of the fruit trees, birds were fluttering and chattering as though beside themselves for joy of the fair sunny weather. Such a spring had rarely been known, for not only did nature rejoice, and, as it were, attune man's heart to gladness, but his heart was being attuned to the same strain by the prospects of peace, the tokens of which were becoming day by day more clear.

Jessica was in the garden with the boy Fritz, who was amusing her with his innocent prattle and his sportive pranks. When she saw the pastor and Quint approaching she came to meet them, and greeted the latter cordially. Hans admired the garden, and wondered at the order and neatness of it, and said that one of the things the peasant seldom learned to do was to cultivate a flower garden for the love of it. He remembered, when a boy, hearing the pastor of the village where his parents dwelt suggesting to a young married woman the cultivation of flowers: "For what?" said she: "If they could be eaten or worn one might."

Hans was quite easy, though simple in his manners, and when the pastor told Jessica he was engaged to Fraulein Knoblauch, he received her congratulations with a bow and the doffing of his cap. Presently Sanchen joined them, and when an opportunity offered she took occasion to ask Quint if he had happened while at the front, to meet one Faultrager, who had had to join the ranks. Hans said he had not: was it her brother?

Sanchen said no, it was not; but she coloured up, and of course he saw how the land lay.

After awhile coffee and cakes were served beneath a large plane tree that sheltered the back part of the house, because the afternoon was so mild; and the conversation turned on the army in the field and the prospects of peace. Jessica listened very attentively to Quint's talk about all that had come within his experience, but she said little. He noticed that whenever he mentioned the name of Gustav Riese she appeared to hearken less intently, notwithstanding her eyes shone with a strange light: "Just the look that used to be in his," he said to himself, "only deeper, perhaps sadder." Then he added in thought: "To think that any man should win such a love and then give it up!"

That was one of the things Hans Quint could not understand.

The pastor was anxious to know how the soldiers felt on the eve of battle, and questioned Quint on the point.

"Was there a disposition to make peace with a higher power?"

Hans did not know, but thought more earthly emotions predominated. He had known some men communicate messages for their parents and wives or sweethearts; some threw away everything that was unlucky—knives, mirrors, &c., and repeated some charm; others became merry. "It's a savage business," he said, "and the sooner you begin to lose thought the better."

"There was one man," Quint added, after a pause, with a smile, "who caused us some amusement, although it was no laughing matter. We noticed that before he turned down to sleep he always used to put his hand under the flap of his knapsack and mutter something in his beard. One day he was among the dead, and we found a written prayer pasted just inside his knapsack. One of our fellows said, 'Ah, now we know what he put his finger into his knapsack for! It was to touch that and say: 'So would I say, O Lord, Amen!—' It was to save time.'"

Presently Hans rose to go. All accompanied him to the front gate, and little Fritz, who had taken to him surprisingly, would go with him a little way. So he went with him some distance down the road, holding his hand and skipping by his side, but looking back every third step. Then, to try him, they withdrew within the gate, and Fritz not seeing them when he turned round, gave a great shout and rushed back without stopping to say farewell to Hans.

"Did you think we should go and leave you?" Jessica asked him when he came panting up.

"I did not think at all—I only did not see you," he answered.

All the way home Hans Quint could think of nothing but Gustav and Jessica, and before he reached his lodging he had had quite an inspiration. It was this: to write to Hammelfleisch, and through him to bring about a meeting of Riese and Jessica Bechstein at Muhlheim. From what he had learned, Riese could not be aware that the young lady was where she was; or, indeed, that she had quitted Frankfort. It would not be difficult, therefore, to get him, along with Hammelfleisch, to pay him, Hans Quint, a visit on their way home. However, difficult or not, Hans determined to try what could be done. He told Lena and her father his plan: the latter said "Gut," twice, while the maiden became quite enthusiastic about it, and urged him to set it in operation at

once; "because," she said, "there will soon be peace, and then everybody will be coming home."

"True," said Hans, seeing a chance to advance his own business as well as to do a stroke for another. "But would it not be well for me to be able to invite them here, instead of to my lodgings? In which case it would be necessary—"

"Yes, I see," said Lena, with a pretty blush.

"And as you say, we may have peace very soon, so that there is not much time to waste."

Lena did not reply to the last observation, but next day she asked Hans if he had written to Hammelfleisch.

"Not yet," he said, "I thought it might be as well to say when we shall be married. It seems to me I might say in a month—a month to-day."

"Is not that a very short time, Hänschen?"

"Well, then, let it be a year to-day, Liebchen."

"No, no!" replied the young lady; "it shall be in a month to-day, if papa be willing."

"Of course he will be; he will say 'Gut,' directly."

He did say "Good," and so the matter was arranged, and Hans wrote his letter to Hammelfleisch.

The latter had the pleasure one morning of receiving two letters—one from Hans Quint and the other from Pastor Boeck. Both told him of the approaching nuptials of the fair Lena, but Hans laid before him in addition his plan for surprising Riese and Fraulein Bechstein into a renewal of their engagements.

"What will the man be up to next?" said the scholar to himself, when he had finished the epistle, which was not easy to make out. "I have noticed that married people generally no sooner get the bit into their mouths than they begin scheming to bring others into the same predicament; but this man actually sets to work before he has yet felt the bit. And then, if one gives Gustav the maiden, what is to become of Gottlob? But I suppose Gustav is the right one! So, Hans Quint, you can think of another while yet enjoying the first tingle of your own happiness! It shall be as you wish, Hans: we will try what we can do; and it shall go hard but we will conclude our romance becomingly—with a wedding. But—who knows?—perhaps this same Hans is preparing to close it with a double surprise and a double wedding, and is at present arranging to have Nadelstich give up the fair Mina. But, no! that will not do, my gentle Pandarus! The Mina we mooned and spooned over is dead: Nadelstich's Mina is quite another person."

Thus soliloquising the soldier arose, and went out humming the tune of the song :—

The Chieftain Wiswamitra
 Has rest nor quiet I trow ;
 He will by strife and suffering
 Acquire Wasischta's cow.
 Oh, Chieftain Wiswamitra,
 Oh, what an ox art thou,
 That thou so strivest and suffer'st,
 And all for but a cow !

He turned his steps to the "Lion d'Or." After attending to the wants of several others, Jeanne Guepe approached him and asked if she could serve him with anything.

"No, thanks, Jeanne," he replied ; "I came but to take a look at you."

Jeanne blushed, and her large, dark eyes were turned upon him with an inquiring gaze, as though they would say : "Are you laughing at me ?"

"We are going to have peace very soon, Jeanne," he said, as if interpreting her look, "and then, you know, I shall see you no more."

"Why do you think we shall have peace so very soon ?"

"Because there is nothing but talk of marrying and giving in marriage : it is in the air."

"Is that a sign of peace, then, Mons. Hammelfleisch ?" asked the maiden simply.

"Truly," replied the soldier ; "save, perhaps, in the domestic sense."

Jeanne seemed lost in thought, and did not reply. She was recalled to herself by Diedrich's question :—

"Shall you not be glad for peace ?"

"I do not know : but mon père—he will be glad."

Again Jeanne relapsed into thought or into dreaming ; and as she rested against the table, with her gaze far away, the soldier thought to himself :—

"Thou art very fair, daughter of the rough, sour-faced Jean Guepe, and it is worth one's while to have come to France to see thee. I would like to show thee to the little Mutterchen ; for she thinks nothing lovely can come out of France."

(To be concluded in our next.)

The Children's Corner.

THE SINGING HEN.

Once a young hen, that had stayed out a little longer than usual, overheard some people praising the note of the nightingale, which was singing in a copse hard by, and thought how delightful it must be to win praises like that.

All the next day its little head was filled, not with the song of the queen of the grove, but with the words of commendation it had called forth, and it determined to see if it could not do the same.

So when night came the hen made its way into the copse and hid itself in one of the leafiest of the trees, and then what a note resounded through the night air !

Those who had praised the nightingale said : "What a hideous noise ! What can it be ?" and stopped their ears with their fingers.

The hen heard their dispraises, but said : "It is only jealousy," and was so filled with conceit of its own voice that it sang, or rather screeched, night after night, and sometimes in the day.

During all this time it forgot to do what it was specially fitted to do, that is, to lay eggs. But it did not for all that fail to go for its share of the corn.

One day, however, one of the old birds, a kind of patriarch or judge of the flock, bade the would-be rival of the nightingale stand aside, and said :—

"This corn is not for singing birds and such like, but for egg-layers, therefore we cannot allow you to eat of it. You must seek your livelihood from those who like your song ; for our part we would prefer your silence, as you disturb our dreams."

The old feathered patriarch had never made such a long speech before, and he plumed himself on it very much.

The offending hen, however, felt quite independent, and said : "He might really have been brought up to the trade," and walked away.

For a little while the singer was sustained by the novelty of its new calling, and though it was hard to get enough to eat, there was some consolation in the thought that matters would soon improve, and that there would be as much food for the singer as for the egg-layer.

But matters did not improve ; on the contrary, they got worse ; and with swollen throat, and anything but swollen stomach, the poor hen was fain to go back to the old trade and a share of the old corn.

Then the old patriarch, who was not at all bad-hearted, said to the little hen, with a knowing twinkle in his eye : "It's just as well to keep to the ground until corn grows in tree-tops," which he evidently thought was a very wise remark.

Any how the little hen never looked for her corn in a tree top again.

Poetry.

THE ROBIN'S SONG.

My bird sings not to-day—my little bird
That in these yellow autumn mornings sad
On a bare branch of linden shrill is heard
Chirping his lay half sorrowful, half glad ;—

I watch in vain for his bright ruby throat,—
Brighter than all the ruddy leaves that still
Cling to their parent twig or groundward float—
And sadder feel to hear not his sweet trill.

The rain falls slant, the wind sighs through the trees,
The starr e'en hides him in his sooty home :
No song to-day of robin's shall there ease
My heart-ache or bid gentle comfort come :

So I myself must sing to soothe my pain—
Must sing to raise my spirit 'bove the dull
And chilling weather, 'till it joy again
In the bright clime where earthly care is null.

SOME USES OF CHARCOAL.—Charcoal, laid flat while cold on a burn, causes the pain to abate immediately ; by leaving it on for an hour the burn seems almost healed when the wound is superficial. Tainted meat, surrounded with it, is sweetened. Strewn over heaps of decomposed pelts, or over dead animals, charcoal prevents any unpleasant odour. Foul water is purified by it. It is a great disinfectant, and sweetens offensive air if placed in shallow trays around apartments. It is so very porous that it absorbs and condenses gases rapidly. One cubic inch of fresh charcoal will absorb nearly one hundred inches of gaseous ammonia. Charcoal forms an excellent poultice for malignant wounds and sores. In cases of what is called proud flesh it is invaluable. It gives no disagreeable odour, corrodes no metal, hurts no texture, injures no colour, it is a simple and safe sweetener and disinfectant. A teaspoonful of charcoal, in half a glass of water, often relieves a sick headache. It absorbs the gases and relieves the distended stomach pressing against the nerves, which extend from the stomach to the head. It often relieves constipation, pain or heart disease.

OUR luminous moments are moments of happiness. When the mind is clear all is sunshine.—*Joubert.*

Reviews.

Hygiene of the Brain. By M. L. HOLBROOK, M.D. New York : M. L. Holbrook & Co. London : Fowler.

This is a most useful work, and one which should be studied by everyone—especially by those whose labours are mental and whose habits are sedentary. The author remarks very wisely—and the thought is the key to his system of mental hygiene—that in order to apply hygienic law to the brain and nerves, we must know the limit of mental power, and that if we think there is no limit, we deceive ourselves, and do harm. If, on the other hand, we know the extent of our powers, we can work within such limitations as are safe. Students, educators, and those striving after mental culture, cannot do better than learn well the truth contained in the following paragraph :—

“There comes a time when knowledge decays in our brains, and we forget what we once knew well. This may be caused by weakness, or deficiency of brain substance. All our powers are required to retain what knowledge we have, and if we acquire more we must forget something we already know. We lose at one end as much as we gain at the other. There is not room in the brain for all knowledge, and the hygiene of the nervous system demands that we do not burden ourselves with that which is useless. It requires quite as many brain cells to acquire and retain useless as useful knowledge—a good as a bad thought. If this were understood by parents and educators, much time might be saved and the value of life increased ; for our brain substance would be reserved for only the best thoughts ; as the wise farmer reserves his best soil for the most useful crops. A soil first occupied by weeds is never so good afterwards as if the first crop had been a useful plant. A brain once occupied by a great vice is never quite so safe as the brain which has been trained in the acquisition of useful knowledge.”

Not the least valuable part of the book consists in a number of letters from hard brain-workers, such as O. B. Frothingham, Francis W. Newman, Gerrit Smith, William Howitt, William Cullen Bryant, William Lloyd Garrison, and others ; all of which go to show that there is nothing like simplicity of habits in respect to diet, temperance, exercise, &c., for ensuring health and mental vigour unto old age. Those who wish to cure themselves of nervousness cannot do better than follow the instructions of Dr. Holbrook.

A Luther Festival. By J. P. Jackson. London : Fowler, Ludgate Circus.

This is a neat little *brochure*, describing a festive celebration of the doings of Luther and his companion Melanchthon in the Thuringian Forest, which was the home of the former. It is beautifully got up,

and contains a number of quaint and pleasing illustrations. Among the former is a *fac-simile* of the original score of Luther's well-known Hymn. The reader gets through its pages an interesting glimpse into the life of this part of the great Teutonic Fatherland, which, both on account of race-relationship and historic associations, will ever be a place of the pleasantest memories to Englishmen and women. The concluding pages are taken up with a number of choice poetic selections translated from the German.

Facts and Gossip.

In his address at the opening of the Mason Science College at Birmingham, of which we gave an account in our last issue, Professor Huxley remarked that he should like to see one addition made to the excellent scheme of education propounded for the College in the shape of provision for the teaching of sociology. If the evils, he said, which were inseparable from the good of political liberty were to be checked, if the perpetual oscillation of nations between anarchy and despotism were to be replaced by the steady march of self-restraining freedom, it would be because men would gradually bring themselves to deal with political as they now dealt with scientific questions, to be ashamed of undue haste and partisan prejudice in the one case as in the other, and to believe that the machinery of society was at least as delicate as that of a spinning-jenny, and not more likely to be improved by the meddling of those who had not taken the trouble to master the principles of its action. There is in this suggestion the germ of a great idea, but it may take generations to develop it.

SOME researches of Professor Monassein, of St. Petersburg, during the autumn of 1878, led to some interesting results in regard to the influence of singing upon the health. He examined 222 singers, ranging between the ages of nine and fifty-three. He laid chief weight upon the growth and absolute circumference of the chest, upon the comparative relation of the latter to the tallness of the subject, and upon the pneumatometric and spirometric condition of the singer. It appears to be an ascertained fact from Dr. Monassein's experiments that the relative, and even the absolute, circumference of chest is greater amongst singers than amongst those who do not sing, and that it increases with the growth and age of the singer. The professor even says that singing may be placed physically as the antithesis of drinking spirituous liquors; the latter hinders, while the former promotes, the vitalisation of the blood, and consequently the nourishment of the system.

A NEW YORK contemporary prints the letter of a correspondent who was struck with some remarkable exhibitions of memory that he found in the hotels of the country. In some of them, he says, many hundreds of persons dine simultaneously in the same room. Before entering the guests leave their hats with a servant, standing at the entrance for the purpose of receiving them. The servant does not check the hats or arrange them in any particular order, and yet he promptly hands each to the owner as he returns from the dining-room. The most remarkable case noticed by the writer was at the Fifth Avenue Hotel in that city. There the attendant, he writes, sometimes has as many as 500 hats in his charge at one time. Most of them belong to persons whom he has never before seen. The owners go in and out in crowds. But without a moment's hesitation the servant returns each one his own hat. He explains his ability to do this by saying that he forms a mental picture of the owner's face inside his hat, and that, on looking at any hat, the wearer's face is instantly brought before his mind's eye. There was a person who did remarkable things of this kind at the Metropolitan Hotel, New York, years ago. He was a very genteel and intelligent-looking coloured man of middle age, who stood in the broad hall or entrance near the dining-room door. He was the wonder particularly of many Westerners who were then in the habit of stopping at this house when in New York, and his doings were one of the things that they talked about on their return home. More than once did they conspire to defeat or puzzle him by a large number hurriedly crowding into the dining-room together, and at the same time thrusting at him their hats, many of which were designedly new and as nearly alike as possible. But whether the conspirators came from the dining-room together as they went in, or in smaller groups, or singly, the ready and self-possessed master of the hats promptly, courteously, and unerringly handed each one to its owner, whose face he now saw for the second time. These were undoubtedly unusual feats of memory, but not necessarily feats of a remarkable memory. They are more the result of training than the exercise of extraordinary natural powers.

Correspondence.

SIR WALTER SCOTT.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

I have compared the cast of Sir Walter Scott's head with Chantry's bust, and did not observe the essential difference referred to by Mr. Bray, beyond a little artistic license, quite allowable, as in a slight addition to the projection of the eyebrow to give an extra amount of shade in a slight way to compensate for the absence of the effect of the eye. I see in Lockhart's *Life* that there was an examination of the brain after death, and the report says: "The brain was not large, and the cranium thinner than it is usually found to be," which

thinness is supposed to indicate unusual activity either in respect to the whole brain or of any particular organ or organs in question, and the remarkable form of Scott's head seems to point to types of form though the qualities may be the same: thus the mould may take a high form, as in Scott's case, or an elongated character or broad or square as the case may be,—a matter not sufficiently considered any more than the result of particular combinations illustrated in chemical arrangements,—and, again, particular qualities in whole or in parts, and hereditary tendencies; in fact the whole matter is most complex, subtle, and difficult, as every honest observer is willing to admit. Then how are we to account for inspiration, special genius, and clairvoyance, whether normally occurring or in a mesmerised subject, where the dormant intuitive sense or instinct is called forth, as it were, in a trance or sleep? But the subject is vast if considered in all its phenomena, reasons, and correlations. And to return to Scott: Lockhart says that whatever he had in himself he would fain have made out a hereditary claim, for he often spoke both seriously and sportively on the subject.

He had assembled about him in his "own great parlour," as he called it—the room in which he died—all the pictures of his ancestors that he could come by; and in his most genial evening mood he seemed never to weary of perusing them. The Cavalier of Killiecrankie, brave, faithful, learned, and romantic old "Beardie," &c. The love of his country became indeed a passion; no knight ever tilted for his mistress more willingly than he would have bled and died, to preserve even the airiest surviving nothing of her antique pretensions for Scotland. But the Scotland of his affections had the clan Scott for her kernel. Next and almost equal to the throne was Buccleuch. "His original pride was to be an acknowledged member of one of the 'honourable families' whose progenitors had been celebrated by Satchels for following this banner in blind obedience to the patriarchal leader. His first and last worldly ambition was to be himself the founder of a distinct branch; he desired to plant a lasting root, and dreamt not of personal fame, but of long distant generations rejoicing in the name of 'Scott of Abbotsford.'"

The above extracts seem in a good measure to account for Scott revelling in romance and dramatic incident, and in all that is ancient, venerable, and heroic, and with the personal feeling of desiring to be the founder of a dynasty; and there was no doubt a certain nobility of cast of sentiment, in all which we get what philosophy might regard with some contempt, and if the remarkable high head can be shown to account for the feeling and impulse, be it so; and perhaps Mr. Bray in the main is right.

HENRY G. ATKINSON.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR,—In your September issue was a notice that a movement is being promoted by the trustees of the late George Combe, with a view of diffusing in provincial towns of Scotland a knowledge of

physiology and the laws of health; and that the trustees have appointed Dr. Andrew Wilson to deliver lectures in various towns for this purpose.

While this information will be agreeable to most persons, it will be quite a surprise to those who are aware of the facts, that George Combe specially recognised the physiology of the brain which is comprehended in the doctrines of phrenology, and, that Dr. Andrew Wilson repudiates entirely the doctrines of phrenology, as may be seen by his article, "The Old Phrenology and the New," which appeared in the January number of the *Gentleman's Magazine* for 1879. When it is considered that George Combe devoted considerable attention to phrenology, and laboured most strenuously in propounding and disseminating its doctrines, it would seem that such an arrangement is not at all in accordance with what should be the will of either George or Andrew Combe; especially when, by the article referred to above, Dr. Wilson exposes himself as being unacquainted with phrenology, and even ignorant of the situations and functions of the phrenological organs. To ignore phrenology may be the present fashion; but it is doubtful if any of the new-fangled theories which are sometimes offered to supplant it, will prove more lasting than the usual "nine-day wonders." Phrenology yet bears a good character, and one of long standing; for, from the time of its introduction to our notice in this country, now seventy years ago, its principles have been recognised and approved by nearly all our highest medical authorities. Its rejection rarely occurs but where the head is too small to reach the standard or comprehend the teachings of phrenology.

That the objectors to phrenology are in the majority is explained by the fact that the inhabitants of the earth are, as Carlyle says, "*mostly fools*," and that these, having small heads, therefore object to a standard which puts their mental capacity down to mediocrity. That some medical students should set at naught the physiology of the brain as propounded by phrenology, is but consistent with the frivolity of the age, and may be traced to the fact of their tuition being under the direction of a small-headed professor who may happen to hold office for the time being. But there are still among us some eminently distinguished in the medical profession who recognise and observe the principles of phrenology, and to this their reputation is mainly due. This may be known by the perusal of the article entitled, "Health through Education," in the *Gentleman's Magazine*, March, 1880, by B. W. Richardson, M.D. This article is, in character, strictly phrenological, and contains information which, if acted upon, will be beneficial to ourselves, our children, and to future generations; it deserves the attention of every sensible person, and of teachers in particular; and it shows its author to be most fit to instruct the world in matters such as the late George Combe particularly advocated. By phrenology the physician is guided as to the treatment of each patient. He knows by the *temperament*, which he judges from cerebral organisation, the most

effectual remedy, without torturing to death by all sorts of hap-hazard guesses. Teachers, too, will know what course to adopt in each case, and avoid muddling their pupils with wrong cramming. Teachers will learn that, as Dr. Richardson says: "To secure health through education, it is requisite that a more systematic and scientific study of the psychology of the subject should be undertaken, and that class studies should be divided in regard to the mental aptitudes of the scholar." A knowledge of physiology can be useful only when it is thorough: it is the science above all others wherein "a little knowledge is a dangerous thing." Where its most important branch is neglected, its study becomes worse than useless; its instruction should therefore certainly not be entrusted to those who have but a parrot-like acquaintance with everything, and a practical knowledge of nothing.

Phrenologists, by a long course of observation, have ascertained that predisposition to diseases of the corporeal organs is indicated by certain developments of particular parts of the head, and to be concomitant with particular mental characteristics. Such knowledge being derived from the careful study of, and not a superficial glance at, phrenology. The physician, by taking advantage of this kind of knowledge, acts with more confidence and with much better results in the pursuit of his profession than he could if in ignorance of it. It is such information as this that George Combe would have transmitted to the world; but his trustees have, so to speak, employed the snail to teach the hare how to run. The fact of the matter is, George Combe was a philosopher, and by his will he proved himself to be also a philanthropist; but now, by an indiscreet act of his trustees, it is likely to be attempted to show that he was a fool, and all this out of the funds of the late George Combe.

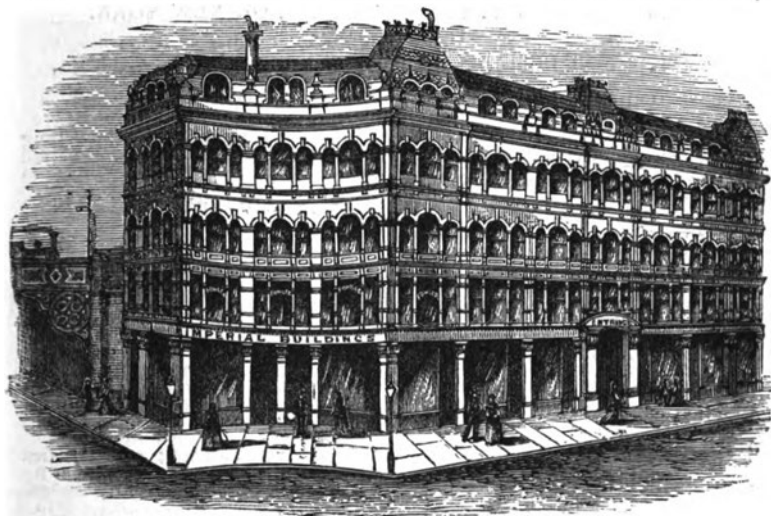
AMBROSE LOUIS VAGO.

London, Sept. 14th, 1880.

Answers to Correspondents.

T. H. (W.)—You will be pleased that your letter does not appear when we tell you that you have fallen into an error. When Mr. Bray speaks of Sir Walter Scott's head being "7 inches in height to Veneration," he does not mean 7 inches measured as you measure with a tape, but 7 inches of perpendicular height, measured with the calipers, from the opening of the ear. Thus measured, ordinary heads vary from $5\frac{1}{2}$ to 6 inches. Your measurements over the head from ear to ear is correct for ordinary heads, from 14 to 15 inches being a fair measurement. But Sir Walter Scott's head, thus measured, was 17 inches—a measurement which you will rarely find equalled.

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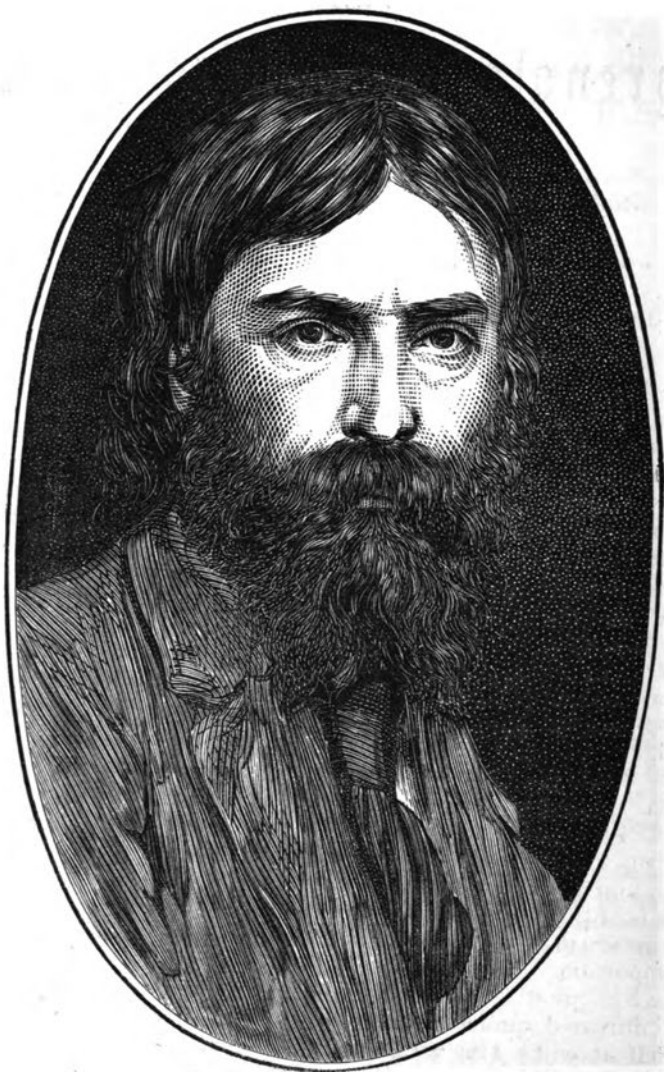
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[See page 411.]

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Poetry by

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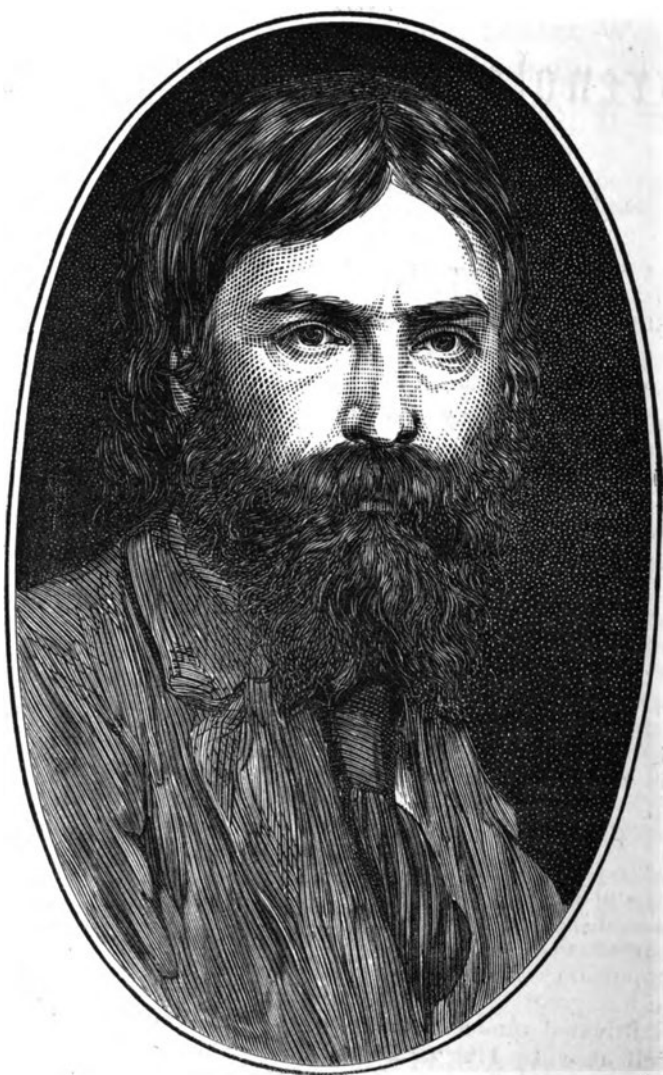
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HUBERT HERKOMER, A.R.A.

[See page 411.]

"I Long for Household Voices Gone,"

SACRED SONG.

Poetry by J. G. WHITTIER,

Music by WILLIAM CROMPTON.

I long for household voices gone,
For vanished smiles I long;
But God hath led my dear ones on,
And He can do no wrong.

I know not what the future hath
Of marvel or surprise,
Assured alone that life and death
His mercy underlies,

And so beside the silent sea
I wait the muffled oar;
No harm from Him can come to me
On ocean or on shore.

I know not where His islands lift
Their fronded palms in air;
I only know I cannot drift
Beyond His love and care.

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"The Blind Musician,"

A SONG, WITH PIANOFORTE ACCOMPANIMENT.

BY

WILLIAM CROMPTON,

WORDS BY THE LATE

MRS. LYDIA F. FOWLER.

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For me no ray may shine,  
But yet it seems so light,  
Since beauteous forms appear  
Before my inner sight.

Waves of delicious sound  
Fall sweetly on my ear,  
As though on harps of gold  
Angels were playing near.

Their soft enchanting strains,  
With rapture fill my mind,  
So I will murmur not  
E'en though I should be blind.

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# THE Phrenological Magazine.

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DECEMBER, 1880.

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HUBERT HERKOMER, A.R.A.

## A PHRENOLOGICAL ESTIMATE OF HIS CHARACTER AND ABILITIES, WITH A BIOGRAPHICAL NOTICE.

He has a high degree of the motive and mental temperaments, so that action of some kind is absolutely necessary to give him enjoyment. Rest and recreation to him mean to go from one kind of employment or enjoyment to another. Repose and quiet do not belong to his nature, except when asleep. He takes no particular pleasure in simple existence, but derives enjoyment from action.

He is highly organised, and very susceptible to all kinds of impressions; hence is not only easily impressed, but readily educated to new ideas. His great muscular power gives him superior physical ability and elasticity; as well as muscular strength. His very high state of the mental temperament gives him great power of mind and activity of thought and feeling.

His brain is distinctly developed, and very tenacious in action. Every part of the brain seems to be represented, and the smaller organs, when brought into action, appear more powerful than organs of the same size where the quality is inferior, and the larger organs are proportionate in power. The brain is of the average size for a full-grown man, being twenty-two inches in circumference; but somewhat higher than usual in proportion.

He has great control over his various mental powers, and has cultivated moderate Continuity so as to be able to apply himself at will. His various developments are marked and very distinct. He has great force of character, having immense Combactiveness, and a full development of executive power, giving great spirit, resolution, and power of execution. He is equal to almost any emergency, and does not allow any impediment to remain in his way.

His central side head is narrow. Sense of property is weak : not strong enough to give economy without the aid of the judgment ; if left to himself he would use as fast as he accumulated. Secretiveness is small, and allows him to speak and act with great freedom, rendering him quite direct and unmistakable in his remarks and actions, yet Caution being rather large gives forethought, general prudence, and regard for results, especially as applied to others.

He is strongly developed in the domestic brain, love of family, wife, and children being very distinct. He has strong home feelings, and is sociable in the family circle. He enjoys society for intellectual gratification, and seeks the company of those who are peculiarly gifted in one way or another ; but does not care much for society for its own sake, and hence does not make many general attachments.

He is quite high in the crown of the head, giving sense of character and ambition to excel. He is exceedingly anxious to merit approbation and to avoid criticism, yet his moral brain is so active and Secretiveness so small that he abhors affectation, and cares but little for fashion or ceremony.

Self-esteem, in the form of sense of independence, is very distinctly represented. He cannot bear to be under obligation for the least favour, nor can he be in the least restrained by anyone disposed to use undue authority ; yet that portion of the organ giving self-love, dignity, and sense of personal importance is not great. He is more democratic than aristocratic in the broad acceptance of those terms ; yet his sympathies are with culture and refinement, in a word, with "high life" apart from its assumptions.

His Firmness is manifested strongly where there is opposition ; but where there is none, he is pliable, and can adapt himself to many changes and conditions. Having once begun a task, or formed an opinion, however, he is tenacious and persevering to the last. He has great presence of mind in times of danger.

Two of the leading qualities of his mind are Conscientiousness and Benevolence. Each in its way has a powerful influence. But he scans his motives closely. Few men have a greater abhorrence of cant and pretensions than he has ; and when his conscience is outraged he is liable to criticise severely. Still, Benevolence is so very large and active that he is not rigid in his theology, or disposed to persecute those who differ from him in opinion. His whole character is modified by this organ, which renders him quite catholic in his feelings and views about men and things. His sympathies are liable to modify his views too much, and were it not for his large Con-

scientiousness and Combativeness he would make too many allowances for others, and be too liberal in his opinions. He is too willing to believe a tale of distress, but when he finds he has been deceived he is most indignant, if not severe in his resentments.

He is not extravagant in his hopes and expectations, nor strong in his faith in the supernatural, yet the moral brain as a whole is so large and active as to continually remind him of the future, disposing him to live with reference thereto, so as to make the most of his time. Veneration is his strongest religious feeling, and gives him an elevated idea of a supreme ruler, and respect for superiority in general.

Constructiveness, Imitation, and Sublimity are all large, and give great versatility of talent, rendering him handy in doing different kinds of work, and using various tools. His Imitation enables him to copy, imitate, mimic, and correctly represent others, or Nature herself. Ideality gives him great refinement of feeling, and much love for the beautiful in nature.

He has a long, high, and broad frontal lobe, and the organs in it are most distinctly developed. All the perceptive powers are largely represented, giving him quick and correct powers of observation, and the ability to store his mind with facts, general knowledge, and the uses, qualities, and adaptation of things. Order is very large, and has a powerful influence in all his mental operations, disposing him to work by rule and to be very precise in all his work. This faculty, along with Constructiveness, aids him in grouping, combining, and arranging objects in a picture, and, together with Imitation, Ideality, and Calculation, gives him superior ability for music, both to play and to compose. Language is large, giving freedom in the use of words, and, with his great energy and clearness of mind, disposes him to use forcible, if not extravagant, language.

His reasoning brain and Intuition are large, while Agreeableness is rather small. The smallness of this latter organ allows him to act and speak just as he feels, without any flattery or mannerism. His large Causality gives him great originality and ability to account for things and to explain, give reasons, and lay foundations. He has ideas of his own, and is disposed to invent and do things in a new way.

His large Comparison disposes him to criticise, discriminate, analyse, and adapt his ideas to some practical purpose. He is quick to see the application of ideas, and to reduce to practice what he knows. He is remarkable for his intuitive perception of truth. He forms and gives his opinions at once,

and many of his best thoughts are more the result of his intuitions than of prolonged thought.

Mirthfulness is distinctly developed, and, combined with sharp developments and an active mind, renders him pointed and direct in his remarks, so that he is more witty than humorous, and more inclined to tease and joke than to make fun.

He has not only a favourable organisation for an artist, but by his great energy and perseverance and reliance on his own internal resources he has brought his talents to a high state of culture, so that he is able to make the most of his varied artistic powers.

It will be seen from the foregoing estimate of his natural abilities, that Mr. Herkomer is a man of more than ordinary ability. A few biographical notes will show his calibre from another point of view. Born at Waal, Bavaria, in May, 1849, and taken by his parents two years later to America, whence they returned after six years' sojourn in Ohio to Southampton, Hubert Herkomer became an Englishman, as it were, when he was eight years of age. Being delicate in health, he was not able to attend school, and nearly the whole of his early education was obtained at his father's side, by the carving bench, his father being a wood-carver by trade. At the age of seventeen, after two years' attendance at the Southampton School of Art, his art education began in good earnest. A course of studies at Munich was deemed a proper step to take, and thither he accordingly went with his father, who had a commission to carve the Apostles in wood of life size. The end of six months, however, saw father, son, and the unfinished Apostles back in England, partly to avoid forfeiture of English citizenship. This was in 1865, and a year later we find young Herkomer attending the South Kensington Art Schools. Here, he says, "Frederick Walker was the ideal of the students, and I naturally took up the feeling with feverish enthusiasm."

After this term at South Kensington Herkomer went back to Southampton, returning the following year to Kensington for another term, during which time he first tried his hand at wood drawing. Then followed a year and a half of uncertain work at Southampton, earning very little, learning less, and being decidedly dissatisfied with all things; after which he settled down in London.

Mr. Herkomer, recording the struggles of those times, says: "All the wood drawing of the time was done by Walker, Pinwell, Small, and Fildes, and from wood-drawing was my only chance of a livelihood. I made, however, an effort to

join some friends that autumn in Sussex, where I painted, to the best of my abilities, a large water-colour and sent it to the Dudley Gallery in the spring of 1870, with a trembling heart. Soon a letter reached me with the Dudley stamp on the envelope;—a notice of rejection?—No, a letter from the secretary, desiring me to favour him with a call. He asked me to raise the price I put on the drawing, and told me it was hung in the place of honour on the walls of the Gallery."

Mr. Herkomer's next success was in connection with the *Graphic*, for which he did wood-drawing, thus gaining a steady livelihood, as well as admirable art training. In 1871 he was invited to join the Institute of Painters in Water Colours. Part of the years 1871-2 Mr. Herkomer spent in the Bavarian Alps, several successful pictures being the result, among others, his first serious painting in oil, "After the Toil of the Day." This was accorded a good place on the walls of the Academy in 1873, and, as he says himself, "was tolerably well received."

In 1875 the "Last Muster" was painted, and appeared in the Academy Exhibition of that year, bringing the artist fame and encouragement. In company with another this picture was the means of gaining him one of the two grand medals of honour awarded to England, at the Paris Exhibition of 1879.

Among other pictures which followed the "Last Muster" were "At Death's Door," "Der Bittgang," "The Poacher's Fate," and "Eventide," a scene in Westminster Union, which found a place in the Exhibition of the Academy in 1878, and received the hearty commendation of the press.

Mr. Herkomer developed a new phase of his art in the portrait of Richard Wagner, the composer, finding his way into using water-colour material on a large scale. Soon followed in the same material, "Who comes here?" and "Souvenir de Rembrandt;" later, a still larger picture than all these, entitled "Light, Life, and Melody" also exhibited in the Grosvenor Gallery, with a portrait of Alfred Tennyson.

In 1879 was produced a portrait of John Ruskin, and a number of other works. During the last year or two Mr. Herkomer has taken up etching and mezzotint engraving, reproducing such of his own pictures as he deems in any way fit for engraving.

Besides the honours already mentioned, Mr. Herkomer is an Associate of the Royal Academy, Honorary Member of the Imperial Academy of Vienna, and Chevalier de l'Ordre de la Legion d'Honneur (Paris).

A biographical sketch of Mr. Herkomer would not be complete without mention being made of his power of healing



by the so-called mesmeric power: a gift which has enabled him to restore many to health, but by the too free use of which he injured his own constitution. It should be added that a great deal of Mr. Herkomer's success is due to a strict adherence to temperance principles.

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### KLEPTOMANIA.

Two letters lay before me on the subject of Kleptomania, one asking for an explanation of this form of affliction, and the other narrating the case of a young woman who was employed in a large drapery establishment, and who, for no reason whatever, so far as could be ascertained, took to purloining all kinds of articles from the shop and secreting them at home. She never made any use of the things pilfered, and when she was discovered they were all found in her room at home, where she had carelessly left them about. Otherwise the girl bore an excellent character. This is not the most satisfactory instance of kleptomania, for the young woman in question may have had some ulterior view in purloining the goods, the fact of her being employed in business indicating that she was not wealthy; and it is possible, therefore, that it may have been a case of simple theft. In the act that is more properly designated kleptomania the individual possesses an irresistible propensity to pocket articles without there being in the remotest degree any need for the articles purloined. Courts of justice have often to adjudicate in such cases, when the difficulties of coming to a right decision are very great, because of the difficulty of estimating the amount of moral guilt in the act. Justices are generally guided in their judgment by the position of the accused; they ask whether he or she had need for the article taken, and whether they had the means of purchasing it, arguing that a person who could buy a thing would not be so likely to steal it as one who could not; which, to say the least, is a very rough and ready way of arriving at a decision. For it often happens that the mere fact of possession breeds the desire to possess more; in the words of Hamlet, "appetite grows by what it feeds on."

Such clearly defined cases are on record, however, in which theft is the result of an uncontrollable propensity that there can be no hesitancy in recognising kleptomania as a form of insanity. The *Times*, some few years ago, in commenting upon the subject of a lady kleptomaniac being prosecuted for stealing handkerchiefs in a draper's shop, stated that "everyone

who is acquainted with London society could at once furnish a dozen names of ladies who have been notorious for abstracting articles of trifling value from the shops where they habitually dealt. Their *modus operandi* was so well known, that on their return from their drives, their relatives took care to ascertain the nature of their paltry peculations; inquired from the coachman the houses at which he had been ordered to stop; and, as a matter of course, reimbursed the tradesmen to the full value of the pilfered goods. In other cases, a hint was given to the various shopkeepers at whose establishments these monomaniacs made their purchases, and they were simply forewarned to notice what was taken away, and to furnish the bill; which was paid for as soon as furnished, and, as a matter of course, by the pilferer herself, without any feeling of shame or emotion of any kind." The "Manual of Phrenology" gives the case of a wealthy and intelligent nobleman who is addicted to the propensity of pilfering such trifles as silver spoons, forks, and the like at his friends' houses. Lavater gives an instance of a doctor of medicine who could not leave his patients' rooms without taking something away unobserved; his wife as a matter of course searching his pockets and returning to their owners the knives, thimbles, scissors, &c., which her husband abstracted.

As regards the cause of this propensity, it is not unfrequently attributed to general insanity, and there is no doubt mental alienation is often accompanied by this disposition. Pinel states that some maniacs, who in their lucid moments are properly considered models of probity, cannot avoid stealing and cheating during the paroxysm. It also appears that epileptics have an irresistible impulse to pilfer whatever they can secretly lay their hands upon, whether valuable or not. But, even in maniacs, this propensity is determined by mental organisation. There probably never was a kleptomaniac without an abnormal development of the phrenological organ of Acquisitiveness, with more or less of the organ of Secretiveness, both situate in the middle region of the head, above the ears. The kleptomaniac propensity, however, results either from a diseased condition of the organ of Acquisitiveness, or from a large development of the organ accompanied with imbecility.

Dr. Gall mentions several cases of diseased affections of this organ. M. Kneisler, governor of the prison of Prague, spoke to him and Dr. Spurzheim about the wife of a rich merchant, who stole continually from her husband in the most adroit manner, and who was at last shut up in a house of correction, which she had scarcely left, when she again stole, and

was again confined. She was condemned to a third and longer imprisonment, and again commenced her operations in the jail itself. In the prison at Bern, Drs. Gall and Spurzheim saw a rickety and badly organised boy of twelve years of age, who could not refrain from stealing, and who, with his pockets filled with his own bread, purloined that of others.

It will very often be found that this propensity is accompanied with a low organization; though such is by no means always the case. Dr. Rush, the famous physician of Philadelphia, records the instance of a woman who was exemplary in her obedience to every command of the moral law except one: she could not refrain from stealing. What made this vice more remarkable was, that she was in easy circumstances, and not addicted to extravagance in anything. Such was the propensity to this vice, however, that, if she could lay her hands upon nothing more valuable, she would often, at the table of a friend, fill her pockets secretly with bread. She both confessed and lamented her weakness. The writer was acquainted with a young lady of exceptionally good intellectual powers and attainments, who was nevertheless, possessed of an abnormal development of the organs of Acquisitiveness and Secretiveness, and who could not avoid pilfering even from her most intimate friends. Articles that were hardly of any possible use to her were thus purloined. She had a brother, too, who was addicted to the same vice.

There are many persons who, though not absolutely kleptomaniacs, that is, who are neither insane, nor imbecile, are yet subjects for commiseration. They are born with an abnormal development of Acquisitiveness, possibly together with large Secretiveness, and from lack of training and bad examples, they get into the habit of yielding to the acquisitive propensity until they have hardly any power to restrain themselves; and so they fall into vicious habits, and are never properly helped to cure themselves, because neither they nor those who have them in charge understand the cause of the difficulty. There is something essentially criminal in the way in which, should a child happen to pilfer a few flowers or a bit of fruit, a lot of fathers will send him to the "house of correction," instead of recommending him to the care of someone superior in the art of training the young. Any of the said fathers, if, instead of being a justice, he were simply unofficial and reasonable, would, had one of his sons committed a theft of the kind, have explained to him the gravity of the act, perhaps imposed some penalty, and so left the matter to his growing moral sense: he would not exhibit him to the world and brand him as morally reprobate. But the official mind, as a rule, is

unpardonably obtuse, and will consent to do things in the name of law that would shock the unbiased moral sense.

One more word on the subject: there are no faculties of the mind that it is more essential should be rightly trained and regulated than those of Acquisitiveness and Secretiveness, and parents would do well to have an eye, and a reasonable one, to their children in this respect; and if they find that there is any excess that gives trouble in training, let them exercise patience and sense, bearing in mind that the child is an epitome of one or both parents at the natal period. It frequently happens that an active organ of Acquisitiveness in a parent, although exercised within the limits of law, is transmitted to a child, who, until reason and conscience gain their due ascendancy, manifest the faculty in petty pilfering. Thrashing and imprisonment are not the cure for this, but reason and patient training.

J. W.

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### PHRENOLOGY AS APPLIED TO CALLINGS.

Having promised to treat from time to time of the qualifications requisite for different trades and professions, I will now speak of those that are necessary for the study and practice of medicine. There are some men who are, as it were, born doctors, while others, with all the study in the world, would never become true healers. Sir Astley Cooper was an example of the natural physician, having as a lad displayed an almost instinctive talent for dressing wounds and tending the sick. There are some men whose very touch is healing, while others, with all the pharmacopœa to aid, only succeed in aggravating disease and filling the grave-yard with memorials of their handiwork. There are some callings in which an incapable man may engage without doing much harm, to others at least, even though he do no good; but for a man to set himself up for a doctor who is not qualified by nature therefor is to fate himself to a life of almost constant failure and even wrong-doing.

Many persons can be educated to be doctors, and graduate with high honours, and yet not be qualified to practise. The most essential qualification for a successful student of medicine is a good memory, and the one who has the best memory generally succeeds the best in his studies, but facts do not justify the assertion that they make the best practitioners. Persons with a partial medical education, and with good natural qualifications, are often more successful in "treating" disease than the most highly educated student who has not a natural talent for medicine. How many can tell of cures

where the nurse has done the healing, while the doctor's capacity has extended but to the making out of a big bill and the taking of his fee. The being a true doctor does not depend merely on the ability to apply certain rules learned from books or by rote. To be able to learn from books, and not to be able to learn from observation and experience, is the reverse of a good qualification for the profession of medicine: Climate, temperament, forms of disease are subject to such manifold variations and modifications, that it requires a mind keenly perceptive of all these circumstances to be qualified to deal with disease.

It requires, moreover, a versatile and reasonable mind for the medical profession. The history of medicine teaches that prejudice is almost as bad as ignorance in regard to medicine. The man who is satisfied to learn one mode of treatment and to contemn and disregard all others, is not the best qualified for the profession of healing. How long the homeopathic practitioner was treated as a quack by his professional brethren of the "orthodox" school! The hydropathist is still very largely treated as such; and yet if we were to judge by cures—which are the doctors' best, and indeed, only true diploma—perhaps the so-called quacks might often carry off the palm. The more a man's mind is open to learn from experience and from nature, and to take hints from anyone able to give them, the better. A man who is wedded to rule and routine is the very worst to be a doctor. A good nurse is better than such a doctor any day. In 1980 there will be no doctors at all; there will only be nurses and surgeons, but the nurses will be educated as well as the dispensing chemists. No one short of an angel could do justice to a patient by merely going into the sick room, staying three minutes, and so continuing his rounds, scarcely saying ten words to each patient. The doctor ought to be more of a nurse, and should be prepared to give more time in the sick room; but in an educated society all, both women and men, will know something of medicine and nursing and so be less dependent upon the professional physician, only needing his advice in special and rare cases.

There is a great difference between the qualifications requisite for a good surgeon and for a good doctor. To be a surgeon a man needs to be as near perfection and as fully developed as possible. Nothing comes amiss in a good surgeon. He needs to be highly organised so as to have a clear, positive mind. He should have a highly developed nervous and muscular temperament, so as to be quick, strong, and steady. He should have large Combativeness, Destructiveness, Self-esteem, Firmness and Conscientiousness, to give

him courage, energy, self-reliance, presence of mind, and determination to hold his mind steadily to his task. He should have large Constructiveness, Comparison, Eventuality, Individuality, Form, Size, Weight, Order, and Locality to remember correctly the locality and relative bearing of one nerve or muscle to another, so as to cut accurately, to perform the operation correctly, and to do up the wound neatly and judiciously ; and in addition to all this he needs, to understand his business correctly, to know all about the anatomy of the whole body.

As the surgeon needs to know something about the state of the body, both in health and disease, so the doctor needs to know something about anatomy. The doctor ought to have such a condition of body and mind as would enable him to be quickly in sympathy with both the body and the mind of his patient. He should have a strong, healthy constitution. For a sick man to see a healthy, hearty, strong doctor goes a long way towards bringing about a cure. A sickly doctor has a sickly influence. One who would be a doctor should have a good mental or nervous temperament, in order to give a clear, quick mind to perceive the signs of disease and the true state of the physiology. He should also have a strong social nature with large Approbativeness, to give a warm social mind, and easy, pleasant manners. Cautiousness and Benevolence should also be large, so as to render him prudent, gentle, and kindly spoken. A haughty bearing, cold and distant manners, and harsh language do not help the patient to recover. The central brain, from the root of the nose up to, and including Firmness, with a full arch to the eyebrow, with all the perceptive faculties large, are quite necessary to give steadiness, gentleness, intuition, quick perception, power of discrimination, memory of past experience, and ability to take the whole case into account, and judge correctly of the quality of the organization to be dealt with. His sympathies must be with nature ; hence his organization should be such as to enable him to be so.

Few doctors can succeed equally well with all kinds of diseases : some can do well with one kind of disease or complaint, and not so well with another ; hence many devote themselves to special diseases, such as those of the eye, ear, lungs, heart, skin, or nerves, while others are more successful in treating the brain, the liver, or what not. It is not easy to point out the mental qualities needed to excel in these special cases, unless there is great sympathy between a particular organ or function in the doctor and the patient. Its power in the one helps him to understand how to treat the same in



the other. The larger and stronger organs and functions must be of more service than weak ones.

It is a matter of observation that physicians and surgeons who are specially gifted in treating diseases of the eye, ear, brain, and nerves, are more highly organized, and have more sagacity and are more susceptible than those who from choice give their attention to the lower organs and functions of the body; as, for instance, to the stomach, the skin, the bones, muscles, &c.

Lastly, but by no means least, a physician or surgeon, should be as perfect as possible in the moral and religious faculties, as it is necessary that a man who enters a family on the intimate footing of a doctor, should be of the highest moral character and incapable of swerving from the path of duty, either to the right hand or to the left. L. N. FOWLER.

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## THE FACE AS INDICATIVE OF CHARACTER.

*(Continued from the November Number.)*

Before dismissing the subject of the hair, a few words should be said about the beard. The hair of the beard partakes of the same general characteristics as the hair of the head, although it is usually somewhat stronger and crisper in texture. It is generally also a shade lighter in hue than the hair of the head. A strong beard is, of course, indicative of virility, though there are strong masculine characters with faces quite hairless. When soft and silky, it indicates a mild and rather effeminate character; when rough, ragged, and coarse, a brutal and uncouth disposition—in other words, a low animal nature. A woman with a beard is generally somewhat masculine in character. A fair beard indicates a nature that is but mildly passionate; a dark beard, more strength, with intensity; a red one, warmth, ardour, and susceptibility, according to the degree of fieryness it possesses. One with a very red beard is easily excited to passion; but he is susceptible of more vehemence than endurance in his emotions.

There is considerable character in the way the beard is worn, or in the way in which it grows. The parts of the face on which the beard grows are the physiognomical poles of the affections and social instincts, as we shall see hereafter, and there is a certain relation between the growth of hair and the strength of those affections. A beard that is wavy or inclined to curl is indicative of a lively social nature. Of course a great deal of the character of a beard depends upon the care that is bestowed upon it: hence it may indicate a neat and orderly disposition, refinement, or even vanity.

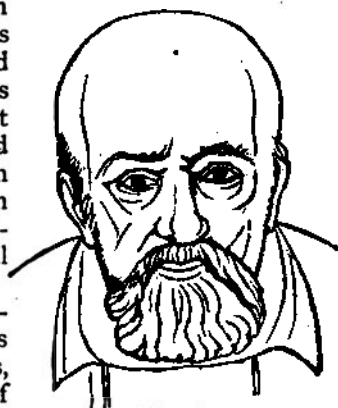


Darwin considers the "survival" of the beard as the effect of vanity. Possibly, however, there is more reason in regarding it as a "survival" because of its use as a protection to the face against the inclemencies of the weather. It is the most natural protective from cold, and common sense would suggest its preservation in most cases.

It need hardly be said that there is a great deal of character in the mustache. As the form of the upper lip and the regions about it have largely to do with the feelings of pride, self-reliance, manliness, vanity, and other qualities that give self-control, the mustache is more particularly connected with the expression of those qualities or the reverse. When the mustache is ragged and, as it were, flying hither and thither, there is a lack of proper self-control. When it is straight and orderly the reverse is the case, other things, of course, taken into account. If there is a tendency to curl at the outer ends of the mustache, there is a tendency to ambition, vanity, or display. When the curl tends upwards, there is geniality, combined with a love of approbation; when the inclination is downwards, there is a more sedate turn of mind not unaccompanied with gloom. See (Fig 13). The reverse quality is well indicated by the common portraits of Shakespeare, who was as much noted for cheerfulness and geniality in life as those qualities are manifested in his writings. It is worthy of remark that good tempered men will, in playing with the mustache, invariably give it an upward inclination, whereas cross-grained and morose men will pull it obliquely downwards.

Before quitting the hirsute features of the face, a few remarks must be made about the eyebrows, which are full of character. Of course the general strength of the eyebrows has to do with the temperament, a vigorous motive temperament being generally accompanied by strong, bushy eyebrows, while in the mental and vital temperaments the eyebrows are less marked. Thus, delicate eyebrows are indicative of a fine quality of organization, and of an active, if not a predominant, mental temperament.

The general shape of the eyebrow is exceedingly varied. Eyebrows, however, may be classified under several well defined forms. The common, and we might say, the ideal,



(Fig. 13.)

form is two distinct arches; but these arches vary from an almost perfect half circle to the slightest bow-form. In some the arches are horizontal, while in others, more especially in women, they are so tilted side-ways as to form one arch, as in fig. 14. This form of eyebrow is generally accompanied by a delicate, susceptible, and tenderly melancholy cast of mind. A not unfrequent variation of this type is where the arch is somewhat angular at the outer corner of the brows. The substitution of this angle for the curve is indicative of more vigour of mind, and probably a deeper tinge of melancholy. Such tendencies, however, depend to some extent on counterbalancing qualities.



(Fig. 14.)

The straight eye-brow marks another well defined form. In some the eyebrows form two perfectly straight lines, while in others they bend slightly downwards at the outer angle of the eye. Not unfrequently we see the eyebrows form one straight line right across the lower edge of the forehead, as in fig. 15. When bushy, over deep-set eyes, especially if black, this form of eyebrow gives a peculiarly stern, reserved, and even sullen aspect to the countenance. The straight eyebrow is more common to men, arched eyebrows are more common to women.



(Fig. 15.)

It will be found that low, projecting eyebrows indicate accurate perception and discernment, (fig. 16.) When observing, or examining a thing closely a person naturally depresses the eyebrows in order to adjust the eye accurately to the objects examined. When reflecting, persons are led by association, or instinctively, to depress the eyebrows, even when no particular object is before them. Hence this sign is also indicative of judgment and reflection. An eyebrow greatly elevated, on the contrary (fig. 17), indicates less accuracy of perception, and, indirectly, less reflection. Persons with this form of eyebrow are apt to be a little vague. A lowering or frowning of the brows indicates a love of, and power to exercise, authority.



(Fig. 16.)

Close observation of eyebrows will discover the fact that the hairs of the eyebrow often have a marked inclination upwards. These signs should be carefully noted, as they indicate peculiarities.

When the hairs of the right eyebrow turn up at the inner extremity (as in fig. 13) the feeling of gratitude is indicated, while the upturning of the hairs of the inner extremity of the left eyebrow indicates respect. The upward inclination of the hairs of the outer extremity of the left eyebrow indicates the faculty of belief; and the upward inclination on the right side indicates that of immortality. When the hairs of the outer extremity turn downwards as well as up there is a strong earthly tendency combined with the feelings of belief and immortality.



(Fig. 17.)

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### FREDERICK THE GREAT'S PHRENOLOGY.

One of the erudite leader writers of the *Daily News*, discoursing recently on coins, took occasion to give a dig at phrenology, or at what in his imagination stands for phrenology. He said: "We meet occasionally the great Fritz's image on a piece of metal. . . . It is curious to note at once how admirable is the likeness, and how strangely brow and head in his case contradict the very elements of phrenology." The writer goes on to say: "It is the face of a shrewd man, but not of a king, or of a strategist."

It would be interesting, by the way, to have the writer's views upon the looks of a king. To our mind, a king looks pretty much like other people, with perhaps a "bias"—as Herbert Spencer would say—of superciliousness, and not unfrequently an hereditary taint from lack of "selection of the fittest." But then we may be wrong. We confess to a prejudice against kings, and as to the accepted meaning of the word "kingly," an extensive reading in history having led us to the conclusion that the average king is less "kingly" than the average of almost any other class. Who would be picked out as looking like kings, we wonder, if all were obliged to go without benefit of tailor?

But how about the "elements of phrenology?" It is but too evident that the writer in question does not know what they are, else he could not have committed himself so egregiously. We would recommend to him a shilling "bust" and a primer of phrenology: two and sixpence would enable him to purge himself of his folly, and to judge of Fritz and the elements of phrenology with a little more accuracy. Phrenology may be very false, and very stupid, as false things generally are; but it is not worth while to misrepresent it.

It may be interesting to the writer who called forth these remarks to know what Frederick the Great's phrenology was actually, and that, instead of his "brow and head" contradicting phrenology, they afford as good a proof as could be had of it. We have before us a steel engraving of Frederick, also a mask of him taken after death, both of which agree in giving him several very striking qualities of mind.

In the first place his phrenology indicates an unusual development of intellect. The perceptive faculties are all large, giving him great powers of observation and perception of the qualities of things. The organ of Order is very large, and Calculation appears to have been only a little less in development. The reflective faculties are also well-developed, giving him considerable power of thought, originality, and, together with his Order and Calculation, ability to plan, devise ways and means, and scheme. The organ of Intuition, too, is large; whereby he was enabled to judge keenly and quickly of men, and likewise to adapt himself to them; for he was a great actor, and could as easily dissemble as be natural—perhaps more easily. We seldom find the organ of Secretiveness larger than it appears in the cast of his head. The organs of Acquisitiveness and Destructiveness are also very large, while Benevolence is inferior in development. So that, according to his head, Frederick should have been characterised for his tact, cunning, method, and originality, for his lack of sympathy and excessive greed, and for his great determination and energy. There are also indications of taste and refinement, but many better qualities were evidently swallowed up in cupidity and love of power. His temperament indicates the highest degree of activity, tenacity, and power of endurance.

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I AM fully persuaded that it would be much less injurious if children were made to perform their school work in the open air during the fine seasons; and here at the same time would they have before them the book of nature, which, supposing that the pupils are capable of reading and understanding it, is much more fit and proper for their instruction than all the books that ever were written or printed.—*Hufeland.*

For many years it has been one of my constant regrets that no schoolmaster of mine had a knowledge of natural history—so far, at least, as to have taught me the grasses that grow by the wayside, and the little winged or wingless neighbours that are continually meeting me with a salutation that I cannot answer as things are. Why did not somebody teach me the constellations, too, and make me at home in the starry heavens which are always overhead, and which I don't half know to this day?—*Carlyle.*

## ONLY HALF A HERO.

## A TALE OF THE FRANCO-GERMAN WAR.

BY CAVE NORTH.

## CHAPTER XX.

Thus, as regards the personages of our story, events took their quiet course until spring had been followed by summer, and the hopes of peace had been succeeded by its full fruition. Then throughout the length and breadth of the Fatherland there was joy indeed! Never, perhaps, had the old Teutonic land seen such rejoicing. Everybody hugged each other, if not all bodily, at least figuratively. And what health-drinking there was! The old country was toasted until you would have thought the whole of its human clay would have melted into a mud-puddle. It was like a general delirium. And what wonder! Had they not humbled their arch-enemy? And had not King "Gott-sei-Dank" Wilhelm been crowned Kaiser in the city and palace of her kings, in token of their unity? Were they not now great and—almost free? No wonder, we say, there was a little delirium, and a great deal of "tall" talk, with Arndt's refrain, "Das Vaterland muss weiter gehn" (The Fatherland must stretch wider), a little *ad nauseam*.

It was even to stretch so far as to tread on the toes of the British lion; and nothing pleased the good Germans in those days so much as a common print representing a battalion of *pickelhaubed* shooters making the said king of beasts retire before them with his tail between his legs. To have heard them laugh at that joke you would have thought it was the first the nation had brought forth.

But there was soon an end of this persiflage; firstly, for the reason that the German is really an amiable creature; and secondly, that Bismarck was still on the national stomach. But, as Hans Quint observed, Providence had done a great thing in making the war the means of uniting the Fatherland—and himself and Lena. For—and that is more to our purpose—they had now become man and wife. Pastor Boeck had married them, and Jessica and Sanchen had been present at the ceremony, and had taken part in the subsequent rejoicings. It was a great affair in Muhlheim, and for the usual nine days everyone talked of Hans with the short leg who had come home from the war and wedded the rich Knoblauch's daughter right out of hand: she whom so many had sighed for in vain.

But soon Hans and his bride were forgotten in the general

peace rejoicings. Meanwhile, however, the happy groom had not forgotten Gustav, and his scheme for the restoration of that hero to the arms of his beloved.

Many were the letters, in cramped hand-writing, that Diedrich Hammelfleisch received from his quondam comrade-in-arms on this all-important subject. It would have taxed the patience of many a man to have been required to solve the riddle of some of these epistles; but the scholar was well cargoed with patience, and he sought after their sense as if they had been the hieroglyphics of Assyrian kings.

And, moreover, he wrote replies to them: replies which sometimes, however, perplexed the simple Hans not a little. The fact is, there was just a trifle of the pedant about Hammelfleisch; but it was an amiable weakness, such a one, indeed, as only the gruffest of saints could have found fault with, or condemned. He was one of those who love learning for its own sake; for the pleasure and profit it brings in itself, and not for what it will fetch in the market. The man who has not got beyond the market value of his science has not yet become truly learned; or, perhaps it would be better to say, has not yet learned the meaning of true culture.

What was to Quint a several days' puzzlement, was to Pastor Boeck a rare treat. Hammelfleisch could not write without writing well, and his letters to the minister were full of thought and originality, even if occasionally a little spiced with satire. The pastor had therefore come to look upon this correspondence as one of his special pleasures, and to mark the day of the coming of one of the soldier's epistles with a rubric.

When therefore the letters ceased to come, he could not tell how to account for their non-appearance. He knew it could not be because any of the evil chances of war had overtaken his correspondent, for fighting had ceased some time since, and peace negotiations were already approaching a successful issue. He might certainly have been taken ill; but that did not strike him as likely; indeed he could not make it out. Had he offended him by the invitation he had given him in his last letter to pay Eilbach a visit, if circumstances would permit, on his return to the Fatherland? It did not seem probable; but some men were offended at such trifles. Of course he never hit upon the actual cause of the scholar's silence. Indeed it was hardly possible he should, seeing that the real cause was Quint's scheme, of which, of course, the pastor knew nothing.

The fact is, for Hammelfleisch to have continued writing to Pastor Boeck after he had consented to the carrying out of

Hans Quint's stratagem would have involved him in a course of double-dealing for which he was not prepared. Of course he could have written to his friend without divulging Quint's secret, but that was not the whole of the matter: Lieutenant Riese had now been released from imprisonment, and the pastor's letters always containing enquiries about the young officer, how was it possible for the scholar to write and evade those queries, or, what would be worse, send misleading replies? He was afraid they would see from the newspapers that Gustav had returned to his regiment for the time being, and that they would be writing to ask about him. He almost wished he had had nothing to do with Quint's scheme; and yet he saw that it presented a feasible plan of making a couple of persons happy.

However, it so happened that neither Jessica nor the Pastor saw any mention in the newspapers of Riese's release from captivity, a very startling event having taken their attention for the time being from that interesting individual.

That event was the death of Herr Durer, Jessica's uncle; but it was the manner of it that was the startling thing. One night, or rather morning, just before the final signing of the peace, the lighter sleeping of the inhabitants in the vicinity of the Bockenheimer Gate, were awoken by the report of a pistol—a sharp, quick sound, like the crack of a whip. "Some fellow fooling" thought one. "What can it be?" wondered another, listening for something to follow. Others were too sleepy to think anything, but merely shuddered and hastened to sleep again. The old watcher on the Bockenheimer Tower put his nightcapped head out of his little window and gazed all round upon the deserted streets and gardens; but he saw nothing moving—nothing, that is, but the trees stirring before the breeze and the stars pursuing their eternal march westward.

"It is queer if that shot went off for nothing," muttered the old man as he drew in his head.

He had scarcely ensconced himself beneath his coverlet again ere he heard a shrill signal, such as the police sound when they require assistance. Turning once more out of bed and hastily putting on his clothes, the old man made his way as quickly as he could down the steep winding stairway, unlocked the door, and went out. He turned up the street to the left—a street composed entirely of good substantial houses, with steps leading to the front doors, green sunblinds to all the windows, and double bells to the doors.

Opposite one of these doors, only a few paces up the street, the watchman saw two policemen standing, and between them



something lying on the ground. When he came near he saw it was a man, or the corpse of one. He was lying on his face, and in the middle of his back, below his shoulders there was a dark spot: it was blood. This the watchman perceived by the light that one of the policemen turned upon the body.

They turned it over, and the watchman after a moment's examination, said:

"It is Herr Durer, and he is dead!"

Dead enough in all conscience. Dead to feeling and sense, as he had long since been dead to honour and to shame. None ever knew who fired the cowardly shot that put a period to his long reckoning. It was supposed that he had just left the house in front of which he was found lying, and which was not held exactly in the odour of sanctity, when his assassin sent a bullet into his back. The widow and her daughter who rented the house were held under suspicion, as being able to throw some light on the matter, but nothing was ever discovered by them; and so, after being the sensation of a few days, the subject was allowed to drop, other and more all-absorbing topics occupying the public mind, not only of Frankfort, but of all Germany. What did the death of one reprobate matter at this time?

And so, after the fruitless investigation was over, the afflicted family got the murdered man quietly buried. Many were the empty carriages which followed the corpse to the grave, but, saving his widow and the Fraulein Durer, he was beweped by none.

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## CHAPTER XXI.

The death of Herr Durer of course took Jessica Bechstein and Sanchen back to Frankfort. The first intimation, as already mentioned, that the pastor's household had of the terrible calamity was from the newspapers; but almost immediately afterwards Jessica was summoned home by a telegram. She and Sanchen started the same night and reached Frankfort the next morning. How pleasant the old city looked with its broad girdle of summer verdure and blossom! And how gay too! For all the world was rejoicing at the accomplishment of an honourable peace. It seemed sad beyond everything to think of the tragedy that was recalling them home when everybody else wore a face beaming with gladness. And what a house of mourning they found at Six-Trees!

But we must pass over the next few days. Suffice it to say that Gottlob was enabled to get home just in time to attend

his father's funeral. His first meeting with Jessica was necessarily a sad one. In the evening they were able to have a private talk together in the garden, where they had taken their last farewell.

"It seems, almost" said Gottlob, referring to his father's death, "as if an avenging Nemesis had overtaken him, for the wickedness he would have had me do; and yet how hard it is to pass a judgment!"

"Let us think gently of him now," replied Jessica, quietly.

"And how about Lieutenant Riese?" inquired Gottlob, after a pause, "for of course, having been in another part of the country, I have not seen or heard anything of him for months."

"I know no more than you," answered the young lady with difficulty.

"What!" exclaimed Captain Durer, grasping her hand: "Do you mean to tell me——!"

"Nay!" interposed Jessica, placing her other hand on his, and looking up to him with liquid eyes: "not so hasty, Gottlob. He is still all that is honourable, for anything I know."

"And yet you have heard nothing of him for several months?"

"Nothing."

"I cannot understand."

"I will try to explain," replied Jessica, and she did.

When the explanation was finished, Captain Durer said, after they had walked for a few minutes in silence:

"And so he relinquished you to me?"

"Such was his idea," replied the maiden, wiping a tear from her eye.

"And—and what do you intend?" asked the young man.

"What would you do if you were in my place, Gottlob?" answered Jessica, with emotion.

They had reached the little arbour at the end of the garden, by the privet hedge, known of old to Gustav and Jessica. Captain Durer took a seat in one corner and looked gloomily on the ground. Jessica bowed her head on her hand and veiled her eyes, which were like large watery moons threatening rain.

A minute or two elapsed; then Gottlob reached his hand across the table and took hold of his cousin's. Then, after an effort to clear his throat, he said:

"Jessica, after this business of father's is over, it is my intention to get leave of absence; I have already written for it, and I expect an answer in a few days; then I shall go

abroad for a time—perhaps for a year, or more. It is best so Come ; shall we go into the house ? ”

He tried to draw away his hand, but Jessica held it for still a moment ; then with a gentle pressure she released it, and said :

“ Yes, Gottlob, it will be best so.”

And so they went into the house.

The expected leave of absence arrived in the course of the following week, and the funeral and other matters connected therewith having been arranged,—it should be stated by the way, that though the elder Durer had had a will drawn up, leaving out all mention of his son, yet, being without signature, it was of no avail, a previous one in consequence taking effect—Captain Durer prepared to leave Frankfort, his first destination being London.

Before getting away, however, the young man was destined to be concerned in one or two events of importance which presently took place.

As already mentioned, Lieutenant Riese, on the opening of peace negotiations, had been enabled, in consequence of an exchange of prisoners, to rejoin his regiment. The young man had not been treated ill in Paris, though he had suffered from weakness and ill-health, together with a certain loathing of his food, which was averred to be not altogether innocent of the admixture of rat and other “ small deer,” not to mention larger game of the feline species. But in this he was somewhat singular, his companions in captivity taking to these strange “ flesh pots ” with wonderful avidity.

It was a relief, therefore, in a double sense, but chiefly in a gustatory one, to get back to his fellow-countrymen and to their *cuisine* : where, moreover, the star of the great Erbswurst was declining, while the constellation of Taurus was in the ascendant.

One of the first observations made by Diedrich Hammelfleisch to the hollow-cheeked and somewhat cadavrous looking returned prisoner was that they had beef now-a-days, and sometimes eggs.

“ Imagine to yourself ” he went on, “ how you look, rat-fed as you are, when the whole army is getting fat. We shall all become Herr Thaus if we stay in this country much longer.”

“ One would have thought ” suggested Gustav, “ that there had not been much fat left in the land after the requisitioning we had given it.”

“ Ah ! it is a wonderful land, this land of France,” replied Diedrich : “ a rich land. Pharaoh’s lean kine never came up out of this land : they were of German breed.”

"Truly," said the gruff voice of Herr Thau, who had come up unperceived, "we Germans go to brains and hair—chiefly the latter."

"How come you to be here, Herr Thau?" asked Diedrich. "I should have thought you would have been at Versailles."

"So I am, for the most part; but hearing that you had got Lieutenant Riese back, I came to get news of the doings within there."

"Ah! he will give you rare news of the rat-eaters; but let him first take a good meal; for did you ever see such a mazzard in your life? I should like to have you two to play Death and the fat Abbot in the "Dance of Death."

Hammelfleisch was, in truth, sadly grieved to see Riese looking so pale and ill, and this rattle was in part to hide his own feelings, and in part to distract Gustav's thoughts.

The latter seemed at first half dazed, like one who had suddenly come out of a dark place into the broad light. It was several days before he began to recover some of his old cheerfulness. In proportion as he did so, he began also to improve in appearance, so that one day when they had met at the "Lion d'Or," Hammelfleisch said—

"Come, I have hopes we shall get back something of the old Riese if we go on like this. There is actually a bit of colour returning to your face."

Gustav smiled and said, it appeared to give his friend so much pleasure to see him regain strength, that he should be stimulated to do his best to improve quickly.

"Yes, do;" replied the other; "for I want you to woo the fair daughter of this "Lion d'Or."

"Why so, Diedrich Hammelfleisch?"

"To save me the trouble."

"Enigmas again! I don't understand," replied Riese.

"Have I not told you I volunteered in order to flee one of Cupid's phantasm? But, truly, 'Fugiendo in media sæpe ruitur fata.'"

"And would you have me, then, follow the deceitful 'phantasm' again?" asked Riese, somewhat moved.

"Nay, forgive me," replied the scholar, "I said it but to try you. But, tell me, have you found love such a deceitful phantasm?"

"I know not; I only know that I would that the last year and a half were blotted from my life."

These words were uttered with difficulty, and as though each had an obstacle in its way.

"Well, well!" replied Hammelfleisch; "we shall overcome these things—you and I; meanwhile, we will take a lesson

from the philosophic Hans Quint, whom I trust we shall soon see—he and his savory bride—if the Minister of War will but grant my request and let me go without further delay, now that Bismarck has got his great pen-of-peace, and there is nothing more to be done save to arrange details. I would fain have done with this goose-marching business and go back to my syntax and the rest. Oh! it is a heroic business, this head splitting! But, for my part, I should prefer to be at Sanscrit root-splitting. What say you, Gustav?”

“As for me, I would rather be behind a desk than behind a battery; for you know there is about as much of the heroic in me as of scholarship.”

“As much as fits the occasion, Gustav; ‘only half a hero,’ perhaps, as you once said yourself, but the best half. Still I must say of the two crosses, Hans’s is the better.”

“I wish you such a cross, Diedrich.”

“I should wear it on my breast with better grace than the iron one.”

“So I believe,” answered Gustav.

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## CHAPTER XXII.

Amid the various and conflicting events that were following so quickly one upon the heels of another, it boded ill for the success of Hans Quint’s scheme. First, that untoward event of Herr Durer’s death took Fraulein Bechstein away, although she had promised to return and take more formal leave of her friends at Eilbach and Muhlheim; and now it seemed more than likely that his plan to get Hammelfleisch and Riese to Muhlheim was going to fail.

It happened thus. Hammelfleisch could not get his dismissal so soon as he wished and expected, and as Lieutenant Riese at once obtained sick leave, he made up his mind first of all to visit Frankfort; for when he arrived at the regimental head-quarters he found a letter there, several weeks old, from the only friend he had in the erewhile Imperial city, containing among other news-items, the information that Fraulein Bechstein had left her relatives and was said to have gone to live in a distant part of the country.

Although Riese thought the writer—a former fellow-clerk—was actuated as much by malice as by friendship in mentioning the common rumour about Jessica, yet he was glad of the information, and it at once decided him to pay the contemplated visit, and then to rejoin Diedrich at Mayence, or any other place that should be fixed upon, whence they might proceed together to Muhlheim.

Accordingly, one bright, hot day in June Gustav Riese found himself in the old Free City of the Main; and not unnaturally he ensconced himself in his old quarters at the top of the Schappel-house, where he found everything pretty much as of yore, except that there was another maid in the place of Sanchen.

His intention was to stay but a few days in Frankfort, to settle what few affairs he had to settle there, and then to leave it for good, probably for ever. What plans he had for the future were as yet but ill-defined; they depended upon the turn his connexion with the army should take; being an officer it would be open to him to complete his military education and await promotion, or he might be offered a civil post in lieu of his military rank, seeing that he had no private fortune to sustain his position as an officer in the army. After the war of 'sixty-six those who had been raised from the ranks were given government appointments, and the same course might be followed again; but in any case the decision would lie with the Kaiser.

If Riese could have chosen his own course, independently of any other consideration, he would have preferred to go abroad. In a foreign land, he thought, his love days might become to him as a kind of dream, and so be sweetened and mellowed to his memory; while if he stayed amid the scenes that constantly recalled them, there would be wanting the nimbus that imagination so artfully weaves, and with which it covers up the corners of rugged reality.

How strange everything appeared to him now in the city in which, above all others, he used to think he should like to spend his days. Nothing seemed to him the same as in the days gone by. The Anlagen were as lively as, or livelier than, ever; but the general merriment sounded harshly on his ear. He was in no mood for gladness, and wanted to get away from it. The little business he had to do was soon transacted, and then he would fain have got away, but he was obliged to wait for a letter from Hammelfleisch, to say when and where they were to meet. Day after day passed without a letter, and he began to chafe and fret, when one of those accidents happened which are so often happening and putting man's best wisdom to naught.

Gustav had avoided the little wilderness of a garden attached to the Schappel-house, which had formerly been a kind of Garden-of-Eden to him, or at least a kind of Campan Valley, wherein his eyes had acquired a distincter vision of immortality—through the couching, namely, which Cupid had given him. One evening, however,—it was the very evening

following that on which Captain Durer and his cousin had had their interview in the arbour—the young man took a fancy to descend into the garden, which was not laid out on geometrical principles. It was a fair, bright night, the moon's shining wings hiding all her children, the stars.

After pacing too and fro for a time, it entered the soldier's head to take a farewell look into the neighbouring garden, which had been hallowed by the feet of his beloved. Passing through the opening in the privet fence he knew so well, he paused a moment and then stepped into the arbour. Like one who had ventured within a charmed circle, or upon enchanted ground, he suddenly became like one in a dream. Seating himself upon the bench, he allowed the vision of the past to glide before his mind's eye, and so absorbed did he become in the fantasmal pageant, that he quite forgot where he was until aroused by approaching footsteps.

Rising quickly, he stepped to the entrance, thinking to pass into his own part of Eden before being observed. But that was out of the question. He was startled to see two female figures before him, as were also the two females to behold a man suddenly, as it were, rise out of the ground before them. One of the women, the stouter of the two, accented her astonishment by a shrill cry, which, before Gustav could get a word of explanation or apology out of his mouth, brought a fourth astonished person upon the scene.

The latter was Captain Durer; the two women were Jessica and Sanchen. Riese was so dazed by his reverie, his sudden surprisal, and by the moonlight, which etherealised, as it were, everything before him,—especially the female forms, which of all things most easily take the hue and tone of their surroundings,—that he failed to recognise either Jessica or Sanchen: the less readily, perhaps, because he had just been dreaming of them as being far away.

Not so with the fair ones: after the first instant of surprise both of them recognised the well remembered face and form, even though considerably changed. Sanchen, however, was the first one to give voice to her recognition, as lighter waters are the more vocal.

"Der Gustav!" she exclaimed.

Jessica's heart simultaneously gave forth the cry, but instead of issuing in sound, it went reverberating through her whole being, with a joy, too, so keen that it was painful.

Gustav was like one to whom the first waking moment is as the passing from one dream to another. At last he faltered:

"Why, Jessica! I thought—!"



"What did you think, Lieutenant Riese?" said Jessica, looking pale and agitated, albeit putting a strong check upon herself, at the same time extending her hand.

"I understood you were away from Frankfort, and so I was tempted to take a last look at the old place." As he said this he took the proffered hand timidly, and then added, turning to Gottlob, "Pray excuse me, Captain Durer, for this intrusion."

The latter, who had hitherto remained silent and motionless, as though little pleased, now advanced and held out his hand:

"We need not talk of excuses," he said, "You and I owe each other friendship: let it be sealed here once and for ever."

"I owe you, indeed, very much,—my life!" replied Gustav.

"Nay, what of that? You would have given me a bride."

Jessica saw how great his heart was at this moment, and so coming nearer to him she put her hand in his, and gave him a look full of thankfulness.

Then pressing his large hand over the small one within it, Gottlob continued:

"I now take my father's place as guardian of my cousin; and as I know that she loves you, and that you love her, and are, moreover, worthy of her, let it be my pleasure to join you—here where Providence has so strangely brought us all together."

With that he joined their hands, and they, nothing loth, but on the contrary, like two charged lightning clouds, yearning for each other, joined hearts.

The effusive Sanchen, whose heart, like her tongue, was always in her mouth, exclaimed: "Der gute Gottlob!" and straightway began weeping.

Just at this moment a carriage was heard to stop at the gate, and Captain Durer, partly as an excuse to leave the lovers alone, said:

"Who can it be coming at this hour? I will go and see."

Sanchen, after pressing Gustav and Jessica's hands, followed him at a distance, leaving the two happy ones alone. Many a time since then has been blessed to them, but none equal to those few moments, when it seemed as though the very leaves between them and the fair moonlit sky whispered heavenly benedictions.

Presently Captain Durer returned, bringing with him two others.

"Gustav! Jessica!" he said, turning from one to the other, "See what fresh surprises!"

Surprises indeed! The newcomers were no other than Hammelfleisch and the Pastor Boeck. When the former had

been introduced to Jessica and the latter to Lieutenant Riese, the scholar explained their arrival together.

"As you," he said (meaning Riese), "did not reply to my letter appointing a place of meeting—"

"Nay, I received no letter," said Gustav.

"All the same then, as I received no reply, and as in the meantime I got a letter from Gottlob, begging of me to call upon him here, under distressing circumstances, and learning, moreover, from his letter that Hans Quint's scheme had shipwrecked, I resolved to come on here at once. Such is half my story: the other half is more wonderful; for when at Coblenz I took the Rhine steamer to have an airier passage to Mayence, whom should I alight on but this good man, who, after acquaintance made, proved to be already a friend."

In spite of the many tokens of mourning everywhere to be seen, but chiefly in the garb and mien of Frau Durer and her daughters, who to the satisfaction of the milliners were capable of manifesting a large sorrow, that is, such as can be expressed in superficial inches,—in spite of this there was much gladness in the Durer-house that night.

Everyone was pleased with the quiet kindly-eyed Gustav; while, as for the scholar, they were simply charmed with him. His genial humour and quiet mirth were the life of the company.

Some little while later Gustav and Jessica were married, the good Pastor Boeck being the officiating minister. Hans Quint and the fair Lena were present, as was also Diedrich Hammelfleisch, who came all the way from Leipsic for the purpose. Captain Durer was not, he being on his way across the Atlantic, on a wide tour. After a short sojourn in Switzerland, and a run through the Black Forest, familiar to Gustav as the home of his boyhood, the happy pair settled down in the suburbs of the city they both loved so well—the pleasant old Frankfurt.

And near to them resides the ever faithful Sanchen, who, it should be recorded, one day discovered, quietly chipping away in his mason's yard, the importunate Faultrager, whom, as she confessed, she was obliged to wed to get rid of.

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## CHAPTER XXIII.

It remains but to record one other incident in connection with the dramatis personæ of this story. In one of the suburbs of Leipsic there is a pleasant little thoroughfare called the Oederweg. Its houses are for the most part those of well-

to-do people ; principally detached and standing amid flower-beds and fruit-trees. Some have a cold and patrician air ; others are friendly and inviting.

On a pleasant autumn afternoon, a young man sat in the garden of one of the latter—a low-rooft, clematis-grown structure with a shady porch. A couple of swallows had built under the eaves, and one of them was twittering on the top of the porch. The house stood a little back from the road, upon which it looked through a screen of verdure. An acacia threw its spreading branches and rustling foliage over the gate, through which the passer-by caught glimpses of pleasant flower-masses and a shaggy lawn. Altogether the cottage seemed to be set in a frame of greenery, and, indeed, almost embedded in it, for a tall elm seemed to overshadow it with a profusion of leafage.

It was beneath this tree, hidden from the gate by a few shrubs that the young man was seated. He was apparently of medium stature, well-made and robust, with a profusion of brown locks shading a prominent brow and hanging about his neck. The face was a striking one, and indicated depth of both thought and feeling, though it was calm and subdued in expression. The young man was smoking and seemed at the same time to be preoccupied with some problem, for he was tracing something on the ground with his stick.

He remained absorbed thus for some time, and was quite unaware that he was observed. A strange figure had a few minutes before approached the gate, and scanned the interior, and then timidly entered. It was a sylph-like female form, and had it been Imogen entering the cave in search of food she could not have gone with a more hesitating step. And yet there was no apparent reason why the stranger should be afraid. She possessed a face that no one would have had a doubt of, as fair and sweet as that of Imogen herself, and a form that, even in its plain, half peasant, half bourgeois, garb—a garb evidently not native in material or cut—indicated more than ordinary grace.

Those large dark eyes, those clustering folds of auburn hair, only half hidden by their white covering, that pale face, its delicate colour heightened by present excitement—how beautiful ! It was like something out of a picture ; especially now, as having approached the door, the wandering gaze of the fair stranger lights on the seated figure beneath the great elm. There is a start, as of recognition, a flush, as of hope, a trembling as of fear.

Just then the young man looked up, and seeing a woman, and a stranger, standing between him and the house, he rose

and went towards her. After taking a few steps, he stopped, then went forward again with quickened pace.

"Der liebe Gott! Est-ce toi, Jeanne Guepe?" he exclaimed.

"Monsieur Hammelfleisch! I—" stammered the fair stranger, and then was unable to get out another word, indeed would have fallen but for the scholar's ready hand, which caught and supported her to a garden chair near by.

It was but a momentary weakness; in a minute or two Jeanne was herself again.

"From which of yonder fair clouds," said the young man, casting a look upwards, "hast thou dropped, thou dear child?"

"From none of them," answered Jeanne, with a faint smile, "I have travelled all the way by myself."

"All the way from Vernez?" questioned the scholar. "And thy father?"

"Dead," replied the fair girl, a full-tide of tears welling up into her eyes.

"Dead!" echoed the other, looking down upon the maiden with dim eyes.

Presently Jeanne wiped away her tears, and rising from the seat, said—"Yes, Monsieur Hammelfleisch, my father died two months ago, and as I had nothing, and there was no one to care for me, I had to leave the "Lion d'Or." For a little while I went to live with some relatives; but they were not kind to me, and so I resolved to come and seek you, thinking you would be sure to help me to find out some means of earning a livelihood; I had no other friend in the world."

"But how," said the young man a little huskily—"how did'st know where I lived?"

"Oh! because you often used to talk of Leipsic, and more than once I heard that stout, merry man, Monsieur Thau, I think you called him, speak of your pleasant little home in the Oederweg, and your kind-hearted mother; and somehow the name never left my mind."

"Poor child! I might have written it down for thee, had I thought. But come, thou must be tired; I will find the little mother."

As it happened, the little mother needed no seeking, for scarcely had the words passed his lips ere a bright, cheerful-looking little body appeared at the door, and seeing her son in converse with a stranger, came towards him.

"Here is the Mutterchen," said Diedrich, addressing Jeanne; then taking her hand and leading her to his mother, he said: "Mother, here is one I shall one day make my wife. Take her in and care for her, for she has come a long way—all the way from Paris, and must be weary. I must go and give a

lesson now, but I shall be back soon. Jeanne, my mother will be a mother to thee."

Jeanne looked up to him with a deep light in her lustrous eyes, as if she half divined what he said, though it was spoken in German, and then turned to the little mother and went in with her.

When Diedrich returned, his mother met him at the door and said: "Diedrich, you did not joke about the girl?"

"What did you think, mother, that I did?"

"No, Diedrich."

"Nor did I, mother," he replied, bending down and kissing his mother.

So Diedrich Hammelfleisch and Jeanne Guepe became man and wife, and neither had occasion to regret the union.

THE END.

## The Children's Corner.

### BEAUTIFUL MAY.

Did you ever hear tell of the Beautiful May?

Well, this is the story:—

She wandered one day,  
Alone, in the glen where the primroses grow,  
And the fairest of daises and violets blow,  
Where thrushes, and linnets, and nightingales sing  
The soonest and sweetest when cometh the Spring;  
Where a streamlet purls o'er its pebbly bed,  
Now slowly and softly, now rushing a-head,  
With a tinkling music so drowsy and sweet;  
While high overhead in broad arches meet  
The branches of giant trees laden with leaves,  
With which the blue welkin so artfully weaves  
A fretwork of emerald and sapphire so fair,  
That nothing therewith can for beauty compare  
In all the wide earth, if save we the night  
Begem'd with its studded bars of light.

She sauntered, enchanted, from bower to bower,  
And dallied delighted o'er every fresh flower;  
She plucked of the buds the most beauteous and rare,  
And twined them in wreaths in her soft golden hair.  
Oh, had any chanced to behold her that e'en  
They sure would have deemed her some bright fairy queen,  
Who strayed for awhile in that sun-lighted place,—  
So lovely her form and so winsome her face!

She marked not the hours how swiftly they fled,  
For joy-gilded moments like meteors are sped,

Ere note we whence came they, or whither they went.  
 But Beautiful May, soon with weariness spent,  
 Laid her down on the bank of the babbling stream,  
 'Neath a cool elder shade which the yellowing gleam  
 Of the lowering sun could not pierce, and there,  
 Gently lulled by the tide, and the whispering air,  
 Which was filled with the scent of the elder bloom,  
 Fell asleep, nor awoke with the buzz-clock's boom.

While still she was sleeping the Fairy Queen came,  
 And waved her bright wand, and named her by name,  
 Saying: "Come, my fair child, I will show thee the land  
 Where the fairy-folk dwell;" and she took by the hand  
 The fair little maiden, who, all in a dream,  
 Rose and followed the fairy to where a bright team—  
 Six white little mice, with the pinkest of eyes—  
 Drew a beautiful carriage of tiniest size;  
 Which entering in, they sped quickly away  
 O'er brooklet and meadow, through forest and brae,  
 While a thousand bright stars played brightly aloft,  
 Making bulls, bears and lions in heaven's wide croft.

What distance they went, or how long they were going,  
 The Beautiful May had no manner of knowing;  
 For 'twas all to her mind like a dream in a dream,  
 And the waking—it, too, but a vision did seem!

No pencil can tell, no words can describe  
 The fair world that lay,  
 'Neath the up-springing day  
 'Fore the wondering eyes of the Beautiful May!

Each grove was alive with the pinnion'd tribe:  
 As they fluttered and flew  
 And scattered the dew

They seemed to outvie e'en the flowers in hue!  
 But it was not the blossoms, the birds, or the trees,  
 Nor the song-laden, scent-bearing, frolicsome breeze,  
 That caused the fair maiden's most wondering thought:  
 It was that wherever she went there was nought  
 Of sorrow or suffering, pain or despair,  
 Not even the shadow of cark or of care.

She had known these in life, had the Beautiful May!—  
 Had seen a wee brother pale, sickening lay  
 On a young bed of death, while his mother sat weeping.  
 "Had the world been less hard he still had been leaping  
 With the other blithe boys," she said afterwards, sighing;  
 "Oh, the world it is cold—cold e'en to the dying!"

Yes, the Beautiful May had known sorrow: had woke  
 On cold winter's morn when no fast could be broke  
 Till the bread had been won; and the poor little May

To her mother once said in her innocent way :  
 " Oh, if I were a queen no child should want bread,  
 Though I sold all my gowns and the crown off my head ! "

Most childish of children ! What wonder sweet May,  
 In large-eyed amaze went about all the day

In that marvellous clime,  
 Where no jangled chime

Ever jarred the ear of the sweet passing time.  
 But in spite of the joy and the peace and content,  
 And the laughter that rang out wherever she went,  
 The Beautiful May in the depth of her heart  
 Was as sad as could be ; and when all apart  
 A glistening tear would steal down her cheek,  
 And her bosom would throb.

So, many a week,  
 The Beautiful May in that beautiful land  
 Sojourned, and gathered the pearls on its strand;  
 And the flowers in its meads ; but she never forgot  
 The home of her parents, the low little cot  
 At the end of the town, where the mill-stream ran  
 And the flowery brae that she loved began.

At length, seeing her sadness, the Fairy one day  
 Asked what could be ailing the Beautiful May :  
 " If anything lacks thee, say, fairest and best,  
 And thou shalt be met in thy slightest behest."  
 " Nought lacks me," said May, " but for ever my mind  
 Will go back to my parents who always were kind,  
 And to the wee brother, so bonny and sweet,  
 Who followed me aye with his toddling feet,  
 And loved me so well. Oh, I fain would return  
 And see them once more ! "

And her heart did so yearn  
 For the loved ones at home, that the Fairy Queen bade  
 Her chariot be harnessed to take the sweet maid  
 To her own land again. Then the Beautiful May  
 Felt her heart full of gladness, though while on the way  
 She could not help turning her head once or twice  
 To take a last look. But, lo ! in a trice,  
 All was gone like a dream ; and the Beautiful May  
 Was alone in the glen at the closing of day.

It were not an easy task to tell,  
 Of the joy and surprise  
 That shone in the eyes  
 Of the wondering parents that loved her so well,  
 When the Beautiful May, with her eyes all a-gleam  
 With a heavenly light,  
 Stepped into the cot, as one half in a dream  
 Walks about in the night.



She told them the wonderful things she had seen,  
And they heard with amaze, half doubting I ween  
That all was not well with her wits, yet aye  
Looking to her as one who saw clearer than they.

Thus many a day and week passed by,  
And winter came with its louring sky;  
And when the brave bells rang loud and clear,  
Telling of Christmas-tide and cheer,  
'The Beautiful May sat sad and lone,  
For mother and father both had gone.

Her wee little brother lay still on her knee,  
And the hearth was as cold as hearth could be,  
When suddenly out on the chill night air  
The bells rang loud with a music rare.  
Then the boy woke up and said: "Sister, I hear  
The bells of the Fairy Queen's chariot near—  
The chariot of which you have told me so oft."  
"Nay, love, 'tis the church-bells ringing aloft;  
But, come, my dear brother—'tis sad staying here  
When the blithe bells are making such gladdening cheer,—  
Come, let us away to the moonlit glen,  
Where the bright Fairy Queen may be coming again:—  
The dear Fairy Queen who, said I a word,  
Would carry us both to that beautiful strand,  
Where never a whisper of sadness is heard,  
And no baby-boy hungers—so happy the land!"

So the twain started forth through the clear, shining night,  
Hand in hand, and went on without tremor or fright,  
Till they came to the glen, where all leafless and bare  
The giant trees stretched their gaunt arms in the air  
And murmured and moaned. For a moment, in awe,  
They clasped hands more tightly, then suddenly saw  
The Fairy Queen's chariot come out of the shade,  
And the Fairy step forth. Then how sweetly she bade  
The little ones enter, how quickly they sped  
Through the night and the frost, till as morning broke red  
They came to the land where the fairy-folk dwell,  
Were a difficult thing for a mortal to tell.

Such is the story—and often 'tis told  
By elders to gladden the yule-tide hour—  
Of the Beautiful May, so gentle and bold,  
Who sought with her brother the fairy-bower.

As the planet varies from the atmosphere which surrounds it, so each new generation varies from the last, because it inhales as its atmosphere the accumulated experience and knowledge of the whole past of the world.—*Froude*.

## Correspondence.

## CHARLES BRAY ON MEMORY.

*To the Editor of THE PHRENOLOGICAL MAGAZINE.*

"No profit grows where is no pleasure ta'en :

In brief, sir, study what you most affect."—*Shakespeare*

Mr. Bray's text "There is no memory without attention, and no attention without interest," is true in the main, but I think the interest follows the special memories as much as the memories accompany the interests. Minds like Scott and Bacon remember all matters, or almost all. Harriet Martineau told me that in all the early part of her life she never forgot anything. Though special abilities and corresponding memories are common enough all about us, and before printing memory was more reliable; then again, begin to take notes and mostly the memory fails in consequence, and the present French calculating boy's wondrous ability is now failing from being instructed in the ordinary and as it were mechanical method of calculation; and it was so with the celebrated George Bidder, the calculating boy, afterwards the famous engineer. Then again, we have unconscious cerebration acting to ends and needs, like the blind instincts with the lower world of life; and on the other hand we have unconscious perception and impression unconsciously made or received and long afterwards brought into the sphere of consciousness, and much of which in strange ways occurs under animal magnetism, and even in hypnotism, as shown in Heidenhain's recent work on the subject, after a series of careful experiments. The work is translated by Mr. Romanes, F.R.S., and shows that the great question of animal magnetism will now take its place among the sciences, and the highest place as an instrument in respect to the science of man and mind as indicated so long ago in my letters to Miss Martineau. When we take note of the size of the brain, ought it not to bear reference to the size of the man? I am not aware of any collected series of facts bearing upon this question. No doubt size is a measure of power, other things being equal, though in some respects this may be questioned. But surely the difference in the size of the man should be taken into the account? Sir Walter Scott was a tall man; and, as a rule, are not short men in possession of more power of intellect than big men?—a matter to be observed first, and before all. In gravitation, size and quantity is the measure of power, but in most other matters condition is the primary element in the estimate of the nature and power of any substance; as brain and its gift of memory for

instance, besides inherited tendencies and the influence of circumstances, the inner and outer influences combined—in mind at once the mirror and instrument of action. And in speaking of the mind the question now is whether the automatic physical action and power is to be included, else mind is merely sense phenomena. Sir. W. Hamilton includes the unconscious cerebration with its mental accompaniment. The late Mr. Mill would not allow this, since all we mean by mind as distinguished from substance and motion is the sensational phenomena in respect to the will or effort. The idealists of the Berkeley School say that the perceptions which constitute the conscious mind are the things themselves. Mr. Bray does not go quite so far, yet declares that we can know nothing really of the nature and existence of the external world, and I understand him to regard our thoughts and wills, if not our perceptions, as we believe them, to be powers and entites. Not so with Huxley, Clifford, or myself, who regard all mental facts as the mere conscious concomitants of the cerebral action, so that fundamentally all mind, instinct, is automatic, physical.

H. G. ATKINSON.

## Poetry.

### THE CHILDREN.

How dull, indeed, would be our earth—  
How cold and joyless every hearth—

If girls and boys were not !  
They seem to me as angels sent ;  
They seem to me as jewels lent,  
To brighten each dark lot.

The mother looks, with beaming face,  
Upon her babe of wondrous grace,  
And deems an angel there ;  
And murmurs, with a sweet caress,  
“ Are not the children sent to bless,  
And soothe away our care ? ”

And the fond father's pride and joy  
Are centred in his toddling boy  
Scarce reaching to his knee ;  
Or in the little blue-eyed lass,  
With nose all flattened 'gainst the glass,  
Who cries, “ Me, papa, see ! ”

Then toddling to the open door,  
Places her little hand once more  
In his with childish glee.

The tiny clasp ! the loving kiss !  
 They seem a taste of heaven's bliss—  
 Of heaven's purity !  
 Sweet flowers celestial, blooming here !  
 Oh, may they every bosom cheer,  
 Till time shall be no more ;  
 And should the Angel dark be sent  
 To claim our Loved, our Innocent,  
 Resigned, we'll spare the treasure leant,  
 And worship and adore !

CH. PA. MITCHELL.

### Reviews.

*Aids to Family Government ; or, From the Cradle to the School.*

Translated from the German of Bertha Meyer by M. L. HOLBROOK, M.D. New York : M. L. Holbrook & Co.

Dr. Holbrook has done a good work in translating this little book into English and placing it within the reach of every parent, for its price (2s.) is such that none need be debarred from having it. The work is what its second title indicates, a guide for the mother in the training of her child from the cradle until it must attend school ; and it is not excessive praise to say that it is as practical and suggestive a little book as we have ever seen on the subject. The authoress opines, and with thorough good sense, that instinct is not enough to guide the mother, especially the young one, in the nursing and training of her child, notwithstanding the frequent assertion to the contrary. Instinct may be a good thing in some respects, but knowledge is much better, particularly where the welfare of an intelligent being is at stake. For developing the intelligence of the child, the authoress explains the Froebel's *Kindergarten*, or, since there is no reason why we should not have the name in proper English, children's-garden system of education. Indeed, her whole method is an appreciation and development of that system. In the words of the translator, "Guided by the more elaborate writings of Jean Paul Richter and Friedrich Froebel, she has popularised the theories of child-life presented by those great masters, and has applied them in a manner of which a woman—a mother—is alone capable." In respect to the authoress, Mrs. Bertha Meyer, it need only be said that her enthusiasm in this cause of popular culture and her fervid eloquence as a writer have ranked her among the noblest teachers of humanity.

*How to regain Health and live 100 Years.* BY ONE WHO DID IT.

London : Simpkin, Marshall & Co.

It would be difficult to say offhand how many English editions there have been published of the little book of Lewis Cornaro on the way to live long and be healthful, since Addison spoke of it in

the *Spectator*; but in spite of the many, there are probably yet a great number of persons who have not read the book, perhaps not heard of it. Indeed, we are constantly meeting with such; and need have no diffidence, therefore, in calling attention to another edition of the work, edited by Mr. C. F. Carpenter, and in recommending it to our readers. No. 195 *Spectator* thus speaks of Cornaro; "But the most remarkable instance of the efficacy of temperance, towards the procuring long life, is what we meet with in a little book published by Lewis Cornaro, the Venetian; which I the rather mention, because it is of undoubted credit, as the late Venetian ambassador, who was of the same family, attested more than once in conversation, when he resided in England. Cornaro, who was the author of the little treatise I am mentioning, was of an infirm constitution, till about forty, when, by obstinately persisting in an exact course of temperance, he recovered a perfect state of health; insomuch that, at fourscore, he published his book, which has been translated into English, under the title of "Sure and Certain Methods of obtaining a Long and Healthy Life." He lived to give a third or fourth edition of it, and after having passed his hundredth year, died without pain or agony, and like one who falls asleep." With which account of the author and his book we will leave it to the reader, merely adding that the latter is one that all should read.

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### Facts and Gossip.

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WE cannot close the first volume of the PHRENOLOGICAL MAGAZINE, without expressing our thanks to subscribers for the support and encouragement they have given us. The carrying on of the Magazine has not been an easy task, but we have been sustained and stimulated by the knowledge that we have had from the first an appreciative and ever-increasing public. If we underrated a little the difficulty of the undertaking, we did not overrate the immediate impression we should make. In that respect we have been agreeably disappointed. The public mind has been long ripe for such a publication, but those who ought to have come to the fore failed to do so.

WE should be glad if subscribers, correspondents, and others would do all they can to introduce and make the Magazine known. Although we have spent, and continue to spend, a great deal in advertising, yet persons are constantly saying to us: "I have only just heard of the Magazine. Why don't you make it more known?" The fact is we have done as much as we could in that respect, and therefore make bold to ask the aid of our friends to spread the knowledge of its existence.

A BOOK by Mr. Kingzett, a Fellow of the Chemical Society, entitled "Nature's Hygiene," gives an account of the discovery of oxygen and hydrogen, of the physiological action of pure oxygen, of ozone and respiration, discusses the parasitic theory of disease, and sets forth by numerous examples "the chemistry and hygiene of the eucalyptus and the pine." We have already in a former issue referred to the remarkable disinfecting properties of the eucalyptus tree and its oil; and a similar statement may be made of the pine and its turpentine. Indeed, considering the much greater abundance of the pine, it may be regarded as the more important of the two. The quantity of oil of turpentine that finds its way into the atmosphere, especially in hot weather, is simply incalculable. "The governments of this and other countries ought, therefore, never to lose sight of the value of eucalyptus and pine plantations. Valleys and swamps may, by their agency, be freed from malarial fever; and in the place of a poisonous atmosphere, they substitute a state of balminess and purity at once luxurious and healthful."

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THE following notice of a mesmeric cure appeared in a Berlin daily paper:—"Articular rheumatism, which no remedy could heal, had long tortured me, until totally paralysed, I thought of dying. As a last resort some friend advised me to try magnetism, which the physicians are used to ridicule. I was hauled into a cab, arrived at the residence of the magnetiser, Mr. Kramer, York Street, No. 1. I was carried upstairs into the waiting-room. The patients of all kinds, who had gathered there, looked at me pitifully, not one of them believing in the possibility of my rescue. After a while I was carried into the adjoining room. The magnetiser made several passes with both his hands over my body, and then said that I should try to stand on my feet and to walk. Trembling with amazement, I obeyed, and went down the stairs without assistance, at the foot of which the lady of the house, who previously had seen me so miserable, wept for emotion; and then I walked on my own feet to my residence. If there were such a thing as miracles, this, my cure, was certainly one. I was told, too, that a physician in my neighbourhood had uttered that I had been bribed by the magnetiser and been carried to him for the sake of sensation. My family and my co-inmates of the house are ready to testify to anybody to a fact which all the physicians in the world cannot deny.—A. HOFFMAN, Berlin, Zossener Street, No. 43."

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### Answers to Correspondents.

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E. W. J.—Yes; it is quite possible to cultivate Self-esteem and self-reliance. It is one of the uses of Phrenology, that it teaches us our deficiencies, and how we may improve them.

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